



Kaipara te Oranganui

**KAIPARA
DISTRICT**

Two Oceans Two Harbours

Dangerous, Insanitary, and Affected Buildings Policy Panel Deliberations Agenda

Date: Tuesday 15 December 2020
Time: 1.30 pm
Location: On-line via Webex and Facebook

Elected Members: Councillor del la Varis-Woodcock (Chair)
Councillor Jonathan Larsen
Councillor Mark Vincent

*For any queries regarding this meeting please contact
the Kaipara District Council on (09) 439 7059*

Tuesday, 15 December, 2020

1:30 pm

Broadcast live on Facebook

Pages

1. Opening

1.1. Karakia

1.2. Opening remarks

2. Decision items

2.1. Dangerous, Affected and Insanitary Buildings Policy - Deliberations

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3. Closure

3.1. Closing remarks

3.2. Karakia

Dangerous, Affected and Insanitary Buildings Policy - Deliberations

Meeting: Dangerous, Affected and Insanitary Buildings Policy Panel
Date of meeting: 15 December 2020
Reporting officer: Virginia Smith, Policy Analyst

Purpose/Ngā whāinga

To deliberate on the proposed Dangerous, Affected and Insanitary Buildings Policy (the Policy) and make a recommendation to Council on the final proposed Policy.

Executive summary/Whakarāpopototanga

Council has consulted on the proposed Policy and has received no submissions. The Panel must now deliberate and make a final recommendation to Council on the proposed Policy. The staff recommendation is that the Policy as approved for consultation is presented to Council unchanged for adoption.

Recommendation/Ngā tūtohunga

That the Dangerous, Affected and Insanitary Buildings Policy Panel:

- a) Recommends the Dangerous, Affected and Insanitary Buildings Policy as proposed for consultation (Attachment A), to Council for adoption.
- b) Delegates the Chair of the Panel the authority to make editorial changes that do not alter the intent of the policy.

Context/Horopaki

Council determined to consult on the new proposed Policy at the Council meeting on 28 October 2020 and at the same meeting appointed a Panel of Elected Members to hear submitters and deliberate on matters raised in submissions. Public submissions were invited between 2 November 2020 and 2 December 2020. No submissions were received during this period and the scheduled hearing on 15 February 2021 was subsequently cancelled. The Dangerous, Affected and Insanitary Buildings Policy Panel (the Panel) must now deliberate and make a final recommendation to Council.

Discussion/Ngā kōrerorero

There were no submissions made. Staff have also undertaken a final review of the Policy and have no recommendations for any further changes. The Staff recommendation is that the draft Policy as presented at the October Council meeting (Attachment A) be presented at the February 2021 Council meeting for adoption.

Significance and engagement/Hirahira me ngā whakapāpā

The decisions and matters of this agenda do not trigger the significance criteria of Council's Significance and Engagement Policy. Council has consulted with the community on the issues of this agenda in accordance with the statutory requirements of the Local Government Act 2002. The public will be informed via agenda publication on the Council's website.

Next steps/E whaiake nei

Staff will draft a report for Council in accordance with the decisions made at this meeting.

Attachments/Ngā tapiritanga

	Title
A	Proposed Dangerous, Affected and Insanitary Buildings Policy 2020

The Dangerous, Affected, and Insanitary Buildings Policy 2020

Introduction

Conversions of existing aged buildings, lack of maintenance, overcrowding, and unauthorised building alterations can cause serious risks and building problems for occupants and those who use them. The failure to obtain a building consent or using a building for a purpose that 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.

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.

This DAIB Policy details how Council will manage these buildings to ensure that any risks that these buildings pose to Public health and safety or any other buildings within proximity are either mitigated or eliminated.

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 applicable to that building or part of the building under the Dangerous, Affected, and Insanitary Buildings Policy (the DAIB Policy) or the Act's provisions.

When exercising its power under the DAIB Policy, Council must be satisfied that the thresholds of dangerous, affected, or insanitary have been met under the provisions set out in the Act. In some instances, dependent on the complexity of a case, Council will seek professional advice as required, and must give due regard to that advice as part of their investigation.

The DAIB Policy is supported by Risk and Assessment frameworks, that are contained in the Additional Information document. This document will be used by Council staff when investigating a possible dangerous, affected, and/or insanitary building.

The Additional Information document does not form part of the Policy but is included at the end of this document for completeness and to support understanding.

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

The Policy

1. Purpose

The purpose of this Policy is to:

- 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. 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.

3. Objective

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

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 this policy as well as in the Additional Information (AI) supporting documents. The AI documents are used to support Policy implementation, and do not form part of 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.

