

Results of VISOA Survey: 2021 Heatwave and Housing Adaptation

The [Vancouver Island Strata Owners Association](#) thanks the 208 people who completed this survey from March 19 – 23, 2022.

Who Was This Survey For?

Section 1 was for any strata owner or tenant who resided in a strata unit in British Columbia during the heatwave (“heat dome”) that created temperatures above 40°C from late June to early July, 2021. Section 2 was for persons who were council members during that event. Council members were encouraged to complete both sections.

Purpose Of Survey:

This survey was part of a community engagement consulting project conducted by students of Royal Roads University, in partnership with the City of Victoria and District of Saanich. This project was part of the course work for *DEMN 602 - Advanced Professional Practice: Planning for Resilience in an Age of Uncertainty*, a course in the *Masters of Arts in Disaster and Emergency Management (MADEM)* in the *School of Humanitarian Studies*. The students conducting research were members of a cohort in residence who are taking this course.

Objective:

The objective of the students’ project was to assess and make recommendations to enhance disaster preparedness and resilience in local communities and organizations. Teams gathered information on hazard, risk and vulnerability and the range of measures in place or that could be developed within the community or organization to increase resilience. The benefits of participating included contributing knowledge that may help improve organizational or community level disaster preparedness and resilience.

Visit:

Videos about cooling, heat pumps, and windows for stratas: [YouTube.com/VISOAvideos](https://www.youtube.com/VISOAvideos)

District of Saanich: [Saanich.ca/homecooling](https://www.saanich.ca/homecooling)

City of Victoria: [Climate Action](#)

Royal Roads University: [Disaster and Emergency Management](#)

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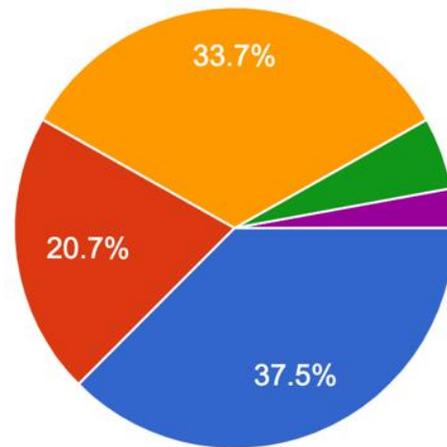
[10 Questions for Owners and Tenants](#)

[14 Questions for Strata Council Members](#)

10 Questions for Owners and Tenants (208 responses)

What type of building is your strata unit located in?

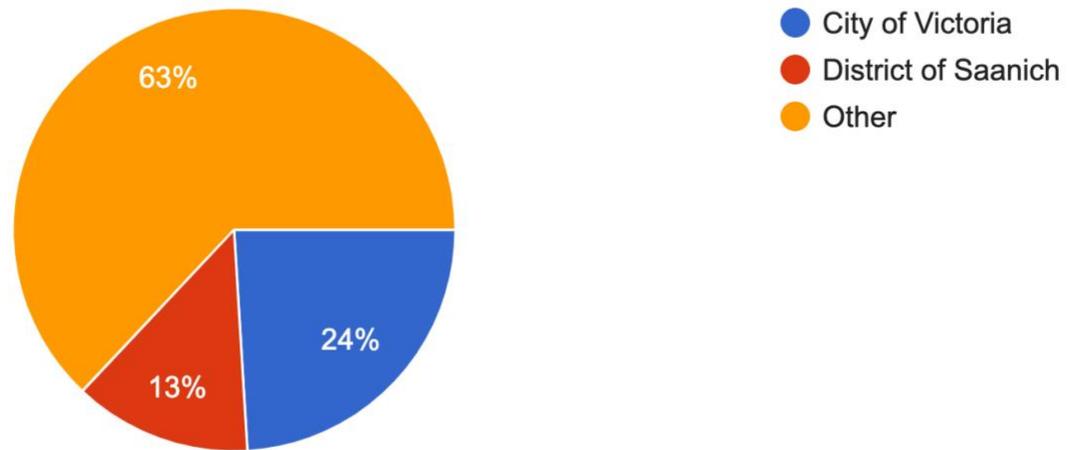
208 responses



- Duplex or townhouse
- Apartment style condominiums in a building of 3 stories or less
- Apartment style condominiums in a building of 4 or more stories
- Bare land strata
- Other

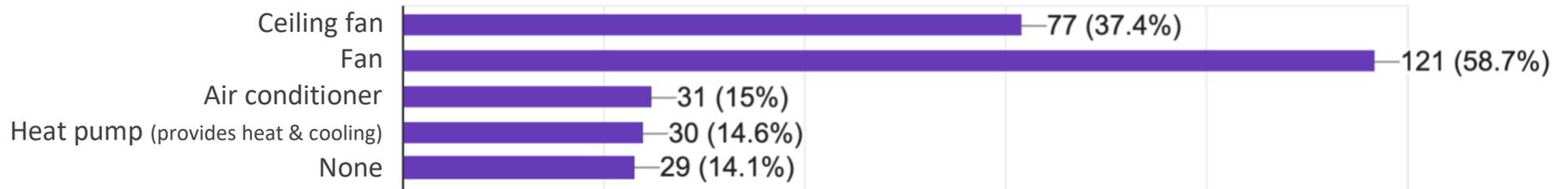
Where is your strata located?

