

Determination 2008/82

Building consent for a storage shed on land subject to inundation at 58 Brookvale Lane, Taupaki

1 The matters to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“the Act”) made under due authorisation by me, John Gardiner, Manager Determinations, Department of Building and Housing (“the Department”), for and on behalf of the Chief Executive of the Department. The applicant is the owner, Phelps Family Trust (“the applicant”) acting through a firm of barristers and solicitors (“the applicant’s legal advisers”). The other party is the Rodney District Council (“the authority”) carrying out its duties and functions as a building consent authority or a territorial authority.
- 1.2 The application from the owner is in respect of a decision by the authority to refuse to grant a building consent for the construction of a proposed storage shed (“the shed”) unless a section 73 notification is entered on the certificate of title of the land. This is on the grounds that land on which the shed is to be built is subject to flooding (inundation).
- 1.3 I take the view that I must decide:
- (a) whether the proposed building work complies with the provisions of the Building Code² in respect of inundation.
 - (b) whether to confirm, reverse, or modify the authority’s decision to refuse to grant the building consent unless a section 73 notification is attached.
- 1.4 In order to do this I must follow the process described in the Building Act which is illustrated diagrammatically in Figure 1.

¹ The Building Act 2004 is available from the Department’s website at www.dbh.govt.nz.

² The Building Code is available from the Department’s website at www.dbh.govt.nz.

