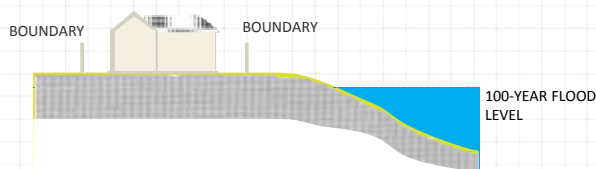


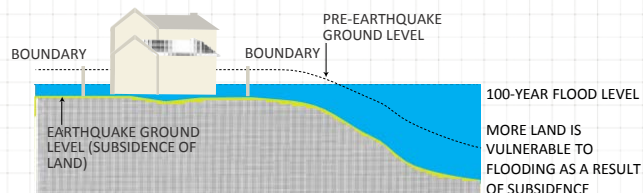
Increased Flooding Vulnerability (IFV)

FACT SHEET - November 2016

BEFORE



AFTER



The above diagram shows how ground subsidence from the Canterbury earthquakes has made some properties more vulnerable to flooding.

About Increased Flooding Vulnerability

Increased Flooding Vulnerability (IFV) is a type of land damage recognised by EQC.

In some parts of Canterbury the earthquakes caused changes to residential land that mean some properties are now vulnerable to flooding where previously they were not. Also some properties are now more likely to experience a greater depth and/or frequency of flooding.

EQC covers IFV damage to insured land. The insured land is the land within the property boundary which is:

- under the house and outbuildings (for example, a garage or a shed);
- within eight metres of the house and outbuildings; and
- under or supporting the main access way from the boundary, up to 60 metres from the house and outbuildings.

EQC uses engineering assessments and reviews as well as valuations to see whether the insured land has IFV land damage. The insured land must qualify under both the engineering and valuation assessments for there to be IFV land damage. This is because IFV damage involves both a physical change to the insured land as well as a loss of utility (or value) of the insured land and the associated residential buildings.

Declaratory Judgment on IFV land damage

In 2014, EQC asked the High Court for a Declaratory Judgment to confirm EQC's approach to IFV settlements. The Declaratory Judgment was heard in October 2014 and decided in December 2014. The Judgment confirmed that IFV is a form of land damage that EQC can recognise. The High Court also decided that in appropriate cases EQC can settle IFV land damage by paying the amount of the Diminution of Value (DOV) – see more on DOV under "Settling IFV Claims" below.

Engineering assessments for IFV land damage

When they assess whether a property has IFV land damage, EQC's engineers address two key questions:

- Is the insured land vulnerable to flooding?
- Has the insured land become more vulnerable to flooding as a result of subsidence of that land caused by the 2010-2011 Canterbury earthquakes?

For the purposes of assessing IFV, EQC's engineers use a 1 in 100 year flood event (also known as a 1% Annual Exceedance Probability) as a base line. This is a commonly used frequency for assessing vulnerability of land in natural hazards. Vulnerability of land to more frequent flood events is also taken into account.

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Flood modelling underpins the engineering assessment

In carrying out their assessments, EQC's engineers started by creating flood models. These models were created to understand the impact of land subsidence on vulnerability to flooding.

To make the models, EQC's engineers:

- gathered topographical information using LiDAR surveys, which involved the scanning of the ground surface from an aircraft after each major earthquake to assess changes in ground height;
- modelled the river flooding for the Styx, Avon and Heathcote rivers using Christchurch City Council models as a base;
- modelled the overland flow (the effects of storm-water runoff) for the catchment areas of the Styx, Avon and Heathcote rivers, Sumner and Kaiapoi; and
- modelled coastal inundation for areas surrounding the Heathcote estuary.

Thresholds applied in the engineers' initial assessment

To identify which insured land has potential IFV damage, EQC's engineers apply the following initial thresholds:

- Has the exacerbated flood depth of the insured land increased by 0.2m or more as a result of the Canterbury earthquake sequence?
- Has the exacerbated flood depth of the insured land increased by 0.1m or more as a result of a single Canterbury earthquake?
- Has the insured land suffered observable land damage as a result of the Canterbury earthquake sequence?

These thresholds were developed to provide a robust initial assessment for most properties.

