# Seismic Policy

*Mā te kimi ka kite, Mā te kite ka mōhio, Mā te mōhio ka mārama.
Seek and discover. Discover and know. Know and become enlightened.*

## Purpose

1. This Seismic Policy describes how Te Whatu Ora | Health New Zealand (Te Whatu Ora) will enable a more consistent and effective treatment of seismic risk across buildings that Te Whatu Ora own, occupy, lease, rent or are responsible for.
2. The primary focus of this policy is to provide Te Whatu Ora with a framework for understanding and managing the seismic risk of existing public health facilities or those under consideration of being acquired or leased.
3. This seismic policy supports the Health System Principles as set out in the Pae Ora (Healthy Futures) Act 2022.
4. This policy provides a basis for compliance with the [Building Act 2004](https://www.legislation.govt.nz/act/public/2004/0072/latest/DLM306036.html) (including the [Earthquake Prone Buildings Amendments from 2016](https://www.legislation.govt.nz/act/public/2016/0022/22.0/DLM5616102.html)) and [Health and Safety at Work Act 2015](https://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html).

## Supporting documents under development

1. This policy is to be read in conjunction with our:
	* 1. Seismic Risk Management Strategy
		2. National Asset Management Policy
		3. National Asset Management Strategy
		4. Regional and hospital level Asset Management plans.
2. The above documents are currently under development.
3. The Seismic Risk Management Strategy guides the implementation of this policy with respect to priorities. It sets the direction for seismic work by outlining the implementation response to the Seismic Policy, providing actionable steps to actively reduce earthquake risk across hospital buildings through short, medium, and long-term priority actions.
4. The National Asset Management Policy sets out the Te Whatu Ora commitment and direction for asset management across all our assets and defines the key principles that underpin our asset management practices.
5. The National Asset Management Strategy sets out how to improve the maturity of asset management practice through the development of the frameworks, capability, and planning necessary to lift performance.
6. The Regional and Hospital level Asset Management Plans will identify the risks in the health estate and based on agreed asset levels of service will specify the actions/investment necessary to achieve our objectives and prioritise our investment needs across the health estate.

## Application

1. The policy covers the management of seismic risk in buildings owned and leased by Te Whatu Ora, which covers the building structure and non-structural elements, to ensure safe and fit for purpose facilities for staff, patients, whanau, and those who work on or at our facilities.
2. This Seismic Policy covers the following aspects:
	* 1. seismic risk management of buildings
		2. developing and maintaining current seismic information
		3. seismic design and strengthening objectives (with linkages to the engineering design guidance to be prepared)
		4. the categorisation of health facilities in relation to potential seismic risk, and the priority categories for seismic strengthening, re-purposing, or removal
		5. the requirements for commissioning and understanding seismic assessments and determining resulting actions
		6. decision-making in relation to the continued occupancy of Earthquake Prone Buildings and others rating less than 34%NBS
		7. the requirements for post-earthquake technical response arrangements
		8. requirements for future property commitments (e.g., seismic requirements in relation to a new building acquisition or lease).

## Alignment to Te Mauri o Rongo

1. Te Mauri o Rongo | The Health Charter has given us four pou to guide the development of organisational policies and processes that support the workforce culture we aspire to:
	* 1. Wairuatanga – working with heart, the strong sense of purpose and commitment to service that health workers bring to their mahi.
		2. Rangatiratanga – as organisations we support our people to lead. We will know our people; we will grow those around us and be accountable with them in contributing to Pae Ora for all.
		3. Whanaungatanga – we are a team, and together a team of Teams . Regardless of our role we work together for a common purpose. We look out for each other and keep each other safe. “Whiria te tāngata” – we will weave our people together.
		4. Te Korowai Āhuru - a korowai (cloak) which seeks to provide safety and comfort to the workforce.

