Tauranga City Council
and
Whakatane District Council

Practice Note – Managing Natural Hazards Under the Building Act 2004

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TCC would like to express their gratitude to Mike Stannard (Kestrel Group), John Gardiner (Building Confidence Ltd) and Laura Bielby (Rice Speir) for providing their invaluable guidance, experience, comments and suggestions throughout the development of this practice note.

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The Council may amend this practice note from time to time at its sole discretion, and applicants and those that provide advice to applicants must ensure they check the practice note and Building Act 2004 for any amendments.

Contents

1. Purpose

1.1 The purpose of this document is to assist ratepayers, building owners and their professional advisors, and Council staff from Tauranga City and Whakatane District Council when designing or processing building consents for building work situated on land subject to natural hazards in accordance with the relevant provisions of the Building Act 2004 (the Act).

1.2 This Practice Note only applies to decisions needed for processing building consent applications in accordance with the Building Act. Applications that require resource consent, particularly if they are situated in flood hazard plan areas or erosion risk zones under the City or District Plan, require further consideration in close liaison with Council planning staff, refer Sections 4 and 15.1.

1.3 This Note has been developed as a collaboration between the Bay of Plenty Councils, that has included workshops with building and planning staff and managers with external building regulation professionals, Mike Stannard, Kestrel Group, and John Gardiner, Building Confidence Ltd, both former MBIE senior building managers. It has had an external legal review. It aims to assist building consent processing incorporating recently provided natural hazard data.

2. Background

2.1 The natural hazard provisions of the Act (section 71 to 74, refer Appendix 1):

a. Require building consent authorities to give consideration to the impact that building work will, in relation to a natural hazard on the land, have on the building, land and other properties. This is in addition to their responsibilities for consenting building work that is in compliance with the Building Code and for issuing code compliance certificates for completed building work.
b. Provide a disclosure mechanism through a notice on the title which records that the land is subject to a natural hazard.
c. Indemnify councils from civil action where a consent has been granted under these provisions and a notice on the title has been placed.

2.2 The provisions do not prevent building work being undertaken on land that is subject to natural hazards, unless the building work will accelerate, worsen or result in a natural hazard on the land on which the building work is to be carried out or to any other property.

2.3 The natural hazard provisions of the Act apply for the construction of new buildings and major alterations when a building consent is needed.

2.4 The hazard must be "likely" to occur for the natural hazard provisions to apply. Case law and determinations have concluded that the hazard must cause more than simply a nuisance event. The impact, frequency and duration of a hazard event will also be considered when making decisions to apply the natural hazard provisions of the Act.

2.5 The "likely" test that applies for the natural hazard provisions may be different from the test for compliance with the Building Code. Each requires separate consideration, and the decision about whether to place a natural hazard notice on the title may be different from whether the proposed building work complies with the Building Code and can therefore be granted a building consent.

2.6 Where natural hazards exist, the Council, when asked, will provide information to allow owners to make decisions for both natural hazard notice and code compliance reasons (to the extent that it is able). It is the owner's responsibility to contact their insurance company to determine any consequences of having a hazard notice registered against their title.

2.7 The decision-making process for considering the natural hazard provisions of the Act (s 71 – 74) is shown in Figure 1.

2.8 Key points in this Practice Note are in relation to the:

a. criteria that needs to be taken into account when deciding if an alteration is “major”, refer Section 5.1;
b. natural hazards included in the Act provisions, being erosion, falling debris, subsidence, inundation, and slippage, refer Sections 5.2 and 6;
c. approach taken to identify the land that is connected to the building work, refer Section 5.3;
d. application of the “likely” test for inundation and erosion, including effects relating to climate change, refer Table 1 and Section 7;
e. economic life of buildings being 75 – 80 years, refer Section 8;
f. code compliance test for B1-Structue and E1 – Surface Water for buildings subject to erosion and inundation, refer Section 9; and
g. possible options that will be communicated to building owners when land is likely subject to a natural hazard, refer Section 11.

3. Decision making framework

3.1 A flow chart, Figure 1, has been developed to assist building consent applicants and staff to understand the natural hazard considerations and the process to be followed before granting a consent. It is important to work through both sections 71 and 72 when making decisions.

3.2 The circumstances relating to the natural hazard provisions when processing building consent applications will vary. Section 71(1) requires consents for the construction of a building or a major alteration to be refused if:

a. the land on which the building work is to be carried out is subject, or is likely to be subject, to one or more natural hazards; or
b. the building work is likely to accelerate, worsen, or result in a natural hazard on that land or any other property.

It is necessary to consider both (a) and (b), although in some cases only one of these will be relevant.

3.3 In some cases, more than one natural hazard will also need to be considered for each of the two subsections.

3.4 Section 71(2) provides that, if certain conditions are satisfied, section 71(1) does not apply. The conditions are that:

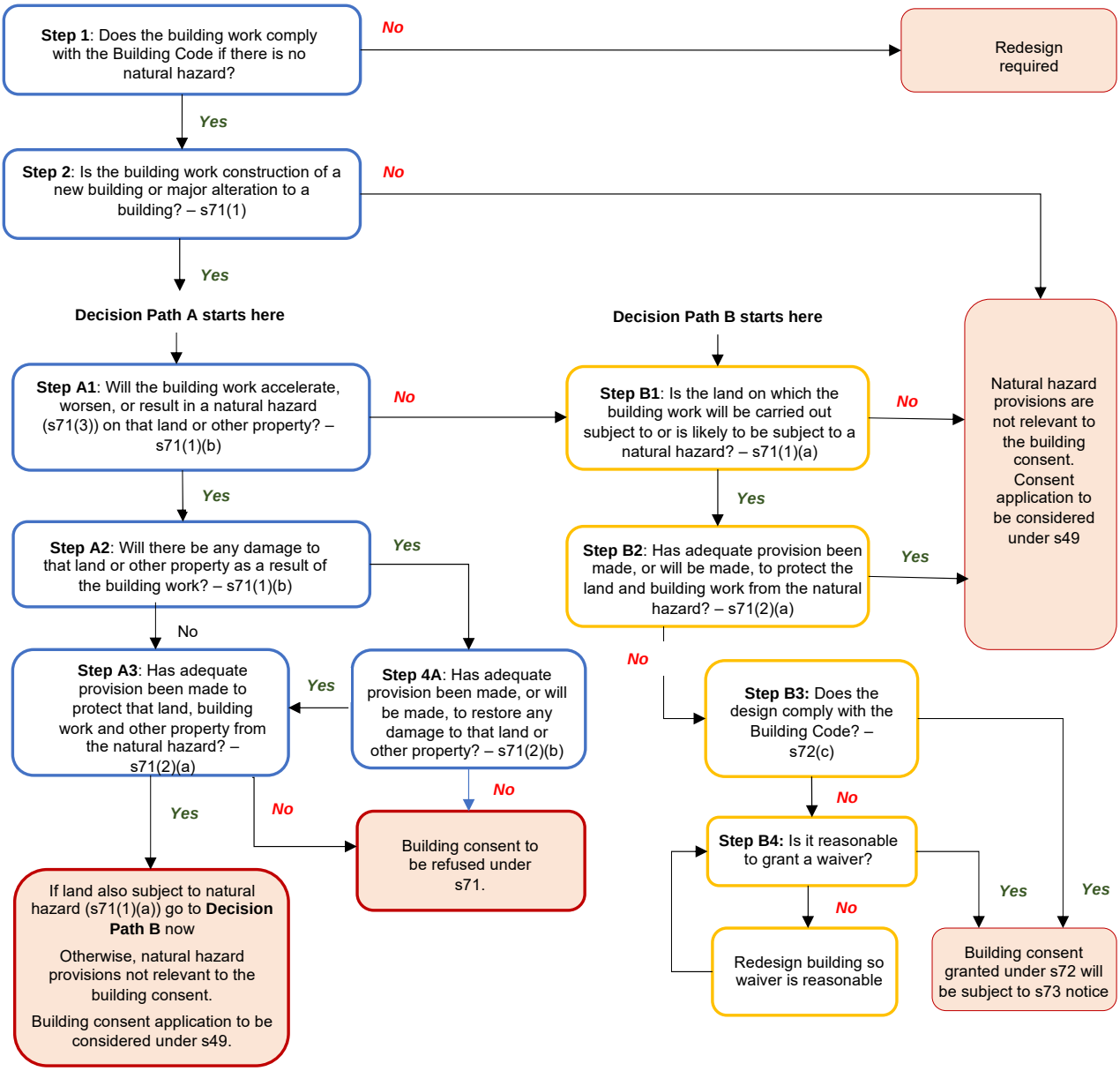
- adequate provision has been or will be made to protect the land, building work or other property from the natural hazard(s), or
- there will be restoration of the land or other property from damage caused by the building work.

3.5 Section 72 sets out the circumstances in which a building consent authority must still grant a building consent for building work, even though the land on which the work is to occur is subject to one or more natural hazards.

3.6 Section 73 sets out the conditions that building consent authorities must include in a building consent when it is issued under section 72, including notification of the consent to the Registrar General of Land.

3.7 Section 74 describes the steps that must be taken after notification, including in circumstances where the building consent authority determines that a notification is no longer required. Refer to the standard form approved by the Registrar-General of Lands for advising of the consent being issued subject to natural hazards: https://www.building.govt.nz/building-officials/guides-for-building-officials/notifying-natural-hazards-or-building-over-allotments/

Figure 1 - Decision making flow chart – section 71 to 73 Building Act 2004[1]



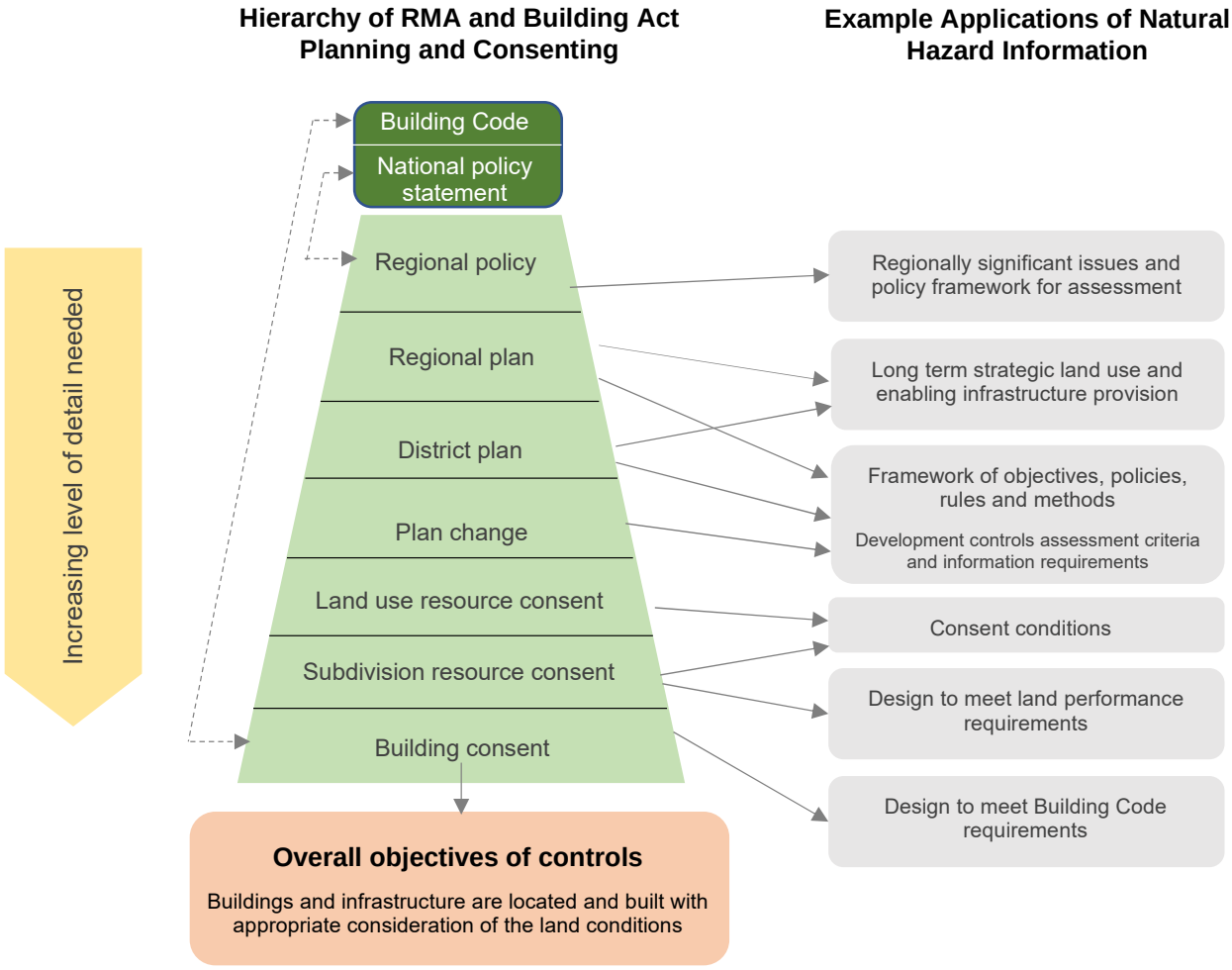
[1] Flow chart developed from the chart used for MBIE Determinations, refer Determination 2019/67

4. Relationship between the Building Act and other legislation in relation to natural hazards

Management of natural hazards in New Zealand is influenced by five main statutes listed below in addition to the Building Act (also refer to Figure 2 and Figure 5 and Section 15).

