



KAPITI COAST DISTRICT COUNCIL

EARTHQUAKE - PRONE, DANGEROUS AND INSANITARY BUILDINGS POLICY 2006

May 2006

INTRODUCTION AND BACKGROUND

1. The Building Act 2004 requires that Territorial Authorities (Local Authorities) must adopt a policy on Earthquake Prone, Dangerous, and Insanitary buildings by 31 May 2006.

Section 131 states that:

- (1) *A territorial authority must, within 18 months after the commencement of this section, adopt a policy on dangerous, earthquake-prone, and insanitary buildings within its district.”*
- (2) *The policy must state -*
 - (a) *the approach that the territorial authority will take in performing its functions under this Part; and*
 - (b) *the territorial authority’s priorities in performing those functions; and*
 - (c) *how the policy will apply to heritage buildings.”*

2. Section 121 of the Act defines a building to be dangerous as follows:

- (1) *A building is **dangerous** for the purposes of this Act if, -*
 - (a) *in the ordinary course of events (excluding the occurrence of an earthquake), the building is likely to cause -*
 - (i) *injury or death (whether by collapse or otherwise) to any persons in it or to persons on other property; or*
 - (ii) *damage to other property; or*
 - (b) *in the event of fire, injury or death to any persons in the building or to persons on other property is likely because of fire hazard or the occupancy of the building.”*
- (2) *For the purpose of determining whether a building is dangerous in terms of subsection (1)(b), a territorial authority -*
 - (a) *may seek advice from members of the New Zealand Fire Service who have been notified to the territorial authority by the Fire Services National Commander as being competent to give advice; and*
 - (b) *if the advice is sought, must have due regard to the advice.”*

3. Under section 122 of the Act an earthquake-prone building is defined as:

- (1) *A building is **earthquake-prone** for the purposes of this Act if, having regard to its condition and to the ground on which it is built, and because of its construction, the building-*
 - (a) *will have its ultimate capacity exceeded in a moderate earthquake (as defined in the regulations); and*
 - (b) *would be likely to collapse causing -*

- (i) *injury or death to persons in the building or to persons on any other property; or*
- (ii) *damage to any other property.”*

(2) *Subsection (1) does not apply to a building that is used wholly or mainly for residential purposes unless the building -*
(a) comprises 2 or more storeys; and
(b) contains 3 or more household units.”

4. With regard to what constitutes a “moderate” earthquake the Building Regulations 2005 defines it as *“an earthquake that would generate shaking at the site of the building that is of the same duration as, but that is one-third as strong as, the earthquake shaking (determined by normal measures of acceleration, velocity, and displacement) that would be used to design a new building at that site.”*
5. This definition covers more buildings and requires a higher level of structural performance of buildings than that required by the Building Act 1991.
6. Section 123 of the Building Act 2004 defines an insanitary building as:

*“A building is **insanitary** for the purpose of this Act if the building -*
(a) is offensive or likely to be injurious to health because -
(i) of how it is situated or constructed; or
(ii) it is in a state of disrepair; or
(b) has insufficient or defective provisions against moisture penetration so as to cause dampness in the building or in any adjoining building; or
(c) does not have a supply of potable water that is adequate for its intended use; or
(d) does not have sanitary facilities that are adequate for its intended use.”

This document sets out the policy adopted by Kapiti Coast District Council in accordance with the requirements of the Building Act 2004.

EARTHQUAKE-PRONE BUILDINGS POLICY 2006

Introduction

The policy is required to state:

1. The approach that the Kapiti Coast District Council will take in performing its functions under the Building Act 2004;
2. Kapiti Coast District Council's priorities in performing those functions;
3. How the policy will apply to heritage building.

In developing and adopting its earthquake-prone buildings policy, Kapiti Coast District Council has followed the consultative procedure set out in section 83 of the Local Government Act 2002. Kapiti Coast District Council has made extensive use of the Department of Building and Housing's guidance document and, for ease of reference; the policy has been set out in a similar format as its policy template.

EARTHQUAKE-PRONE BUILDINGS (EPB) POLICY 2006

1 Policy approach

1.1 Policy principles

Kapiti Coast District Council has noted that provisions of the Building Act in regard to earthquake-prone buildings reflect the government's broader concern with the life safety of the public in buildings and, more particularly, the need to address life safety in earthquake.

Kapiti Coast District Council has also noted that the development of EPB policies is up to each Local Authority and has responded accordingly.

This policy has been developed after due consultation with Kapiti Coast District Council ratepayers and stakeholders in accordance with section 83 of the Local Government Act 2002.