## Definitions

1. The following definitions are used for the purposes of this policy:

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| **Trusted Seismic Advisor** | Designated person contracted or employed by Te Whatu Ora whose main purpose is to respond to specific building issues and provide general risk advice in terms of seismic matters.  |
| **IL** | Importance Level i.e., IL2, IL3, IL4 as defined in [AS/NZS 1170 Part 0 Structural Design Actions](https://www.standards.govt.nz/shop/asnzs-1170-02002/).  |
| **%NBS** | The seismic rating of buildings expressed as a percentage of New Building Standard.  |
| **EPB** | Earthquake Prone Building - a building that has received an earthquake prone building notice from a territorial authority.  |
| **Life Safety** | The exposure of people to injury or death from the failure of structural or non-structural elements or their connections during earthquakes. |
| **Non-structural Elements** | An element within the building that is not considered to be part of either the primary or secondary structure (eg. ceilings and lights, partition walls, cladding, building services including lifts and pipe runs). |
| **Priority Response Agreement** | Contract arrangements with engineers for the post-event evaluation of buildings.  |
| **Seismic Hazard Area** | Areas of Low, Medium and High seismic risk (hazard) as defined in [Section 133AD of the Building Act](https://legislation.govt.nz/act/public/2004/0072/latest/DLM7340926.html).  |

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## Seismic risk management

1. The seismic risk management of buildings involves obtaining and communicating seismic information on buildings occupied by Te Whatu Ora staff and patients, and developing and implementing plans to manage risks where identified.
2. This encompasses building structural and non-structural elements, and specialist medical equipment that is directly connected to the structure. The seismic risk associated with contents items not directly connected to the structure is addressed via Health and Safety procedures.
3. The seismic strengthening of operational health facilities is challenging, particularly for those delivering acute services. In many cases strengthening is not a practical option, and seismic risk may be able to be mitigated by other options such as the development of new facilities, or re-purposing of the existing buildings (with or without strengthening).
4. Specific mitigation projects need to be validated as part of asset management planning including site-wide master planning, with careful consideration of practicality, feasibility, buildability, and value-for-money in relation to the ongoing delivery of clinical functions.

## Updating seismic information

1. Updating national seismic information is to be undertaken as a priority. This may involve revisiting older assessments were necessary to take account of heavier non-structural elements and other considerations from the [2017/18 national seismic assessment guidance](https://www.building.govt.nz/building-code-compliance/b-stability/b1-structure/seismic-assessment-existing-buildings/).
2. Additional seismic assessments are to be undertaken on a priority basis that reflects seismic hazard, Importance Level, building typology and the requirements of hospital master planning.
3. The Seismic Risk Management Strategy will outline the prioritisation of obtaining additional seismic assessments, and the form of those assessments. This strategy outlines building typologies that are to be used to categorise health facilities that have already been assessed and to prioritise and guide the scope of further seismic assessments of buildings that have yet to be assessed.
4. All new seismic assessments shall be commissioned via the standard Te Whatu Ora briefing template. The assessment reports shall include a summary table in the Te Whatu Ora format.
5. All new assessments are to be submitted in draft form for review by the Trusted Seismic Advisor prior to finalisation.

## Seismic performance objectives and requirements for new buildings

1. This policy also gives effect to the requirements of the national Design Guidance note: Seismic Technical Guidelines for the Design of Hospital Buildings (under development), which sets out the performance objectives and criteria for the design of new buildings.
2. Once established, the seismic performance objectives and criteria should be followed for the design of all new hospital buildings and strengthening of existing buildings.
3. Prior to these requirements being formally established, the Trusted Seismic Advisor is to be involved in the preparation of project briefs for new hospital buildings.

## Seismic requirements for the strengthening of existing hospital buildings

1. Seismic mitigation is to be considered as part of site-wide master planning, with due consideration of regional service delivery planning.
2. The initial focus for prioritising the planning of seismic risk mitigation is to be on buildings with life safety ratings less than 34%NBS and/or unlikely to support continued functionality, commencing with those in High Seismic hazard areas.
3. The performance objectives and criteria for the strengthening of existing buildings will be established in the Design Guidance note: Seismic Technical Guidelines for the Design of Hospital Buildings (to be prepared).
4. In the interim, the strengthening of IL4 hospital buildings should seek to achieve the recommendations as stated in the [Engineering Assessment Guidelines](https://www.building.govt.nz/building-code-compliance/b-stability/b1-structure/seismic-assessment-existing-buildings/) to attain a 67%NBS (IL4) rating and satisfy operational continuity requirements where practicable.
5. Concept strengthening solutions that evaluate the impacts, costs and functional benefits of more than one option are required to be presented as part of strengthening design development.