Building Sites Subject to Hazards – Decision Tree

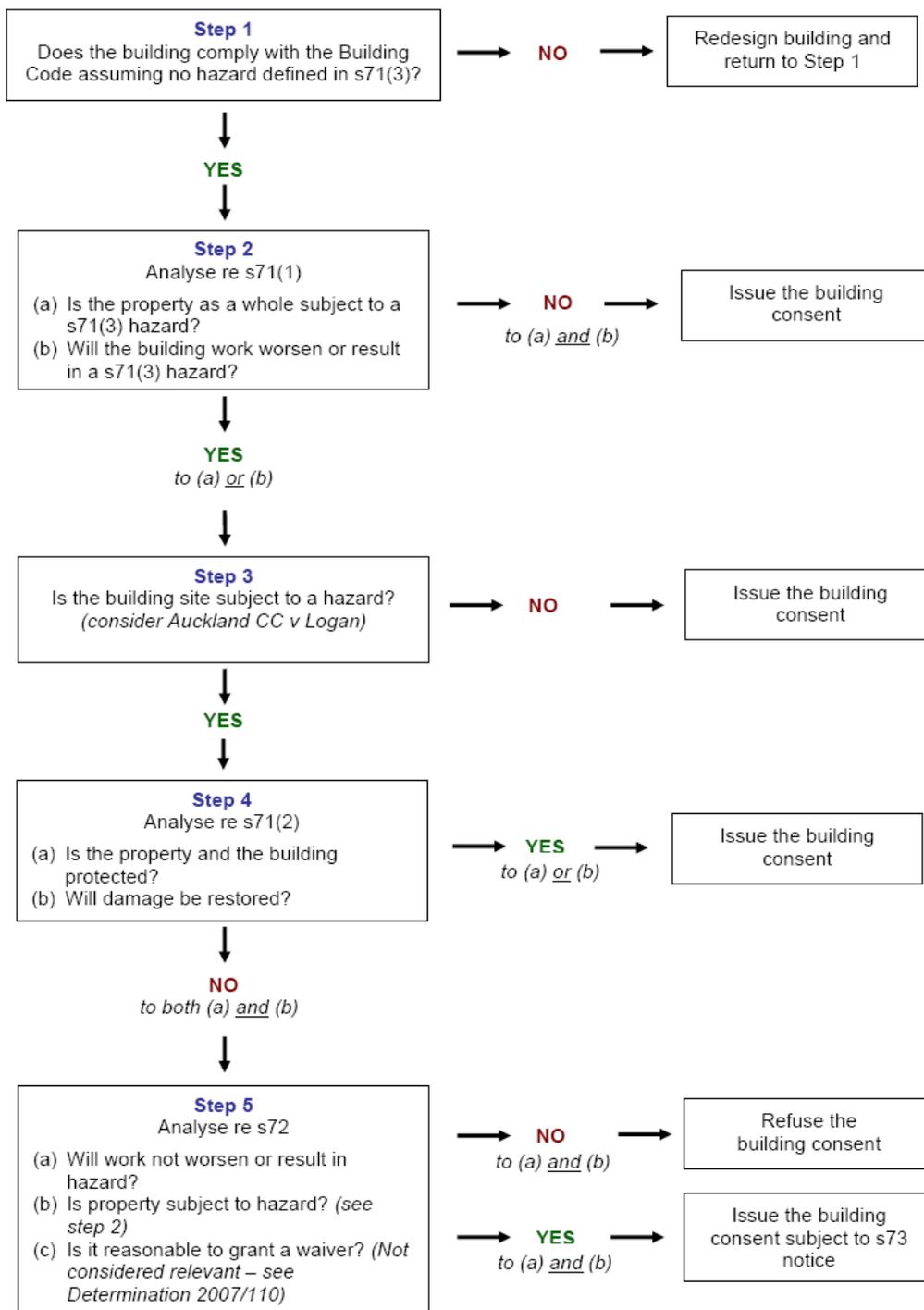


Figure 1: Building sites subject to hazards – the decision process described in the Building Act 2004

Note: to assist interpretation of the Figure refer to paragraph 5 for the wording of the sections 71 - 73 of the Act.

1.5 In making my decision, I have not considered any other aspects of the Act or the Building Code.

- 1.6 In this determination, unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

2 The building

- 2.1 The shed is a proprietary building 15m long x 12m wide in plan and is situated on one corner (“the building site”) of a 4.5 hectare property (“the property”). The shed will have a concrete slab foundation with a floor level that the authority accepts is above the required minimum floor level given in the “consent notice” (refer paragraph 3.5). The property slopes away from the shed and adjoins the Kumeu River at the boundary most distant from the building site.
- 2.2 The authority has provided me with two maps showing the effect of flooding in the general area of the property. The most detailed of these is a 2008 version of the “Kumeu/Kaipara River Catchment Flood Extents” map (“the 2008 flood map”), which shows the results of both 10-year and 100-year events. I am informed by the authority that this map has yet to be formally adopted by the authority. However I am prepared to accept that the information detailed on this document is relevant to my considerations. The other map is a 2005 version of a “1% AEP [Annual Exceedance Probability] Flood Map” (“the 2005 flood map”). This document and an attached enlargement indicate flooding over the whole property in the 100-year event.
- 2.3 Both flood maps are drawn to a very small scale and the property has only been approximately outlined by the authority. However, based on the information that has been provided, I am prepared to accept that the building site is inundated by the 100-year average recurrence interval (“ARI”) event/flooding but not by the 10-year ARI event. However, the majority of property as a whole appears to be affected by both events.

3. Background

- 3.1 According to the applicant, the authority issued a Land Information Memorandum (“LIM”) prior to the applicant purchasing the property. The LIM did not mention that the site was prone to flooding.
- 3.2 The applicant forwarded to the authority a combined building consent and Project Information Memorandum (“PIM”) application that was dated 5 July 2007.
- 3.3 On 9 July 2007, the authority wrote to the applicant, stating that, as insufficient information had been provided as regards the building consent, it was necessary to return the application.
- 3.4 On 18 July 2007, the authority forwarded a copy of the PIM to the applicant. The PIM noted that:

The proposed building work is on land subject to flooding or inundation.
The floor level of the shed should be built at a minimum of 33.5m (LINZ Datum)

- 3.5 On 4 September 2007, the authority wrote to the applicant, noting that the authority was in receipt of a building consent application. It went on to say that the land on which the building was to be erected was subject to one or more natural hazards, namely inundation. Noting that the proposed levels for the building would be above the required minimum floor level given in the consent notice (which I take to be the PIM referred to in paragraph 3.4)), the authority was of the opinion that sections 72(a) and 72 (b) might be satisfied. The authority would be prepared to issue a building consent, subject to section 72. The authority was of the opinion that, in order for it to be able to issue a consent under section 72, and have the appropriate notices attached to the property title, the applicant needed to apply for a notification or waiver of the Building Code in respect of the relevant hazard.
- 3.6 On 19 September 2007, the applicant's legal advisers wrote to the authority and stated that the applicant was unwilling to have a building consent issued if it was issued under sections 72 and 73.
- 3.7 According to the applicant, a second LIM was issued on 24 October 2007 and this showed flood-prone and flow-path areas.
- 3.8 On 13 November 2007, the applicant's legal advisers wrote again to the authority. In summary the legal advisers said:
- Two LIMs were issued to the applicant, and the first made no mention that the property in question was within a 1 in 100-year flood zone. The second LIM, issued on 24 October 2007 showed flood-prone and flow-path areas.
 - The applicant had purchased the property based on the information contained in the first LIM and nothing had happened on the property to warrant the change noted on the second LIM.
 - A consent for a shed on a neighbouring property had been issued without any sections 72 or 73 requirements.
 - The extremely rare occurrence of a 1 in 100-year flood should not be taken into account for the purpose of section 71(1) and accordingly, the property could not be described as a property subject to inundation.
 - Even if the building consent fell within the ambit of section 71(1) adequate provision had been made to satisfy the authority as the application only relates to the construction of a shed, which was not a place of human habitation.
- 3.9 On 4 January 2008, the authority wrote to the applicant's legal advisers stating that reports had indicated that the property was subject to inundation as a result of flooding. This means that the authority could not issue a building consent in light of section 71 which refers to the construction of a "building" (a defined term in the Act) and did not differentiate between habitable and storage spaces. As the authority could only grant a consent under section 72, it must issue it subject to a section 73 notice.
- 3.10 On 5 February 2008, the applicant's legal advisers wrote to the authority noting that they had been instructed to request that the authority issue a building consent under section 72. It was also noted that the applicant would be applying to the Department for a determination regarding the authority's decision.

