

## 2.0 Waitakere City Council Workplace and Business Continuity Influenza Pandemic Planning Guide

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**Important note:**

The workplace in this example involves all facilities and employees of Council that provide a service to the community of Waitakere City including the Civil Defence Emergency Management Emergency Operating Centre.

### 2.1 Aims and Objectives of Planning Guide

The planning guide aims to manage the impact of influenza pandemic on employees and business via the health impacts on two main strategies:

- 1) Containment of the disease by reducing spread within Council Facilities; and
- 2) Maintenance of essential services if containment is not possible.

This plan provides information on the following:

- 1) Communication
  - a) To Council from external or internal sources regarding pandemic phases
  - b) Within Council
  - c) To employees
- 2) Containment Activities
  - a) Reducing risk of infected persons entering Council premises
  - b) Social distancing
  - c) Cleaning
  - d) Managing fear
  - e) Management of cases at work
- 3) For Travellers
  - a) Travel advisories
- 4) Treatment
  - a) Anti-viral medication
  - b) Influenza vaccine
- 5) Maintenance of Essential Business Activities
  - a) Identification of core people and core skills
  - b) Business planning for absence
  - c) Communication
  - d) Knowledge Management
  - e) Short, Medium and Long Term Planning

## 2.2 Background Information

Influenza pandemics with novel viruses are recurring events, are unpredictable and result in serious health effects to large proportions of the population, with significant disruption to social, economic and security concerns of the community.

The recent appearance of the highly pathogenic avian influenza virus A / H5N1 has raised concerns that this virus may mutate to create a novel virus capable of causing a significant global influenza pandemic.

### ***Predicted spread and virulence:***

- Illness rates in population: 20-50%
- Mortality rate: Current rate for avian flu is 50%
- Global deaths: 2-50 million
- Global spread in: 3 months
- Vaccine availability: 6 months after initial outbreak
- Anti-viral treatment: Will be available for front line and persons who become ill as a part of their normal work activity and it may not be affective in all cases

### ***Potential Effects:***

- Widespread disruption to business: 20-60% of working population unable to work for 2-4 weeks at the height of a severe pandemic wave. Each wave may last about 8 weeks
- Significant death rate – loss of people and expertise
- Loss of emergency and essential services – fire, police, health services, air traffic controllers
- Loss of other services – retail, transport, government departments, etc.

### ***Effect for Business:***

- Loss of people to operate the normal business activities of Council (either temporary or permanent)
- Loss of services from suppliers
- Support services (e.g. IT and call centre) will be affected

## 3.0 Health Management Plan

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**Note:**

All essential job positions should be identified with a view to being the minimum staffing necessary to continue essential services in case of illness or unavailability for other reasons of the nominated people.

### 3.1 Communication

#### 3.1.1 To Waitakere City Council from external or internal sources regarding pandemic phases

##### New Zealand Government Communication

- 1) The designation of global phases is made by the Director General of the World Health Organisation (WHO).
- 2) The Ministry of Health (MoH) leads the New Zealand government's planning and response to pandemic influenza.
- 3) A health technical advisory group provides advice to the Ministry of Health.
- 4) Communication of the New Zealand situation with regard to the pandemic and the response will be via a variety of sources:
  - a) Pandemic Phone line
    - i) Free pandemic national phone line 0800 number (planned to use the Ministry of Health emergency phone line).
  - b) Website [www.moh.govt.nz](http://www.moh.govt.nz) (Ministry of Health) for current status, fact sheets and FAQ, general information on vaccines, medication and treatment guidelines.
  - c) Travel Advice
    - i) MFAT (Ministry of Foreign Affairs and Trade) will provide travel advice ([www.mfat.govt.nz](http://www.mfat.govt.nz)).
    - ii) Those returning to NZ may be required to undergo additional screening and quarantine, and maybe also be subject to exit screening at their point of departure.
  - d) Civil Defence Emergency Management [www.civildefence.govt.nz](http://www.civildefence.govt.nz) for all emergency management pandemic advisory information

- 5) The Official's Committee for Domestic and External Security Co-ordination (ODESC) will advise government on appropriate responses, including:
  - a) Exercise of powers under the Health Act 1956 and the Civil Defence Emergency Management Act 2002, and
  - b) Communication strategy.
- 6) The New Zealand Government response will be coordinated through the CIMS structure (Co-ordinated Incident Management System) and the District Health Board major incident and emergency plans and regional incident co-ordination plans.
- 7) Steps for escalations of the pandemic plan will originate with the MoH. The MoH will advise the Intersectoral Pandemic Group and at the same time put the notification on their website and into their media contacts. The Ministry of Economic Development (MED) ([www.med.govt.nz](http://www.med.govt.nz)) will also take reasonable steps to ensure that relevant infrastructure providers are aware.

### **3.1.2 Council Communication with Health Professionals**

- 1) The Business approach to the influenza threat is to align with Ministry of Health recommendations and to avoid causing unnecessary panic.
- 2) The Council's primary communication channel will be the health website at [www.moh.govt.nz](http://www.moh.govt.nz) in conjunction with the Waitemata District Health Board Pandemic Plan and principal advisor Dr Jocelyn Peach.
- 3) Specific professional information for Business health practitioner(s) will also be made available both through this website and through direct communication.
- 4) The Manager – Emergency Management is responsible for notifying the CEO and Crisis Management Team Recovery Manager of any changes to current planning arrangements or significant information received from the Health Professionals.