- Resource Management Act 1991 (the RMA) has the most direct interface with Building Act provisions. Regional plans, city or district plans developed under the RMA can require resource consents and land use consents in certain locations and mitigation of the natural hazard may be different to Building Act requirements. Refer to Figure 2, Section 15.1 and Practice Note: Assessing Resource Consents in the Flood Hazard Plan Area under the City Plan.
- Local Government Act 2002for the statutory framework under which local authorities operate, including the processes for developing annual plans, long-term plans and infrastructure strategies.
- Local Government Official Information and Meetings Act 1987 for issuing Land Information Memoranda (LIMs), refer to Section 15.2.
- Civil Defence and Emergency Management Act 2002 for CDEM group planning.
- Soil Conservation and Rivers Control Act for flood control.

Figure 2 – Simplified hierarchy of RMA and Building Act planning and consenting processes



5. When natural hazard provisions apply

The natural hazard provisions of the Act apply when an application:

- involves the "construction of a building, or major alterations to a building" that requires building consent; and
- involves land that is :
  - subject to or likely to subject to natural hazards listed in section 71(3) of the Act;
  - the effects are likely to occur and not trivial; and
  - the land is connected to the building work.

5.1 Building work included under the provisions – includes major alterations

5.1.1 The Act limits the natural hazards provisions to the "construction of a building, or major alterations to a building".

5.1.2 There is no upper or lower limit on the size of the building for which the consent for construction is sought. It applies to all structures that meet the definition "building" as set out in section 8 of the Act.

5.1.3 The provisions do not apply where the Act does not require a building consent, for example where:

a. the building work is subject to an exemption under Schedule 1 of the Act (including authority granted exemptions), or

b. a building consent cannot practicably be obtained in advance because the building work has to be carried out urgently, or

c. work is required to a building affected by an emergency under subpart 6B of the Act, or the investigation of building failure, refer sections 207G to 207M of the Act.

5.1.4 The Act does not define a "major" alteration, but MBIE has found the relevant considerations to include[2] the degree the building work differs from exempt building work under Schedule 1 of the Act. Major alterations are likely to be significantly different in nature and extent from the type of building work exempt under Schedule 1, and reflect considerations such as the:

- intended use and degree of design and construction complexity;
- size and costs of the alteration compared with that of the existing building;
- increased footprint of the building, and the percentage increase in site coverage;
- extent of new building work being for the replacement of existing structures; and
- extent to which the performance of the building work in question is likely to be affected by the hazard conditions. For example, can the likely effects of the hazard be mitigated by, say, a specific design?

5.1.5 While judgement is required in applying the criteria, the following are some common examples where an alteration would generally be considered as major.

a. Building expansion – increasing the building floor area by 20m^2 or more (this can include the addition of another floor, not just an increase in footprint).

b. Internal changes –together with other work consented in the past two years, that has an estimated value of at least 50% of the rateable building value and will cost more than $150,000.

[2] Determination 2011/034

c. Increasing the effect of a natural hazard – an addition or alteration that increases the effect that a hazard may have on the building, land or other property (e.g. impacting on overland water flow or the stability of a bank).

These examples should be treated as guidance only and should not be treated in isolation. Careful judgement is required. For example, an addition of less than 20m^2 may be considered as major if the addition was complex or costly.

5.2 Natural hazards included under the provisions

5.2.1 Section 71(3) outlines which natural hazards are covered by these provisions of the Act. The specific hazards listed in the Building Act are:

- erosion (including coastal erosion, bank erosion, and sheet erosion);
- falling debris (including soil, rock, snow, and ice);
- subsidence;
- inundation (including flooding, overland flow, storm surge, tidal effects, and ponding);
- slippage.

5.2.2 Guidance on consideration of particular hazards is given in Section 6 of this document.

5.2.3 Coastal erosion, inundation and flooding are of particular importance to the Bay of Plenty region.

5.2.4 MBIE Determinations and Guidance have indicated that it is appropriate to make provision for sea level rise, where relevant. Refer to Section 7, Climate Change, and Table 1 of this document for how sea level rise will be considered in relation to erosion and inundation.

5.3 Land connected with the building

5.3.1 Case law and determinations have used the phrase “land intimately connected with the building” to define the location and extent of any natural hazard occurring on a property when processing a building consent application. It is reasonable to assume that it is not the intention of the Act to require a notice on the title to be imposed, for example on a large farm which is subject to a hazard, if the hazard is one that is distant from the building work.

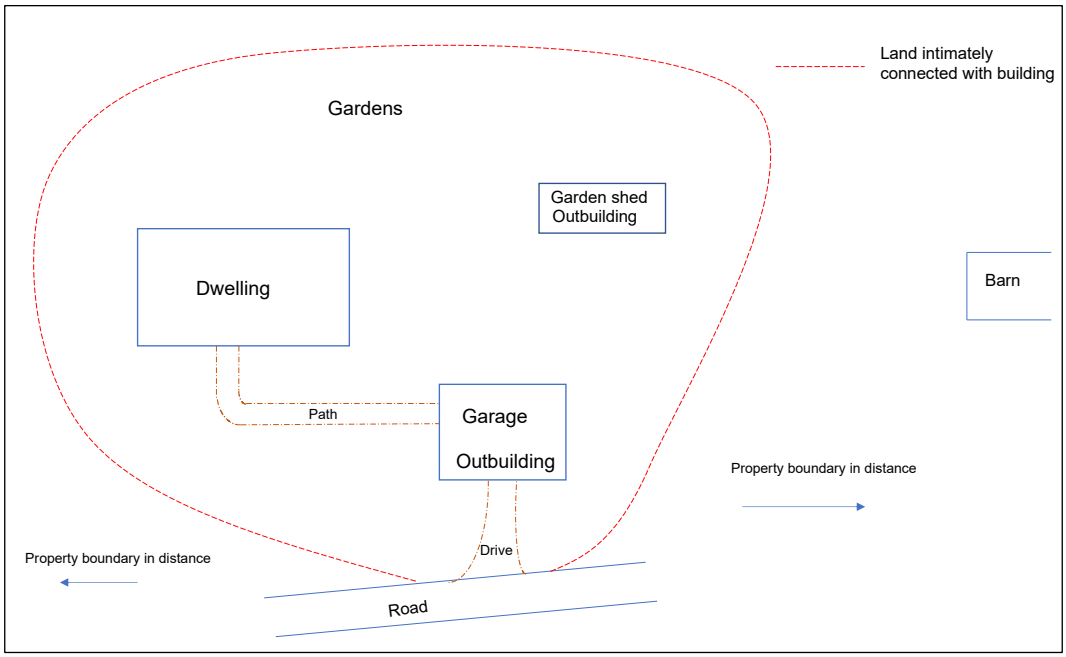
5.3.2 For land to be intimately connected with the building work, there needs to be some connection with the building, not just one of ownership. Generally speaking, land “intimately” connected is that which:

a. includes any ancillary buildings associated with the principal building;
b. includes amenity features such as gardens and swimming pools which form part of the living space; and/or
c. forms part of the access to the building from the road or other public or private access point.