- 3.11 On 13 March 2008, the authority issued a building consent for the shed. The consent was subject to a number of conditions. The relevant condition in terms of this determination was:
- This building consent is subject to a notice registered against the title of the property pursuant to section 72 and 73 of the Building Act. The Hazard identified is that of flooding.
- 3.12 The application for a determination was received by the Department on 31 March 2008.
- 3.13 Copies of a draft determination were forwarded to the parties on 7 July 2008. The authority accepted the draft without any further comment.
- 3.14 The applicant did not accept the draft and a submission dated 4 August 2008 was forwarded by the applicant's legal advisers. The submission questioned whether the land "intimately" connected with the site would be subject to inundation and whether adequate provision had not already been made to protect the land. In respect of the first question, it was contended the small scale of the map supplied by the authority meant that a correct decision as to inundation of the "site itself" [the building site] could not be made.
- 3.15 As to the second question, it was submitted that if the authority took a "common sense approach" it would take into account the relatively infrequency of the risk in the context of the minor nature of the building work in question, which was the construction of the shed and find in the circumstances that there is adequate provision to protect the land. Attached to the submission was an enlargement of a section of the authority's 2008 flood map and extracts from the *Auckland City v Logan* case that were cited in the submission.

4. The submissions

- 4.1 In a submission, the applicant's legal advisers described the background to the dispute and referred to various sections of the Act and to two previously issued determinations relating to hazards on land. In addition, the submission noted:
- As building work is not required to achieve performance criteria additional to or more restrictive than those prescribed in the Building Code, the authority must accept that code compliant work is adequately protected as required by section 71(2).
 - As the shed is classified as an outbuilding, the Building Code floor level requirements do not apply and the shed accordingly is code compliant.
 - In any event, the authority has accepted in its letter of 4 September 2007 that the proposed floor levels of the shed are above the required minimum floor levels given in the consent notice.
 - As section 71 is not applicable to the consent, then neither is section 72(c), and as the building work is code compliant, no grant of waiver or modification is necessary.

The submission concluded that as the shed was code compliant, adequate protection has been made to protect the building from the natural hazard. Accordingly section 72 was not applicable.

4.2 The applicant forwarded copies of:

- the plans
- the PIM
- the building consent and some consent documentation
- the correspondence with the authority
- two previously published determinations.

4.3 In a submission to the Department dated 9 May 2008, the authority stated that its position regarding the matters in question was the same as set out in its letter of 4 January 2008 to the applicant's legal advisers. Referring to the flood maps forwarded with the submission, the authority noted that only some areas of the property appeared to be above flood level. The authority were still of the opinion that it could only issue a building consent subject to a section 73 notice on the property title.

4.4 The authority forwarded copies of:

- a site and location plan
- the 2005 flood map and enlargement
- the 2008 flood map.

5. The legislation

5.1 The relevant sections of the Act are:

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:
 - (d) ...inundation (including flooding...)

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

Despite section 71, a building consent 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 to the natural hazard concerned.

73 Conditions on building consents granted under section 72

- (1) A building consent 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) . . . the Registrar-General of Land.