## **3.2 Within Council**

### **3.2.1 Within Lines of Business in New Zealand**

- 1) Notification of change in Alert Code (escalation of pandemic) will come from MoH on its website and through their media contacts.
- 2) The issue will be escalated to the CEO or delegate for a decision regarding activation of the CMT, business continuity plans and the influenza planning guide.

- 3) The decision will be made in conjunction with the Crisis Management Team Recovery Manager (CMTRM) and Local Civil Defence Controller.

**Note: The potential for infection amongst staff must be considered before any team meeting.**

### **3.2.2 Health Response Communications**

- 1) The Human Resources Health And Safety Advisor will be responsible for coordinating health communications to all staff in conjunction with the CMT directive.
- 2) Communications will be made via email and telephone.
- 3) Communications will include nominated back up people.

### **3.3 Communications to Employees**

- 1) Communications to employees will be managed as per Unit Business Continuity Plans and section managers.
- 2) This will be via email, internet and intranet website, telephone or radio.
- 3) Instructions regarding information numbers to call, and the centre for reporting problems or concerns will be used.
- 4) Unit Health and Safety representatives (Influenza Managers) will be responsible for activating unit cleaning procedures as required and in accordance with this guide.

## 4. Containment Activities

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### 4.1 Reducing risk of infected persons entering the site

- 1) A list of worksite "Influenza Managers" (Unit H&S reps plus alternates) is to be maintained by the HR Health and Safety Advisor with copies to the Director Quality Assurance and Manager Emergency Management. Influenza Managers will initially manage any health related activities within units as required by the CMTRM. Upon notification from the CMTRM, nominated Influenza Managers for each location will do the following:
  - a) Set up prominent notices at all entry points to facility, advising staff and visitors not to enter if they have symptoms of influenza.
  - b) Set up Key General Infection Control (basic hygiene and hand hygiene) notices around workplace (including entrances, notice boards, meeting rooms and toilets).
  - c) Ensure they have adequate supplies of tissues, medical and hand hygiene products, cleaning supplies as well as masks and latex gloves.
- 2) The CMTRM will ensure that employee communications include pandemic influenza fact sheet and information on general Infection Control Notices and Social Distancing.

**Note: Notices for display are as shown in the Appendices attached.**

### 4.2 Social distancing

- 1) Social distancing refers to strategies to reduce the frequency of contact between people. Generally it refers to mass gatherings but the same strategies can be used in the workplace setting.
- 2) Information on social distancing will be sent by email by the CMTRM.
- 3) Where operationally practicable, teams are encouraged to split into different work locations to build up back up and avoid cross infection.
- 4) Where operationally practicable, a shift system should be encouraged and managed as follows: when one shift goes off duty, there should be an interval before the next shift begins so that the worksite can be thoroughly ventilated (either opening all doors and windows or turning up air conditioning system).

- 5) Social distancing strategies include:
- a) Avoid meeting people face to face – use the telephone, video conferencing and the Internet to conduct business as much as possible – even when participants are in the same building.
  - b) Avoid any unnecessary travel and cancel or postpone non-essential meetings / gatherings / workshops / training sessions.
  - c) If possible, arrange for employees to work from home or work flex hours to avoid crowding at the workplace.
  - d) Avoid public transport: walk, cycle, drive a car or go early or late to avoid rush hour crowding on public transport.
  - e) Bring lunch and eat at desk or away from others (avoid the cafeteria and crowded restaurants). Introduce staggered lunchtimes so numbers of people in the lunch room are reduced.
  - f) Do not congregate in tearooms or other areas where people socialise. Do what needs to be done and then leave the area.
  - g) If a face-to-face meeting with people is unavoidable, minimise the meeting time, choose a large meeting room and sit at least one meter away from each other if possible; avoid shaking hands or hugging.
  - h) Encourage staff to avoid recreational or other leisure classes / meetings etc. where they might come into contact with infectious people.

#### **4.3 Cleaning**

- 1) Workplace cleaning should be stepped up during the pandemic period.
- 2) Filters of the air conditioning systems should be cleaned and anti-bacteria solution applied.
- 3) Telephone sets and computer keyboards in common areas should be cleaned daily.
- 4) Anti-bacteria solutions should be applied to all common areas, counters, railings, washbasins, toilet bowls, urinals and septic tanks (where these are present) daily.

5) Details of suitable cleaning solutions can be found in table below.

Disinfectants	Recommended use	Precautions
<p><b>Sodium hypochlorite:</b></p> <p>1000 parts per million of available chlorine, usually achieved by a 1 in 5 dilution of hospital grade bleach.</p>	<p>Disinfection of material contaminated with blood and body fluids.</p>	<p>Should be used in well-ventilated areas.</p> <p>Protective clothing required while handling and using undiluted bleach.</p> <p>Do not mix with strong acids to avoid release of chlorine gas.</p> <p>Corrosive to metals.</p>
<p><b>Granular chlorine:</b></p> <p>e.g. Det-Sol 5000 or Diversol, to be diluted as per manufacturer's instructions.</p>	<p>May be used in place of liquid bleach, if it is unavailable.</p>	<p>Same as above.</p>
<p><b>Alcohol:</b></p> <p>e.g. Isopropyl 70%, ethyl alcohol 60%.</p>	<p>Smooth metal surfaces, tabletops and other surfaces on which bleach cannot be used.</p>	<p>Flammable and toxic. To be used in well-ventilated areas. Avoid inhalation.</p> <p>Keep away from heat sources, electrical equipment, flames, and hot surfaces.</p> <p>Allow it to dry completely, particularly when using diathermy, as this can cause diathermy burns.</p>

#### 4.4 Managing Fear

- 1) It is likely there will be anxiety regarding the pandemic situation and this is likely to contribute to increased work absence and/or increased distress to staff.

