

Determination 2024/053

An authority's decision to grant a building consent under section 72 for building work on land that is subject to a natural hazard of inundation

91 Valley Road, Mount Maunganui, Tauranga

Summary

This determination considers the authority's decision to issue a building consent under section 72 for alterations to a dwelling on a property that is subject or likely to be subject to the natural hazard of inundation by flooding. It considers whether adequate provision to protect the land for flooding has been made.



The legislation discussed in this determination is contained in Appendix A. In this determination, unless otherwise stated, references to “sections” are to sections of the Building Act 2004 (“the Act”) and references to “clauses” are to clauses in Schedule 1 (“the Building Code”) of the Building Regulations 1992.

The Act and the Building Code are available at www.legislation.govt.nz. Information about the legislation, as well as past determinations, compliance documents (eg, Acceptable Solutions) and guidance issued by the Ministry, is available at www.building.govt.nz.

1. The matter to be determined

- 1.1. This is a determination made under due authorisation by me, Andrew Eames, Principal Advisor, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.¹
- 1.2. The parties to the determination are:
 - 1.2.1. S and J Jones, the owners of the property (“the owners”)
 - 1.2.2. Tauranga City Council, carrying out its duties as a territorial authority or building consent authority (“the authority”).
- 1.3. This determination arises from the authority’s decision to grant a building consent under section 72 of the Act for building work on land that is subject to a natural hazard of inundation² by flooding. The building consent includes the condition of a section 73 entry on the property’s record of title. The owners of the property dispute the need for the building consent to be granted under section 72 as they believe adequate provision has been made to protect the land from any inundation that may occur.
- 1.4. Therefore, the matter to be determined, in terms of section 177(1)(b) and (2)(a), is the authority’s decision to grant building consent BC340028 under section 72 and subject to notice being given to the Registrar-General of Land under section 73(1)(c).
- 1.5. In deciding this matter, I must consider whether the owners’ land is likely to be subject to a natural hazard (as required by section 71(1)(a)) and whether adequate provision has been made to protect the land from the natural hazard, in terms of section 71(2)(a).
- 1.6. I have not considered any other aspects of the Act or of the Building Code. In particular, I have not considered whether adequate provision has been made to

¹ The Building Act 2004, section 185(1)(a) provides the Chief Executive of the Ministry with the power to make determinations.

² As defined by section 71(3)(d).

protect the building work and other property as per section 72(2)(a), as this is not in dispute between the parties.

2. The building work & background

- 2.1. The owners' property is a 726m² section with an existing dwelling centrally located. The site slopes from the north-eastern end at the back boundary at approximately 5 degrees levelling out to a 2-degree slope adjacent to the road, having a vertical difference of around 4m between the highest and lowest areas of the site. Soils of 'coastal beach deposits' made up of sand, pebbles, 'marine gravel' and mud are found across the site.
- 2.2. The existing weatherboard house on the property is primarily single level, with a partial basement garage at the front. The upper level of the dwelling has a suspended timber floor on wooden pile foundations, with the rear of the house level with the ground due to the slope on the property. At the front of the house, the garage floor has been excavated so it is approximately 800 mm below the surrounding ground level and a concrete strip driveway extending along the south-eastern boundary provides vehicle access from the road to the basement garage.
- 2.3. In early 2023, the owners applied for a building consent. The proposed building work that has triggered this determination is as described in the plans and specifications for building consent BC340028. This involves:
 - 2.3.1. An extension to the upper level of the house to relocate the entry and form 2 new bedrooms, a study, laundry and toilet. This then forms a carport area below in front of the existing garage opening.
 - 2.3.2. Alterations to the upper level to make the living, dining and kitchen spaces open plan, form a media room and updating the main bathroom. This includes replacing sections of external wall framing, installing new external joinery, and recladding sections of the external walls.
 - 2.3.3. Removal of the existing deck and entrance steps, with these replaced with a new covered deck from the kitchen area on the southwest elevation and a new set of steps and deck to the relocated entry on the southeast elevation.
 - 2.3.4. Replacement of the existing stormwater sump for the garage with a new 'Type 1 surface water sump to comply with NZBC E1 figure 8', with the slope of the surrounding ground altered to assist drainage.
 - 2.3.5. Installing four new soak holes (900mm diameter x 1800mm deep) in the front lawn adjacent to the driveway, with the soak holes connected in series to each other to provide additional on-site stormwater disposal for the house and garage.

