

# Strata disaster: how prepared are our apartment communities for emergencies and disasters?

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# Approach

## How prepared are our apartment communities for emergencies and disasters?

### Sub-questions

- What legislative and regulatory mechanisms are in place to drive a culture of emergency preparedness in our apartment communities?
- What guidance and resources are available to support owners corporations prepare, respond and recover from emergencies and disasters? Where are the gaps?
- What is the baseline of current practice emergency preparedness in apartment communities?
- What are the barriers, challenges and opportunities to improve current practice?

### Cross-sector, multi-stakeholder perspective

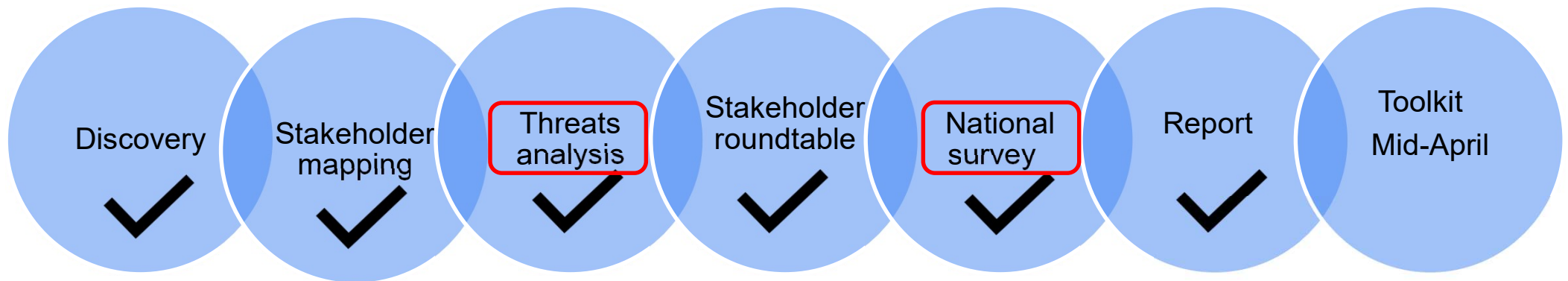
- Individual households
- Strata committees
- Service providers (SMAs, BMs)
- Insurance providers
- Emergency management sector
- Government agencies



## Approach

# How ready are our apartment communities for emergencies and disasters?

*Climate related natural hazards, plant and equipment failures, fire, structural collapse, gas explosion, toxic air quality, biohazards, vandalism, medical, acts of stupidity, crime, mental health etc*



# Apartment living is skyrocketing

By 2040 more Australians will live in an apartment or townhouse than a standalone house.

## Regional towns consider high-rise plans to ease housing crisis in the bush and on the coast

By national regional affairs reporter [Jane Norman](#)

Posted Tue 13 Feb 2024 at 7:28am, updated Tue 13 Feb 2024 at 9:42am



Dubbo's council has approved its first high-rise development — three apartment blocks, of up to 15-storeys.



Source: [ABC News](#)



# AS 3745.2010 Planning for emergencies in facilities



## METRO VILLAGE ROSEBERY

There are examples of good practice to learn from. Sadly, in the case of Metro Village, it took experiencing an emergency first-hand to reveal system failures. To the credit of the owners corporation, they moved quickly to rectify the weaknesses in their safety and emergency management systems.

### What happened?

Metro Village is a large apartment complex in Sydney comprising seven buildings. Spanning almost an entire city block in the inner-city suburb of Rosebery, it has 270 apartments, 12 commercial lots and two underground car parks.

In 2022 a curb side fire started within the complex and adjacent to a high voltage substation. The fire damaged the façade of the building, burnt the door to the substation and sent embers up towards the apartments. Because the fire was external to the building, no alarms were triggered. Despite the obvious danger, very few residents evacuated.

- Metro Village Rosebery compliant with the standard
- Standard written for commercial premises
- Not fit for purpose for residential apartment buildings
- Due for review in 2024



# Systemic failures



In the pre-dawn hours of 24 June 2021, Champlain Tower South in Surfside Miami collapsed, causing the deaths of 98 people. The building was 40 years old.

[Source: Fox News](#)



On 14 June 2017, a combustible cladding fire took the lives of 71 residents of London's Grenfell Tower.

[Source: The Independent](#)



# Systemic failures

## Fire victim Connie's fatal decision

EACH day as she left for university "Connie" Zhang would hug her uncle and wish him a good day. But she didn't make it to uni last week.

