



# **Proposed Dangerous Dams Policy 2006**

## **- Building Act 2004**

Final Draft July 2006

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## **1. Introduction and policy context**

This document sets out the proposed dangerous dam policy to be adopted by Greater Wellington Regional Council (Greater Wellington) in accordance with the requirements of the Building Act 2004 (the Act).

### **1.1 Purpose of the building act**

The purpose of the Building Act 2004 is to provide for the regulation of building work, the establishment of a licensing regime for building practitioners, and the setting of performance standards for buildings, to ensure that:

- a. people who use buildings can do so safely and without endangering their health; and
- b. buildings have attributes that contribute appropriately to the health, physical independence, and well-being of the people who use them; and
- c. people who use a building can escape from the building if it is on fire; and
- d. buildings are designed, constructed, and able to be used in ways that promote sustainable development.

In this context, structures that meet the definition of a dam under this Act are deemed to be buildings.

### **1.2 Dangerous dam policy**

Section 161 of the Building Act 2004 requires all regional authorities (RAs) to adopt a policy on dangerous dams by 30 September 2006. The policy must state:

- a. the approach that the regional authority will take in performing its functions under this Part; and
- b. the regional authority's priorities in performing those functions; and
- c. how the policy will apply to heritage dams.

### 1.3 Definition of dam

For the purposes of this policy, the term ‘dam’ means a structure that is a dam as defined in section 7 of the Building Act 2004. The full text of that definition is:

“*Dam -*

- a. means an artificial barrier, and its appurtenant structures, that –*
  - i. is constructed to hold back water or other fluid under constant pressure so as to form a reservoir; and*
  - ii. is used for the storage, control, or diversion of water or other fluid; and*
  - iii. retains three or more metres depth, and holds 20 000 or more cubic metres volume, of water or other fluids; and*
- b. includes –*
  - i. flood control dam; and*
  - ii. natural feature that has been significantly modified to function as a dam; and*
  - iii. a canal; but*
- c. does not include a stopbank designed to control floodwaters”.*

### 1.4 Definition of dangerous dams

The definition of what constitutes a dangerous dam is set out in section 153 of the Building Act 2004 and in the related regulations that define moderate earthquakes and moderate floods.

A dangerous dam is a medium or high potential impact dam that:

1. is likely to collapse:
  - i. in the ordinary course of events; or
  - ii. in a moderate earthquake; or
  - iii. in a moderate flood; or
2. is a leaky dam.

Regulations that further prescribe the standards and criteria used in section 153 are proposed but have yet to be finalised. The proposed standards and criteria are set out in “Regulations for the Dam Safety Scheme: Discussion Document May 2006” released by the Department of Building and Housing in May 2006. There is the

potential for the standards and criteria, once finalised, to differ from the ones currently proposed.

The proposed standards and criteria are key component for the Dangerous Dam Policy.

## **1.5 Policy development process**

Greater Wellington will follow the special consultative procedure set out in section 83 of the Local Government Act 2002 when developing and adopting this policy, and will have regard to any relevant principles in the Building Act 2004. This policy will be reviewed every five years.

Given that the regulations prescribing the standards and criteria will not be in place before the date on which this Policy is required to be adopted, Greater Wellington may review this policy if necessary once the regulations are gazetted.

## **2. Policy approach**

### **2.1 Background**

In the Wellington Region there are approximately 34 dams that are captured by the Building Act 2004. In the main, these dams are earth dams and are used for a variety of purposes including water supply, flood control, hydro electric generation, irrigation, farm stock supply and recreation.

The Wellington Region sits astride the boundary of two great crustal plates and is cut by a number of major active fault lines. The Region is not infrequently shaken by large earthquakes and with the continuing movement of the two plates, more major quakes can be expected in the future. (Regional Policy Statement pg 193). Infrastructure in the Wellington Region, such as dams, must therefore be constructed in such a manner to take account of a potentially significant earthquake.