- 2.4. A stormwater assessment and soakage design report was provided by a geotechnical engineer (“the owners’ geotechnical engineer”). As the property is in a flood hazard area³, the report noted that the system had been “designed to cater for the critical 1% AEP (100 year) storm event. This is to ensure that there a no negative onsite/offsite effects or nuisance caused to neighbouring properties”.
- 2.5. On 21 February 2024, the authority sent a request for further information to the owners about the inundation hazard on their property. At the time, it agreed that adequate provision had been made to protect the building work from the natural hazard, “...however the land will remain subject to a natural hazard (inundation) and as such[, the building consent] must be granted under section 72...”.
- 2.6. GIS flood mapping carried out by the authority, based on a 1% AEP (annual reoccurrence) storm event to the year 2130 in an RCP 8.5 scenario, as part of its natural hazard mapping database shows that the road is a major overland flow path. This flow path crosses the south-western end of the owners’ property, including part of the concrete driveway. In addition, approximately the front third of the section, the driveway and garage area, and approximately two-thirds of the land under the south-eastern side of the house, are noted to be within the flood zone, with this area stretching through to the boundary with, and continuing onto, the neighbouring property (figure 1).



Figure 1: GIS flood map overlay on the owners’ property and the proposed building work (purple = overland flow path, dark blue = inundation/ponding depths > 300mm, light blue = inundation/ponding depths 100-300mm)

- 2.7. In a letter dated 29 February 2024 in response to the authority’s request for information, the owners acknowledging that the property was ‘subject to an inundation natural hazard’, but stating that section 72 of the Act did not apply because the building work would not accelerate, worsen or result in a change in the

³ Identified by the authorities GIS mapping, see paragraph 2.6

hazard, and adequate provision had been made to protect the land and building from the hazard.

- 2.8. The authority was not satisfied that adequate provision had been made to protect the land, and advised the owners that the building consent would need to be granted under section 72 of the Act.
- 2.9. On 8 March 2024, the authority granted BC340028 under section 72 of the Act and included as a condition “Section 71 - 73: As the building is on land subject to a natural hazard specifically inundation, the [authority] will on issue of the building consent, notify the consent to the Registrar-General of Land in accordance with section 73 of the Building Act 2004.”

3. Submissions

The owners

- 3.1. The owners believe that adequate provision has been made to protect the land from the natural hazard and therefore, the building consent should not have been granted under section 72. Their submissions (in summary):
 - 3.1.1. In the response dated 29 February 2024, to the authority’s request for information, the owners stated that the natural hazard provisions (section 71 – 74) are not relevant to the building consent application because:
 - (1) While the property is subject to a natural hazard of inundation, adequate provision has been made to protect the land as the building work will not accelerate or worsen the hazard on their or other properties.
 - (2) The area affected by the inundation hazard is a ‘lower level garage that is not a habitable space’. Due to the garage already being low lying, surface water naturally drained into it, but this is adequately provided for ‘by a separate stormwater system’.
 - (3) In considering previous determinations on similar matters and using the Ministry’s *natural hazard decision tree*, “an assessment of the effect of the natural hazard on the proposed building work is required, as to whether it will be minimal or trivial”. In similar instances it was considered that the flooding will be of temporary and minimal effect, it had no potential of affecting the land in a way that requires protection from the hazard, and that the flooding would not have the potential to cause damage that will need to be restored.
 - 3.1.2. The owners consider that the modelling/mapping system the authority is using to identify the hazard is not site specific, and the modelling is based on prediction levels of more intense rainfall not supported by evidence. Based on this, they believe the flooding on the property would be of short duration

and temporary following high-intensity storms, and any flooding on the street-end will be minimal.