- 2) The suggested ways to manage this is to:
  - a) Have communicated the possibility of a pandemic and the Business's preparedness to manage it very early to staff.
  - b) Have a comprehensive management plan in place which is clearly communicated to staff.
  - c) Provide clear, timely and proactive communications to staff when things are changing.
  - d) Provide clear communications on how the Business is handling the situation if the pandemic does occur.
  - e) Provide back up assistance for counselling staff through Human Resources and the EAP service.

#### **4.5 Management of cases at work**

Influenza Managers will put up posters giving information on what to do if people get sick at work.

The CMTRM through the Waitemata DHB Health advisor will access latest MoH advice regarding managing staff that become ill, contact definition and contact management from their website and modify the process outlined below as appropriate.

As directed by the CMTRM, the Human Resources Health and Safety Advisor will send out emails to all staff regarding what to do if people get sick at work including key message: if they feel unwell, don't come to work.

If a person feels ill, or if someone observes that another person is exhibiting symptoms of influenza at work, they are to contact their Influenza Manager by telephone if at all possible.

Actions to follow:

- 1) Should avoid visiting this person if it can be avoided – manage the process over the phone.
- 2) Check if the employee has any of the symptoms outlined in the symptoms poster.
- 3) If the employee does *not* have any symptoms like those listed, they are very unlikely to have influenza, and should be reassured but advised to call their GP or advertised medical help numbers for advice.

- 4) If the employee does have symptoms that match any of those listed, they should be treated as a "suspect case." The Influenza Manager should note personal details of the suspect including details of any staff and/or visitors the person has been in recent contact with. This information will permit the CMTRM and Human Relations H&S Advisor to monitor staff whereabouts and well-being during the pandemic.
- 5) The suspect case should be issued a surgical mask and instructed to wear it immediately. This is to help protect other staff.
- 6) The suspect case should leave work immediately and be advised to go home and to contact their GP **by telephone** for a review. They should not use public transport if at all possible.
- 7) The manager of the suspect case should be informed that they have left work.
- 8) Contact management – the Unit Influenza Manager will
  - identify contacts (once an employee is suspected to be infected);
  - advise contacts in person that they have been in contact with a person suspected of having influenza; and
  - Ask contacts to go home, and stay at home until advised otherwise.
- 9) The suspect case's work station should be cleaned and disinfected, as indicated in the section on Workplace cleaning.
- 10) Return to work of the suspect case and their contacts:
  - Advise staff member on how long to stay away from work (the Ministry of Health website will have advice on this once the characteristics of a pandemic are known)
  - Check on the staff member during his/her absence from work. This will facilitate treatment, contact tracing, etc., if they become ill.
  - Staff are to have medical confirmation that they are well prior to their return to work.

## 5. Travellers

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### 5.1 Travel Advisories

- 1) New Zealand travel advisories are communicated by the Ministry of Foreign Affairs and Trade ([www.mfat.govt.nz](http://www.mfat.govt.nz)).
- 2) Warnings about travel should be communicated to all employees.
- 3) As a rule of thumb, any form of travel by staff within New Zealand or overseas should be avoided during the pandemic stage.

## 6. Treatment

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### 6.1 Anti-Viral medication

- 1) The MoH will provide recommendations of the use of anti-viral medication such as Tamiflu.
- 2) Council has arrangements in place for the provision of Tamiflu anti viral medication to staff who become ill at work and who show definite influenza symptoms.

### 6.2 Influenza Vaccine

- 1) Vaccine development cannot commence until the pandemic virus has been isolated.
- 2) New Zealand does not have the capacity to manufacture vaccines however agreement has been reached with an Australian manufacturer for the provision of the vaccine when developed. The MoH will provide the Government of New Zealand with advice on priority groups for initial immunisation.
- 3) It may take 6 months after the declaration of a pandemic by WHO before vaccine is generally available for use in New Zealand.

## 7. Maintenance of Essential Business Activities

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**Important note:** An example of how this might be contained in Unit Business Continuity Plan is not provided in this guide, as the differences between work streams is so varied.

Responsible unit managers should ensure that core functions, people and skills have been identified and that strategies are in place to manage these prior to the pandemic. The Pandemic Planning Guide contains information to assist in the process of identifying core people and skills, planning for absences, information management, etc. This information is summarised here for convenience.

### 7.1 Identification of core people and core skills

- 1) Who are the core people required to keep the essential parts of the business running?
- 2) What are core skills required to keep business running?
- 3) Are there sufficient back ups for people and skills in view of absence?
- 4) Can staff be rostered for essential work activity only.
- 5) Who are core people required to manage the disease contingency plan? These people should consider social distancing – even working from home, very early in the pandemic phase.
- 6) Are there any systems which rely on periodic physical intervention by a key individual, to keep them going? How long would the system last without attention, if there was no one looking after it?

### 7.2 Business Planning for Absence

- 1) What are critical numbers and skills required to keep essential sectors of the business running – at what absence level does business stop.
- 2) Who shall make the decision to shut sections of the business down when absence rates threaten safe business continuity?
- 3) Determine if people can logistically work from home (social distancing).

### **7.3 Communications**

- 1) What are essential communication channels regarding business continuity
  - a) With other business units within Council
  - b) With key providers
  - c) With key customers
  - d) With key contractors

### **7.4 Knowledge Management**

- 1) Knowledge will need to be stored in easily accessible shared locations as key people may become sick or die.
- 2) Consider setting up shared locations for contingency planning information.
- 3) Consider where essential business information should be stored should normal backup procedures fail.