5.3.3 For most residential sections, it is reasonable to assume that the land intimately connected with the building will be the entire section or lot. There may be some exceptions such as embankments that are not normally accessed.

For lifestyle blocks, the land intimately connected is likely to be a subset of the land rather than the entire lot. Figure 3 below provides an illustration of the land intimately connected with the building for non-suburban properties. Including a distance of a minimum of 8 metres from the building envelope, plus any access, is a useful guide but will be case specific. Septic tank systems and their drainage fields (including drainage reserve area) would be included in the consideration of whether land is connected with the building work.

Figure 3 – Land intimately connected – non suburban



5.4 Likely and not trivial

5.4.1 The legal test for whether a hazard should be considered is when the land is subject to or "likely" subject to, a hazard or hazards.

5.4.2 The Act does not define the term "likely", or set a threshold for the extent or size and impact of the hazard (e.g. is inundation of a 200 mm deep "puddle" a hazard or is a 100 mm deep fast moving flow of water a hazard?) and how often or frequently does the hazard need to occur to be considered.

5.4.3 In *Logan v Auckland City Council* the Court found that "*Whether the risk is at a level and frequency to justify the expense and other implications of making adequate provision to protect the land, and if not require a (s73) notice which is a blot on the title and may have significant insurance implications, will always require a sensible assessment involving considerations of fact and degree."* This means that a common sense approach must be taken and that not every conceivable circumstance needs to be considered. In other words, the hazard needs to be more than minimal or trivial.

5.4.4 Some general criteria that can be applied in considering whether a hazard is more than minimal or trivial are whether it:

a. will result in an impact that is more than temporary;

b. has no potential to significantly affect the land, the proposed building work or other property in such a way as to require protection; or

c. does not have the potential to cause damage that would need to be restored.

5.4.5 In regard to the frequency of hazards, MBIE determinations have concluded that an event having a 1% annual exceedance probability of occurring (or a 1 in 100-year event) or more frequent is a "likely" event over the lifetime of the building. A probabilistic approach such as this can be taken for periodic events where there is adequate data such as inundation but some events such as erosion and landslip may require additional professional judgment in determining whether the hazard is likely.

5.4.6 When considering the lifetime of the building for the natural hazard provisions or assessing building consent applications, an economic life of 75 to 80 years should be used, refer to Section 8.

5.4.7 There will always be some uncertainty when considering natural hazards, both in the likelihood of the hazard occurring during a particular period (the economic life of the

building) and the impact it may cause. Sound engineering judgement is required, and probabilistic techniques are often used. For example, these techniques are used for predicting coastal erosion of embankments.

6. Guidance on specific hazards

6.1 Erosion (including coastal erosion, bank erosion, and sheet erosion)

6.1.1 Coastal erosion and erosion of embankments around the Tauranga Harbour are a significant issue.

6.1.2 Rock protection structures have historically been relied on to protect the toe of the embankment from coastal erosion, refer to Section 12.

6.1.3 Geotechnical advice will need to be provided by professionals acting for the owners to address the "likely" test, refer Table 1.

6.1.4 It is important that stormwater and wastewater be directed away from any embankment to avoid exacerbating slope failure.

6.1.5 Sheet erosion involves the uniform removal of soil in thin layers by rainfall and overland flow, generally covering large areas of sloping land removing nutrients and organic matter and eventually leading to unproductive soil. It is a process that can go unnoticed for quite some time.

6.1.6 To satisfy the "likely' test when considering the natural hazard provisions of the Act, the erosion plane considered needs to have at least a 50% probability of occurring at any point during the life of the building. This 50% probability will not necessarily be the same test for considering a building consent application for compliance with the Building Code as illustrated in Table 1. Section 7 further addresses uncertainty related to climate change.

6.2 Falling debris (including soil, rock, snow, and ice)

6.2.1 Refer to Section 12 for rockfall protection structures

6.3 Subsidence

6.3.1 Subsidence in the context of natural hazard provisions of the Building Act would be primarily concerned with land within identified landslides or areas subject to sink holes and other old mining related activities that could cause ground surface issues.

6.3.2 It is important that stormwater and wastewater be directed away from any embankment to avoid exacerbating slope failure.

6.3.3 There are other geophysical hazards that cause subsidence (often gradual) such as the presence of peat. However, designing against the presence of peat is a normal part of good engineering practice and adequate provision can be made to protect the land and building work from the hazard. Therefore, in accordance with section 71(2)(a), refer Figure 1, the natural hazard provisions will not apply.

6.4 Inundation (including flooding, overland flow, storm surge, ponding and tidal effects

6.4.1 Inundation in the context of natural hazard provisions of the Building Act means coverage of land with a significant amount of water. The Council will consider inundation to be a natural hazard when the water depth on land for events up to and including 1% AEP (annual exceedance probability) – the 1 in 100-year flood – is:

- 0.3m or greater in depth [3]; or
- has an overland flow velocity of one metre per second or greater with a depth of 100mm [3]; and

- where the water does not quickly dissipate without causing damage[3].

6.4.2 A freeboard allowance may be required where vehicle movement causing waves is likely refer to Section 9.2 for freeboard considerations when considering Building Code clause E1 compliance.

6.4.3 Sea level rise as a result of climate change needs to be taken into account, refer Table 1.

6.4.4 For the acceptance of stop banks, bunding, tide gates, overland flow paths, retention tanks and dams or mechanical pumping systems owned by Councils as "adequate provision", refer to Section 12.

6.4.5 The test for inundation when considering natural hazard provisions is different when considering compliance with the Building Code, Clause E1 (Surface Water), Refer Section 9.2.