## Occupancy of buildings with low seismic ratings

1. This section outlines the framework and process for considering and deciding on the continued occupancy of buildings rating less than 34%NBS (or where other structural shortcomings have been identified).
2. As outlined in the [July 2022 MBIE Seismic Risk Guidance,](https://www.building.govt.nz/assets/Uploads/getting-started/seismic-risk-guidance-for-buildings.pdf) the underlying premise is that very few buildings rating less than 34%NBS are not able to continue to be occupied. The nature of the risk relates to the likelihood of a significant earthquake occurring, with the associated low probability of occurrence in any given year.
3. The 2018 WorkSafe Position Statement outlines the requirements for the owners of an EPB to:
	* 1. Comply with the [Building Act 2004](https://www.legislation.govt.nz/act/public/2004/0072/latest/DLM306036.html)
		2. Monitor new or emerging information
		3. Actively manage work related health and safety risks in accordance with the [Health and Safety at Work Act](https://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html).
4. A key factor in the decision to continue to occupy will be the anticipated time frame before seismic mitigation is undertaken.
5. For buildings rating less than 34%NBS, a specific risk evaluation and decision-making process is to be followed, with outcomes recorded, communicated, and monitored. Our process is to be consistent with the [MBIE July 2022 Seismic Risk Guidance](https://www.building.govt.nz/assets/Uploads/getting-started/seismic-risk-guidance-for-buildings.pdf).
6. This includes basing continued occupancy decisions on %NBS ratings that correspond to 500-year return period seismic demands in accordance with the [MBIE July 2022 Seismic Risk Guidance](https://www.building.govt.nz/assets/Uploads/getting-started/seismic-risk-guidance-for-buildings.pdf) – that is, evaluated against Importance Level 2, rather than 3 or 4.
7. Upon receipt of a seismic assessment with a rating less than 34%NBS, the Trusted Seismic Advisor will review the seismic assessment to verify the nature of the key vulnerabilities identified, and potential impacts on occupants. From this desktop review, the equivalent IL2 (500-year return period) rating will be established.
8. Where the equivalent IL2 rating is at or above 34%NBS, occupancy can continue without further risk evaluation, unless specific concerns have been raised.
9. Where the equivalent IL2 rating is below 34%NBS, the Trusted Seismic Advisor will inspect the building and undertake a specific risk assessment which identifies short-term risk mitigation measures and makes recommendations about continued occupancy. This risk assessment will also provide key communications messages.
10. An evaluation of the operational consequences of not continuing to use the building is also required to be undertaken, documented, and provided as part of the advice relating to the recommendations on continued occupancy.
11. This process will apply to seismic assessments already held by Te Whatu Ora (including buildings that have already received an earthquake prone building notice from the Territorial Authority) as well as further seismic assessments to be commissioned.
12. The decision to continue to occupy (or not) buildings rating less than 34%NBS (IL2) is to be made by the Te Whatu Ora Board or other delegated authority after consultation with the Chief Executive as a Person Conducting a Business or Undertaking (PCBUs).
13. The decision on continuing to occupy buildings with low seismic ratings (or not) will be recorded in a standard template with the risk evaluation memo appended, with copies held at both Te Whatu Ora and the local facility.
14. The seismic status of buildings with low seismic ratings as summarised in the risk evaluation memo, along with plans to manage the short-term risk, is to be communicated to staff and regular users of the buildings.
15. For buildings rating less than 34%NBS and being occupied, it is recommended that as a minimum an annual review is to be undertaken by Te Whatu Ora. The review should identify if any changes have or are likely to occur to either the occupancy of the building or time frames for mitigation or decanting, or to the understanding of the key vulnerabilities.

## Post-earthquake arrangements with engineers

1. Varying degrees of structural and non-structural damage can be expected in health facilities following a major earthquake, particularly in older and/or lower rating facilities. Decisions to either continue to deliver services in a building or evacuate to an alternative facility are significant and need to take into account a number of clinical and functional considerations and compromises.
2. Early and informed engineering input into this decision-making process is essential.
3. Te Whatu Ora is required to have specific arrangements with consulting engineering practices to have post-earthquake building assessments undertaken with priority.
4. This should be in the form of a Priority Response Agreement which sets out the expectations that Te Whatu Ora has of the nominated engineers, and vice versa.
5. Priority Response Agreements are to be in a standard template form. Draft agreements are to be reviewed by the Trusted Seismic Advisor, and final versions authorised by the relevant delegated financial authority.