### **7.5 Short, Medium and Long Term Planning**

- 1) Absence rates can be significant (30-60% predicted peaks).
- 2) The pandemic may last for 6 months and occur in several waves.
- 3) Staff may be sick or may die.
- 4) Planning should consider short, medium and long-term issues.
- 5) This guide primarily deals with the short-term issues.
- 6) Succession planning and back up planning is essential.

## 8. Civil Defence Emergency Management

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The information contained in this guide applies equally to Civil Defence Emergency Management (CDEM) for BCP and Health purposes.

Upon notification from MoH of an increase to alert level Yellow, CDEM standby activation will occur and staffing levels for further operation will be instituted. Where possible, Council staff as listed for EOC operations will still be used although there will not be the requirement to staff the EOC to the normal levels. In some instances there may also be a requirement for senior EOC staff to work in a quarantine environment.

Primary activity for CDEM will be assisting District Health Board Staff with the provision of transport and personnel to assist as follows:

- Recording of locations where people are reported to be ill at home
- Assisting with maintaining lists of deceased persons.
- Assisting with the disposal of the dead
- Augmenting Health resources
- Provision of additional security resources
- Provision of transport and drivers for Health worker support
- Provision and distribution of medical supplies and food
- Community welfare of non affected persons

**Note: The minimum level of emergency declaration for any pandemic outbreak would be at a regional level and in all likelihood a national declaration of emergency would be made. Health will be the lead agency for all health related matters with CDEM providing coordination and logistics support as required.**

Appendix A

**SUSPECTED INFLUENZA CASE AT WORK NOTIFICATION FORM**

***Details of Affected Staff***

Name:	Worksite:	Location of Isolation:
Job title:	Nationality if Visitor to Site:	Date of birth:
Address:		
Telephone no:  _____ (W) _____ (H) _____ (M)		
<b>Symptoms noticed:</b>		
Fever <input type="checkbox"/>	Body aches <input type="checkbox"/>	
Headache <input type="checkbox"/>	Fatigue <input type="checkbox"/>	
Dry cough <input type="checkbox"/>	Others <input type="checkbox"/>	Details: _____
Cold <input type="checkbox"/>		
Time of fever on-set:	_____	
Time of isolation:	_____	
Travel history over the past 8 days:		
Countries visited	_____	
Flights taken:	_____	
Where referred:		
Contact List (See separate page)		

**Details of Reporter**

Name:
Job title:
Telephone no:  _____ (W) _____ (H) _____ (M)

**CONTACT LIST**

MoH currently defines pandemic influenza contacts as people who have had close physical (less than one metre) or confined airspace contact with an infected person, within four days of that person developing symptoms. These are likely to include family members and/or other living companions, workmates (if in close contact situations or confined airspace environments), and some recreational companions.

Note: that the definition of a contact is likely to change once the nature of the pandemic strain is known. Employers therefore, should refer to MoH's website during a pandemic for further guidance.

Retain this list and provide to the Medical Officer of Health or his/her designated officer on request.

<b>Persons whom the affected staff has interacted with since displaying symptoms</b>				
	<b>Name</b>	<b>Email</b>	<b>Telephone no.</b>	<b>Address</b>
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

# INFLUENZA NOTIFICATION

Influenza is a contagious disease. There is currently an increase in the numbers of people in New Zealand with influenza. In order to reduce the spread of influenza in this workplace, the following is required of everybody:

## **DO NOT COME TO WORK** if you have:

- chills, shivering and a fever (temperature >38°C)
- onset of muscle aches and pains
- sore throat
- dry cough
- trouble breathing
- sneezing
- stuffy or runny nose
- tiredness.

If some of the above apply to you, please go home and wait until you have recovered before returning to work.

**If you have recently arrived from overseas or returned from overseas, please ask to speak to the Influenza Manager (see below).**

If you start to feel ill at work, **DO NOT** leave your work area.

Call your Influenza Manager.....Ext.....

## WHAT IS THE DIFFERENCE BETWEEN INFLUENZA AND A COMMON COLD?

SYMPTOM	INFLUENZA	COMMON COLD
Fever	Usual, sudden onset 38°-40° and lasts 3-4 days.	Rare
Headache	Usual and can be severe	Rare
Aches and pains	Usual and can be severe	Rare
Fatigue and weakness	Usual and can last 2-3 weeks or more after the acute illness	Sometimes, but mild
Debilitating fatigue	Usual, early onset can be severe	Rare
Nausea, vomiting, diarrhoea	In children < 5 years old	Rare
Watering of the eyes	Rare	Usual
Runny, stuffy nose	Rare	Usual
Sneezing	Rare in early stages	Usual
Sore throat	Usual	Usual
Chest discomfort	Usual and can be severe	Sometimes, but mild to moderate
Complications	Respiratory failure; can worsen a current chronic condition; can be life threatening	Congestion or ear-ache
Fatalities	Well recognised	Not reported
Prevention	Influenza vaccine; frequent hand-washing; cover your cough	Frequent hand-washing, cover your cough

**BASIC HYGIENE NOTICE**

**PROTECTING YOURSELF AND OTHERS  
AGAINST RESPIRATORY ILLNESS**

- ❖ **HANDWASHING IS THE MOST IMPORTANT THING YOU CAN DO TO PROTECT YOURSELF**
- ❖ Cover your nose and mouth when coughing or sneezing
  - Use a tissue and dispose of this once used in the waste
  - Always wash hands after coughing and sneezing or disposing of tissues.
- ❖ Keep your hands away from your mouth, nose and eyes.
- ❖ Avoid contact with individuals at risk (e.g. small children or those with underlying or chronic illnesses such as immune suppression or lung disease) until influenza-like symptoms have resolved.
- ❖ Avoid contact with people who have influenza-like symptoms.
- ❖ Ask people to use a tissue and cover their nose and mouth when coughing or sneezing and to wash their hands afterwards.

