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|  <small>Kaipara te Orangahau</small> KAIPARA DISTRICT <small>Two Oceans Two Harbours</small> | Title of Policy | Dangerous, Affected and Insanitary Buildings Policy | | |
| | Policy owner | Building Control Manager | Authorised/adopted by | |
| | Author position title | Policy Analyst | Date authorised/adopted | |
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Dangerous, Affected and Insanitary Buildings Policy

1. CONTEXT

1.1. Introduction

Kaipara District Council (Council) is required by the Building Act 2004 (the Act) to adopt a policy that covers the identification, assessment, and management of any dangerous, affected, and insanitary buildings within its District, including historical buildings.

Conversions of existing aged buildings, lack of maintenance, overcrowding, and unauthorised building alterations can cause serious building problems for occupants and those who use them. The failure to obtain a building consent or using a building for a purpose for which it is not suitable can result in a building no longer complying with the Building Code and posing a danger to occupants, the general public, and/or other properties.

This Dangerous, Affected, and Insanitary Buildings Policy (the Policy) details how Council will manage these buildings so that they do not pose a risk to public health and/or safety or put any other buildings that are situated within proximity to them at risk.

This Policy replaces Council's Dangerous and Insanitary Buildings Policy 2013.

The Policy is supported by a Risk Framework and Assessment Criteria (RFAC) document that is used by Council staff when investigating a possible dangerous, affected, and/or insanitary building. The RFAC does not form part of the Policy but is included for completeness and to support understanding.

1.2. Legislative framework Part 6 of the Act requires territorial authorities (councils) to determine whether buildings in their districts or cities are dangerous, affected, and/or insanitary. In situations where risks may be linked to fire hazards, Council may seek advice from Fire Emergency New Zealand (FENZ) as being the authority to give that advice. If advice is sought, the Council must give due regard to that advice.

Section 131 of the Act requires this Policy to state Council's:

- approach to performing functions under the Act
- priorities in performing these functions
- how it applies to heritage buildings
- how it applies to affected buildings.

The policy must be adopted (and amended or replaced) following the special consultative procedure of section 83 of the Local Government Act 2002. Council must provide a copy to the Chief Executive of the Ministry of Business Innovation and Employment, once it has been adopted or amended.

If Council is satisfied that a building or part of a building is dangerous, affected, or insanitary, Council may exercise any of its powers or perform any of its functions to that building or part of the building under the Act's provisions.

When exercising its power, Council must be satisfied that the thresholds of dangerous, affected, or insanitary have been met under the provisions set out in the Act. In most cases, Council will seek professional advice on these aspects.

2. THE POLICY

2.1. Purpose

- protect public health and safety from potentially dangerous, affected and/or insanitary buildings
- recognise that historic buildings may require a variation to the normal approach if their particular heritage values could be compromised.

2.2. Definitions

Where a term is used in this Policy that has a meaning defined in the Act, it will have the same meaning as provided Part 6 of the Act.

2.3. Objective

The objective of this Policy is to achieve compliance with the Act and protect public health and safety.

2.4. General approach

Wherever possible, Council will seek the co-operation of the owner and occupant to achieve compliance without resorting to the Act's formal notice provisions; however, this may not always be possible.

Council will adopt a flexible approach to achieve the overall co-operation objective as it is aware of the diversity and dynamics which result in dangerous, affected, or insanitary buildings.

Factors in determining the approach to be taken are included in Council's RFAC document, as attached to this Policy.

The critical factors in determining the approach that Council will take:

- an assessment of the scale and immediacy of risk to occupants and the public
- an evaluation of the likelihood of harm to adjoining properties
- an assessment of environmental impacts including contamination of water bodies
- the availability and viability of alternative options.

2.5. Identifying dangerous, affected and/or insanitary buildings

Council does not have the resources to carry out a systematic survey of the standard of buildings across the District, nor does it need to.

Rather, an investigation into whether a building is dangerous, affected or insanitary will be triggered by one or more of the following:

- the observations of its staff or contractors
- information or complaints received from members of the public or members of professional bodies such as Engineering New Zealand etc.
- events arising following natural or humanmade disasters
- notification from the Ministry of Business Innovation and Employment
- notification from FENZ.