- 3.1.3. They believe that flooding that may occur does not have the potential to cause damage that will need to be restored, with this in part being due to the 'high rate soakage sand dune type site soils' on the property.
- 3.1.4. The building work within the consent includes on-site stormwater management designed for a 1% AEP event, which protects the land and building work from the authority's modelled flooding.

The authority

- 3.2. The authority maintains its decision to grant the building consent under section 72. It believes adequate provision to protect the land from the hazard has not been made. Its submissions in response to the application for determination are summarised below.
 - 3.2.1. The authority considers 'all of the land forward of the existing dwelling to be intimately connected with the proposed building work. In particular, the front yard of the property is used for vehicle access to the dwelling' and is subject to inundation.
 - 3.2.2. The authority's city-wide mapping shows that part of the owners' property is subject to inundation. In particular, the front of the property, including over the accessway, is within a major overland flow path, while other areas are prone to flood depths of over 300mm. The mapped flooding is from 'rainfall in a 1% AEP event to the year 2130 in an RCP 8.5 (median value) scenario'. It considers that this is not minimal or trivial.
 - 3.2.3. Following additional modelling, the authority has indicated that the flooding to the model of a 1% AEP event, with climate change assumptions to 2130, the low lying 'depression' area to the front of the owners' property would experience ponding for approximately 20 hours, with flood water spillover from the road persisting for approximately 10 hours. It considers these durations would pose a risk "of damage to the land[] and to escape routes for occupants."
 - 3.2.4. The authority 'does not consider that evidence of damage to the land is necessarily required' but that as there is the possibility of damage being caused by the hazard to the land connected with the building work, namely the accessway/driveway and that if damage is done to this area, it would need to be remedied.
 - 3.2.5. In its view, the on-site stormwater measures do not adequately protect the land. The authority has seen no evidence that the measures reduce or

change the impact of the hazard on the land, and ‘the hazard will impact parts of the property that are used for access to the building’.

4. Discussion

- 4.1. The matter being determined is the authority’s decision to grant building consent BC340028 under section 72 and subsequently have an entry registered on the property’s record of title under section 73. The authority made this decision because it believed adequate provision had not been made to protect the land from the natural hazard of inundation.

Legislation

- 4.2. The legislative provisions relating to construction of buildings on land that is subject to natural hazards can be found in sections 71 to 74 of the Act.
- 4.3. Section 71(1) provides that an authority must refuse to grant a building consent for certain types of building work on land that is subject to a natural hazard, while section 71(2) creates exceptions where subsection (1) does not apply.

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.

- 4.4. Section 72 identifies situations where an authority must still grant a building consent for building work, even though the land on which the work is being carried is subject to a natural hazard.

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.

- 4.5. Section 73 describes the conditions that must be included in a building consent when it is granted under section 72, including notification of the consent to the Registrar-General of Land.⁴ Upon receiving the notification, the Registrar-General of Land must record on the property's record of title an entry confirming that a building consent has been granted under section 72 and the natural hazard to which it relates.
- 4.6. As has been previously discussed in Determination 2024/025,⁵ one of the purposes of this entry on the record of title is to make prospective purchasers of land "aware that council would receive specific statutory immunity from liability in return for permission to undertake building work."
- 4.7. Accordingly, in the current case I must consider:
- 4.7.1. whether the land on which the building work is being carried out is subject or likely to be subject to a natural hazard, under section 71(1)(a) and,
- 4.7.2. whether adequate provision will be made to protect the land, under section 71(2)(a).
- 4.8. Neither of the parties has raised a concern about whether the building work constitutes a 'major alteration' for the purpose of section 71(1) so for this determination, I have accepted the building work meets this threshold.

Is the hazard 'likely'?

- 4.9. The hazard in question in this case, in terms of section 71(3)(d), is inundation by flooding.
- 4.10. The authority identified that inundation is likely to occur on the owners' property at some future point through flood modelling. This modelling identifies that the property will be subject to inundation in places during a 1% AEP storm event to 2130 with an RCP of 8.5. Although there is some difference in opinion between the parties as to the accuracy of the modelling due to the RCP scenario chosen by the

⁴ The Surveyor-General and the Registrar of the Māori Land Court are not applicable in this case.