208 responses



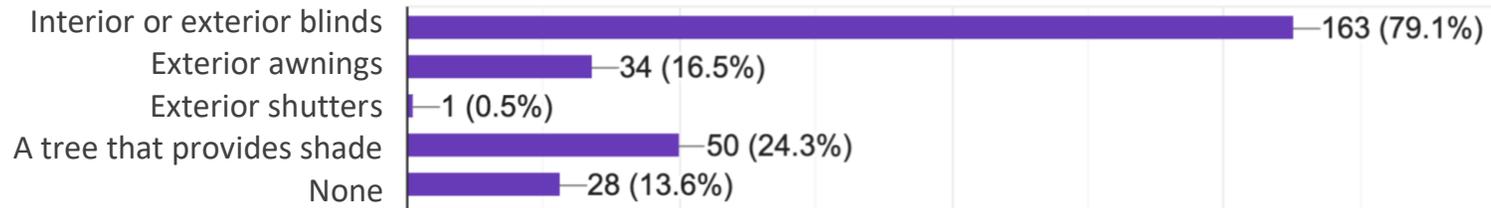
What mechanical cooling measures do you have in your unit? Select all that apply.

206 responses



What passive cooling measures do you have to reduce the temperature in your unit due to heat from the sun? Select all that apply.

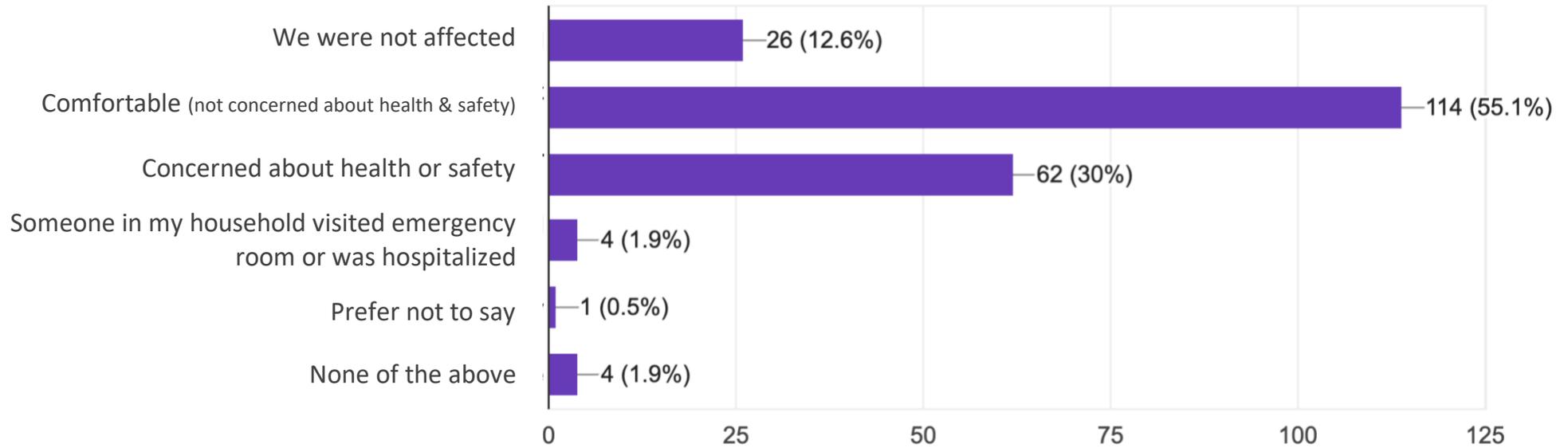
206 responses



Other: Window film; Patio umbrella; Upgraded insulation; Insulated drapes or blinds; Custom blind for skylight; Not using oven or dryer during the day; Thermo-pane windows with highest level e-coatings for patio enclosure; Cross-ventilation in corner unit; Opening upstairs windows.

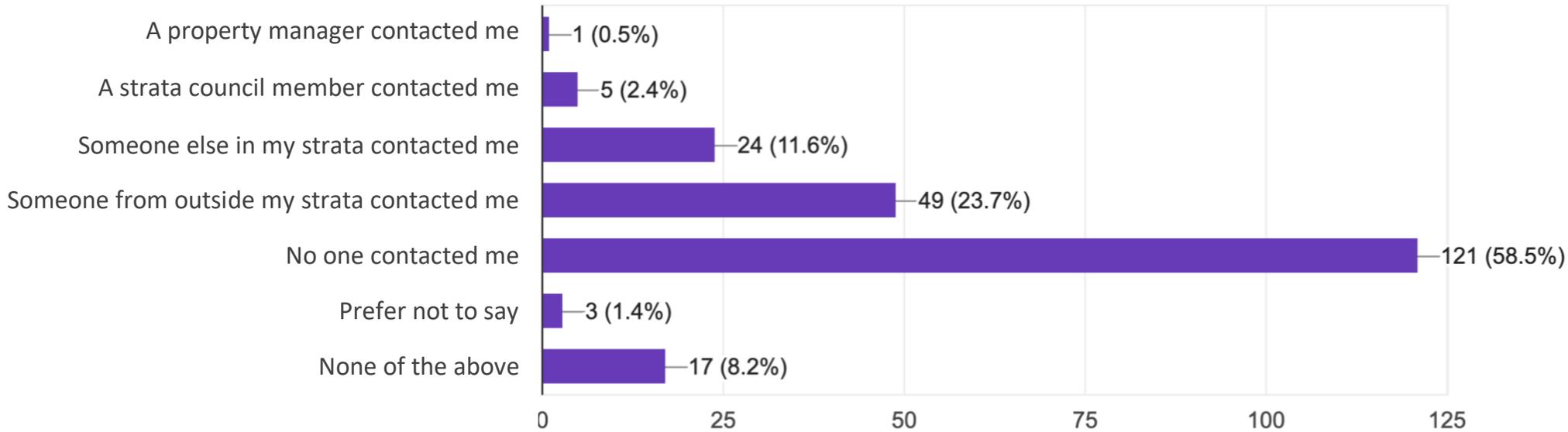
How did the extreme heat affect the residents of your unit? Select all that apply.