6.5 Slippage

6.5.1 Refer to Section 6.3 Subsidence.

7. Climate change

7.1 There is significant uncertainty in predicting the impacts of climate change and, the further into the future, the more challenging the effects are to predict. Climate change impacts natural hazards in two ways. The first impact is rising sea levels, which could then have a direct impact in coastal zones on inundation as well as an indirect impact on accelerating the erosion of the slopes which are near sea level. The second impact is the increased frequency of events such as rainfall, which can in turn lead to inundation from flooding from flow paths such as rivers.

7.2 MBIE determinations have concluded that it is appropriate to include the impacts of climate change when applying the natural hazard provisions of the Act and assessing Building Code compliance.

7.3 Currently, accepted science uses different greenhouse gas emission scenarios to predict sea-level-rise, refer to Figure 4. As the natural hazard provisions of the Building Act apply to 'likely' events, the RPC4.5 medium projection scenario is used. This is different to the scenario used when assessing for Building Code compliance, where there needs to be a greater level of certainty that the building work remains Building Code compliant, refer Table 1 and Section 9.

7.4 A further complication arises in climate change events in that the frequency of the hazard may be conditional on a number of events each with its own frequency of occurrence. By way of example, in assessing an application for consent for building work at the top of an embankment where the toe is subject to erosion from wave action, whether the building work is likely to be subject to the hazard will require consideration of a of sea level rise causing an increase in the rate of erosion at the base and how the resulting erosion of the bank will impact on the future stability of the proposed building (mainly loss of support).

7.5 The impact of climate change on buildings will depend on the period being considered. Sea level rise is likely to be progressive, influencing erosion rates and inundation levels. This period is not specifically defined in the Act. If the hazard is not likely to impact the land or building over the next 75 to 80 years, (the generally accepted economic life of a building), the provisions will not apply and a section 74 notice will not be required, refer Section 8.

[3] This is a Tauranga City Council requirement. Please contact Whakatane District Council for the applicable requirements in the Whakatane district.

Table 1 – Criteria used for Natural Hazard Provisions and for Code Compliance

Hazard Criteria Used		Natural Hazard	
		Coastal Erosion	**Inundation**
Natural hazard provisions (section 71-74)	Timeframe	Year 2100 75 to 80-year economic life	Year 2100 75 to 80-year economic life
	Probability	50%, P_{50}†	100-year event‡
	Sea-level-rise emission scenario	Intermediate-low RCP4.5 median§	Intermediate-low RCP4.5 median§
Code Compliance	Building Code Clause	B1 Structure 'Low probability' test	E1 Surface Water
	Timeframe	75 to 80-year economic life Year 2100	75 to 80-year economic life Year 2100
	Probability	15%, P_{15}†	2% AEP, 50-year event
	Sea-level-rise emission scenario	High RCP8.5 median§	High RCP8.5 median§

§ Four different greenhouse gas emission scenarios, documented in the Ministry for the Environment Report https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/Climate-change-projections-2nd-edition-final.pdf have been considered, listed below. RPC refers to 'representative concentration pathway.'

1. Low to eventual net-zero emission scenario (RCP2.6 median projection)
2. Intermediate-low scenario (RCP4.5 median projection)
3. High-emissions scenario (RCP8.5 median projection)
4. Higher extreme H+ scenario, based on the RCP8.5 83rd percentile projection from Kopp et al (2014).

† P_{50} means that there is a 50% probability that erosion will occur to a specific line within the property boundary by 2100. Similarly, P_{15} means there is a 15% probability of it occurring.

‡ There is a 53% probability of a 1 in 100 -year event occurring during the 75-year economic life of the building, making it more likely to occur than not.

8. Economic life of a building

The Councils will assess building consent applications and the natural hazard provisions based on a building economic life of 75 to 80 years. This is a pragmatic approach based on:

- building elements that provide structural stability to the building or those that are difficult to replace are required to continue to satisfy the performance requirements of the Building Code for the life of the building, being not less than 50 years (Building Code, Clause B2.3.1 (a));
- case law, MBIE determinations and MBIE guidance have all stated that the building life should be greater than 50 years without stating any specific timeframe; and
- BRANZ house condition surveys show that only a small proportion of New Zealand houses are older than 80 years.

Figure 4 – Sea level rise prediction

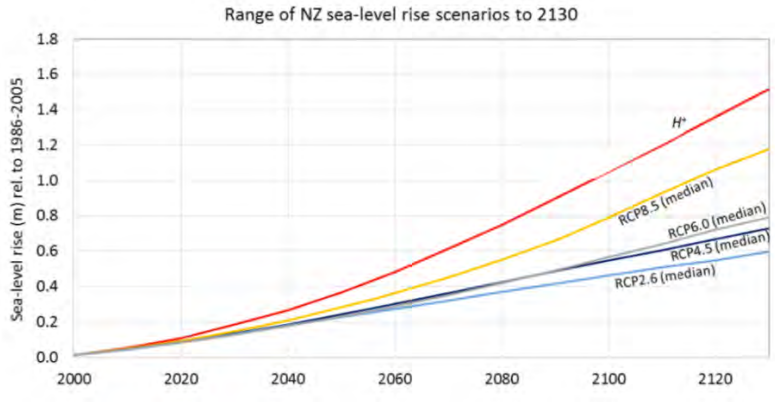


Figure taken from Tauranga Harbour Coastal Hazard Study Coastal Erosion Assessment prepared for Bay of Plenty Regional Council by Tonkin & Taylor, July 2019

9. Building Code Compliance for buildings on land subject to natural hazards

When considering building consent applications for new buildings or major alterations on land subject to erosion and inundation hazards, the test for Building Code compliance will be based on section 17 of the Act and Building Code provisions.

Note: The tests for building code compliance are not the same as those used to assess for the natural hazard provisions, refer to Section 7, and may therefore have different outcomes.

Refer to Table 1 for a summary of criteria for consenting purposes.

Note: There may be different considerations under the Regional Policy Statement or City or District Plan for subdivisions and land within designated hazard zones and these may require additional protection against inundation, refer to Practice Note: Assessing Resource Consents in the Flood Hazard Plan Area under the City Plan.

9.1 Structure – Code Clause B1 and erosion

9.1.1 Building Code Clause B1.3.1 states that the building work must have:

- *.. a low probability of … becoming unstable, loosing equilibrium, or collapsing … throughout their lives* (B1.3.1) and
- *.. continue to satisfy the performance requirements of this code for the lesser of the specified intended life of the building .. or the life of the building, being not less than 50 years.* (B2.3.1)

9.1.1 For Code compliance, the Council must be satisfied that building foundations will not be undermined by the erosion at some point in the life of the building.

9.1.2 While “low probability” is not defined in the Building Code, a comparison can be made with earthquake design requirements for the same B1 Code clause. The relevant Building Code Verification Method B1/VM1 uses a 1 in 500-year earthquake for the design of most buildings. This is designing for an event that has a 15% probability of occurring in the 75 year economic life of the building.