## MINISTRY OF HEALTH SCENARIOS FOR PANDEMIC INFLUENZA

The material in Appendix 2 is designed to prompt consideration by units of some of the conditions and issues that may arise in a pandemic. The source of the material is from MoH. The material is illustrative, and is for planning purposes only. The scenarios are not predictions of what the MoH believes will happen when a pandemic strikes.

### Scenario 1

It is a Friday before a holiday weekend, with fine weather forecast over the whole country.

For several weeks there have been many rumours and unconfirmed reports of large clusters of person-to-person spread of H5N1 in two south-east Asian countries – Sealand and Beeland. The situation in neighbouring countries is quiet, but in some regions the situation is unknown, with a total communications blackout from some provinces. The World Health Organisation (WHO) is intensively investigating, but has not yet confirmed person-to-person spread of H5N1 in any region, although the level of suspicion is high and increasing all the time. Nothing much else is happening in the world, so there has been intense and increasing interest in these developments from the world and New Zealand media.

Intensive surveillance in New Zealand has not found any evidence of H5N1 among the influenza-like illnesses that are normally present at low levels in the general population.

The Ministry of Health (MoH) has been monitoring the situation and has informed the health sector of the domestic and overseas situations through Code White (information) messages to District Health Boards (DHBs).

At 1200 on Friday, MoH receives information from the WHO in Manila that H5N1 influenza appears to have been responsible for a number of sudden deaths among Beeland citizens in the large capital city, Beeville. The people who died had no known exposure to infected poultry, or connection with the areas where H5N1 spread is suspected.

From Southern Beeland, there are unconfirmed reports of the sudden deaths of three German tourists who recently took a bus trip to the interior, and of influenza-like illnesses among other tourists. Some tourists are thought to have flown to Singapore or other regional destinations while unwell.

At 1230, while the MoH is attempting to verify the information received, CNN reports that “pandemic influenza has broken out in Beeland, and is causing many deaths in the slums of Beeville and the villages in the interior. Tourists have died, and many are ill”. The report also says that the Beeland government has denied that pandemic influenza is present.

MoH assembles its crisis team and identifies people for Co-ordinated Incident Management System (CIMS) team roles. By 1430 a Code Yellow (standby/warning) message has gone out to the health sector informing them of the situation. Also by this time, the WHO in Manila has confirmed the information received earlier that 120 people are ill in hospital, a further 30 are thought to have died of a new form of

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influenza and an unknown but "large" number are thought to be affected. It adds that a pandemic declaration will be made at 1600 New Zealand time.

Advice from the Australian Health Disaster Management Committee states that Australia has closed borders to all incoming flights.

MoH issues a Code Red message (pandemic alert) to the health sector at 1615, following the WHO declaration.

At 1630 the MoH national controller issues the first pandemic advice to the government.

The advice is:

- To enable an effective response to be mounted, the Minister of Health should immediately unlock the special powers available to Medical Officers of Health, in the Health Act; and
- To immediately close the border, for an indefinite period, to all incoming flights.

At 1800, the Government's Ministerial-level Domestic and External Security Committee accepts all the Ministry of Health's recommendations and directs the appropriate agencies to action them immediately.

The Civil Aviation Authority issues a NOTAM<sup>2</sup> advising the border closure to other civil aviation authorities, air traffic control centres and the airlines serving New Zealand. There are five aircraft carrying some 1,275 crew and passengers already enroute to Auckland, three Trans-Tasman, one from the Pacific, and one from Singapore. There are two aircrafts enroute to Christchurch from Brisbane, carrying 260 crew and passengers. For safety reasons, they will all be permitted to continue to New Zealand if the Captain determines that it is inappropriate to divert, or turn back. But generally, at the end of a 13-hour window from a NOTAM issue, there will be no more incoming flights.

### Outline of likely Health Sector Actions

After unlocking of powers, Medical Officers of Health (MOoHs) have a wide range of special powers available to detain, quarantine or isolate people who have, or may have, infectious diseases.

Health services will decide what to do with the passengers and aircrew held at the airport. Options include:

- 1) Release them all after risk assessment, with tracking ensured in case of later developments;
- 2) Medical assessment and review; with decision for release based on outcomes. Outcomes could embrace:
  - Release all, with tracking ensured in case of later developments;
  - Release some but quarantine others;
  - Quarantine all for up to 8 days, or possibly longer.

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<sup>2</sup> NOTAM - "Notice to Airmen". This is essentially a signal that will be relayed to aircraft enroute by air traffic control.

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- 3) Immediately decide to quarantine all for a time to be decided, but possibly up to 8 days.

Planners should assume that it might take up to 24 hours, and possibly longer, to complete the processing of the people held at the airport, and/or make the necessary decisions.

Health services will also review the health declarations of all passengers arriving from South East Asian airports within the last 4 – 5 days to assess the risks to New Zealand. Passenger and contact tracing will be done if there are any grounds for suspicion.

Surveillance will be stepped up to the highest possible state, especially in communities close to airports and on the normal tourist pathways.

MoH will make supplies of anti-viral medication available to assist with border management operations. Health staff resources will be made available by the appropriate District Health Board(s).

MoH, through their Regional Co-ordinators, will direct relevant DHBs to prepare for the release of PPE to identified hospitals, primary health care centres and first responders.