In determining whether a building is dangerous or affected with respect to a fire hazard, Council may seek the advice of FENZ. Similarly, in determining whether a building is insanitary concerning drinking water, waste disposal or weather tightness, Council may seek advice from appropriate sources, such as Council's Environmental Health staff,

technical building specialists, testing laboratories, geotechnical, fire, or structural engineers.

Council may also be guided by relevant legislation, codes, or bylaws, and may choose to seek legal advice.

The Act itself provides several statutory tools for managing identified dangerous, affected and/or insanitary buildings; these include:

- issuing formal notices
- owner carrying out remedial work
- Council undertaking the necessary remedial action/work
- demolition.

2.6. Heritage buildings

Heritage buildings will be evaluated in a manner consistent with assessments for other potentially dangerous, affected and/or insanitary buildings. Council is aware of the protection mechanisms and heritage values that these buildings hold, which is why special efforts will be made to meet heritage objectives.

Discussions will be held with owners and the New Zealand Historic Places Trust to identify a mutually acceptable way forward.

If a dangerous, affected, or insanitary building notice is issued for a heritage building, a copy of the notice will be sent to the Heritage New Zealand Pouhere Taonga as required by section 125(2)(f) of the Act.

2.7. Affected buildings

Affected buildings are those that are within close proximity to either a dangerous building or a dangerous dam. It allows Council to assess and determine a management plan with the owner and/or occupant.

2.8. Investigation

Council will respond to and investigate all alerts received about any dangerous and/or insanitary building. The investigation will utilise the RFAC document, and will include as part of the enquiry the following points:

- review Council records before a site visit
 - understand what consents have been approved for this site; whether a Compliance Schedule exists; the status of the Building Warrant of Fitness / IQP reports; Notices to Fix, etc.)
- review GIS/aerials prior to site visit
 - understand whether there are any natural or humanmade hazards or other issues to be aware of
- how Council was made aware of the situation
- location of the building
- actual site conditions
- previous and current use of the building
- occupancy numbers
- ownership/occupancy details
- whether the public has access to the building, e.g. via the building or adjacent land and waterways
- what aspects of the building are dangerous (all, or only parts of the building)
- whether any neighbouring properties are affected by the potentially dangerous, and/or insanitary building

- what aspects of the building are considered insanitary, e.g. lack of potable drinking water, sanitary fixtures and waste disposal, light, and ventilation or vermin
- how and to what extent these aspects are non-compliant with the Building Code
- who is or was responsible for creating this hazard (e.g., whether authorised or unauthorised work is in progress/completed)
- whether the land or building has heritage status
- priorities (the immediacy) of the issue

2.9. Criteria for determining priority of issue

A building (or part of a building) will be classified as dangerous or affected if it is likely to cause injury or death to the occupants, public or other property.

A building (or part of a building) will be classified as insanitary if it is likely to be injurious to the health of occupants, public, or people on other property.

The *urgency* of the issue will depend on whether the building is occupied or poses a danger to the public or other property; for example:

- land is unstable
- building is structurally unsound and considered dangerous to occupants, the public and/or other property
- building has a high fire risk
- building lacks sufficient protection to occupants, public or other property (i.e., unfenced pool or large-scale excavations)
- building which has poor sanitation and poses an immediate impact on the health of the occupants or the public
- building is inadequately protected against moisture penetration, (i.e., not weathertight).

A building is less likely to be classified as dangerous, affected, or insanitary if it is unoccupied; however, the risk to the public and other properties must still be considered. Council will need to carefully evaluate these issues and determine whether they warrant immediate action to prevent injury or death. Each case must be assessed based on its own merits.

Examples of different approaches include:

- if the risk is significant and cannot be managed or mitigated to ensure public health and safety, immediate action may be warranted.
- if the risk is substantial but can be managed to minimise the risk to the point that provides public health and safety, then the Council may seek a different approach.

There are always risks associated with an event of a fire where death or injury can occur. However, there must be 'particular features' for this risk to be deemed 'likely to occur.' Therefore, Council must first focus on whether the building complies with the Building Code. If the answer to that question is NO, then the next consideration must be to focus on what features do not comply with the Building Code that makes this building dangerous according to the dangerous building definition. A building may be non-compliant with the Building Code; however, this does not make a building dangerous.