1.2 Overall approach

Kapiti Coast is in a zone of high seismic activity and its buildings comprise a range of types and ages reflecting steady development particularly over the past 20 years and as a result the building stock is relatively modern with no identified buildings constructed of un-reinforced concrete or masonry (the definition of EPB's in the Building Act 1991). As a result it has no experience of the social and economic implications of implementing earthquake-prone building legislation.

Current thinking is there are three main areas of threat from earthquake on the Kapiti Coast:

1. The Ohariu Fault;
2. The Wellington Fault;
3. The Wairarapa Fault.

The Ohariu fault is the local fault and runs almost the length of the district. Its location is only generally known but it is clear of all urban areas apart from a small section of the eastern end of Waikanae. The remainder of the fault runs through rural areas. This fault has a 1100 year time frame and is believed to have last fractured about 500 years ago. Estimates are it would produce a maximum force of a little over 7 on the Richter scale. This would produce a Modified Mercalli Intensity (MM) of approx 9 or perhaps 10.

The Wellington Fault is well known and well identified along most of its route. Current thinking on this fault is that there is a 10% chance of a rupture in the next 50 years. If this fault ruptures it could go up to the high 7's or low 8's on the Richter Scale. The Kapiti Coast will suffer the effects of this with MM 10 as far north as Paekakariki and MM9 through much of the rest of the district.

The Wairarapa Fault is also well researched. A rupture on this fault is expected every 500 years or so. The last was in 1855. This fault can also reach high on the Richter Scale similar to the Wellington Fault. As the crow flies this fault is only 35 km from Paraparaumu at its nearest point so we can expect considerable damage from this fault rupture as well. Expect MM 8 or perhaps 9.

While no detailed study has been done to identify the areas of liquefaction within the district there are a lot of low lying ex-swamp land areas on the coast which will in all probability be subject to liquefaction. In areas of sand and peat, where the water table is high, liquefaction is more likely. Experts differ in their opinions on just how much damage liquefaction will cause but it is generally accepted that it will exacerbate the earthquake effect on both the infrastructure and all kinds of buildings.

Kapiti Coast District Council's earthquake-prone building policy under the Building Act 2004, although a new policy reflects the Council's desire to reduce the risk to building users in a way that is acceptable in social and economic terms to its ratepayers.

Kapiti Coast District Council will:

- review its whole building stock to identify buildings that fall within the scope of potential earthquake-prone buildings under the Building Act 2004;

- assess broadly the performance of those buildings in relation to the new building Standard and, in particular, to the standard defined for earthquake-prone buildings. This broad assessment will be done at the Council's cost;
- determine and compile from this broad assessment a list of buildings that are earthquake-prone in terms of the Building Act 2004;
- advise owners of these buildings of the results of the Council's broad assessment and invite them, within a limited time-frame, to meet with and/or obtain further details from the Council on future requirements;
- give written notices to all owners of earthquake-prone buildings once the deadline for meeting Council has passed and, subject to the results of discussions, to carry out work to reduce or remove the danger or demolish the building within a specified time-frame;
- allow owners a right of appeal as defined in the Building Act 2004, which can include applying for a determination under section 177.

1.3 Identifying EPBs

Kapiti Coast District Council will:

- undertake an initial desktop review of council files to assess which buildings could be earthquake-prone;
- follow this with a brief inspection of each building, where necessary;
- carry out initial evaluation of performance in earthquake based on information obtained by using the NZSEE Initial Evaluation Method process;
- require building owners to do a detailed assessment on buildings identified as earthquake-prone in the initial evaluation, unless otherwise agreed in discussion following the initial evaluation;
- assemble a list of earthquake-prone buildings according to the results of the assessments.
- categorise the earthquake-prone buildings according to the following:
 - 1) Buildings with special post-disaster functions as defined in AS/NZS 1170.0: 2002, Importance Level 4.
 - 2) Buildings that contain people in crowds or contents of high value to the community as defined in AS/NZS 1170.0: 2002, Importance Level 3.

- 3) Buildings with a Heritage Classification of A or B under the Council's register.
- 4) Buildings with an Importance Level less than 3 as defined in AS/NZS 1170.0:2002.

1.4 Assessment criteria

For practical purposes, Kapiti Coast District Council will define EPBs as those that, when subject to moderate earthquake shaking, do not meet or exceed the criteria for ultimate limit state as defined in the loadings and materials standards for new buildings.

Kapiti Coast District Council will use the NZSEE Recommendations as its preferred basis for defining technical requirements and criteria. These Recommendations are designed to be used in conjunction with AS/NZS 1170 Loadings Standard, NZS 3101 Concrete Structures Standard, NZS 3404 Steel Structures Standard and other materials Standards.