9.1.3 In accordance with Table 1 above, for erosion (, including coastal erosion) the Clause B1 Structure “low probability” test applies. The building work for an Importance Level 2 structure will need to have a maximum of 15% probability (P_{15}) of rupturing, becoming unstable, losing equilibrium, or collapsing throughout the 75 year economic life of the building. Where appropriate, provision for sea level rise will be made using a high-emissions (RCP8.5 median projection) scenario during the 75 years.

9.2 Surface water – Code Clause E1 and inundation

9.2.1 For inundation, the relevant Building Code clause is E1 Surface Water that specifies surface water from an event having a 2% probability of occurring annually (50 year event) shall not enter the building. A freeboard of 500 mm is used where waves may be caused by vehicle movement, and a 150mm step elsewhere for rain events.

9.2.2 Sea level rise as a result of climate change needs to be taken into account, refer Table 1.

10. Waivers and modifications

10.1 Section 72(c) of the Act provides that waivers or modifications may be granted in making a decision to grant a consent under section 72. The criteria to be taken into account when considering a waiver or modification are:

a. The extent of the non-compliance with the specific performance clause;
b. Possible consequence of the non-compliance with the specific performance clause;
c. The availability of other reasonably practicable solutions that would result in the building work fully complying with the Building Code and associated costs;
d. Any special and unique circumstances of the building work subject to the waiver or modification; and
e. The extent to which the waiver will still be consistent with the purposes and principles of the Act.

10.2 If a waiver or modification is granted for coastal erosion or inundation, it will likely to be in relation to:

a. Clause B1 Structure (Erosion, slippage, inundation (wave action and forces from water on structure)); or
b. Clause E1 Surface Water (Inundation).

10.3 There may be some limited circumstances in which it is considered reasonable to issue a modification to the Building Code when considering natural hazard provisions. As an example, it may be appropriate to modify the need to comply with Building Code clause E1 Surface Water when a limited house extension is proposed and the floor level of the existing house is below the current minimum floor levels.

11. Design considerations and possible pathways for building consent applicants

There are a number of possible design considerations for owners when designing buildings on land subject to natural hazards. These generally fall into two categories:

a. Making the building more resilient to the natural hazard. For example, for a building on land subject to inundation, it could be by using building materials which are more resistant to water damage or elevating the building above floor levels. For buildings subject to erosion or wave action, it could be by constructing foundations to resist scour or adding features to dissipate wave energy.
b. Taking an adaptive approach by designing the building so that it can be altered, removed or relocated on the site in the event that the hazard impacts the Building Code compliance of the building. This is more appropriate to circumstances where the natural hazard advances over time could eventually impact on the compliance of the building. This approach is more appropriate for hazards which could occur over the economic lifetime of the building, such as inundation from rising sea levels or bank erosion from river meander. The legal mechanism in the Building Act for this approach is section 113 Specified Intended Life.

11.1 Specified intended life

11.1.1 If an owner intends to design the building so that it can be altered, removed or relocated, the specified intended life provisions in the Building Act are available.

11.1.2 This is set out in section 113 of the Act and enables a territorial authority to grant consent for buildings with a life less than 50 years. A consent granted under section 113 must be issued pursuant to a condition that building must be altered, removed, or demolished on or before the end of the specified intended life and can be issued pursuant to any other conditions that the territorial authority considers necessary.

11.1.3 The specified intended life does not need to be a chronological time (e.g. 40 years), but can be event based such as when erosion reaches a certain point where compliance with the Building Code is no longer being achieved (that is, the ground is not able to reliably carry the loads imposed by the building and the building has lost support).

11.1.4 The processing officer should advise the building consent applicant prior to any consent being issued that it may be issued subject to the natural hazard provisions. An appropriate notification pointing out these implications will be provided to the applicant (refer EQC notice – Appendix 2) and acknowledgement of the insurance implications and acceptance of the physical risks related to the natural hazard (e.g. having property flooded) received from the applicant.

11.2 Pathways/options for consent applications

The applicant will then have the following options:

i. Accept the data used by the Council and accept the conditional consent that may include a hazard notice on the title. Note: generally, the data held by the Council and available on its website is at a local scale, is representative and does specifically take into account conditions on individual properties.

ii. Undertake their own site-specific investigation from recognized experts that may be able to demonstrate a different outcome. The results of the site-specific investigation will then need to be assessed by the Council, who may request the applicant to undertake a peer review. The Council will need to be satisfied with the results of the peer review for them to be used to support the consent application.

iii. For hazards that are likely to increase with time as sea level rises from climate change effects, such as coastal erosion, the owner may consider an adaptive response approach, such as using section 113 of the Act. This provides for a consent to be issued for a life of less than 50 years when a certain erosion trigger point may be reached, i.e. the foundations risk being undermined, and thereby no longer meeting building code requirements. When that trigger point is reached, the owner will then remove or alter the building.

   To avoid having a consent issued with a specified intended life condition, the owner may prefer to have an encumbrance registered against the title to provide for action to be taken should the natural hazard impact the building. For example, if there is an existing rock wall protecting against erosion at the toe of an embankment with a resource consent for 35 years, an encumbrance could require that the, beyond this, the building must either be protected or removed.

iv. There may be some grounds in limited circumstances to issue a modification to the Building Code. As an example, it may be appropriate to modify the need to comply with Building Code Clause E1 Surface Water when a limited house extension is being proposed and the floor level of the existing house is below the current minimum floor levels.

v. An applicant for a building consent is also entitled to apply for a Building Act determination from MBIE if they dispute the decision of the Council in respect to the consent. It is expected that, prior to proceeding with this option, the Councils will

have actively worked with the owner to find solutions. In some cases, the Councils may decide to apply for a determination in relation to their own decision.

12. Protective structures

12.1 Protective structures can be used to protect the land and buildings from natural hazards. These can include passive barriers protecting against rockfall and sea walls protecting against erosion and inundation. Please see the relevant City or District Plan in regarding to building protection structures in the CHEPA zone.

12.2 If new protective structures are included as part of a building project designed to protect the building, the land or adjacent property from the natural hazard, these may enable the building consent application to be considered under section 71(2)(a) and thereby avoiding further natural hazard requirements, such as having a notice registered against the title. A building consent for the protective structure must be applied for, and a condition of the consent would likely include a maintenance regime.

12.3 Rockfall protective structure consents would generally be granted under the specified intended life provisions (section 113), being 50 years or when the barrier was impacted by rockfall, whichever is the sooner.