CLEMENTINE CUNEO POLICE REPORTER

🕒 2 min read September 13, 2012 - 12:00AM DailyTelegraph



21-year-old student Connie Zhang died on 6 September 2012 when she fell from the ledge of a window attempting to escape a fire that had started on the balcony of a fifth-floor apartment. Her friend Ginger Jiang survived with permanent injuries. Connie's death triggered a major reform of fire safety in Australia.

[Source: news.com.au](http://news.com.au)



# Gas explosion

## Plumbers critical after gas explosion in Bondi Junction

TWO men remain in hospital, one in a critical condition, with serious burns to their bodies after a gas explosion in a Sydney penthouse smashed walls on three levels of the building.

🕒 less than 2 min read March 31, 2009 - 6:24AM AAP



[Source: ABC TV](#)



# Toxic hazards

News > National

## Oven door blown off as drug lab explodes in Broadbeach apartment

RESIDENTS of a Broadbeach apartment were evacuated this morning after a suspected drug lab in the building

LINDSAY SAUNDERS & LEXIE CARTWRIGHT

less than 2 min read March 15, 2016 - 5:22PM Gold Coast Bulletin



Drug lab explodes in Coast unit

[Source: Gold Coast Bulletin](#)

## Two workers hospitalised and 70 people evacuated over toxic chemicals in apartment building in Sydney's inner west

An apartment building has been evacuated and two workers have been hospitalised after two substances were mixed, creating a toxic fume, in Sydney's inner west.



Yashee Sharma Digital Reporter

less than 2 min read June 22, 2023 - 2:10PM sky news COM.AU

0 comments

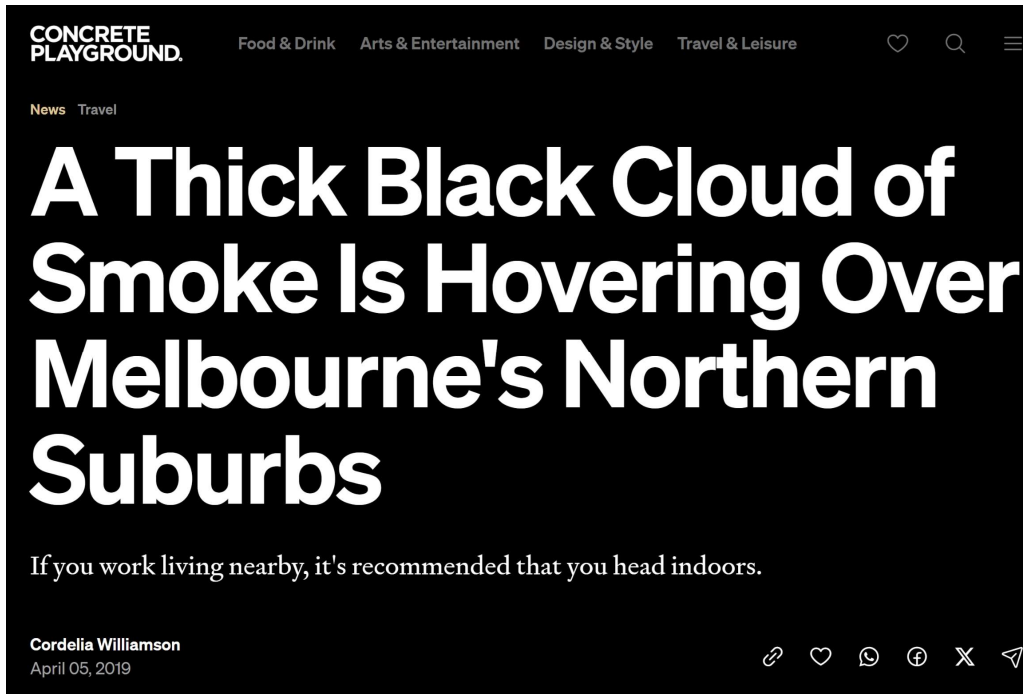
Fire and Rescue New South Wales were called to a complex on Parramatta Road in Camperdown at about 11.15am on Thursday, where chlorine was mixed with hydrochloric acid in a plant room used for a swimming pool.



Fire and rescue were called to the scene. Picture: FRNSW

[Source: Sky News](#)

# Toxic hazards



People with breathing difficulties are being urged to stay indoors, and those with vulnerable neighbours are being told to check on them.