1.5 Taking action on earthquake-prone buildings

Kapiti Coast District Council will:

- advise and liaise with owners of buildings identified as earthquake-prone;
- encourage owners to carry out an independent assessment of the structural performance of those buildings identified as earthquake-prone;
- serve formal notices on owners of earthquake-prone buildings in accordance with the Building Act 2004, requiring them to remove the danger;
- allow owners to appeal against the classification within 12 months of receipt of notice.

1.6 Interaction between EPB policy and related sections of Building Act 2004

1.6.1 Section 112: Alterations to existing building

Whenever a building consent application is received for significant upgrading or alteration of a building that is, or could be, earthquake-prone,

then irrespective of the general priorities set by Kapiti Coast District Council for dealing with earthquake-prone buildings, the Council will not issue a building consent unless it is satisfied that the building is not earthquake-prone and that the building work will not detrimentally affect the building's compliance with the Building Code.

If the building is shown to be earthquake-prone, then the Council will require that the building be strengthened to comply as nearly as is reasonably practicable with the provisions of the Building Code.

1.6.2 Section 115: Change of use

Whenever a building consent application is received for change of use of a building that is or could be earthquake-prone, then, irrespective of the general priorities set by Kapiti Coast District Council for dealing with earthquake-prone buildings, it will be a requirement of the building consent that the owner make a detailed assessment of the earthquake performance of the building to determine whether or not it is an earthquake-prone building in its existing condition.

If the building is shown to be earthquake-prone then the Council will require that the building be strengthened to comply as nearly as is reasonably practicable with every provision of the Building Code that relates to structural performance as is required by section 115(b)(i)(A). (In this instance the requirement for earthquake-prone buildings would be the same as that for non-earthquake-prone buildings).

1.7 Dealing with building owners

The steps in the process are outlined in 1.6 above.

1. Before exercising its powers under section 124, Kapiti Coast District Council will seek, within a defined time-frame, to discuss options for action with owners with a view to obtaining from the owner a mutually acceptable approach for dealing with the danger, leading to receipt of a formal proposal from owners for strengthening or removal.
2. In the event that discussions do not yield a mutually acceptable approach and proposal, Kapiti Coast District Council will serve a formal notice on the owner to strengthen or demolish the building.

1.8 Recording a building's EPB status

Kapiti Coast District Council will keep a register of all earthquake-prone buildings noting the status of requirements for improvement or the results of improvement as applicable.

In addition, the following information will be placed on the LIM for each earthquake-prone building:

- address and legal description of land and building;
- statement that the building is on the Council's register of earthquake-prone buildings;
- date by which strengthening or demolition is required (if known);
- statement that further details are available from the Council to those who can demonstrate a genuine interest in the property.

1.9 Access to EPB information

Information concerning the earthquake status of a building will be contained on the relevant LIM.

In addition, the Council will keep a record of the NZSEE grade of all buildings assessed, and will encourage all owners of significant buildings to have them assessed and graded. The Council recognises the long-term benefits of increased public awareness.

Kapiti Coast District Council will not require earthquake-prone buildings to have an identifying plaque. We believe that having the information available at the Council offices is sufficient notice at present.

In granting access to information concerning earthquake-prone buildings, the Council will conform to the requirements of the relevant legislation.

1.9.1 Priorities

Kapiti Coast District Council has prioritised both the identification and the requirement to strengthen or demolish buildings as follows.

Figures in brackets indicate the latest date for identification and notification and the maximum time for strengthening or demolition respectively. Times required for strengthening or demolition commence on the date of issue of formal notice. Specific times will be assigned for action according to the assessment of structural performance and the nature of the concerns.

- 1 Buildings with special post-disaster functions as defined in AS/NZS 1170.0: 2002, Importance Level 4 (December 2008, 15 years).
- 2 Buildings that contain people in crowds or contents of high value to the community as defined in AS/NZS 1170.0: 2002, Importance Level 3 (December 2009, 20 years).
- 3 Buildings with a Heritage Classification of A or B under the Council's register (December 2010, 25 years).
- 4 Buildings with an Importance Level of less than 3 as defined in AS/NZS 1170.0: 2002 (December 2011, 30 years).

Once each category has been reviewed and the earthquake-prone buildings within it identified, the process of liaising with owners and serving notice on them will commence. Identification of buildings in each category will proceed according to the priorities identified above.

The overall approach and timetable is summarised in the accompanying Outline Implementation Programme.

3 Heritage buildings

3.1 Special considerations and constraints

Kapiti Coast District Council believes it is important that its heritage buildings have a good chance of surviving a major earthquake.

However, Kapiti Coast District Council does not wish to see the intrinsic heritage values of these buildings adversely affected by structural improvement measures.