Following the site visit and preliminary investigations, Council will determine whether the building is dangerous, affected, or insanitary and, if so, whether to issue a notice and/or take other actions.

Council will consider the cost of effecting remedial work in assessing the various means of reducing the hazard to human life presented by a building that has been identified as dangerous, affected, or insanitary. The Council will explore the availability of alternatives to continued use and occupation of the building, both in the short and long term.

Below is an example of how Council would apply this Policy and the RFAC to investigate and assess a possible risk and produce possible management options for the owner to consider.

Example scenario:

This scenario involves multiple people living in transient accommodation (e.g. a 'backpackers' accommodation), which does not have a fire alarm system. The risk is the loss of life or severe injury occurring due to people being unable to escape in the event of a fire (i.e., not aware of fire or smoke in the building).

| | |
|------------------------------------|---|
| Risk Factor | Extreme |
| Risk type | Fire hazard |
| Building occupied | Yes |
| Sleeping accommodation | Yes |
| Death or injury likely | Yes |
| Can risk be eliminated immediately | No |
| Can risk be eliminated eventually | Yes - install compliant alarm |
| Can risk be minimised immediately | YES Interim measure - provide security guard 24/7 who could raise the alarm in event of emergency and have evacuation plans in place |
| | NO Evacuate the building; apply for building consent or complete work under urgency; obtain CCC / CoA and Compliance Schedule |

In each assessment situation, timing may also impact on the outcome of the site visit. In the above scenario, the risk is extreme because there is sleeping accommodation in the building. If the site assessment is conducted early in the day, a mitigation management plan could be agreed upon between the proprietor and Council by the end of the day, and occupancy may be allowed to continue in the short term.

If conducted late in the day, then this option may not be available, and immediate evacuation and closure of the building may be necessary until a plan has been developed and implemented.

2.10. Enforcement actions

If Council is satisfied that a building is dangerous, affected, and/or insanitary, it may exercise any or all of its power contained between sections 123B to 130 of the Act.

2.11. Records

Where a building is identified as dangerous, Council will have a building note (requisition) placed on the property file where the building is situated. This building note will remain until the danger is remedied. In granting access to information concerning dangerous buildings, Council will conform to the requirements of the Local Government Official Information and Meeting Act 1987 and the Local Government Act 2002. In addition, the following information will be placed on the Land Information Memorandum (LIM):

- the notice issued informing the owner that the building is dangerous and where necessary notice of the requirement to evacuate
- a copy of the letter to owner, occupier and any other person to inform them that the building is dangerous
- a copy of the notice given under section 124(1) that identifies the work to be carried out on the building and the timeframe given to reduce or remove the danger.

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Additional Information

Dangerous, Affected and Insanitary Building Policy 2020

The following pages contain Council's Risk Framework and Assessment Criteria. This document is for information purpose only and does not form part of the Policy. It contains matters to help users to understand, use and implement this Policy. The document may be updated at any time.

Risk Framework

The purpose of this example is to describe a process for systematically and consistently identifying risk. The chance of something happening is measured in terms of consequences and likelihood; this is best described using a matrix¹.

Likelihood - a qualitative description of probability or frequency

| Level | Descriptor | Description |
|-------|----------------|--|
| A | Almost Certain | Is expected to occur in most circumstances |
| B | Likely | Will probably occur in most circumstances |
| C | Possible | Might occur at some time |
| D | Uncertain | Could occur at some time |
| E | Rare | May occur in exceptional circumstances |

Consequence - the outcome of an event expressed qualitatively or quantitatively, being a loss, injury, disadvantage or gain. There may be a range of possible outcomes associated with an event.

| Level | Descriptor | Description |
|-------|---------------|------------------------------------|
| 1 | Insignificant | No injuries |
| 2 | Minor | May require some medical treatment |
| 3 | Significant | Medical treatment required |
| 4 | Major | Extensive injuries |
| 5 | Extreme | Death |

Risk rating – the chance of something happening that will have an impact upon objectives. It is measured in terms of consequences and likelihood.