However, there are exceptions to having to meet all three of the above thresholds in the initial assessment. These exceptions are:

- Event exception:* where the insured land meets Thresholds 1 and 3, but not 2.
- Land damage exception:* where the insured land meets Thresholds 1 and 2, but not 3.
- Uplift exception:* where the insured land is in a specified area where the land has lifted, but it has been shown that the different levels of subsidence within the area have increased the flood vulnerability.

Examples of how EQC applies these thresholds and exceptions

	Thresholds that have been met	Relevant Exception	What is the outcome of EQC's engineers' initial assessment?	Next step
Property A	1 and 3 (but not 2)	Event exception	This property did not meet all three thresholds. It only met Thresholds 1 and 3. But because an exception applies (the Event exception), the property still potentially has IFV.	Site-specific engineering assessment – see next page.
Property B	1 and 2 (but not 3)	Land damage exception	This property did not meet all three thresholds. It only met Thresholds 1 and 2. But because an exception applies (the Land damage exception), the property still potentially has IFV.	Site-specific engineering assessment – see next page.
Property C	2 and 3 (but not 1)	No exception applies	This property did not meet all three thresholds. It did not meet Threshold 1. No exception applies. The property will nevertheless be subject to an area-wide review, and therefore may still be confirmed as potentially having IFV.	Area-wide review – see next page.

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Engineering assessment process

Site-specific assessment

Where the thresholds and the exceptions set out on the previous page had been applied and the insured land had been assessed as potentially having IFV, EQC's engineers next carry out a site-specific assessment.

The site-specific assessment is done by a team made up of an assessor, a checker and a reviewer. This assessment confirms whether a property has potential IFV. Either way, the property is then part of an area-wide review.

Area-wide review

After the initial round of site-specific assessments in an area, an area-wide review (the final engineering review) is carried out. The purpose of this review is to see whether there are any properties that have been inappropriately assessed. As a result, some properties previously assessed will be assessed again for consistency with neighbouring properties and areas. Properties identified in the area-wide review as requiring assessment where they have not previously been assessed, will undergo a site-specific assessment.

In the area-wide review, the engineers take into account, for example, the vulnerability of properties to more frequent flood events.

Area-wide review is the final step in the engineering assessment process which confirms whether a property potentially has IFV.

Valuation assessments for IFV land damage

Only if the property is considered as potentially having increased vulnerability to flooding following the engineering assessment, do EQC's valuers undertake a valuation assessment of the property.

This valuation is the final step in determining whether the property has IFV land damage.

The valuation threshold is:

- Has the increase in flooding vulnerability impacted the market value of:
 - the property? or
 - in the case where the house has been or will be rebuilt, the insured land?

If the threshold is met, then the property has IFV land damage.

Details of the engineering and valuation assessment processes are included in the EQC IFV and/or ILV Land Damage Consolidated Policy, which is at www.eqc.govt.nz/IFV.

Settling IFV claims

EQC's preference is to settle IFV land claims by providing a cash payment based on the amount it would cost to repair or reinstate the land. However, for IFV properties in many cases it will not be possible to identify a repair method to the land which is feasible or able to be done legally. For example, it may not be possible to get a resource consent to carry out the repair.

In these cases, EQC bases the settlement of IFV land damage on the reduction of value of:

- the insured land and the associated residential buildings; or
- in the case where the house has been or will be rebuilt, the insured land only.

This reduction of value is called "Diminution of Value" or "DOV".

For further information about DOV, see www.eqc.govt.nz/IFV.



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You can have your IFV decision reviewed

Customers can ask EQC to review its decisions on whether the insured land has IFV damage and/or the settlement amount paid for IFV damage.

EQC will carry out a review where the customer provides EQC with new information or a different interpretation regarding these decisions.

To trigger a review, a customer may, for example, provide information about:

- the change in flood depths their property has experienced since the earthquakes;
- whether the house has been or will be rebuilt on the property; or
- whether they are going to obtain a consent to repair the IFV land damage.

When EQC reviews its decisions about IFV land damage in light of any new information or interpretation, it includes people with relevant expertise to help consider the issue. The experts included could be, for example, a senior engineer, senior valuer and/or senior settlement analyst.

If you need further information about your IFV claim or about the claim review process call us on 0800 326 243 between the hours of 7.00am to 9.00pm Monday to Friday, and 8.00am to 6.00pm on Saturday. Further information about IFV and the claim review process can also be found on the EQC website at www.eqc.govt.nz/IFV.



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