Many of the Regions dams are constructed on watercourses and are subject to the effects of flooding. The combined impact of flooding and a dam collapsing could have potentially significant downstream impacts.

This policy reflects the Council's determination to reduce the risk of dam failure over time in a way that is acceptable in social and economic terms to its ratepayers.

Priorities for identification and action have been developed. These are listed in this policy.

### **2.2 Identification process**

There is a continuum of approaches that regional authorities can adopt for the identification of dangerous dams. These range from a totally passive approach where the regional authority acts only when a potentially dangerous dam has been brought to its attention, to the proactive comprehensive inspection of all potentially dangerous dams in its region.

Greater Wellington will compile a list of potentially dangerous dams over time in response to owners providing information / dam classifications and complying with the dam safety assurance process, and in response to complaints or relevant information. Those dams assessed as potentially dangerous will be followed up with an investigation by Council Officers assisted, as considered appropriate, by technical specialists to establish the nature of the danger or the state of the dam.

A list of certified dangerous dams will be collated according to the results of the assessments. This list will categorise the identified dangerous dams according to the following:

#### 2.2.1 Proposed Categorisation

**Category 1:** high potential impact dams.

**Category 2:** medium potential impact dams

**Category 3:** high or medium impact dams with a heritage classification under the local territorial authority's District Plan or Historic Places Trust register.

### 2.3 Response to complaints and dam documentation

In response to a complaint or receipt of dam documentation that signals that a dam may be dangerous, Greater Wellington will inspect and investigate the dam and determine whether it is a dangerous dam. Inspections and investigations will take place promptly on the receipt of a complaint or relevant dam documentation irrespective of the dam's category.

### 2.4 Assessment criteria

The definition of dangerous dams is given in Section 153 of the Building Act 2004. High and medium potential impacts have not been defined. Neither have what is a moderate flood, or a moderate earthquake. It is expected that these will be defined in draft regulations developed in due course. However, the regulations will not be in place before the date on which this Policy is required to be adopted.

Once regulations that prescribe the standards and criteria used in section 153 are Gazetted, Greater Wellington will use those definitions. Greater Wellington officers and technical specialists will use "The New Zealand Dam Safety Guidelines (2000)", or any subsequent update or recognised replacement for that guideline, for guidance in determining if a dam is dangerous.

### 2.5 Taking action on dangerous dams

On being satisfied that a dam is dangerous, Greater Wellington will:

#### 2.5.1 Provide information

Provide to the owner all information or reports obtained as a result of inspections or investigations.

#### 2.5.2 Advise and liaise with owner and other agencies (including civil defence agencies and territorial authorities)

Advise and liaise with owners of dams identified as dangerous to discuss action to be taken.

#### 2.5.3 Provide Notice to potentially affected parties and other agencies

If necessary, Greater Wellington will give Notice to those likely to be immediately affected in the event of a dam failure. Greater Wellington may also attach a Notice to the dam or nearby that warns people not to approach the structure; and / or erect a hoarding or a fence to prevent people approaching the structure.

#### 2.5.4 Issue Notice requiring work to be carried out

If the owner has not taken steps to reduce or remove the danger then a Notice may be issued pursuant to Section 155 of the Act.

Notices served on dam owners will:

- specify the work that needs to be carried out;
- the time in which it is to be completed; and
- whether the owner of the dam is required to obtain building consent in order to carry out the specified work.

When setting a timeframe for action, Greater Wellington will consider the nature of the issue, the classification of the dam and the priorities established in this policy. The time frame will not be less than 10 days after the notice is given under section 155.

Greater Wellington will ensure that copies of notices are sent to the owner of the dam, any occupier and any party with an interest in the land on which the dam sits and the relevant Territorial Authority. If appropriate, Greater Wellington will notify potentially affected communities downstream of the dam.

Copies of notices will also be sent to interested parties such as Civil Defence, the local Territorial Authority, and the New Zealand Historic Places Trust when appropriate.