12.4 Where a building owner proposes to design a protective structure to protect the building, land or adjacent property the structure must:

i. be located wholly on the land owned by the owner or if not, built on adjacent land through a formal easement on that property;

ii. be designed to the same criteria as the building for which it is being constructed to protect including the same economic life;

iii. require no maintenance (or low maintenance where the need for maintenance will be obvious to the owner);

iv. be compliant with the Building Code and be subject to a building consent;

v. have resource consent for the protective structure, if required, that provides for the structure to either:

- remain in place for the full duration of the life of the building work (i.e. 75 to 80 years) (Note: this will not be possible for seawalls as they are subject to resource consent conditions); or
- be considered effective as a protective structure only for the duration of the resource consent such that the building will be code compliant for the balance of its economic life.

12.5 If existing protective structures are relied on to protect the land and building work (e.g. flood protection stop banks), it will be necessary to discuss the situation with the building consent authority. Issues regarding their maintenance, existing condition and design would need to be resolved before proceeding.

13. Guidance on cross lease land

13.1 Cross-lease properties involve multiple leases granted in respect of one fee simple title, providing each leaseholder exclusive possession of part of the land contained within the fee simple title. A composite title is issued for each leasehold estate and the share of the fee simple tile owned by each leaseholder.

13.2 Where one owner proposes new building work in an area subject to natural hazards and section 73 applies, the notice would only apply to that part of the land on which the building work is taking place, not on the whole title, refer to Determination 2012/35.

14. Data on the Council web site

14.1 Data is provided on the Council website that allows owners and the public to understand whether their property may be subject to natural hazard. It provides the basis for Council staff to process consents for natural hazards.

14.2 Tauranga City Council has two viewers that can be searched at the property level for:
a) harbour inundation, based on the NIWA Tauranga Harbour extreme sea level analysis Prepared for Bay of Plenty Regional Council March 2017 https://gisapps.tauranga.govt.nz/harbourinundation/
b) harbour erosion, based on the Tonkin &Taylor study (Tauranga Harbour Coastal Hazards Study Coastal Erosion Assessment Prepared for Bay of Plenty Regional Council by Tonkin & Taylor Ltd July 2019)
https://gisapps.tauranga.govt.nz/coastalerosion/
c) flooding/rainfall
https://www.tauranga.govt.nz/council/water-services/stormwater/stormwater-flooding/flood-hazard-modelling-extreme-rainfall

14.3 Whakatane District Council:
http://www.arcgis.com/home/webmap/viewer.html?webmap=eba3c079f398498a877ba8c448c66071&extent=176.616,-38.2763,177.2189,-37.6446

14.4 Bay of Plenty Regional Council:
https://maps.boprc.govt.nz

15. Other legislation relevant to natural hazards

As indicated in Section 4, there are other statutes that regulate the management of natural hazards in New Zealand. The other pieces of legislation with the most direct interface with the Building Act natural hazard provisions are the RMA and the Local Government Official Information and Meetings Act 1987. Refer to Figure 5.

15.1 Resource Management Act

15.1.1 The RMA promotes the sustainable management of natural and physical resources, enabling communities to provide for their social, economic, cultural well-being, health and safety while sustaining natural and physical resources to meet the needs of future generations, safeguarding air, water, soil, and ecosystems and avoiding, remedying, or mitigating any adverse effects of activities on the environment.

15.1.2 The focus is somewhat different to the Building Act, in that the RMA is about managing land development rather than building construction. As a result, the tests for hazards such as coastal inundation and erosion can be different under the RMA to that detailed in Table 1 below. Close liaison with Council planning is needed.

15.1.3 The RMA definition of natural hazards is also somewhat different to the Building Act.

15.1.4 Relevant elements of the RMA for the purposes of this Guidance Note include, NZ Coastal Policy Statement/NZ Policy Statements, BOP Regional Policy Statement/ Plan, Tauranga City Plan and Whakatane District Plan, Plan Change process, land use resource consent, subdivision resource consent.

15.1.5 Subdivision consents can be granted with a condition subject to the protection of the land against natural hazards likely to arise as a result of subdividing the land (section 220 (1)(d). This can lead to *building restriction lines* being included in subdivisions for geotechnical hazards such as slopes, or areas possibly subject to settlement.

15.1.6 A building restriction line on the subdivided property as a result of geotechnical considerations does not mean that the property will automatically be subject to the natural hazard provisions of the Building Act. The process outlined in Figure 1and Section 5 and 6 need to be followed.

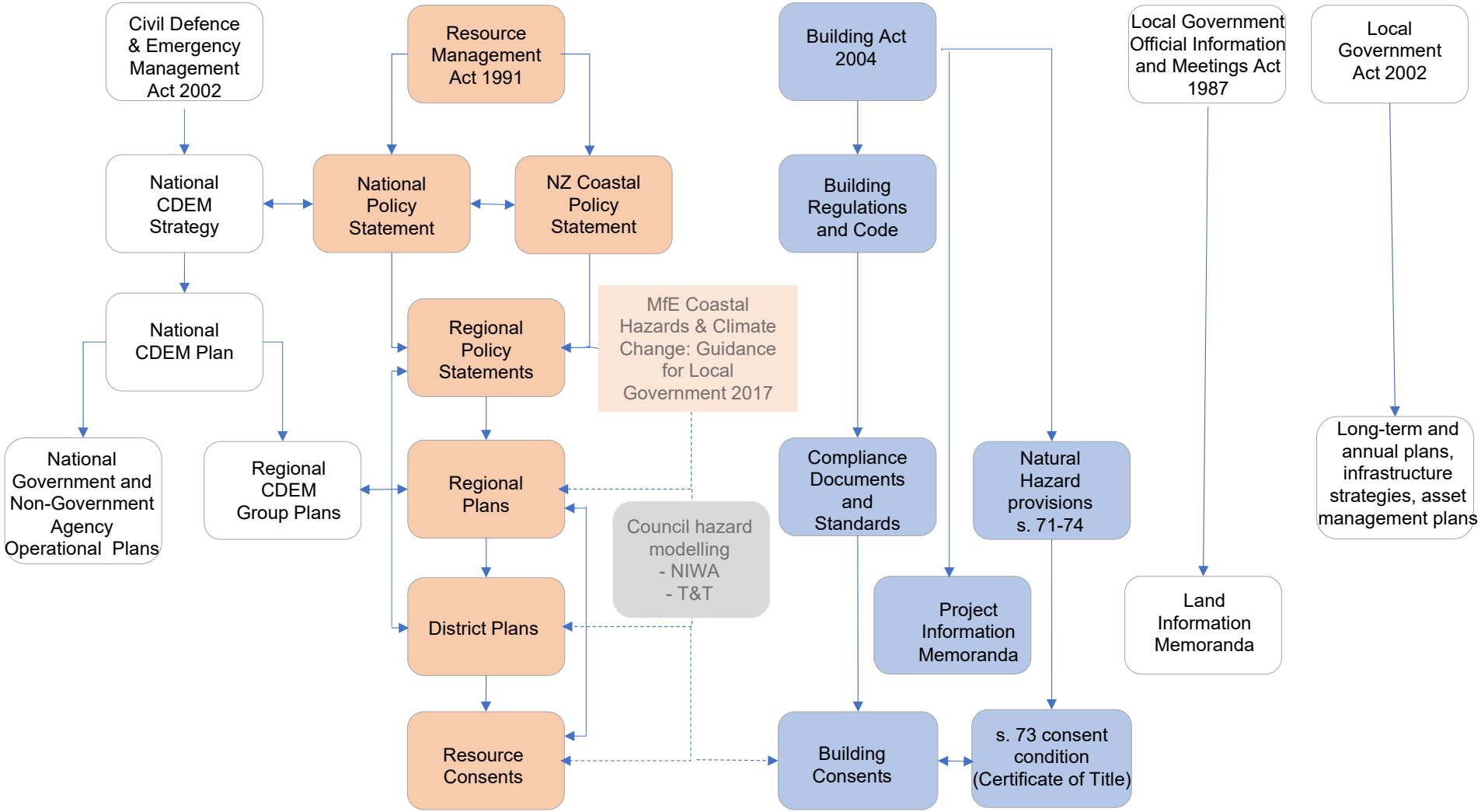
15.1.7 As shown in Figure 2, there is a hierarchy requiring progressively more detailed information to support decision making.