## Scenario 2 – Cluster(s) in New Zealand

It is Mid-February - H5N1 influenza is now spreading person-to-person in Western Sealand. The virus is not yet an efficient spreader so there is no widespread outbreak, although several thousand people have been infected. The case fatality rate is very high, at about 20%. Many of the fatalities collapse and die within a short time of becoming symptomatic, mostly with cyanotic mottling and/or subcutaneous haemorrhage. WHO and the Sealand government are making strenuous efforts to contain the situation, with internal travel restrictions in place and draconian penalties for non-compliance with government directives.

H5N1 is known to exist in birds in many other parts of Asia, but intensive surveillance of these regions has not provided evidence of person-to-person spread. It appears the pandemic strain is contained in Sealand. WHO has not yet issued a world pandemic alert, although it has issued a regional alert for South East Asia and Sealand.

New Zealand borders are closed to Sealand nationals except for those who demonstrate that they are from unaffected regions, pass an exit screening examination in Sealand, and undergo health assessments on arrival in New Zealand. These people are mostly students, business people, and those with family in New Zealand. The flow of people from Sealand is low, because of Sealand government restrictions.

General tourist traffic from Asia is substantially reduced from normal because of uncertainties associated with the pandemic situation. Tourists from Asian countries other than Sealand are not undergoing health assessments at the border, although all aircraft are now required to inform authorities of the health status of people on board before arrival in New Zealand.

In New Zealand there is intensive surveillance concentrated on regions surrounding airports and the normal tourist trails.

On a Saturday afternoon, a Medical Officer of Health (MOoH) of Crossville (in the North Island) contacts the MoH. Two people of Asian extraction turned up at a local GP medical centre on Friday with influenza-like illnesses. They were assessed and swabs taken. They were provided with advice and then discharged.

At about 1100 on Saturday morning, one of these people was found dead in their motel. The hotelier rang the police as part of normal process. The other person cannot be found, and the car in which they came is missing, not having been seen since the night before. The two people had been in the motel for two days since arriving in the country.

The MOoH has seen the body, and noted cyanotic mottling and the fact that the person had been dead for some hours. He is very concerned. He has directed that the unit be sealed for the time being until full infectious disease precautions can be provided for the removal of the body to the morgue.

MoH assembles a CIMS team and informs the Minister of developments. As a number of conditions could be involved, it is decided to wait until results from swabs and a post-mortem become available before making any decisions. MoH liaises

with Police about the missing person and advises that if found, the person should be treated as infectious and appropriate precautions taken. MoH also alerts all DHBs and PHUs via a Code Yellow message.

## Appendix F

During Sunday, several people present at a nearby Emergency Department (ED) had influenza-like illnesses. Most are itinerant market garden workers and backpacking tourists, living in various hostels and similar accommodation. None require admission. ED is taking full infection control precautions on MoH recommendation.

MoH also recommends that the after-hours surgery takes full infection control precautions, but can only recommend this, as primary care is essentially private business. MoH learns that about a dozen people have turned up at the after-hours surgery with flu-like symptoms, an unusual number for this time of year.

At 2300 on Sunday, the MOoH contacts the Ministry again. After complaining of being unwell in the early evening a receptionist from a local GP medical centre collapsed and died on arrival at the ED. During an attempted resuscitation, infection control precautions were inevitably less than perfect. Another person, whom relatives state went to the after-hours surgery earlier in the day because of the 'flu', is now seriously ill in intensive care.

The Ministry re-convenes its CIMS team. In conversations with the local hospital the MoH learns that at around midnight, two more patients turned up at the ED with respiratory and circulatory collapse. At 0300 on Monday morning, the team advises the government that:

- An unknown disease causing respiratory collapse and death is present in the district;
- It may be H5N1 pandemic influenza, but this cannot yet be confirmed;
- The Ministry will put regional DHBs on full pandemic alert through Code Red messages;
- Local hospital staff and facilities, and other medical staff and facilities in the area have probably been exposed;
- The Ministry recommends that:
  - The Minister unlocks the special powers available to Medical Officers of Health under the Health Act;
  - That the Medical Officer of Health in charge establishes travel restrictions for the area;
  - Until appropriate medical screening arrangements can be made, no people or goods should be allowed to move into or out of the area without the express permission of the Medical Officer of Health in charge;
  - Public gatherings in the area should be prohibited until further notice;
  - Schools, kindergartens, crèches, play-centres, educational campuses of all kinds, public libraries, video stores, game arcades and casinos in the area should not open on the Monday morning, and may be required to remain closed for an indefinite period;
  - All possible efforts are made to find the missing Asian person, and to track anybody who is known to have left the area since Saturday.

*The Government accepts all the Ministry's recommendations and expects them to be actioned immediately by the appropriate agencies.*

### Outline of Health Sector Actions

After a declaration of a national Health Emergency, Medical Officers of Health (MOoHs) have a wide range of powers available to detain, quarantine or isolate people who have or may have infectious diseases.

MoH will immediately issue a Code Red pandemic alert message, informing all health practitioners of the situation.

MoH, through their Regional Co-ordinators, will direct relevant DHBs to prepare for the release of PPE to identified hospitals, primary health care centres and first responders

No hospital-to-hospital transfers will be made from the Hospital to places outside the infected area. Surveillance will be stepped up to the highest possible state, both in the area and in the rest of the country.

Intensive investigations of the cases in the Hospital will be made, with rapid PCR investigations to confirm or rule out H5N1 avian influenza. Initial results are likely to be available within 12 hours.