207 responses



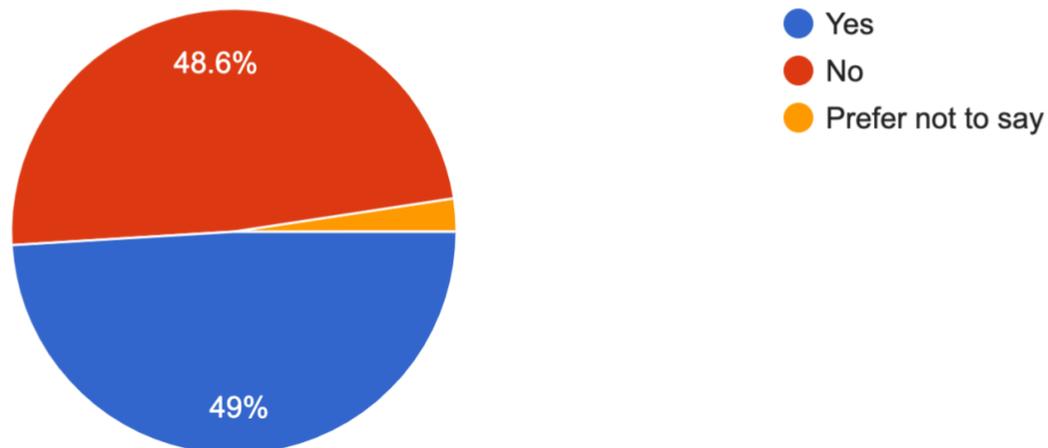
Did anyone check to see if you were OK during the heatwave (a wellness check)? Select all that apply.

207 responses



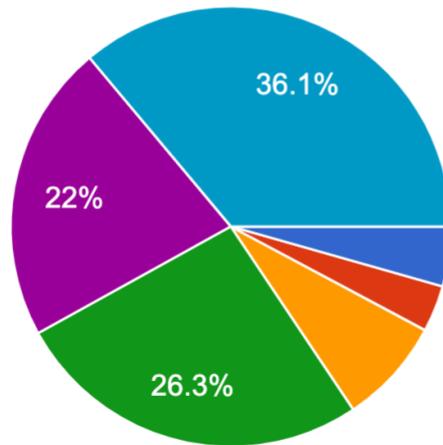
Did you check on someone in your strata to see if they were OK during the heatwave?

208 responses



After July 2021 have you installed a heat pump in your unit or requested permission to install one?

205 responses



- I installed a heat pump in my unit after July 2021 (provides heat and cooling)
- I received permission and plan to install one in 2022
- I requested permission but my request was denied
- I am interested in getting a heat pump but haven't requested permission yet
- I am not interested in getting a heat p...
- None of the above

Based on your experience of the 2021 heatwave (as an individual), what, if anything, could be improved about the response from local government, public health and emergency management agencies?

Common themes from 141 responses:

- Provide local cooling stations such as community centres and recreation centres with air conditioning for the public: for periods of respite, to spend the day, overnight.
- Provincial government, public health authorities, and local government service announcements to provide advance warning of a heatwave using: provincial emergency notification system, television, radio and social media.
- Publicize/educate, including by mail: how to prepare for a heatwave, strategies for staying cool, location of cooling centres, what to do if you can't get relief in your unit. Information on methods for passive heat management.
- Encourage volunteers to check their local area for Emergency Preparedness or Neighbours Helping Neighbours programs. Encourage more volunteers to check on elderly in their homes.
- Expand grants to include all types of residences to help with the cost and installation of heat pumps. Currently condo units are excluded. Subsidize cost of heat pumps, air conditioners, or fans for those with low income. Federal government funding for First Nations, Metis, and Inuit communities for housing improvements to “climate-proof”.
- Adopt building codes to address climate change. Require mechanical cooling in new and existing multi-unit residential and mixed-use buildings. Require new buildings to include passive cooling measures such as cross-draft, awnings, foliage, etc. Adopt city bylaws that encourage exterior screening on windows, planting trees for shade, and that discourage cutting trees. Provincial health regulators should require adequate cooling systems for all places with vulnerable people including homeless shelters, childcare facilities, retirement/long-term care residences, jails and prisons.
- Legislation to prevent strata corporations from prohibiting air conditioners and heat pumps in strata units

- It is not within the purview of the government, public health officials or emergency management agencies to do anything, nor should they. It is up to each individual to look after themselves in all circumstances, including heatwaves. As a homeowner, I feel I am responsible for myself in a heat wave.

Based on your experience of the 2021 heatwave (as an individual), what, if anything, could be improved about the response from your strata council or property manager?

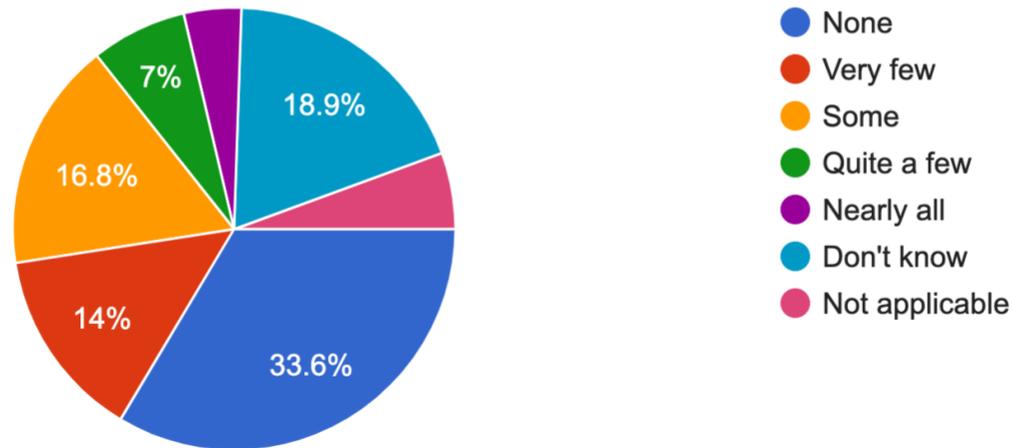
Common themes for 151 responses:

- They should have an emergency plan, a list of occupants, and a system for checking on residents, particularly high-risk and elderly residents living alone; a list of owners of units with cooling who are willing to invite others into their unit for a period of respite; and an organized watering crew for the gardens. Be mindful of privacy legislation.
- Install an air conditioner in a common room to give an area of respite.
- Investigate and propose bylaws to: allow awnings/ exterior shading and window air conditioning units. Investigate and propose common projects to: install canopies on all balconies, insulate roof, plant trees, add air conditioning to the whole building, and install high efficiency windows.
- Proactively plan for heat pumps, and present resolutions for bylaws to allow owners to install heat pumps and address common concerns such as: holes cut in exterior wall, placement of heat pumps on common property, noise, vibration and changes to the appearance of common property.
- I can't think of anything that a council can do except distribute information on paper and by email advising residents of cooling centres, to seek shade, stay hydrated, and stay in touch with friends and family.
- Nothing. Strata councils and property managers are not required to care for the people of the building. It isn't their role. Everyone has friends and family they can contact if they need help. It is the owner's responsibility to do what they feel is necessary. There isn't anything that they can do about the extreme heat.

14 Questions for Strata Council Members (143 responses)

How many residents complained to council that the building or their unit was overheated during the heatwave?

143 responses



79 answers from councils of condo stratas:

27 (34%) Some, quite a few, nearly all / 15 (19%) very few / 37 (47%) None, don't know, not applicable

54 answers from councils of townhouse stratas:

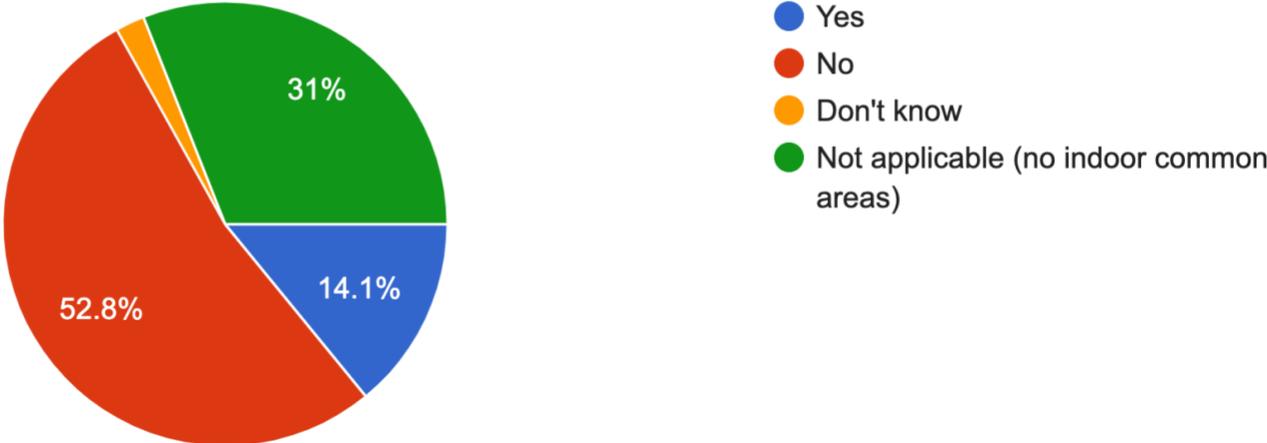
12 (22%) Some, quite a few, nearly all / 5 (9%) very few / 37 (69%) None, don't know, not applicable

10 answers from councils of bare land/other stratas:

1 (10%) Some, quite a few, nearly all / 9 (90%) None, don't know, not applicable

Are some or all of the common areas equipped with air conditioning or other forms of mechanical cooling equipment?

142 responses

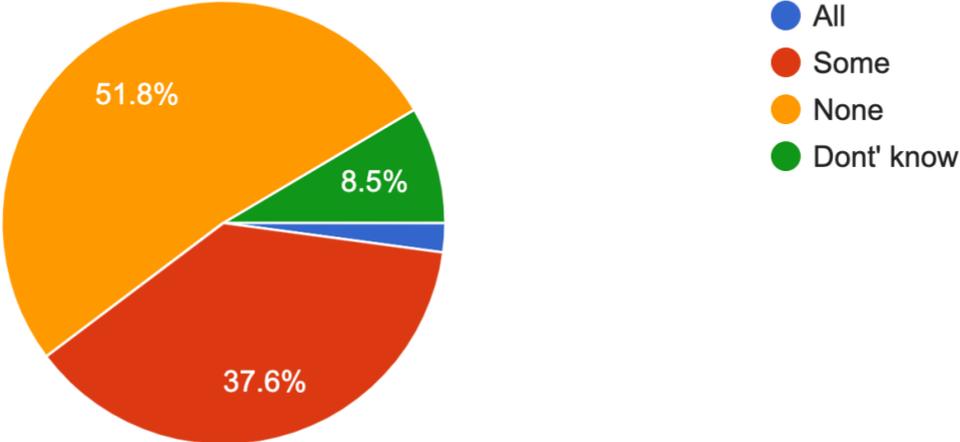


Of the 95 stratas with indoor common areas:
20 (21%) have a common area equipped with cooling
75 (79%) do not have a common area equipped with cooling