At the end of the time in which the remedial work is to be completed, Greater Wellington will inspect the dam and review reports supplied.



### 2.5.5 Dam-break analysis

A dam-break analysis may be required. If requested by Greater Wellington this will be provided by the owner at the owner's expense within the time frame defined by Greater Wellington in the request.

### 2.5.6 Liaise with Civil Defence

Greater Wellington will liaise with Civil Defence directly if necessary.

### 2.5.7 Regional Authority to carry out work

Greater Wellington will carry out the work required in a Notice issued under Section 154 itself or via contractors if any work required under the Notice is not completed within the time frame given in the Notice.

All costs which Greater Wellington incurs can be recovered from the owner of the dam (refer s156 of the Building Act).

Greater Wellington will offer extensions to the set time frames upon receipt of a request from the dam owner where the request is consistent with the Council's statutory obligations.

### 2.5.8 Regional Authority to carry out work in cases of immediate danger

Where it is considered measures are necessary to avoid immediate danger Section 157 gives power to regional authorities to take swift action to remove immediate danger without first serving Notice on owners.

Without limiting this section, Greater Wellington will undertake reasonable effort to contact the dam owner(s) prior to taking action.

### 2.5.9 Dispute by owner of classification

Greater Wellington will write to and meet with (if requested) with an owner of a dam that has been classified as dangerous. An owner will have one month to consider Greater Wellington's assessment and provide any information on the performance of the dam that may influence the assessment. A dam owner may choose to undertake their own detailed assessment.

Greater Wellington, where appropriate, will use technical specialists to review the information provided by the dam owner. If Greater Wellington is then satisfied that the dam is not dangerous, the status of the dam will be changed and the owner advised.

However, should Greater Wellington still consider a dam to be dangerous and the owner continue to dispute the dangerous classification, an application for a 'Determination' pursuant to Section 177 of the Act may be made to the Chief

Executive of the Department of Building and Housing as set out in the Building Act 2004. The determination of the Chief Executive is binding on Greater Wellington and the dam owner.

## **2.6 Guiding principles for dealing with dam owners**

Before exercising its powers under sections 154 to 159 of the Building Act, Greater Wellington will seek to discuss options for action with an owner, with a view to obtaining, from the owner, a mutually acceptable formal proposal for reducing or removing the danger.

Whilst Greater Wellington's preferred approach is to encourage a dam owner to voluntarily reduce the risk posed by their dam to an acceptable level, Greater Wellington will pursue legal outcomes if required as it has a statutory obligation to take all practical measures to ensure public safety and well-being. In the event that discussions do not yield a mutually acceptable proposal, Greater Wellington will serve a formal Notice as outlined above under Section 2.5 of this policy.

## **2.7 Identification of dam owners**

Whilst most dams will be the direct responsibility of the owner of the land on which they are located, there may be circumstances where a landowner will claim that they 'inherited' the dam, and were not responsible for either its construction or its maintenance. It is likely however that there will be few cases where a landowner could claim that they purchased the land in circumstances where they could not reasonably have known there was a dam on the property.

Greater Wellington considers that landowners in this situation are in a practical sense no different to landowners who have constructed a dam, which is now subject to the provisions of new legislation. In both cases, it is the retrospective nature of this aspect of the legislation that creates the responsibility on the part of the owner in regard to the safety of the dam.

Therefore, unless there is clearly a party other than the landowner who is responsible for any particular dam, Greater Wellington will adopt the definition of 'owner' under s7 of the Building Act for the purpose of identifying the person responsible for a dam.

There may however be a small number of cases where a dam was built on a property without the approval of the landowner - this would probably only occur under the provisions of older mining legislation. Greater Wellington will consider requests from such landowners for special treatment in these cases.

### **2.7.1 Dams on public land**

There may also be cases where a dam is located on public land, often for example the bed of a river.