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 human-made 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 experts, such as Council's Environmental Health staff, technical building specialists, testing laboratories, geo-technical, 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 but are not limited to:

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

6. Heritage buildings

Heritage buildings that are entered on the Heritage New Zealand/Pouhere Taonga List 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 Heritage New Zealand/Pouhere Taonga 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 the Act.

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.

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 inquiry 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 human-made 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 or dam
- 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

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.

It 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 weather-tight).

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 contained in the Building Act 2004. 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, and/or insanitary, and if so, whether to issue a notice and/or take other actions.

Council will consider the cost of effecting remedial work when assessing the various means of reducing the hazard to human life presented by a building that has been identified as dangerous, affected, and/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 with the owner/occupants.

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	
Death or Injury likely	Yes	
Can risk be eliminated immediately	No	
Can risk be eliminated eventually	Yes – By installing compliant alarms	
Can risk be minimised immediately with options	Yes: Interim measures: -Have evacuation plans in place -provide a security guard 24/7 who could raise the alarm in the event of an emergency	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.

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.

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 time-frame given to reduce or remove the danger.



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Additional Information

Supporting document for implementing
the DAIB Policy

Additional Information:

This document is for information purposes only, and does not form part of the proposed draft DAIB Policy. It contains frameworks and information to support the consistent and transparent implementation of the DAIB Policy.

This document and the information it contains is not being consulted on, but has been included in this document for completeness.

This document may be updated at anytime.

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Assumptions used to develop the RFRA Framework

It is likely that the bulk/majority of the building work done to a building is compliant (work was completed under a building consent) rather than the majority of the building work occurring without a building consent. This is reflected in the risk assessment for *unauthorised building work*. Examples can be an extension or additions to a dwelling like a room or a deck.

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 Code of Compliance Certificate ('CCC') issued and there are elements of that building work that do not comply then that work is considered *non-compliant*.

Once the risk (that the building poses) to public health and safety has been established the risk to other property (i.e. *affected buildings*) must then be considered using the RFRA Framework and analysis.

Risk Matrix Framework

The purpose of these matrixes is to provide a framework for identifying risk in a systematic and consistent way that supports the transparency, accountability and implementation of the DAIB Policy.

Using the matrixes below allows the user to:

1. Determine the likelihood of the building posing a hazard to people
2. What the consequence to people would likely be
3. Determine the Risk rating of the building; and
4. Determine the appropriate measures to take in order to either eliminate or mitigate the risk that the building poses to the health and safety of the public. Public meaning any people directly and indirectly affected by the building.

Likelihood Matrix		
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

1. **Likelihood matrix** - This represents the probability of the most likely consequence occurring. It is a qualitative description of probability and frequency

Consequence Matrix		
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

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

Risk Rating Matrix					
	Consequence				
Likelihood	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

3. **Risk rating matrix** - Uses the combined findings of the likelihood and consequence matrixes to determine the building/part of a buildings overall risk rating.

Risk Management Table/Priority	
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

4. **Risk management table** - Is based on the findings of the risk rating. It determines the priority/urgency of the individual case.

Qualitative Measures of Consequences for Risks

Rating	Consequences	Description	Examples
1	Insignificant	<ul style="list-style-type: none"> • Would not cause illness or injury to any person • Loss of amenity • Temporary or very minor nuisance or inconvenience 	<ul style="list-style-type: none"> • Lack of insulation • Unauthorised minor work e.g. carport, deck, small garden shed, temporary noise or odor, disconnected downpipe
2	Minor	<ul style="list-style-type: none"> • 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 odor 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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). 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Serious illness, injury or death to one or more people including building occupants, third parties (neighbors) 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) 	<ul style="list-style-type: none"> • 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

Dangerous Buildings

Building Risk Factors

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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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, blocks roads, causes flooding • 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	<ul style="list-style-type: none"> • 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 another hazard 	Minor
b) Unsafe vehicular access of building	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> •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	<ul style="list-style-type: none"> •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	<ul style="list-style-type: none"> •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 neighboring property due to construction site	<ul style="list-style-type: none"> •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.	<ul style="list-style-type: none"> •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 odor, food contamination, inadequate privacy, inability to clean effectively, lack of amenity or other annoyance (excludes facility for load/drainage risks)	<ul style="list-style-type: none"> •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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Poor design • Obstruction by neighbors • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Failure to provide • Energy supply failure • Unauthorised building work • No/incomplete consent 	May cause: <ul style="list-style-type: none"> • inconvenience 	Insignificant
q) Foul odor, noise or other inconvenience	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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

INSANITARY BUILDINGS

Building Risk Factors

Risk Factor – G1, G12; G13	How can this occur?	Impacts	Impact rating
a) Insanitary due to lack of potable water supply or contaminated water	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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

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