⁵ *Determination 2024/025 An authority's decision to grant building consents under section 72* at paragraph 6.12.

authority, I understand that the parties agree that inundation may occur. I note that neither of the parties has presented any evidence that the owners' property has been subject to actual inundation by flooding in the past.

- 4.11. It has been discussed in previous determinations⁶ the use of the term 'likely'. In determination 2008/082⁷ the discussion took into account a number of court decisions that had looked at the meaning of 'likely', and more recently, this discussion has been referred to in 2024/025. I continue to agree with the statements made in these determinations regarding the meaning of 'likely' in section 71.
- 4.12. In summary of these previous determinations, the approach has been taken that a 1% AEP event is an appropriate measure for whether inundation is likely to occur, as a 1% AEP event 'could well happen' in the life-time of the building, being at least 50 years⁸ in this case.
- 4.13. I continue to consider it appropriate to use this event scale when considering if the owners' land is likely to be subject to inundation as required by section 71(1)(a). Based on the authority's modelling and the parties' presumption that there is a flooding risk, I consider it likely that the owners' property is subject or likely to be subject to inundation.

Is the land connected to the building work?

- 4.14. It is not sufficient that the owners' property is likely to be subject to inundation, as section 71(1)(a) specifies that it is 'the land on which the building work is to be carried out' that must be likely to be affected.
- 4.15. I have discussed this requirement for the 'land' to be 'intimately connected' to the building work in previous determinations. In determination 2021/013,⁹ which covered a scenario similar to the owners' case, with alterations and an extension being proposed to an existing dwelling, I stated that consideration must be given to 'the position of the building work on the property relative to that part of the land affected by the hazard'.
- 4.16. This consideration applies to the owner's property. The building consent plans show most of the alterations will take place in the upper level of the dwelling. However, the upper-level extension is located over the area of the property where it is anticipated that inundation will pool before it is removed by the drainage system –

⁶ See for example determinations 2008/082, 2019/067 and 2024/025.

⁷ *Determination 2008/082 Building consent for a storage shed on land subject to inundation at 58 Brookvale Lane, Taupaki.*

⁸ Clause B2.3.1 provides for building elements to perform for "the life of the building, being not less than 50 years". This is timeframe is also referenced in section 113 of the Act. I have taken these as context for placing the lifetime of the building at 50 years for the purposes of the Act.

⁹ *Determination 2021/013 Regarding the proposed granting of a building consent for an alteration to a building on land subject to a natural hazard at 45 Darlington Road, Miramar, Wellington, at paragraph 6.42.*

namely in the area outside the existing garage where the excavation creates a depression below natural ground level. Other building work is to be carried out in this area, including the construction of a carport and the installation of a new sump leading to the new stormwater soak holes. Another shallower area of flooding is shown on the authority's plans as extending 'under' the dwelling in the areas below where the internal alterations are located.

4.17. Therefore, it is my view that the land that is likely to be subject to inundation is intimately connected with the proposed building work.

Has 'adequate provision' been made?

4.18. Section 71(2) provides that if adequate provision to protect the land, building work and other property from the natural hazard has been or will be made, then section 71(1) does not apply, and a building consent must be granted in the normal way under section 49(1) and without any conditions that would result in a hazard notice¹⁰ being entered against the property title.

4.19. In the current case, the parties have agreed that adequate provision has been made to protect the building work and other property, meaning the only issue in dispute in terms of section 71(2) is whether adequate provision has been made to protect the land. As with section 71(1) the land I must consider is the land on which the building work is to be carried out.

4.20. The owners have submitted that adequate provision to protect the land has been made through the existing and new stormwater disposal systems, which are designed to accommodate a 1% AEP event.

4.21. However, I note that the stormwater collection area used in the calculations for the systems is based on the roofs of the dwelling and hard standings on the property (like the driveway) but does not take into consideration and provide soakage for flooding occurring on the property coming from the roading corridor. I also note that on the plans the new soak holes are proposed to be located within the 1% AEP flood modelled zone and may be underwater during an inundation event and hence less capable of providing additional drainage to that already naturally provided by the soil.