The Building Act 2004 is binding on the Crown, so dams located on public land will be the responsibility of the Crown, unless there is a clear responsible owner (for example the holder of a hydro easement on public land).

## **2.8 Remedial action requiring consent(s)**

When building / resource consent(s) are necessary for remedial action required:

- in a Notice served by Greater Wellington; or
- in a formal proposal supplied by a dam owner,

Greater Wellington will expedite the required consent(s) where practicable.

## **2.9 Recording a dam's status**

Greater Wellington will keep a register of all dangerous dams, noting the status of requirements for improvement or the results of improvement, as applicable. In addition, the following information will be placed on file for each dangerous dam:

- the address and legal description of the dam and the land which supports it;
- whether the dam has a heritage listing;
- a statement that the dam is considered to be dangerous; and
- the date by which strengthening or demolition is required (if known).

This information will be kept on file indefinitely.

## **2.10 Availability of information**

Information concerning the 'dangerous' status of a dam will be contained in the property file and GIS system. If a notice under section 154 of the Act is issued in respect of any dangerous dam then a record of that will also be available on the relevant property file and dangerous dam database.

In granting access to information concerning these dams, Greater Wellington will conform to the requirements of the relevant legislation.

## **2.11 Economic impact of this policy**

Without overriding the paramount aim of protecting public safety, when deciding what actions must be taken in respect of a dangerous dams, Greater Wellington will take into account economic impacts that may arise from those actions.

Greater Wellington will incur costs associated with this policy. It is considered that dangerous dam investigations will ultimately benefit the whole community, so whilst attempts will be made to recover costs from the dam owner, there will be instances where this can not occur.

## **2.12 Approach for dams and associated buildings having heritage status**

Under Section 161 of the Building Act 2004 this policy must state how the policy will apply to heritage dams. For the purposes of this policy, a heritage dam (including associated structures) includes all dams listed as a heritage resource in the relevant territorial authority's District Plan and/or those registered by the New Zealand Historic Places Trust (NZHPT). Section 4(2)(1) of the Building Act 2004 recognises the "need to facilitate the preservation of buildings of significant cultural, historical, or heritage value" .

Greater Wellington recognises the need to retain heritage fabric, but also the need to strengthen or demolish dams to mitigate the risk of loss of life in the event of a collapse. When considering heritage dams under this policy account will be taken of the need to facilitate the preservation of dams with significant cultural, historical, or heritage value.

When dealing with dangerous heritage dams, Greater Wellington will seek advice from the NZHPT and the relevant territorial authority (if appropriate) before any actions are undertaken by the regional authority under sections 153 – 160 of the Act. Greater Wellington may engage suitably qualified professionals with heritage expertise to advise and recommend actions. Copies of all served notices will be provided to the NZHPT.

Greater Wellington will record the heritage listing of all dangerous dams it is made aware of in its dangerous dams register and supply this information to the relevant territorial authority for inclusion on the relevant LIM.

## **2.13 Priorities**

Under Section 161 of the Act this policy must contain the regional authority's priorities in performing its functions in relation to dangerous dams.

Greater Wellington will prioritise the requirement to reduce or remove dangerous dams as follows:

- First priority:** to ensure public safety at all times
- Second priority:** economic welfare
- Third priority:** heritage values

### **3. Date on which this policy becomes operative**

This Policy will become operative three months following the date on which the Department of Building and Housing Regulations for the Dam Safety Scheme take effect.



## **APPENDIX 1 – Relevant Legislation**

### **BUILDING ACT 2004 – KEY SECTIONS**

#### **3. Purpose**

The purpose of this Act is to provide for the regulation of building work, the establishment of a licensing regime for building practitioners, and the setting of performance standards for buildings, to ensure that—

- (a) people who use buildings can do so safely and without endangering their health; and
- (b) buildings have attributes that contribute appropriately to the health, physical independence, and well-being of the people who use them; and
- (c) people who use a building can escape from the building if it is on fire; and
- (d) buildings are designed, constructed, and able to be used in ways that promote sustainable development.