[Source: Concrete Playground](#)





# Flooding

## West End Central Apartments residents still without power after February floods

Forced to use batteries, mini solar panels to create their own electricity – the past three months have been hell for residents of a Brisbane apartment complex. SEE THE VIDEO



Brayden Heslehurst

Follow

 @bheslehurst  2 min read June 3, 2022 - 4:19PM South-East Advertiser


11 comments

“The 10 or 15 residents who are still living here are living off battery power, they’ve got little solar panels on their balconies, they’re going up and down the stairs with torches because the lifts are still out, so it’s pretty wild.

“It takes a long time for a city and neighbourhood to recover from something like this (floods).



Source: Courier Mail



Dean Shoshani and Stav Harari tragically drowned in a underground lift (Image: Facebook)







Mirror

TBALLCELEBSTVSHOPPINGROYALS

### Couple drown in flooded underground lift as residents hear them trying to escape

Dean Shoshani and Stav Harari suffered an unimaginable death after they drowned in a lift in their apartment after rainfall unexpectedly dropped around 100 millimeters per hour

By Monica Charsley, News Reporter10:59, 5 Nov 2023



A young couple who became trapped in an underground lift spent their last moments fighting for breath as they drowned in **flood** water.

Dean Shoshani and Stav Harari, both 25, desperately cried for help after the elevator at their **apartment** building started to fill up with torrential rain in Hatikvah, southern Tel Aviv, **Israel**. The couple could be heard “struggling to exit” the lift which was situated in the building’s underground parking in January, 2020.

Source: Mirror





# Structural defects



Source: [Daily Telegraph](#)

# Acts of stupidity

## Strata reform talks ask: Should bodies corporate be able to issue fines for bad behaviour?

ABC Gold Coast / By Tara Cassidy

Posted Thu 17 Feb 2022 at 6:36am



One person has died and several have been critically injured after falling from Gold Coast high-rise balconies in recent years. (ABC Gold Coast: Dominic Cansdale)

"There's not a great deal you can do about human behaviour — as an owner or body corporate, you can't tell people what to do and regulate human behaviour.

"Even the most level-headed people staying at holiday locations will see the sign about a balcony and go, 'Yeah sure' — but it [just] takes a couple of glasses of wine and they lose a bit of self-awareness.

"The best people can do is try and protect things and hope people exercise responsibility."

[Source: ABC News](#)

National > Queensland > News

## Man jumps off Gold Coast balcony into swimming pool after police called

A man has been caught on camera jumping off the fifth storey balcony of a Gold Coast apartment, seemingly in an attempt to flee from police.

Elizabeth Pike

less than 2 min read March 18, 2024 - 9:25AM news.com.au



The man was filmed dangling off the edge of the balcony. Picture: 9News/Channel 9



He eventually plunged into the pool below before running off. Picture: 9News/Channel 9





# Acts of stupidity

## Police search for four people to assist with inquiries into flooded Olympic Park building that forced the evacuation of 470 people

A RESIDENT has described water rushing into her Olympic Park apartment as like 'a waterfall'. Police are looking to speak to four people captured on CCTV about the deliberate flooding of the complex.

Kimberley Caines

2 min read November 24, 2016 - 3:36PM Inner West Courier Inner West

0 comments

RESIDENTS of an apartment building that flooded at Olympic Park last week have described the aftermath of their damp units as stressful.

More than 470 people were evacuated from the 25-storey building on Australia Ave at 2.30am on November 13 following the flooding of the apartment block.

The incident is being treated as suspicious with damage estimated at \$3 million.

Police are searching for four people who they think might be able to help with inquiries. They have released CCTV images of the individuals hoping the public might be able to recognise them.

[Source: Inner West Courier](#)

National > Queensland > Courts & Law

## 'Drunken, stupid, inexplicable': Man floods unit complex

A man flooded dozens of units in a Brisbane residential block during what a judge called a "drunken act of stupidity".



Blake Antrobus

@bt\_ant 2 min read November 29, 2022 - 2:29PM NCA NewsWire

"It was a drunken, stupid, inexplicable and tragic error of judgment which had profound consequences," Kornaus' barrister Daniel Boddice said during Tuesday's sentencing.

Crown prosecutor Edward Fleetwood said Kornaus was visiting a friend at Vicinity Apartments in Woolloongabba on February 19, 2021.

After 2am the next day, fireys were called after reports of water inexplicably flowing into the elevators.

The court was told Kornaus had been captured on CCTV opening fire hydrants in the stairwells on floors six and seven.