5.2 The relevant provisions of the Building Code are:

A1 Classified Uses

7.0 Outbuildings

7.0.1 Applies to a *building* or use which may be included within each classified use but are not intended for human habitation, and are accessory to the principal use of associated *buildings*. Examples: a carport, farm *building*, garage, greenhouse, machinery room, private swimming pool, public toilet, or shed.

E1 Surface Water:

Provisions	Limits on application
Performance	
E1.3.2 <i>Surface water</i> , resulting from an event having a 2 percent probability of occurring annually, shall not enter <i>buildings</i> .	Performance E1.3.2 shall apply only to <i>Housing, Communal Residential</i> and <i>Communal Non-residential buildings</i> .

6. Discussion

6.1 The code-compliance of the building

- 6.1.1 Before sections 71, 72, and 73 can be considered, I must first establish whether the shed would be code compliant assuming that it was constructed on land not subject to inundation.
- 6.1.2 The applicant has submitted that the shed falls into the category of an “Outbuilding”, as defined in clause A1.7.0.1 of the Building Code. As such, the provisions of clause E1.3.2 do not apply to the building. In addition, the authority, in its letter to the applicant dated 4 September 2007, noted that the proposed levels for the shed would be above the required minimum floor level given in the consent notice.
- 6.1.3 Clause E1.3.2 applies only to the classified uses “Housing, Communal Residential and Communal Non-residential” as defined in clause A1. I accept that the shed does

not come within any of these classified uses but within the use “Outbuildings”. Accordingly I consider that, from the point of view of Clause E1 only, there is no requirement in the Building Code for the floor level of the shed to be at any specific level.

- 6.1.4 I accept the applicant’s argument regarding clause E1.3.2. I note also that the authority has not expressed any code compliance concerns. In the absence of any information to the contrary, I am prepared to accept that the shed fully meets the requirements of the Building Code, whether or not it is constructed on land subject to inundation.

6.2 Section 71

Section 71(1)

- 6.2.1 Based on the evidence provided to me, I have accepted that the shed is code-compliant. I must now to consider whether the land on which it is built falls within either of the two categories described in sections 71(1)(a) and (b).
- 6.2.2 I note that the word “likely” occurs in both sections 71(1)(a) and (b). “Likely” in the context of section 64 of the Building Act 1991 (now section 121 of the current Act), has been interpreted as follows:

“likely” does not mean “probable”, as that puts the test too high. On the other hand, a mere possibility is not enough. What is required is “a reasonable consequence or [something which] could well happen”. *Auckland CC v Weldon Properties Ltd* 7/8/96, Judge Boshier, DC Auckland NP2627/95, [1996] DCR 635.

I find that the words ‘likely to cause injury or death’ in [s 64(1)(a) of the former Act, now s 121(a)] mean that the reasonable probabilities are that the building will cause injury or death unless it gets timeous attention. *Rotorua DC v Rua Developments Ltd* 3/3/98, Judge McGuire, DC Rotorua NP966/97.

‘Likely’, as used in [s 64(1)(a) BA91, now s 121(a)], means that there is a reasonable probability (see *Dowling v South Canterbury Electric Power Board* [1966] NZLR 676, 678); or that having regard to the circumstances of the case it could well happen (see *Browne v Partridge* [1992] 1 NZLR 220, 226). *Rotorua DC v Rua Developments Ltd* 17/12/99, Judge McGuire, DC Rotorua NP1327/97

I take the view that those decisions are also good law in respect of the word “likely” in section 71 and can be applied to the current situation.

- 6.2.3 The applicant has expressed doubts as to whether the building site is subject to a natural hazard. While accepting that a 100-year event would flood the property, the applicant considers that this is too high a threshold for consideration under section 71(1). The authority has a different opinion. The applicant has also stated that while areas of the property might be subject to inundation, this may not be the case as regards the building site. The applicant has noted that, as far as it is known, the area of land that the shed would occupy [the building site] has not been subject to flooding. However, the applicant has not provided any technical evidence to verify this contention nor has the applicant commented on the flood maps provided by the authority.
- 6.2.4 I note that the building site occupies only a relatively small area of the property and I must consider whether this is a relevant factor. I am of the opinion that the term “the

land on which the building work is to be carried out” should be considered in the context of the decision in *Auckland City Council v Logan* [1/10/99, Hammond J, HC Auckland AP77/99].

6.2.5 The relevant part of that decision read:

When [the Building Act 1991] refers, as it does, to “the land on which the building work is to take place”, is it referring to the area contiguous to the building or to the land in general? Plainly, the circumstances may vary greatly. The “land” may be a 1000 acre property, on which a new house is to be built. The house may be far away from any potential inundation. Or, as here, the site may be a smallish suburban one, which is earmarked for higher density use, and it is very difficult to dissociate the building from the entire parcel of land.