44 stratas don't have any indoor common areas
3 stratas answered Don't know

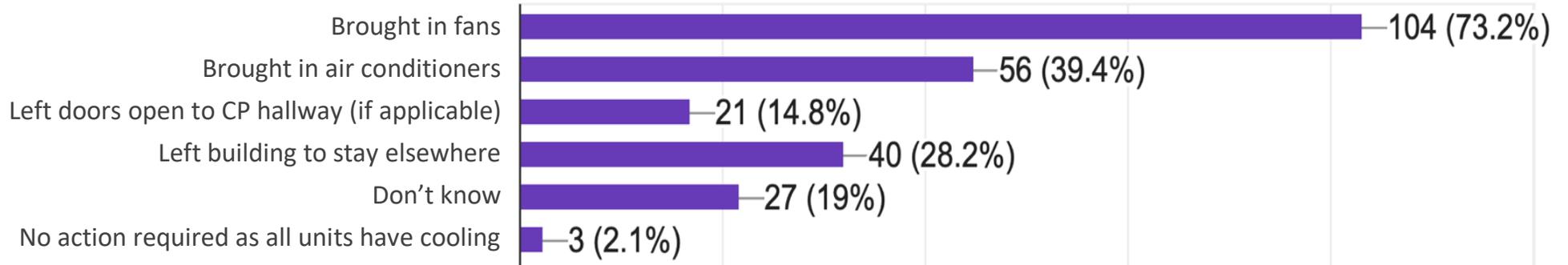
Are residential units equipped with air conditioning, or heat pumps (providing heating and cooling)?

141 responses



How did residents respond to the extreme heat? Select all that apply.

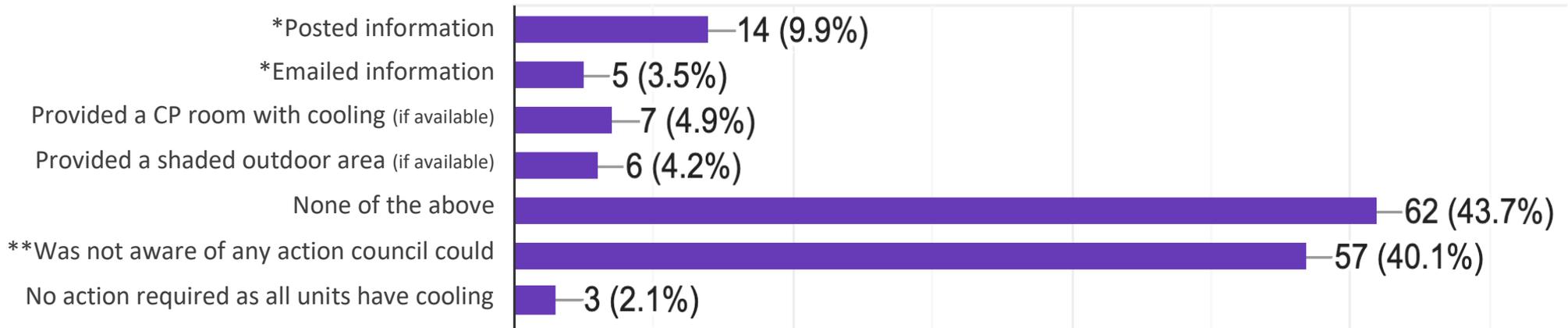
142 responses



Other: Some people from top floor units spent a lot of time in the ground floor lounge where it was cooler; The makeup air in the corridors is somewhat cooler; Opened windows especially at night; Kept windows closed during the day; Sea air cooled our units at night; Sat outside in shade; All units have shaded patios with trees; Cold baths and limited activity; Spent time/slept in lower level of townhome; Made plans to get blinds, air conditioner, or heat pump for next year.

What actions did council take (if any)? Select all that apply.

142 responses



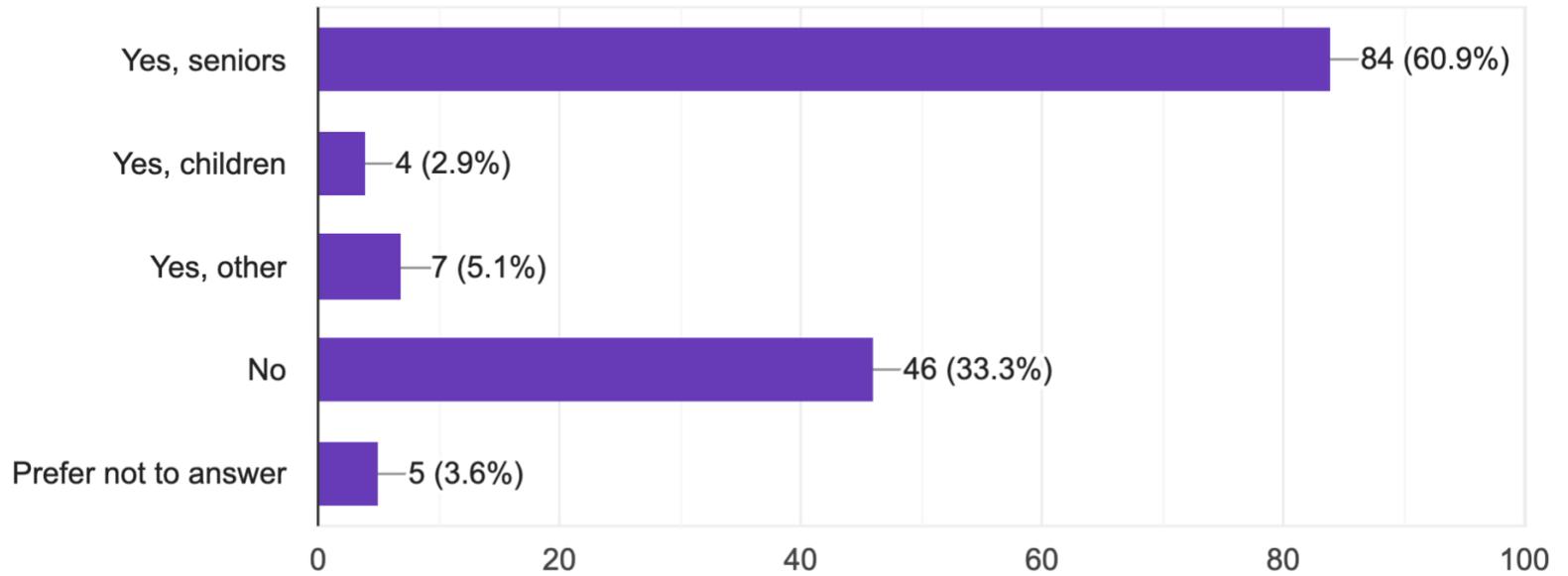
* Information from Island Health or other overheating life safety information in common areas such as elevators and lobbies