| Likelihood | Consequences | | | | |
|----------------|---------------|----------|----------|-----------|-----------|
| | Insignificant | Minor | Moderate | Major | Extreme |
| Almost Certain | Moderate | Moderate | High | Very High | Very High |
| Likely | Moderate | Moderate | High | High | Very High |
| Possible | Low | Moderate | Moderate | High | High |
| Uncertain | Low | Low | Moderate | Moderate | High |
| Rare | Low | Low | Moderate | Moderate | High |

Legend:

| | |
|-----------|---|
| Very high | extreme risk; immediate action required |
| High | high risk; senior management attention required |
| Moderate | management responsibility must be specified |
| Low | manage by routine procedures |

¹ Source AS/NZS 4630:1999 Risk Management

In this example, it is assumed that:-

- there is no building consent for the building work being risk assessed; or
- if the work was consented in the past, it is no longer compliant with that building consent

Unauthorised building work means:

- building work for which a building consent has not been obtained when one was required; or
- building work which is considered exempt but does not comply with the Building Code

If the consenting process has been completed and a CCC issued and there are elements of that building work that do not comply then that work is considered non-compliant.

Note: In this scenario, it is likely that the bulk of the building work is compliant (work completed under a building consent) instead of the building work that occurred without a building consent. This is reflected in the risk assessment of unauthorised building work that occurs within a consented building for example, an extension or additions to a dwelling.

Once the outcome has been established i.e. that a building is dangerous and / or insanitary; the risk to other property (i.e. *affected buildings*) must then be considered using the same analysis.

Qualitative Measures of Consequences for Risks

| Rating | Consequences | Description | Examples |
|--------|---------------|--|--|
| 1 | Insignificant | Would not cause illness or injury to any person Loss of amenity Temporary or very minor nuisance or inconvenience | Lack of insulation Unauthorised minor work e.g. carport, deck, small garden shed, temporary noise or odour, disconnected downpipe |
| 2 | Minor | May cause very minor injury to people Very minimal impact if any on people other than those in immediate proximity Minor damage to local physical environment only Significant loss of amenity, widespread impact from noise or odour | Unauthorised addition to existing building; multiple utility sheds on property; garden shed too close to boundary; mild stormwater runoff; tripping or slipping hazard in public place |
| 3 | Moderate | Potential to cause significant injury or illness to people Minor injury or illness to many people May cause some significant damage to property or the environment Can include multiple instances of minor effects long term | Structural elements fail that could cause a person to fall >1.0m but <2.0m Unconsented habitable space Significant storm water runoff Leaky home Persistent noise issues |
| 4 | Major | Serious illness, injury or death to one or more people Significant injury or illness to many people Major degradation to the wider environment (not contained on offending property). | Structural elements fail that could cause a person to fall >2m Non-compliant swimming pool Electrical supply to unauthorised building Sleepout or similar with unconsented sanitary fixtures Expired BWoF or failed systems |
| 5 | Extreme | Serious illness, injury or death to one or more people including building occupants, third parties (neighbours) or the general public. Threatens overall integrity of buildings other than the offending buildings Serious and irreversible degradation to the wider environment (not contained on offending property) | Serious threat to the overall structural integrity of the building such that collapse is imminent and would cause death or serious injury to third parties Public Use building considered unsafe due to fire or insanitary risk whether due to unsafe heating, energy systems or lack of means of escape Building condition could cause very serious harm to due to discharge or improper containment, processing of contaminants or hazards, including industrial and solid wastes Large excavation threatening other property |

Building Risk Factors – Dangerous Buildings

| Risk Factor – B1 | How can this occur? | Impacts | Impact rating |
|--|--|--|---------------|
| a) Deck (including stairs), roof tiles or roofing insecure or foundations / piles weak, removed or unsound | Degradation due to age Poor material quality Poor workmanship Unreasonable weight / loading Natural hazard including subsidence Willful damage Hazard zone not factored Poor design Change of use Fire / Flooding No / incomplete consent | May:- <ul style="list-style-type: none"> • cause a person or persons to fall or trip • prevent access in or out of building • persons to be hit by falling materials • blow on to other property / roads • dampness and moisture issues • misalignment of doors and windows • collapse of building with various impact depending on height, geography of site | Major |
| b) Internal support-bracing weak, removed or unsound | Degradation due to age Poor material quality Poor workmanship Unreasonable weight / loading Natural hazard including wind Willful damage Hazard zone not factored Poor design Fire No / incomplete consent | May cause:- <ul style="list-style-type: none"> • collapse or sag of walls • misalignment of doors and windows • further weakening to main structural elements | Moderate |
| c) Internal support-main structural beams weak, removed or unsound | Degradation due to age Poor material quality Poor workmanship Unreasonable weight / loading Natural hazard including wind Willful damage Hazard zone not factored Poor design Fire / Flooding Relocation of building Nearby excavation or erosion No / incomplete consent | May cause:- <ul style="list-style-type: none"> • full or partial collapse of building | Extreme |