15.2 Local Government Official Information and Meetings Act

15.2.1 LGOIMA enables any person to apply to the Council for a LIM. The council is obligated to include on any LIM information identifying special features or characteristic of the land, including potential erosion, avulsion, falling debris, subsidence, slippage, alluvion, or inundation, that is known to the council but is not apparent from the District Plan (section 44A).

15.2.2 Similar to the inclusion of building restriction lines on the property as part of the subdivision consent, inclusion of hazard information on the LIM does not automatically mean that a section 73/74 notice should be included on the record of title.

Figure 5 – Legislative framework for natural hazard management



Appendix 1 – The Building Act natural hazard provisions

Limitations and restrictions on building consents: Construction of building on land subject to natural hazards

71 Building on land subject to natural hazards

(1) A building consent authority must refuse to grant a building consent for construction of a building, or major alterations to a building, if—

(a) the land on which the building work is to be carried out is subject or is likely to be subject to 1 or more natural hazards; or

(b) the building work is likely to accelerate, worsen, or result in a natural hazard on that land or any other property.

(2) Subsection (1) does not apply if the building consent authority is satisfied that adequate provision has been or will be made to—

(a) protect the land, building work, or other property referred to in that subsection from the natural hazard or hazards; or

(b) restore any damage to that land or other property as a result of the building work.

(3) In this section and sections 72 to 74, natural hazard means any of the following:

(a) erosion (including coastal erosion, bank erosion, and sheet erosion):

(b) falling debris (including soil, rock, snow, and ice):

(c) subsidence:

(d) inundation (including flooding, overland flow, storm surge, tidal effects, and ponding:

(e) slippage.

72 Building consent for building on land subject to natural hazards must be granted in certain cases

Despite section 71, a building consent authority that is a territorial authority must grant a building consent if the building consent authority considers that—

(a) the building work to which an application for a building consent relates will not accelerate, worsen, or result in a natural hazard on the land on which the building work is to be carried out or any other property; and

(b) the land is subject or is likely to be subject to 1 or more natural hazards; and

(c) it is reasonable to grant a waiver or modification of the building code in respect of the natural hazard concerned.

73 Conditions on building consents granted under section 72

(1) A building consent authority that is a territorial authority that grants a building consent under section 72 must include, as a condition of the consent, that the building consent authority will, on issuing the consent, notify the consent to,—

...

(c) in any other case, the Registrar-General of Land.

74 Steps after notification

(1) On receiving a notification under section 73,—

(a) the Surveyor-General or the Registrar of the Maori Land Court, as the case may be, must enter in his or her records the particulars of the notification together with a copy of any project information memorandum that accompanied the notification:

(b) the Registrar-General of Land must record, as an entry on the record of title to the land on which the building work is carried out,—

(i) that a building consent has been granted under section 72; and

(ii) particulars that identify the natural hazard concerned.

(2) If an entry has been recorded on a duplicate of the record of title referred to in subsection (1)(b) under section 641A of the Local Government Act 1974 or section 36 of the former Act, the Registrar-General of Land does not need to record another entry on the duplicate.

(3) Subsection (4) applies if a building consent authority determines that any of the following entries is no longer required:

(a) an entry referred to in subsection (1)(b):

(b) an entry under section 641A of the Local Government Act 1974:

(c) an entry under section 36 of the former Act.

(4) The building consent authority must notify the Surveyor-General, the Registrar of the Maori Land Court, or the Registrar-General of Land, as the case may be, who must amend his or her records or remove the entry from the record of title.

Appendix 2 – Notice issued to consent applicants subject to natural hazards

IMPORTANT – PLEASE READ

This notice is to advise you that your building consent will be issued by your building consent authority subject to sections 71 to 74 of the Building Act 2004.

When a building consent is requested to build a dwelling or structure on a property, the local authority is required to consider if the work will create or make worse a natural hazard on the property. Section 71 of the Building Act states that a building consent authority must refuse a building consent if the land on which the building work is to be carried out is subject to one or more natural hazards, or the building work is likely to accelerate, worsen or result in a natural hazard on that land or any other property.

However, the consent can be issued if adequate provision has or will be made to protect the land from natural hazard damage. **The building consent is therefore issued pursuant to section 72 of the Building Act – as is the case in your situation.**

A section 74 notification is added to the Certificate of Title whenever the building consent authority (usually a council/territorial authority) has granted a conditional building consent per section 72. The notification alerts prospective purchasers and others with an interest in the property – such as lenders and insurers – that the land is subject to a natural hazard, and specifies what the natural hazard (or hazards) are.

A section 72, 73 or 74 notification may have implications for your insurance cover, including your EQCOVER. For more information please visit www.eqc.govt.nz/what-we-do/house/conditional-building-consents

Please note that EQC has no input in the issuing of a section 72 notice under the Building Act and cannot request a notice be removed. We recommend you speak to a lawyer and your insurer before you make a decision on proceeding with your building consent application.

Our mission: To reduce the impact on people and property when natural disasters occur.

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