Mr Fleetwood said this activated diesel pumps, which pumped about 1000 litres of water per minute through the building – all the way down to the ground floor.

"The water flowed unabated for approximately 30 minutes before being turned off," he said.

About half the units in the building were impacted, forcing residents to leave

"Electricity was restricted and elevators couldn't be used for some time," Mr Fleetwood said.

"The damage was in excess of \$500,000 and the body corporate was approximately \$10,000 out of pocket."



Kornaus also removed fire extinguishers in the complex along with signs showing where the apparatuses were located.

[Source: NCA NewsWire](#)



# Psychosocial hazards



**Couran Cove residents angry after body corporate stoush**

[Source: 7 News](#)

10/08/2023, 14:05

This Sydney strata nightmare started as a power struggle — then the police were called - ABC News

**7 NEWS**

## **This Sydney strata nightmare started as a power struggle — then the police were called**

By [Amy Greenbank](#)

Posted Sat 27 Nov 2021 at 7:16am, updated Sat 27 Nov 2021 at 10:16am



Police called to fiery Sydney strata meeting



# Biohazards

## Apartment building owners and managers urge plans for dealing with COVID-19

By [Sue Williams](#)

June 25, 2021



Apartment buildings are in the spotlight amid the latest virus outbreak. Photo: iStock

Apartment buildings have the capacity to be super-spreaders of COVID-19 “like vertical cruise ships”, but the state government has completely ignored the potentially catastrophic dangers, those in the sector claim.

[Source: Domain](#)

## Coronavirus spread in high-density towers comes from proximity, shared spaces and even ventilation, researchers say

By national science, environment and technology reporter [Michael Slezak](#) and the Specialist Reporting Team's [Rahni Sadler](#)  
Posted Wed 8 Jul 2020 at 5:10am, updated Wed 8 Jul 2020 at 9:16am



Residents of public housing towers in Melbourne have been in hard lockdown since the weekend. (ABC News: Dan Harrison)

[Source: ABC News](#)





# Emerging hazards – heatwaves

CONSTRUCTION & DEVELOPMENT

## Melbourne apartments pose health threat during heatwaves

CAMERON JEWELL 13 MARCH 2017



Melbourne apartment blocks



## WHY APARTMENTS ARE FAILING THE

heat stress test

PURSUIT

If the power goes off during a heat wave most of Melbourne's apartment blocks would fail international health standards, research shows

*By Andrew Trounson, University of Melbourne*

If a heatwave hit Melbourne and the power blacked out, most apartment buildings would bake, with indoor temperatures exceeding international health standards, according to a new [analysis](#) that calls for Australia to adopt standards to protect occupants against heat stress.

[Source: The University of Melbourne](#)





# Emerging hazards – smoke haze



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"The length and density of smoke exposure is a new and possibly fatal health risk that many people within our community have not previously had to face." - @amapresident warns of new health risks [#AustraliaOnFire](#) [#AustraliaBurning](#) [#AustraliaBushfires](#)



**Regi Harbron**

@regih85 · [Follow](#)

Smoke is so bad in the city its setting alarms off in buildings in the city, about 4 currently going off near world square [#bushfiresNSW](#)



Image source: ABC TV



# Emerging hazards - critical infrastructure outages

## Water leak causes Gold Coast high-rise tower Avani to lose power, residents forced out

ABC Gold Coast / By Mackenzie Colahan

Posted Thu 7 Dec 2023 at 6:41pm, updated Thu 7 Dec 2023 at 7:33pm



Occupants of the Avani Broadbeach (centre) have been told to find alternate accommodation. (Supplied: Avani Hotels)

Property lawyer Guy Gibbons labelled the situation "catastrophic" and said it would likely involve a messy and drawn-out dispute with insurers about who was at fault.

"In the 21st century you don't really expect water ingress in a building to essentially evict hundreds of people," Mr Gibbons said.

"There is a whole daisy chain of potential liability here.

"The issues is how did this happen and who owes a duty of care to have prevented it."



[abc.net.au/news/broadbeach-avani-hotel-b...](https://abc.net.au/news/broadbeach-avani-hotel-b...)

[Copy link](#)

[Share article](#)

Source: [ABC Gold Coast](#)



# Domestic violence

## NSW Police start critical incident inquiry after woman found dead more than 20 hours after triple-0 call

By Paulina Vidal

Posted Sun 28 May 2023 at 7:42pm

"Police arrived ... and were presented with 297 units and no obvious offence in front of them," Assistant Commissioner Smith said.