#### **7. Definitions**

Owner, in relation to land and any buildings on the land,—

- (a) means the person who—
  - (i) is entitled to the rack rent from the land; or
  - (ii) would be so entitled if the land were let to a tenant at a rack rent; and
- (b) includes—
  - (i) the owner of the fee simple of the land; and
  - (ii) any person who has agreed in writing, whether conditionally or unconditionally, to purchase the land or any leasehold estate or interest in the land or to take a lease of the land and who is bound by the agreement because the agreement is still in force.

#### **153. Meaning of dangerous dam**

A dam is dangerous for the purposes of this Act if the dam—

- (a) is a high potential impact dam or a medium potential impact dam; and
- (b) is likely to collapse—
  - (i) in the ordinary course of events; or
  - (ii) in a moderate earthquake (as defined in the regulations); or
  - (iii) in a moderate flood (as defined in the regulations); or
- (c) is a leaky dam.

#### **154. Powers of regional authorities in respect of dangerous dams**

- (1) If a regional authority is satisfied that a dam is dangerous, the regional authority may—
  - (a) put up a hoarding or fence to prevent people from approaching the dam nearer than is safe;
  - (b) attach in a prominent place on, or adjacent to, the dam a notice that warns people not to approach the dam;
  - (c) give written notice requiring work to be carried out on the dam, within a time stated in the notice (which must not be less than 10 days after the notice is given under section 155), to reduce or remove the danger.
- (2) This section does not limit the powers of a regional authority under this Part.
- (3) A person commits an offence if the person fails to comply with a notice given under subsection (1)(c).
- (4) A person who commits an offence under this section is liable to a fine not exceeding \$200,000.

#### **155. Requirements for notice given under section 154**

- (1) A notice given under section 154(1) (c) must—
  - (a) be fixed to the dam concerned; and
  - (b) state whether the owner of the dam must obtain a building consent in order to carry out the work required by the notice.
- (2) A copy of the notice must be given to—
  - (a) the owner of the dam; and
  - (b) an occupier of the dam; and
  - (c) every person who has an interest in the land on which the dam is situated under a mortgage or other encumbrance registered under the Land Transfer Act 1952; and
  - (d) every person claiming an interest in the land that is protected by a caveat lodged and in force under section 137 of the Land Transfer Act 1952; and
  - (e) any statutory authority, if the land or dam has been classified; and
  - (f) the New Zealand Historic Places Trust, if the dam is a heritage dam.
- (3) However, the notice, if fixed on the dam, is not invalid because a copy of it has not been given to any or all of the persons referred to in subsection (2).

#### **156. Regional authority may carry out work**

- (1) A regional authority may apply to a District Court for an order authorising the regional authority to carry out building work if any work required under



a notice given by the regional authority under section 154(1)(c) is not completed, or not proceeding with reasonable speed, within—

- (a) the time stated in the notice; or
- (b) any further time that the regional authority may allow.

- (2) Before the regional authority applies to a District Court under subsection (1), the regional authority must give the owner of the dam not less than 10 days' written notice of its intention to do so.
- (3) If a regional authority carries out building work under the authority of an order made under subsection (1),—
  - (a) the owner of the dam is liable for the costs of the work; and
  - (b) the regional authority may recover those costs from the owner; and
  - (c) the amount recoverable by the regional authority becomes a charge on the land on which the dam is situated.

**157. Measures to avoid immediate danger**

- (1) This section applies if, because of the state of a dam, immediate danger to the safety of persons, property, or the environment is likely.
- (2) The chief executive of a regional authority may, by warrant issued under his or her signature, cause any action to be taken that is necessary in his or her judgment to remove that danger.
- (3) If the regional authority takes action under subsection (2),—
  - (a) the owner of the dam is liable for the costs of the action; and
  - (b) the regional authority may recover those costs from the owner; and
  - (c) the amount recoverable by the regional authority becomes a charge on the land on which the dam is situated.
- (4) The chief executive of the regional authority and the regional authority are not under any liability arising from the issue, in good faith, of a warrant under subsection (2).