** Was not aware of any action council could take to help residents

Other: Some council members checked on neighbours especially elderly on the top floor and those at risk; Changed the time that air exchange fan was on; Turned off the rooftop air exchange unit during the day as it was blasting hot air into the hallways; Proposed installation of white TPO roofing materials; Made residents aware that the ground floor lobby area is the coolest area in the building; Notified occupants that all units were prewired for heat pumps; Postponed plumbing maintenance which would have shut off water for one of the hottest days; None - residents looked after themselves.

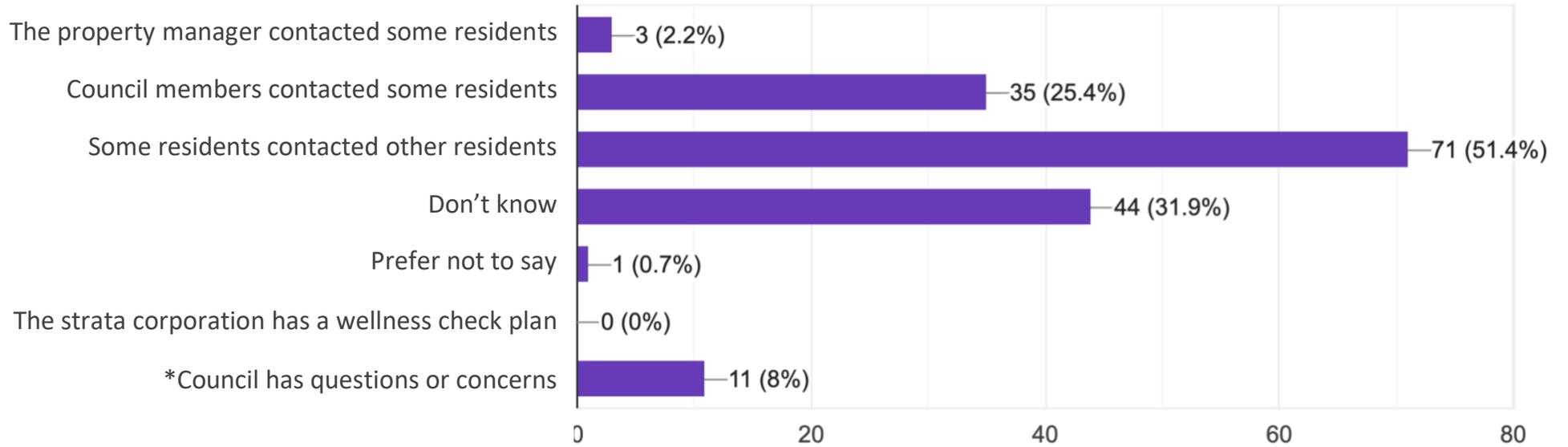
Were there residents that you were particularly concerned for during the heatwave? Select all that apply.

138 responses



To your knowledge did anyone check on residents to see if they were OK during the heatwave (wellness check)? Select all that apply.

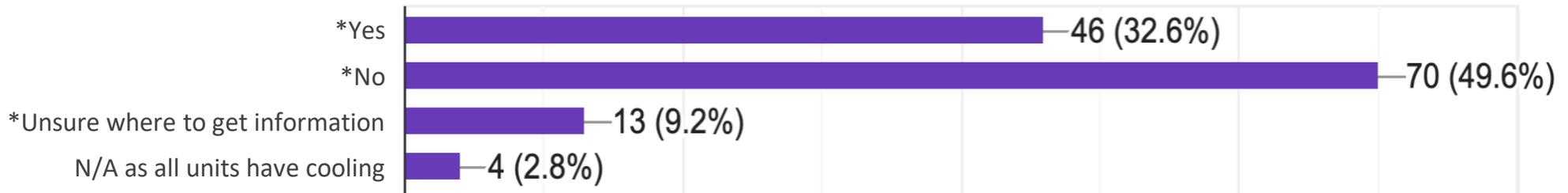
138 responses



* Council has questions or concerns about the legal implications of conducting or not conducting a wellness check.

In response to the heatwave of 2021, has council sought information about possible measures to decrease overheating during future heatwaves? Select all that apply.