| Risk Factor – B1 | How can this occur? | Impacts | Impact rating |
|--|--|---|---------------|
| d) Flooring weak or unsound (not including surface failure) | Degradation due to age Poor material quality Poor workmanship Unreasonable weight / loading Natural hazard including wind Willful damage Hazard zone not factored Poor design Fire / Flooding Relocation of building Nearby excavation or erosion No / incomplete consent | May cause:- <ul style="list-style-type: none"> injury due to falling through floor illness due to moisture problems | Moderate |
| e) Bridges and retaining walls weak, removed or unsound | Degradation due to age Poor material quality Poor workmanship Unreasonable weight / loading Natural hazard including wind Willful damage Hazard zone not factored Poor design Fire / Flooding Relocation of building Nearby excavation or erosion No / incomplete consent | May cause:- <ul style="list-style-type: none"> collapse an injury or fall nuisance to other property, block road or river a lack of access resulting in isolation of property | Extreme |

| Risk Factor – D1-2, E1, F1-9, G1-15 | How can this occur? | Impacts | Impact rating |
|--|---|---|---|
| a) Unsafe pedestrian access | Slippery surface Unsafe slope Irregular rise in stairs Lack of handrail Ungraspable handrail No landing or at long intervals in stairs Size of landing does not accommodate door opening No / incomplete consent | May cause: <ul style="list-style-type: none"> injury due to tripping, slipping or other hazard | Minor |
| b) Unsafe vehicular access of building | Slippery surface / unsafe slope Inadequate queuing / circulation space Inadequate sight distances Design does not avoid conflict between vehicles and people using or moving to space Safety from falling (lack of barriers or bollards) No / incomplete consent | May cause: <ul style="list-style-type: none"> injury damage to other property | Moderate |
| c) Failure or inappropriate installation or use of a specified system (not fire related) e.g. mechanical installations | Degradation due to age Poor material quality Poor workmanship Not fit for purpose No / incomplete consent | May cause: <ul style="list-style-type: none"> entrapment of person or limbs resulting in injury | Major |
| d) Falling from places other than decks and stairs e.g. temporary site fences, mezzanine levels, etc. <1.0m | Lack of suitable barrier Unreasonable weight Lack of warning No / incomplete consent | May cause: <ul style="list-style-type: none"> injury | Minor |
| e) Falling from places other than decks and stairs e.g. temporary site fences, mezzanine levels, etc. >1.0m | Lack of suitable barrier Unreasonable weight Lack of warning No / incomplete consent | May cause:- <ul style="list-style-type: none"> injury or death | Moderate Major (if fall height exceeds 2.0m) |
| f) Hazardous construction or demolition including access to site by small children | Unlimited access Unmarked projections Open hazards / projections Lack of safe route through site No / incomplete consent | May cause:- <ul style="list-style-type: none"> injury or death damage to other property | Major |