MoH will make ready-use supplies of anti-viral medication available to assist with the management of the situation.

MoH's CIMs team will advise the government on appropriate courses of action as the situation develops.

### Scenario 3 – Severe Pandemic in New Zealand

It is mid-July. About eight weeks ago, H5N1 pandemic influenza achieved an explosive breakout from South East Asia, appearing in Europe, North and South America, Africa and India within a couple of weeks. The disease is impacting heavily on all age groups, but particularly on younger adults. The case fatality rate is about 3% over all age groups but up to 8-10% for people under 30. The pandemic disease has a high reproductive rate and spreads very rapidly once the first few cases have appeared in any country or region.

International trade and travel is more or less at a standstill as all impacted countries attempt to adjust to the new situation. Very limited amounts of airfreight are still moving, but flights are arranged more or less as required, rather than to a timetable, and even so it is very difficult to find aircrew willing to fly to some countries. Very few passengers are being carried.

Merchant ships at sea on the way to New Zealand when the pandemic broke out, have either turned around and gone home, have berthed and are unable to leave, or are remaining offshore, waiting to assess the onshore situation before berthing. One of the ships that turned around was a tanker carrying a large shipment of petrol, and there has not been a petrol delivery at Marsden Point for over six weeks now.

Despite strenuous border control efforts, pandemic influenza appeared suddenly in one urban area a bit over four weeks ago. Efforts at containment were abandoned, as many other cases were reported throughout the country over the next week. Health authorities shifted efforts to attempt to ameliorate the impacts of the pandemic.

## Appendix F

Medical Officers of Health have directed all crèches, kindergartens, schools, colleges, universities, public libraries, video stores, game arcades and casinos to close indefinitely. Public gatherings are prohibited, and people are advised to avoid crowded places as much as possible. Wherever practical, people are working from home, or have taken leave – either paid or unpaid.

So far, the epidemiology of the disease in New Zealand appears much the same as in other countries, with the heaviest impact on young adults. Over 100,000 people have become ill since the development of the pandemic in New Zealand, and nearly 3,000 have died. About 2,000 of these are under the age of 30. Case numbers are still increasing very fast. Initial forecasts indicate that this wave could involve up to 40% of the population, implying that there may be another 1.5 million people becoming ill over the next six weeks or so, with a peak in about another 2-3 weeks. Given the current epidemiology, this may result in between 45,000 – 50,000 deaths in total.

The Ministry of Health has directed DHBs to release their PPE supplies to hospitals, the primary health care sector (in previously agreed locations), and to local services to support first responders.

The Ministry of Health has released the national reserve of anti-viral medication for use. The medication is being distributed through about 80 special temporary facilities. It is strictly prioritised to people who meet clinical criteria for influenza and time since onset of symptoms. After several incidents at the distribution stations the Ministry asked for Police or Defence Force assistance with security as civilian security firms could not manage this.

Anti-viral medication has been allocated for all health services, Police and Defence Force, and staff from some other organisations providing direct pandemic responses. This guarantees treatment for any staff from these services that become ill. Despite this, there is a degree of absences in both the health sector and Police force that is not related to direct illness. Between 10%-15% of the Police force is not available for duty. The overall absence rate is still increasing, and may reach about 40%-50% in a few weeks time – around the expected peak of the current pandemic wave.

The Army has about 10% of its troops not available for duty from illness, and the Air Force about the same. The Navy has one frigate on its way back from the Persian Gulf, and doesn't have enough crew available to man the other, currently moored in Auckland. Navy volunteers are assisting health services in Auckland.

Primary health services in most districts are shifting priorities, as case numbers climb, and are mostly still functioning although increasingly in a directive and support role. Secondary hospitals and DHBs in most affected areas are moving to a co-ordination and logistic supply role for primary and volunteer groups while attempting to maintain hospital services as much as possible.

Hospitals are hampered by very high rates of sickness and absences among their staff, and are down to between 50% and 60% of their normal capacity. Hardly any influenza patients are being admitted to hospitals. It is probable that things will get worse for hospitals before they get better.

## Appendix F

Health services in the most affected urban area and much of the surrounding region are no longer functioning in a co-ordinated manner. Here, the primary and secondary health workforce has been very heavily impacted, with only about 40% of the normal staff available for duty. The pandemic is developing very fast in some population sub-groups, and there have been a large number of deaths. A number of very young children have been orphaned by the deaths of both their parents. Several hundred bodies are in freezer storage in the district, and more containers are being brought in.

People of all ages who live alone, and solo parents with small children, are especially vulnerable, as the disease comes on suddenly and is extremely incapacitating. Sufferers can do very little for themselves for several days. People who have few supplies or resources at home, or who have no support, are quickly in dire straits. Some very young children are attempting to look after their sick parents with little or no support. A number of people have died alone in their homes, and it is feared that many more may follow.

In all affected areas people are at home looking after sick children and spouses, and in many cases friends and neighbours in their homes. Some areas have quickly organised networks to support this initiative, but in others people are working as individuals with little co-ordination or support.

Many people in the most affected urban area have moved to rural areas. Rapidly increasing case numbers are being reported from these districts. Health service capacity in these areas is very limited, and cannot manage anything remotely approaching the demand now being experienced.

Availability of supplies varies across the country, but everywhere there are shortages of fuel and some foodstuffs, partly as a result of people buying up large quantities of basic foods in the early days. Anybody with reserve food or petrol is hoarding it for an uncertain future.