4.22. The authority's modelling shows that any inundation on the owner's property as a result of a 1% AEP storm event, even when modelled to the year 2130 in an RCP 8.5 scenario, is likely to be within the range of only 100mm and 300mm, with the exception of a relatively small area immediately outside the garage. The owners' geotechnical engineer's testing and report shows that the soils underlying the owners' property are sands and silts and are likely to be free draining. Given these

¹⁰ Being the entry required to be registered on the property title under section 73.

factors, I consider that any inundation that does occur is likely to be short lived and of minimal inconvenience to the property's occupants.

- 4.23. While it is projected that inundation will occur, and I have considered it meets the 'likelihood' test of section 71(1)(a), as discussed in Determination 2024/025, inundation occurring in-of-itself is not considered inadequate provision to protect the land. As to its protection, the assessment should consider whether "the land on which the building [will be] situated... [is] likely to be, subject to **damage** arising, directly or indirectly, from [the] natural hazard" with this threshold being set out in section 392(3) (**my emphasis**).
- 4.24. The authority believes that damage may be caused to the property access, being the driveway and any pedestrian paths, as a result of any such inundation. However, it has not identified what this damage will be or provided any evidence to support its view.
- 4.25. Therefore, based on the submissions and information available to me, I consider that no damage to the land arising from the natural hazard has been identified. While the information provided by the authority only includes the data from a 1%AEP event to the year 2030 under an RCP 8.5 scenario. This was raised by the owner but they did not provide any additional modelling. However, I consider any revision of the model to a lower RCP scenario would not increase the likelihood of damage to the land. I therefore consider that no damage has been identified.
- 4.26. As discussed in paragraph 4.20, section 71(2)(a) allows that section 71(1)1 does not apply if adequate provision has been or will be made to protect the land, building work and other property from the hazard. This requirement to protect assumes that damage will occur as a result of the hazard. Otherwise, there is nothing to 'protect' from. In my opinion, this is the case with the owners' property. There is no evidence that an inundation event will damage the land and therefore demonstration of adequate provision to protect the land is not required. Section 71(2)(a) should instead be read as requiring only adequate provision to "...protect the building work, or other property".
- 4.27. As the parties are agreed that adequate provision has been made to protect the building work and other property, section 71(1) does not apply and the applicable pathway for the granting of the building consent was section 49.

5. Conclusion

5.1. I conclude that:

- 5.1.1. the land on which the building work is being carried out is subject to or likely to be subject to a natural hazard, namely inundation and,
- 5.1.2. as no potential damage is identified to the land by the natural hazard, adequate provision to protect the land from the hazard is not required.

- 5.2. It follows that the authority must notify the Registrar-General of Land that the entry on the record of title for the owners' property is not required by the Act and the Registrar-General must amend its records accordingly and remove the entry from the record of title under section 74(4).

6. Decision

- 6.1. In accordance with section 188 of the Building Act 2004, I determine that adequate provision to protect the land from the natural hazard of inundation is not required and therefore building consent BC340028 should have been granted under section 49(1). I hereby modify the authority's decision to grant the building consent to remove the condition of a section 73 entry on the property's record of title.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 1 October 2024.

Andrew Eames

Principal Advisor Determinations

APPENDIX A Legislation

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,—

- (a) in the case of an application made by, or on behalf of, the Crown, the appropriate Minister and the Surveyor-General; and
- (b) in the case of an application made by, or on behalf of, the owners of Māori land, the Registrar of the Māori Land Court; and
- (c) in any other case, the Registrar-General of Land.

(2) The notification under subsection (1)(a) or (b) must be accompanied by a copy of any project information memorandum that has been issued and that relates to the building consent in question.

(3) The notification under subsection (1)(c) must identify the natural hazard concerned.

74 Steps after notification

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

(a) the Surveyor-General or the Registrar of the Māori 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 Māori 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.