| Risk Factor – D1-2, E1, F1-9, G1-15 | How can this occur? | Impacts | Impact rating |
|---|--|---|----------------------|
| g) Destabilisation of neighbouring property due to construction site | Collapse of land due to poor ground strength No retaining walls in place Silt and erosion Over-excavation of site No / incomplete consent | May cause:- <ul style="list-style-type: none"> injury or death damage to other property | Extreme |
| h) Lack of adequate access or escape route for disabled persons including visibility, width, etc. | Lack of knowledge and awareness Site specific No / incomplete consent | May cause:- <ul style="list-style-type: none"> loss of amenity or inconvenience | Minor |
| i) Harms due to offensive odour, food contamination, inadequate privacy, inability to clean effectively, lack of amenity or other annoyance (excludes facility for load / drainage risks) | Inappropriate sanitary facility provision either for purpose or number No / incomplete consent | May cause:- <ul style="list-style-type: none"> injury or illness damage to property | Moderate |
| j) Contamination from storage manufacturing or processing of food including animal products, medical treatment of humans or animals' reception of dead bodies | Inappropriate sanitary facility provision either for purpose or number No / incomplete consent | May cause:- <ul style="list-style-type: none"> injury or illness damage to property | Moderate |
| k) Loss of fresh air, air temperature or activity space | Lack of ventilation Mechanical air handling system failure or not appropriate No means of removing or collecting cooking fumes, moisture from laundry, steam etc. No/incomplete consent | May cause:- <ul style="list-style-type: none"> loss of amenity or inconvenience illness | Minor |
| l) Loss of noise transmission between adjoining occupancies | Lack of insulation Insufficient sound transmission class. Unreasonable noise levels No / incomplete consent | May cause:- <ul style="list-style-type: none"> loss of amenity or inconvenience illness or injury | Minor |
| m) Lack of natural or artificial light | Poor design Obstruction by neighbours No / incomplete consent | May cause:- <ul style="list-style-type: none"> loss of amenity or inconvenience illness or injury | Minor |

| Risk Factor – D1-2, E1, F1-8, G1-15, H1 | How can this occur? | Impacts | Impact rating |
|---|---|---|----------------------|
| n) Inadequate ventilation or explosion from gas appliance or installation | Improper installation System / product failure No / incomplete consent | May cause:- <ul style="list-style-type: none"> • fire • damage to property • death or injury | Extreme |
| o) Hot water explosion | Lack of pressure relief Temperature too high Unauthorised building work No / incomplete consent | May cause:- <ul style="list-style-type: none"> • fire • damage to property • death or injury | Extreme |
| p) Hot water unavailable | Failure to provide Energy supply failure Unauthorised building work No / incomplete consent | May cause: <ul style="list-style-type: none"> • inconvenience | Insignificant |
| q) Foul odour, noise or other inconvenience | Unauthorised building work No / incomplete consent | May cause: <ul style="list-style-type: none"> • Inconvenience or nuisance | Insignificant |
| r) Unauthorised foul water, industrial waste, solid waste disposal | Illegal dumping System not fit for purpose Unauthorised building work No / incomplete consent | May cause:- <ul style="list-style-type: none"> • illness • contamination of the environment • damage to property | Extreme |
| s) Inefficient use of energy when sourced from a network utility operator or a depletable energy source | Failure to limit uncontrollable airflow Degradation due to age Poor material quality Poor workmanship No / incomplete consent | May:- <ul style="list-style-type: none"> • generate systemic inefficiency • generate unnecessary cost | Insignificant |

| Risk Factor – C, G9-10 | How can this occur? | Impacts | Impact rating |
|---|--|---|----------------------|
| t) Lack of means of escape (including accessible features and signage F8) or lack of, or expired BWOF | No means of egress at all Failure to maintain gates locks Expired BWOF Lack of signage / direction Inadequate for user numbers Unauthorised changes to specified systems or new systems added Alarms, etc. not fitted or appropriate Lack of resource Poor IQP performance Poor inspection, maintenance and monitoring process No / incomplete consent | May cause:- <ul style="list-style-type: none"> • lack of warning of fire resulting in people becoming trapped in a building or part of a building if it catches fire • serious injury from fire or attempts to escape | Extreme |
| u) Unauthorised or unsafe installation or operation of solid fuel heating system | Deterioration due to age Lack of awareness Use of secondhand appliance Use of incorrect material when operating appliance No / incomplete consent | May cause: <ul style="list-style-type: none"> • fire when operated • injury or damage to property | Extreme |
| v) Lack of appropriate fire retardation materials | Unauthorised work Poor installation Poor quality materials No / incomplete consent | May cause:- <ul style="list-style-type: none"> • fire to spread more rapidly • injury or damage to property | Major |
| w) Unauthorised electrical supply installation or electrical supply in unsafe building | Unauthorised connection - no approval from Energy Provider Poor installation Poor quality materials No / incomplete consent | May cause: <ul style="list-style-type: none"> • electric shock and/or fire • injury or damage to property | Major |
| Risk Factor – F9 | How can this occur? | Impacts | Impact rating |
| x) Non-compliant pool barrier, unauthorised construction or lack of pool barrier | Poor audit / monitoring Poor or no maintenance on gates, landscaping, etc. No control of what happens on neighbouring property (boundary fences) Lack of awareness of risk No / incomplete consent | May cause: <ul style="list-style-type: none"> • drowning or injury especially to young children | Extreme |