[Protection of the land refers to protection of] the site itself where (at least as in this case) the building and the site are intimately connected.

6.2.6 That case was decided under the Building Act 1991, which used the phrase “the land on which the building work is to take place”, whereas the Act now uses the phrase “the land on which the building work is to be carried out”. In context, I take the view that those phrases are essentially identical, so that the case is to be accepted as authority for the proposition that “the land on which the building work is to be carried out” is to be interpreted as meaning the land “intimately connected” with the building.

6.2.7 Based on the 2008 flood map provided by the authority it would appear that the building site is subject to inundation caused by a 100-year ARI flood. If this ARI criterion can be applied to this current situation, then I am of the opinion that the land “intimately connected” with the building would be subject to inundation.

6.2.8 The applicant, in its submission on the draft determination, has stated that the maps provided by the authority are not of a sufficient scale for the Department or the authority to make an accurate assessment as to whether the building site is subject to inundation. I have noted that the applicant has provided me with an enlarged section of the 2008 flood map on which the property has been outlined. This is claimed to show that the building site is not subject to inundation. With respect, I note that the enlarged map, as well as not clearly reproducing the detail that existed before, also shows the property to an incorrect scale, showing it to be of a far lesser size than it actually is. Accordingly I am of the opinion that the wrong conclusion is reached that the building site is in an area above the flood level of the 100 year ARI event. From a further look at the 2008 flood map coupled with consideration of the larger scale 2005 flood map I continue to hold the view expressed in 2.3 above, namely that the building site is inundated by the 100 year ARI event, and accordingly do not accept the applicant’s arguments regarding this matter.

6.2.9 Although section 71 does not state what ARI event should be applied to situations subject to inundation, I consider that at least the 100-year event would be appropriate. The life of the shed is indefinite, being not less than 50 years, and, the probability of a 1 in a 100 year event occurring during a 50-year period within the life of the shed is 39%. Without determining the ARI event envisaged by section 71, I consider that as the 100-year event could well happen, this is not too high a threshold.

- 6.2.10 In Determination 2006/112, I discussed the probability of a building experiencing a flood. While the determination related to Clauses B1 and B2 of the Building Code, I consider that the observations I made regarding flooding probabilities are relevant in light of the comments made in paragraph 6.2.8. The relevant paragraphs from Determination 2006/112 are:
- 6.3.9 As for flooding, if a building were required to have a life of 100 years, for example, then there would clearly be a very high probability that it would experience the 100 year (1% AEP) flood during its life (approximately 63% in fact, much more likely than not), and there would also be a high probability (approximately 40%) that it would experience the 200 year (0.5% AEP) flood. Of course, there could well be an asymptotic effect such that at some point the difference between floods with increasingly large return periods becomes insignificant. I recognise that it is not yet possible to assign precise numerical probabilities to some of the events that might cause building failure, but those examples indicate that one must be cautious about describing any particular event as having “a low probability”.
- 6.3.10 Taking that approach, I do not consider that evidence to the effect that there has been no significant erosion over the 64 year period 1942 to 2006 amounts to reasonable grounds on which I can be satisfied that there is a low probability that the house will become unstable or collapse because of erosion occurring during its life. Furthermore, many other factors also come into considerations, such as changes in the contours of the riverbed and so on. The most unfavourable likely scenario must be taken into account.
- 6.2.11 This approach was subsequently accepted by the Court in an appeal from Determination 2006/112³. In the current situation I accept that the shed will have a life of more than the 50 year period analysed in paragraph 6.2.9. Accordingly, based on my consideration of Determination 2006/112 and the information that the authority has provided, I take the view that the building site, as well as the property as a whole, is subject to inundation as defined in section 71(3)(d) (in this case flooding). As such, it falls within the ambit of section 71(1)(a). Therefore, unless the requirements of section 72 apply, the authority must refuse to grant a building consent.
- 6.2.12 The applicant has submitted that the maps provided by the authority are not of a sufficient scale for the Department or the authority to make an accurate assessment as to whether the building site is subject to inundation. I have noted that the applicant has provided me with an enlarged section of the 2008 flood map on which the building site has been outlined. This is claimed to show that the building site is not subject to inundation. With respect, I note that the depth of the property drawn on the extract is shown as a ratio of some 3.5 times its width, whereas all the larger scale drawings show the ratio to be closer to 4.8. This latter ratio extends the property containing the building site into an area subject to both the 10 and 100-year events. In addition, the larger scale 2005 flood maps show that the entire property is subject to a 100-year event. In view of this information, I am unable to accept the applicant’s arguments regarding this matter.
- 6.2.13 Having established that section 71(1)(a) is relevant, it is not necessary at this stage for me to consider section 71(1)(b).