Heritage buildings will be assessed in the same way as other potentially earthquake-prone buildings and discussions held with owners and the Historic Places Trust to identify a mutually acceptable way forward. Special efforts will be made to meet heritage objectives.

The Council will provide funding to support the structural review of these buildings and the identification of suitable means of improvement.

Following this consultation period, notices will be served requiring improvement or demolition within a stated (and preferably agreed) time-frame.

In particular, important cases, public consultations will be included.

Outline Implementation Programme

Activity	Year																																																							
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042																			
Category (a) buildings	Review																																																							
	Discuss																																																							
	Serve notice																																																							
	Action to improve /Demolish																																																							
Category (b) buildings	Review																																																							
	Discuss																																																							
	Serve notice																																																							
	Action to improve /Demolish																																																							
Category (c) buildings	Review																																																							
	Discuss																																																							
	Serve notice																																																							
	Action to improve /Demolish																																																							
Category (d) buildings	Review																																																							
	Discuss																																																							
	Serve notice																																																							
	Action to improve /Demolish																																																							

DANGEROUS AND INSANITARY BUILDINGS POLICY

1 Policy approach

1.1 Policy principles

Kapiti Coast District Council has noted that provisions of the Building Act in regard to dangerous and insanitary buildings reflect the government's broader concern with the life safety of the public in buildings.

Kapiti Coast District Council has also noted that the development of DIB policies is up to each Local Authority and has responded accordingly.

This policy has been developed after due consultation with Kapiti Coast District Council ratepayers and stake- holders in accordance with section 83 of the Local Government Act 2002.

2 Determining if a Building is Dangerous or Insanitary

Whether a building is considered 'dangerous' or 'insanitary' under the Act will depend on the individual circumstances of each case. Council will consider each case and determine the appropriate course of action based on the particular set of circumstances that exist.

Council must first be satisfied that the building in question is dangerous or insanitary. To determine this Council will carry out the following steps.

- (a) On receiving a complaint or information expressing concern that the building is dangerous or insanitary, the Council will consult the owner of the building, inspect the building and site (utilising Regionally developed form 460 Dangerous building inspection record and check-sheet and form 461 Insanitary building inspection record and check-sheet) and may also seek the advice of the New Zealand Fire Services.
- (b) Following the inspection and taking into account the advice or recommendations of the New Zealand Fire Service, Council will determine whether the building is dangerous or insanitary. In making this decision Council will take into account the provisions of sections 121 and 123 of the Building Act 2004.
- (c) If Council is satisfied that the building in question is deemed to be dangerous or insanitary Council will then determine the work or action that must be carried out to prevent it from being dangerous or insanitary.
- (d) In forming its view as to the work or action that is required to be carried out on the building to prevent it from remaining insanitary or dangerous, Council will take the following matters into account:
 - (i) The size of the building;
 - (ii) The complexity of the building;

- (iii) The location of the building in relation to other buildings, public places, and natural hazards;
 - (iv) The life of the building;
 - (v) How often people visit the building;
 - (vi) How many people spend time in or in the vicinity of the building;
 - (vii) The current or likely future use of the building, including any special traditional and cultural aspects of the current or likely future use;
 - (viii) The expected useful life of the building and any prolongation of that life;
 - (ix) The reasonable practicality of any work concerned;
 - (x) Any special historical or cultural value of the building; and
 - (xi) Any other matters that Council considers may be relevant, taking into account the particular set of circumstances.
- (e) Following the inspection of the building, after receiving advice from the New Zealand Fire Service and taking into account the matters listed above, Council will then decide whether immediate action should be taken to avoid the danger or to fix the insanitary conditions pursuant to the provisions of section 129 of the Building Act 2004.
- (f) If Council decides that immediate action under section 129 of the Building Act 2004 is not required, Council will issue a notice under section 124 of the Building Act 2004 requiring the owner to carry out the necessary work and to obtain a building consent and to commence work. The time required to obtain a building consent and commence work will depend on the particular set of circumstances, but shall not exceed 6 months from the time notice was served on the owner. Completion of the work for which a building consent has been issued shall depend on the particular set of circumstances of each case but shall not exceed a period of six months from the time the building consent was issued.

3 Council may take Action

Where a property owner has failed to carry out the work within the time specified, Council may apply to the District Court for an order authorising it to carry out the work pursuant to section 130 of the Building Act 2004. The full costs of carrying out such works will be recovered from the property owner.

4 Heritage Buildings

With regard to heritage buildings that are determined to be dangerous or insanitary, Council will seek (in consultation with Historic Places Trust) to ensure, as far as reasonably practicable, that work carried out will not diminish the heritage values of the building. Property owners must take all reasonable steps to ensure that this objective is achieved.