141 responses



*Of 129 responses:

46 (35.7%) Yes

70 (54.3%) No

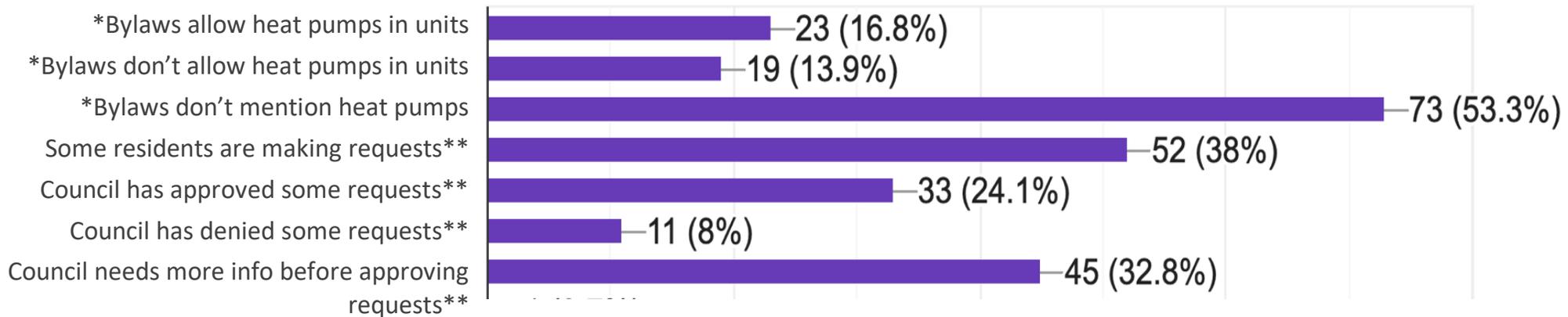
13 (9.2%) Unsure where to get information

Other: We sought a heat study but the recommendations are more costly than owners are willing to spend to address this issue; Council will be discussing; Asked residents to do research themselves; Information available is confusing and disjointed - too many sites about heat pumps, the rebate information is inconsistent or not applicable; Will consider a plan to allow heat pumps in future; It's not council's responsibility as building is old and not easily air conditioned: It's up to the individual owners to take their own measures - several have installed heat pumps; Residents decide what's best for their situation.

Please review the following statements about heat pumps (provides heat and cooling).

Select all that apply.

137 responses



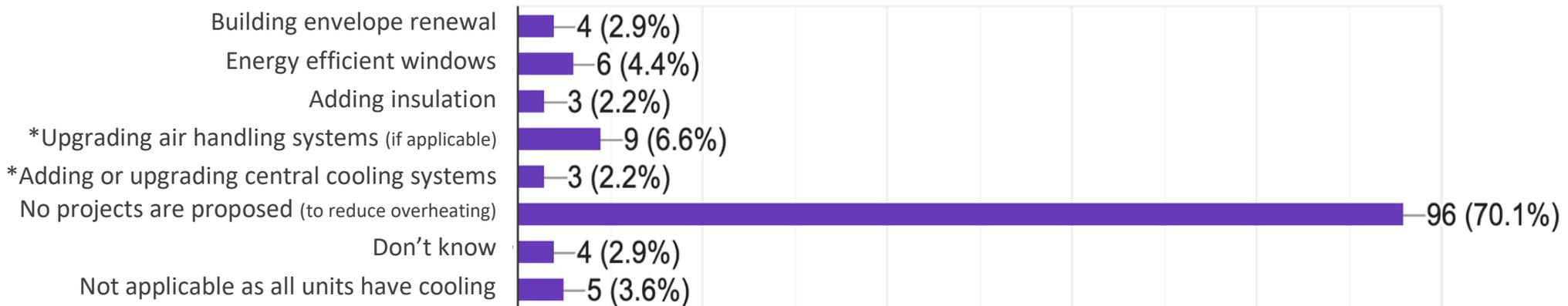
*Bylaws of the strata corporation

**Requests to install heat pumps in their units

Other: We need funding for the strata to get an engineer to make a plan for the whole strata; Need education - most people don't really know what heat pumps are; Strata recently passed bylaws at SGM; A vote for a proposed bylaw about heat pumps failed; Concerns about overloading the electrical system; Heritage building's electrical is maxed out; We do not have enough power supply to have heat pumps; No place to put heat pumps unless on a balcony and not all units have that ability; Heat pumps are not a viable option in our building; We have in-floor heating so not the best option to switch; Maximum decibel level in municipal bylaws is too low to allow mini-split heat pumps; Current heat pumps are causing noise issues to others - noise needs to be regulated [by government]; Permission denied because neighbour says it will be too noisy; Council is concerned about noise; Council has not had any requests; Council has approved all requests; Council is approving them with indemnity agreements but reviewing bylaws; Problem with residents installing them without asking for permission; Need government to force approval of heat pumps; Current rebates for heat pumps are frustrating, they don't seem to understand how stratas are governed; Contractors gave incorrect info about where the unit could go, they don't understand the strata approval process; We need to designate CP as LCP and have bylaws that make owner of heat pump responsible for maintenance and noise.

Since July 2021 has an AGM or SGM been held, or is one planned in the near future, to vote to approve projects that will affect the performance of the building to reduce overheating? Select all that apply.