Telephone, text and email communication is heavy as people try to keep in touch with each other and keep checking on their friends and relatives in New Zealand and overseas. So far, water, electricity, gas and sewerage systems are still operating, although some are becoming more vulnerable to breakdown and interruptions because of unusual demand patterns and a progressive lack of routine maintenance, as staff availability dwindles. Postal services have stopped providing daily deliveries because so many staff are absent, and courier services are severely handicapped by shortages of fuel.

Many New Zealand citizens and residents overseas are stranded, unable to return to New Zealand. People who were overseas on holiday have run out of money, and businessmen overseas are in great difficulty as their incomes have often dried up completely. They are appealing to the government for assistance.

About 150,000 tourists and other transient people are stranded in this country. Many are out of money, or their currencies now have virtually no value. International electronic banking is still mostly operating, as are telecommunications and media links. However currency fluctuations are extreme and nobody knows what their money will be worth tomorrow.

## Appendix F

Many of the tourists and transients are living more or less on the goodwill of moteliers and accommodation suppliers, who are now vociferously demanding the government "do something" to help the critical business situation developing in the sector from both the downturn in normal business and accommodating people with no funds.

Around 100,000 overseas students are likewise stuck. Although most have enough money to last a while, they are mostly not normally eligible for publicly funded health services in New Zealand, although they are in an age group that is being heavily impacted.

### **Outline of Health Sector Actions**

Generally, the health sector is shifting from provision of direct care to the co-ordination, direction, logistic support and assistance of care provision by volunteers, community groups and individuals caring for sick family members.

Nation-wide, direction of release of PPE to primary and secondary sectors occurs when Code Red alerts are issued.

The health sector will be providing direct care to only a very small proportion of all people who get sick.

Anti-virals will be released to the general population early in the wave, but there will not be sufficient to provide treatment for everybody who gets sick in a large wave. It is possible more stringent prioritisation may be adopted (in this case likely to be age-based), which may exacerbate



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PLAN FOR ARMADA RESERVE

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## 1. INTRODUCTION

Wildland Consultants Ltd was engaged to map environmental pest plant distributions and identify areas for planting in Armada Reserve, Ranui, Waitakere City, in preparation for weed control and planting in 2006. Weed species present within the reserve were identified and their distribution and abundance mapped and described.

Recommended areas for planting within the reserves were identified and mapped. Plant schedules of suitable plant species were prepared.

A staged programme of weed control and planting was prepared. Resource consents requirements and any other consents necessary in order to undertake vegetation control and planting preparation were identified.

## 2. PROJECT OBJECTIVES

- Map the distribution and density of invasive or environmental weeds of Waitakere (Figure 1)
- Identify and recommend areas for planting, including suitable species.
- Compile a staged programme of weed control and planting.
- Identify resource consent requirements or any other consents necessary in order to undertake vegetation control and planting preparation.

## 3. BACKGROUND

Armada Reserve (1.3ha) is located between Swanson Road and Armada Drive in Ranui. A small stream flows north through Armada Reserve and there is an adjacent low-lying, and frequently inundated, floodplain along much of the length of the stream.

The southern half of the reserve is mostly open with approximately 50% in grass. There are several local stands of weeping willow (*Salix babylonica*), along with significant giant reed (*Arundo donax*) infestations on the stream margin. The floodplain is dominated by reed sweetgrass (*Glyceria maxima*). Other locally common weed species include Chinese privet (*Ligustrum sinense*) and Japanese honeysuckle (*Lonicera japonica*).

The northern half of the reserve is dominated by black wattle (*Acacia mearnsii*), Chinese privet, crack willow (*Salix fragilis*) and giant reed, with some local reed sweetgrass and tradescantia (*Tradescantia fluminensis*) infestations.

## 4. METHODOLOGY

### 4.1 Environmental weed survey

The project area was surveyed for environmental pest plants in July 2005. Areas where revegetation planting should be undertaken were also identified.

Environmental weeds are adventive species that threaten the ecological processes and values within the project area.

Field survey methods were based on previous pest plant inventories undertaken by Wildland Consultants Ltd (2002a, 2002b, 2004). The field survey involved a walk through the project area noting locations and distributions of pest plants. During the survey, particular attention was given to the margins of the reserve, clearings within the reserve and areas of previous weed control operations as these areas are most vulnerable to pest plant invasion/re-invasion.

Environmental weed distributions and densities were mapped in the field onto hard copy prints of digital orthophotographs. The maps were then used for data input into ArcGIS 8.3 (GIS programme). The distribution of each environmental weed species was digitised. Weed species were labelled with their common name and a brief description of the extent of the infestation, either as a percentage cover or as a number of individuals, overlain on the aerial photograph. A map showing weed distribution and density was prepared and is presented in Figure 1.

The relative priority for the control of each environmental pest plant infestation has been assessed based on the Auckland Regional Pest Management Strategy (ARC 2002), the ecological values of the infestation area, the relative vulnerability of the vegetation and habitats present, the level of threat posed by the pest plant species, and the size of the infestation.

Weed species were identified along with their relative priority for control. Weed species were then grouped by priority level (see Section 5.2 below).

#### 4.2 Recommended areas for planting

Areas suitable for planting were identified during the field survey. Areas recommended for planting include areas where weed infestations will be an ongoing problem and open areas within existing plantings/vegetation. A map showing recommended planting locations was prepared and is presented in Figure 2. One area for planting was identified during the survey.

Waitakere City Council has ordered a range of plant species from a local nursery for planting projects throughout the city's parks and reserves in 2006. Planting schedules detailing suitable species from this plant supply list were compiled and are presented in Section 6.3.

## 5. ENVIRONMENTAL PEST PLANTS

### 5.1 Distribution and abundance