"That was referred then to every shift that followed that and further inquiries were made there."



The woman was found in a unit in an apartment complex in Liverpool. (ABC News)

Analysis / Crime

## 49 women have been killed in 2023 as a result of violence. Are we actually making progress?

While certain statistics show a promising downward trend in domestic violence, there is clearly a long way to go.

ANASTASIA POWELL, JACQUI TRUE, KRISTIN DIEMER AND KYLLIE CRIPPS NOV 20, 2023 8

[Share](#)

## Domestic violence crisis: Number of women allegedly killed in family violence incidents soars

By Cason Ho and Georgia Roberts

Posted Wed 1 Nov 2023 at 2:46pm, updated Wed 1 Nov 2023 at 6:04pm





# Baseline of current practice – Households

## HOUSEHOLD PREPAREDNESS

**Q16. Does your household have any of the following? (select all that apply) n=635**

The survey results show a low baseline of household preparedness and self-efficacy

<b>97%</b> don't have a Household Emergency Plan*	<b>85%</b> don't have a 72-hour supply of non-perishable food and drinking water	<b>75%</b> don't subscribe to early alert notifications (like Hazards Near Me)	<b>60%</b> don't have an Emergency Kit
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\*By comparison, [NRMA reports](#) 61% of the Australian population don't have a Household Emergency Plan (n=3500)

## SITUATIONAL AWARENESS

**Q17. In the event of an emergency or disaster in your building, do you know the location of the following? (yes, no, unsure, NA) n=634**

The survey results show low levels of situational awareness in relation to building safety systems that could prove catastrophic in an emergency.

<b>56%</b> don't know the location of the evacuation or meeting point	<b>44%</b> don't know the location of utility shut off points	<b>37%</b> don't know the location of the fire safety panel
<b>74%</b> don't know the location of the nearest safety refuge or community facility	<b>32%</b> don't know the location of the nearest fire extinguisher or hose	



*Reading this list makes me realise yes Body Corp really should provide this info to everyone on moving in week.*

*I only know these because I'm the Chair and have lived here 30 years so people come to me for everything .*



# Baseline of current practice – Households

## PERCEIVED BARRIERS TO EVACUATION

Q18. If you were required to evacuate your building, what would delay you from leaving immediately? (multi-choice, select all that apply) n=635

40% general lack of preparedness	37% concern for my belongings	16% not having somewhere else to go
16% safety concerns	13% not knowing what to do with my pets	6-10% reported limited finances, medical or health condition, mobility issues and lack of transport



*I would not delay but I think some neighbours may hesitate due to lack of trust in building management*

*The only things that would delay me is gathering identity documents and if my cats were still roaming outside, I would find them first before I left*

*Not sure what the signal is to evacuate my building*

*Building is overcrowded. There's no way we would all get out safely*

Q.34 Are there residents in your building that you think would be vulnerable during an emergency or a power outage?

61% live in a building with other residents they perceive may be vulnerable during an emergency or power outage.



*I have dementia and am 88 years old. Whilst my neighbours are fantastic, I would have to rely on them to get down 10 flights of stairs in an emergency. This makes me very anxious.*

*I don't have certainty of being able to respond to an emergency in my own right. I have a cat who is a companion and I certainly cannot cage the cat and bring it with me on my own. I couldn't carry her and my emergency pack with pills etc.*

## SOCIAL CONNECTEDNESS

Q22. How would you describe the overall sense of community/neighbourliness in your building? (poor, average, strong) n=628

The survey results suggest higher levels of social connectedness than anticipated.

See also Q16, 20, 23

48% describe the sense of community in their building as average, or about right	55% have the contact details for at least one neighbour they could call on for help in an emergency	50% know at least 25% of their neighbours by name <sup>4</sup>
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<sup>4</sup> By comparison, results from the national [Australia Talks](#) survey report 62% of respondents know their neighbours by name (n=60,000)



# Baseline of current practice – Committee

## EMERGENCY RESPONSE PLANS

Note: The survey measured the proportion of buildings that have voluntarily adopted some form of emergency response plan or protocol. Owing to confusion between the terms 'emergency plan' and 'evacuation plan', the actual proportion of buildings with some form of coordinated emergency plan is likely to be lower than the reported 16%.