137 responses

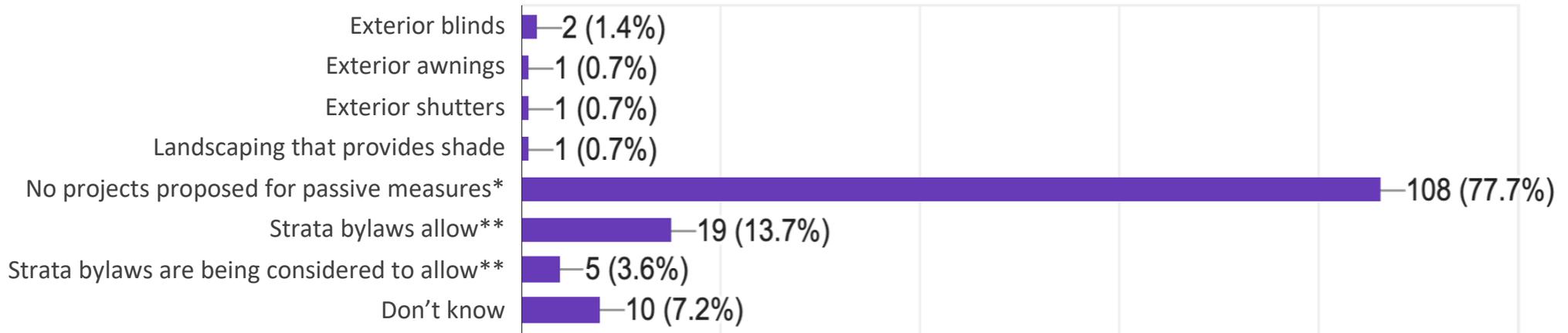


*Common property systems

Other: No money to do this and there are other more pressing common property issues for what owners can afford; Council has proposed roofing replacement project with heat reflecting TPO membrane; Replaced some garage doors; Sliding door replacement; Cladding on second stories replaced last year with insulation; Recently installed energy efficient windows; In process of replacing single pane windows with double pane; Not yet, window replacement is in the depreciation report in about 3-5 years; Looking into getting tinted reflective film on some of the windows in the common area; SGM approved final phase of a window replacement project - new windows aren't the highest energy efficiency rating (too expensive); The special assessment to improve attic insulation is being grieved by some owners; No projects yet but increased strata fees.

Since July 2021 has an AGM or SGM been held, or is one planned in the near future, to vote to approve projects for passive measures that will reduce overheating of the building or units? Select all that apply.

139 responses



* to reduce overheating

** owners to install some types of passive measures

Other: I requested permission to install awnings but was denied due to the need to penetrate the building envelope to install them; Reduction in tree pruning to maximize shade; All of these will be discussed at the next AGM.

As a council member, did your understanding of the heat's severity and its impact change over time? If so, how?

Common themes (95 responses):

- Did not expect such severe heat and for the length of time.
- It really emphasized impact of climate change and looking to future. This experience of heat dome started our conversation.
- Was initially unaware of how dangerous it was; As time went on it became more obvious how serious it was; Later when we heard of deaths due to the heat, we realized that it was more serious than we had thought.
- Media coverage assisted with the education; Became more aware of the serious health hazards from extreme heat.
- Severity was not tolerable and reinforced our need for air conditioning.
- Was amazed at how many people are ill prepared.
- I didn't know so many residential buildings in Victoria didn't have cooling mechanisms. Learned that even a new LEED building is susceptible to severe heat.

As a council member how do you perceive your role or responsibilities in addressing extreme heat?

Common themes (102 responses):

- Leadership; Stay informed; Be aware of the issue; Try to be pro-active and suggest solutions; Distribute information.
- Check on residents to see if they are okay, safe, and have what they need to get through the situation; We are considering an owners' committee that would provide a more formal role in wellness-checking as well as support/assistance in an emergency.

- Understand the building's existing cooling systems, know what realistic improvements or alternatives are available; Try to find information on how to retrofit older buildings with cooling systems; Investigate passive measures: Explore options for common areas; Listen to ideas from owners; Present information to the owners so they can decide how the strata should proceed.
- Propose bylaws to keep current with building needs in the future; Prepare for requests from owners for heat pump installation and prioritize these requests; Review bylaws to reduce barriers to passive and active cooling measures.
- I am not sure what can be done or even where to start; Unclear where our responsibilities lie in this situation; I would be interested to see whether either the volunteer council or the paid management company has any legal responsibility.
- It's not fair to expect [volunteer] council members to know how to handle disasters or emergencies like heat events; Councils are sometimes overwhelmed; Residents do not cooperate; It is up to individuals to manage their own comfort in their homes; Owners think that someone else is going to take care of everything; Did not feel it was council's role.

Based on your experience as a council member during the 2021 heatwave, what, if anything, could be improved about the response from local government, public health, and emergency management agencies?

Common themes (85 responses):

- More warning. More cooling centres, well advertised.
- Clear, consistent information from authorities about what we should do...Residents won't always listen to council members or believe what we say so it's really important for health and safety information to come from a body that people trust as an authority.
- Educate on monitoring for heat exhaustion; Symptoms of heat stroke; When to call for help; Use of ice cubes, fans.
- Extra hospital staff and ambulance, use St. Johns, Red Cross, and military to prepare. The worst was that there were not enough ambulances or couldn't get to hospitals.

- More communication between agencies and council; If our Strata had be contacted by the local authorities with guidance, we would have followed it.
- Better education and support to assist councils to support their residents; Provide written materials outlining possible passive mitigation measures to hand out to residents; Guidance on adding permanent awnings; Promotion of planting proper types of trees that are heat hardy and xeriscape planting; Information about combustible storage.
- Grants for retrofitting older building including apartment -style condos.
- More information and improved financial assistance programs for heat pumps. People whose income is just above cut off lines, or who cannot afford the level of equipment that results in a rebate, are out of luck. Government needs to consider a middle ground.
- Owners and tenants also need to take responsibility; We cannot keep expecting governments at any level to save us from the weather. We all need to take responsibility for ourselves.