³ *Christine Mary Davidson v Palmerston North City Council* HC PMN CIV-2006-085-1462 [30 May 2008]

Section 71(2)

- 6.2.14 The applicant has submitted that the authority can be satisfied that adequate provision will be made as regards protection and restoration of damage to the land in terms of section 71(2). With respect, even if a “common sense” approach is taken, no evidence has been produced to show that the land has been protected in any way, nor that any damage will be restored. The applicant has also mentioned the relatively minimal risk in relation to the building and has emphasised that the shed is a structure of a “minor nature”. However, I note that the Act does not differentiate between buildings in the context of sections 71 to 73 and I do not accept that the risk is minimal. Accordingly, I do not accept the applicant’s arguments in respect of this matter.

6.3 Section 72

- 6.3.1 Having accepted that the building site is subject to flooding in terms of section 71, I must consider the implications of section 72. This section states that a building consent authority must issue a building consent if all the requirements set out in subsections (a) to (c) are met.

Subsection (a)

- 6.3.2 In the present circumstances, I have not been provided with any evidence that section 72(a) does not apply to the building work relating to the shed. I note also that the shed is a relatively small building. Accordingly, I am of the opinion that the shed 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.

Subsection (b)

- 6.3.3 As I have already decided that the property is subject to inundation then it follows that section 72 (b) also applies. I also note that the authority in its letter of 4 September was of the opinion that sections 72(a) and 72 (b) might be satisfied.

Subsection (c)

- 6.3.4 With regard to section 72(c), I made the following statements in Determination 2007/110:

6.6.5.10 I recognise that a territorial authority may grant waivers or modifications of the Building Code under section 67, but take that to provide a degree of flexibility in recognition that no building code or building regulations can cover all possible contingencies. Indeed, I take the view that as a matter of general law territorial authorities are required to act reasonably when carrying out their building control functions under the Act, see for example *Invercargill CC v Hamlin*⁴. However, the effect of granting a building consent under section 72 is that the territorial authority is exempted from liability under section 392, which could well explain why section 72(c) specifically refers to the reasonableness of a waiver or modification.

6.6.5.10 I therefore conclude that a literal application of section 72(c) would be contrary to the scheme and purpose of the Act in respect of land subject to natural hazards.

⁴ [1996] 1 NZLR 513.

6.6.5.11 In the absence of decided cases, therefore, I take the view that section 72(c) is not to be read as preventing a territorial authority from granting a building consent for building work that complies with the Building Code⁵.

6.6.5.12 Accordingly, I consider that section 72(c) is satisfied if the building work will comply with the Building Code throughout its specified intended life.

6.3.5 Taking into account the above observations, with which I am still in agreement, I am of the opinion that the authority is incorrect in requiring the applicant to apply for a waiver if the shed is code-compliant and it can be shown that the land and the shed are affected by a hazard. Accordingly I am of the opinion that section 72(c) is satisfied even though no waiver or modification is required.

Conclusion

6.3.6 Taking into account my decisions set out in paragraph 6.3, I am of the opinion that the authority was correct in granting a building consent in terms of section 72.

6.4 Section 73

6.4.1 As I have decided that the authority was correct in granting a building consent in terms of section 72, the authority must also issue the building consent in terms of section 73(1)(c). Accordingly, the authority must include as a condition of such a consent that the authority will, on issuing the consent, notify it to the Registrar-General, identifying that the land is subject to inundation.

7 The decision

7.1 In accordance with section 188, I hereby:

- (a) determine that the proposed building work complies with the relevant provisions of the Building Code in respect of inundation.
- (b) confirm the authority's decision to refuse to grant the building consent unless a section 73 notification is attached.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 5 September 2008.

John Gardiner
Manager Determinations

⁵ I also note that although in this case a literal application of section 72(c) would act as a prohibition ("must not grant a building consent") section 72 itself is worded as a direction ("must grant a building consent"), which might be relevant to further consideration of sections 71(1)(b) and 72(a) in respect of, for example, dams constructed so as to "worsen or result in" inundation.