**Q11. Does your building have an Emergency Response Plan, Crisis Management Plan or equivalent? n=205**

<b>16%</b> have an Emergency Response Plan	<b>35%</b> unsure how often the plan is reviewed	Super high-rise buildings are more likely to have an emergency plan
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**Who was involved in developing the plan?**

<b>3%</b> residents	<b>50%</b> committee members and building manager	<b>35%</b> strata managing agent	<b>20%</b> safety/risk consultant
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# Baseline of current practice – Committee

## RISK MITIGATION MEASURES

Q15. Does your building have any of the following? (n=197)

<b>52%</b> master contact list	<b>37%</b> site plans, engineers drawings, electrical line diagrams	<b>35%</b> emergency trades list (on display)	<b>23%</b> operating manuals and warranties for key plant & equipment
<b>16%</b> emergency communication protocol	<b>14%</b> list of vulnerable residents & pets	<b>14%</b> defibrillator training	<b>13%</b> fire safety drills
<b>9%</b> first aid training	<b>8%</b> nominated emergency coordinator	<b>6%</b> fire warden training	<b>5%</b> pre-approved discretionary budget for emergency response
<b>1%</b> emergency powers by-law to deny access to the building	<b>0%</b> media/Public Relations plan	<b>0%</b> details of the insurance company visible from the outside of the building	<b>28%</b> none of these



*I have said several times that we should attend to these points but it has yet to happen*

*Getting residents, both owners and tenants, to actively participate in anything (e.g, fire safety drills) is impossible*

*We are a super high-rise building and have fire and floor warden training every 6 months with TrimEVAC*



# Baseline of current practice – Committee

**Q17. Which of the following barriers would prevent your committee from developing an Emergency Response Plan? (select all that apply) (n=192)**

<b>56%</b> Skills or knowledge gaps	<b>53%</b> Disengaged owners	<b>38%</b> Time constraints	<b>35%</b> Competing priorities
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*Motivation is the issue. Nobody in our building foresees a flood, a fire, an earthquake and the motivation isn't there*

*About 70% of owners are generally un-engaged in any matters concerning effective management of the complex and its finances*

**Q18. Who would you be most likely to seek advice from if you were to develop an Emergency Plan? (open-ended) (n=192)**

Respondents were most likely to refer to their strata managing agent or building manager for advice on developing a plan. Other sources were safety consultants, local council, Owners Corporation Network and Fire and Rescue. Many respondents were unsure and only a few respondents mentioned drawing on the skills and expertise of residents.



*I thought our building managers may have been across emergency protocols but unfortunately they are not*

*I'd expect the Strata Management company we employ to have suitable Emergency Plans for all the different types of buildings they manage*

*Shared input from key residents and committee members who have professional backgrounds*

*Our committee would have the skills, just not the time and energy to initiate this project*





# Baseline of current practice – Committee

**Q19. What would incentivise your committee to develop an Emergency Response Plan?**  
(select all that apply) (n=192)

<b>78%</b> online templates and resources	<b>56%</b> online education and training	<b>54%</b> State or local government financial assistance (i.e. rebate, micro grant)
<b>54%</b> Financial incentives from insurance companies	<b>48%</b> Regulation	



*We need to raise the awareness (inside and outside our strata committee) of what could be an emergency \*relevant to our strata building\*. It's not on our radar screen currently.*

*Online sources of templates and procedures to follow would be very useful*

*We find it difficult to find appropriate expertise on what our legal obligations are. So assistance in deciding what is necessary vs sensible vs not required would be really helpful. We need the government to be in charge instead of leaving the private providers that do not have interest on us but the shareholders.*

*Encouragement from the strata manager*

*There are so many other priorities, and so any emergency planning is low on our list of priorities.*

*Regulations or rebates from insurance companies is the best way to get movement in strata schemes I find.*

*Support and advice that is specific to the type of building we are in. Residents are tired of implementing things that are clearly more applicable to different types of residences. And these things come with costs. WHS/Fire/Locks/10 year plans/ safety checks etc etc*

*Clearer rules governing strata living and I would like to see more information on what it means living in strata provided to all new owners and residents*



# Takeaways

- Know your statutory obligations to act with due care
- Remember that *doing nothing* is a decision
- Residents and committees need to and want to do better
- Be curious. Make it known that you are needing guidance
  - Ask others what they are doing
  - Ask your local council how they can support you
  - Ask Fair Trading, Fire and Rescue agencies, your strata manager, building manager, insurance provider
  - Involve all residents, not just owners.

Stand by for template resources, case studies and more coming to the Owners Corporation Network website soon!



[www.ocn.org.au](http://www.ocn.org.au)