Building Risk Factors – Insanitary Buildings

| Risk Factor – G1, G12; G13 | How can this occur? | Impacts | Impact rating |
|---|---|--|----------------------|
| a) Insanitary due to lack of potable water supply or contaminated water | No connection to services Contamination of supply at source or by systems materials Lack of filtration Low rainfall No on site retention of water Failure to plan for growth Lack of resource consent Lack of public infrastructure provision Cost prohibitive private solutions Lack of awareness of potable standards No / incomplete consent | May:- <ul style="list-style-type: none"> • cause ill health due to drinking water that is not potable • result in reliance on other methods for obtaining water | Moderate |
| b) Insanitary due to drainage not functioning or non-existent drainage | Degradation due to age Poor material quality Poor workmanship Poor design Nearby works Failure to provide drainage solution Lack of resource consent Lack of public infrastructure provision Cost prohibitive private solutions Misunderstanding of sustainable solutions No / incomplete consent | May cause:- <ul style="list-style-type: none"> • illness from insanitary material • flooding • damage to property | Moderate |
| c) Insanitary due to drainage unauthorised discharge | Lack of resource consent Lack of public infrastructure provision Cost prohibitive private solutions No / incomplete consent | May cause:- <ul style="list-style-type: none"> • illness from insanitary material • flooding • damage to property • damage to environment | Major |
| d) Insanitary due to not enough facilities for loads (e.g. toilets) | Overcrowding due to poverty Overcrowding at events Unexpected increase in user / visitor numbers Inappropriate use / purpose group No / incomplete consent | May:- <ul style="list-style-type: none"> • result in insanitary conditions being perpetuated due to alternative measures being used • cause environmental degradation • cause illness | Moderate |

| Risk Factor – E2, G1-3 | How can this occur? | Impacts | Impact rating |
|---|---|---|---------------|
| e) Insufficient facility for loads on other sanitary fixtures (e.g. bath, shower, hand washing) | Overcrowding due to poverty Overcrowding at events Unexpected increase in user / visitor numbers Inappropriate use / purpose group No / incomplete consent | May:- <ul style="list-style-type: none"> result in insanitary conditions being perpetuated due to lack of facilities cause environmental degradation cause illness inability to wash | Minor |
| f) Moisture ingress or moisture levels too high | Degradation due to age and lack of maintenance Poor material quality Poor design / workmanship Natural hazard including flooding Willful damage Hazard zone not factored Fire / Flooding Relocation of building Lack of impervious surface walls, floors and structural elements in contact with the ground Spaces and cavities transmitting moisture and / or condensation No / incomplete consent | May cause:- <ul style="list-style-type: none"> illness damage to entire structure | Major |
| g) Insanitary due to nature of sanitation facility | Location of facility No / incomplete consent Degradation due to age and lack of maintenance Poor material quality Poor design / workmanship No / incomplete consent | May:- <ul style="list-style-type: none"> not be able to clean facilities to an acceptable standard cause illness | Moderate |
| h) Lack of laundering facilities | Inappropriate sanitary facility provision either for purpose or number No / incomplete consent | May cause:- <ul style="list-style-type: none"> injury or illness damage to property | Insignificant |

RISK MATRIX ASSESSMENT TEMPLATE

| Risk Factor | D, A or I | Impact rating | Likelihood | Risk Rating | Possible options for risk mitigation |
|-------------|-----------|---------------|------------|-------------|--------------------------------------|
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Key:

Impact rating: (1) insignificant (2) minor (3) moderate (4) major (5) extreme

Likelihood: (A) almost certain (B) likely (C) possible (D) unlikely (E) rare

Risk rating: very high, high, moderate, low