**158. Regional authority must apply to District Court for confirmation of warrant**

- (1) If the chief executive of a regional authority issues a warrant under section 157(2), the regional authority, on completion of the action stated in the warrant, must apply to a District Court for confirmation of the warrant.
- (2) On hearing the application, the District Court may—
  - (a) confirm the warrant without modification; or
  - (b) confirm the warrant subject to modification; or
  - (c) set the warrant aside.

- (3) Subsection (1) does not apply if—
- (a) the owner of the dam concerned notifies the regional authority that—
    - (i) the owner does not dispute the entry into the owner's land; and
    - (ii) confirmation of the warrant by a District Court is not required; and
  - (b) the owner pays the costs referred to in section 157(3)(a).

**159. Building work includes decommissioning and demolition of dam**

Any work required or authorised to be carried out under section 154(1)(c), or action taken under section 157, may include the decommissioning and demolition of a dam.

**160. Power of regional authority not limited**

The provisions of sections 154 to 159 are in addition to, and do not limit, the powers of a regional authority under section 157.

**161. Regional authority must adopt policy on dangerous dams**

- (1) A regional authority must, within 18 months after the commencement of this Part, adopt a policy on dangerous dams within its district.
- (2) The policy must state—
  - (a) the approach that the regional authority will take in performing its functions under this Part; and
  - (b) the regional authority's priorities in performing those functions; and
  - (c) how the policy will apply to heritage dams.

**162. Adoption and review of policy**

- (1) A policy under section 161 must be adopted in accordance with the special consultative procedure in section 83 of the Local Government Act 2002.
- (2) A policy may be amended or replaced only in accordance with the special consultative procedure, and this section applies to that amendment or replacement.
- (3) A regional authority must, as soon as practicable after adopting or amending a policy, provide a copy of the policy to the chief executive.
- (4) A regional authority must complete a review of a policy within 5 years after the policy is adopted and then at intervals of not more than 5 years.
- (5) A policy does not cease to have effect because it is due for review or being reviewed.

**177. Application for determination**

A party may apply to the chief executive for a determination in relation to 1 or more of the following matters:

- (a) whether particular matters comply with the building code:
- (b) a building consent authority's decision to—
  - (i) issue, or refuse to issue, a building consent, code compliance certificate, or compliance schedule; or
  - (iii) refuse to allow, under section 52(b), an extension of the period during which building work must be commenced before a building consent lapses; or
  - (iv) issue a notice to fix; or
  - (v) refuse to allow, under section 93(2)(b)(ii), an extension of the period during which the building consent authority must decide whether or not to issue a code compliance certificate; or
  - (vi) amend a building consent, notice to fix, or code compliance certificate; or
  - (vii) impose a condition on a notice to fix or compliance schedule or to amend that condition:
- (c) a territorial authority's decision to—
  - (i) grant or refuse a waiver or modification of the building code under section 67; or
  - (ii) issue, or refuse to issue, a certificate of acceptance under section 96; or
  - (iii) amend a compliance schedule under section 106 or section 107; or
  - [(iiia) issue or refuse to issue a certificate for public use under section 363A; or]
  - (iv) issue, amend, or impose a condition on a notice to fix:
- (d) the exercise by a territorial authority of its powers under sections 112 and 115 to 116 (which relate to alterations to, or changes in the use of, a building) and the issue by a territorial authority of a certificate under section 224(f) of the Resource Management Act 1991:
- (e) the exercise by a territorial authority of its powers under section 124 or section 129 (which relate to dangerous, earthquake-prone, and unsanitary buildings) or the failure to exercise those powers:
- (f) the exercise by a regional authority of its powers under subpart 5 of Part 2 in relation to a dam or the failure to exercise those powers.