## Future property requirements

1. Reliable technical due diligence information is required to make informed decisions on the acquisition or lease of a property.
2. This section specifies the steps required to establish the level of seismic risk associated with buildings that are being considered for purchase or lease.
3. All mandated agencies, which Te Whatu Ora is, need approval from Government Property Group (GPG) before acquiring, renewing or ending a lease.[[1]](#footnote-2) For office premises that are office space in the majority and are not classified as having operational functions, the terms of the lease should be discussed and agreed with MBIE’s Government Property Group.
4. Prior to entering a new lease or acquisition of a building, an engineering review of the risk profile is required by the Trusted Seismic Advisor or alternative nominated engineer.
5. This review may identify that further and/or more specific engineering assessment is required (e.g., Detailed Seismic Assessment, Targeted Seismic Assessment).
6. Assessment reports provided by a lessor or vendor are to be reviewed by the Trusted Seismic Advisor to ensure the assessment:
	* 1. Has been carried out by a suitably qualified and experienced engineer
		2. Is consistent with the latest industry guidelines (e.g. [MBIE 2017 Engineering Assessment Guidelines](https://www.building.govt.nz/building-code-compliance/b-stability/b1-structure/seismic-assessment-existing-buildings/)) and any subsequent amendments
		3. Provides a sufficient level of detail and confidence in the resultant %NBS score.
7. It is generally expected that an engineering review or further assessment will not be required for one- and two-story buildings of predominantly lightweight construction.
8. For new acquisitions or leases, buildings should have a %NBS score of 67% or above.

1. The decision to acquire a building with a %NBS score below 67% should only be undertaken if it has been assessed that the strengthening to a minimum of 67% is practical, feasible, and provides value-for-money. For proposed acquisitions in this situation, approval documentation (the investment case) must include an estimate of cost and time requirements for seismic strengthening works.
2. In addition to the minimum %NBS score for new leases, the following provisions should be included in lease agreements:
	* 1. a clearly defined and agreed-upon process to follow if the seismic rating of a leased building falls below 67%NBS (either due to a change in seismic assessment guidelines or because of damage caused by a future earthquake)
		2. determine whether the lessee has the right to terminate a lease in a building if a seismic assessment finds the leased building to have a %NBS score below that when the lease agreement was signed
		3. determine the time frame for seismic strengthening works if they are required to meet the minimum %NBS score outlined in the lease agreement, and arrangements to cover the costs for temporary relocation
		4. a clearly defined and agreed-upon requirement for the lessor to commission a review of the leased building’s risk profile, following any change in the national seismic assessment guidelines.

## Related Standards, Strategies, Policies and Legislation

1. Design Guidance note: Seismic Technical Guidelines for the Design of Hospital Buildings
2. Seismic Risk Management Strategy
3. National Asset Management Policy
4. National Asset Management Strategy
5. [Building Act 2004](https://www.legislation.govt.nz/act/public/2004/0072/latest/DLM306036.html)
6. [MBIE Seismic Risk Guidance for Buildings July 2022](https://www.building.govt.nz/building-code-compliance/b-stability/b1-structure/seismic-assessment-existing-buildings/)
7. [MBIE Engineering Assessment Guidelines July 2017](https://www.building.govt.nz/building-code-compliance/b-stability/b1-structure/seismic-assessment-existing-buildings/)
8. [WorkSafe Position Statement 2018](https://worksafe.govt.nz/dmsdocument/3678-policy-clarification-dealing-with-earthquake-related-health-and-safety-risks)
9. [Health and Safety at Work Act 2015](https://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html)

## Roles and Responsibilities

1. The Board of Te Whatu Ora is accountable to the Public Service Commissioner for Te Whatu Ora’s performance in respect of the Act and this policy.
2. The Chief Executive is responsible to the Board for ensuring compliance with this policy.
3. The Head of Infrastructure Asset Management, IIG is responsible for the implementation of this policy and related standards, guidance, and processes.
4. The Group Manager Asset Risk and Compliance is responsible for updating this policy in accordance with review timelines.

## Non-compliance with policy

1. Failure by staff to fully comply with this policy may result in Te Whatu Ora taking disciplinary action in accordance with the Code of Conduct.

## Monitor and Review

1. Key performance indicators that measure the effectiveness of this policy are incorporated into routine internal audit undertaken by, or on behalf of, the Policy Owner.
2. This policy will be reviewed every three years or when substantial changes are required.
1. https://www.gpg.govt.nz/guidance/leases/ [↑](#footnote-ref-2)