



# It's Raining News:

Exploring the Impact of Mass-SMS on  
Preparedness for a Severe Weather Event

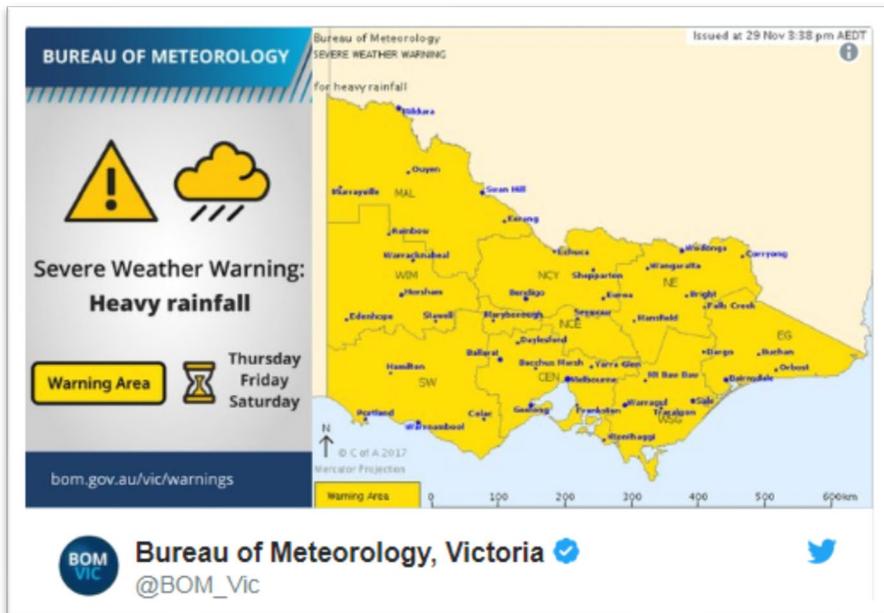




In late November 2017, the Bureau of Meteorology forecast that a significant rain event would impact Victoria in the coming days. A Flood Watch was issued for the entire State of Victoria on Wednesday 29 November.



- The forecast led to an unprecedented public information effort including extensive media, tactical advertising and the largest Emergency Alert campaign in Victoria to date.
- Distribution of 7.4 million Emergency Alert messages on Friday 1 December using the location-based technology to a large swatch of Victoria including metropolitan Melbourne.
- Message was intended to promote readiness and awareness in advance of the expected flood and rainfall event.





Unique opportunity to understand whether mass-SMS can increase community awareness and preparedness immediately before a flood or severe weather event.



3,804 Victorians were surveyed between the 18<sup>th</sup>-23<sup>rd</sup> of December, 2017.



### Telephone survey

	n =	%
Euroa	42	1.1%
Mansfield	36	0.9%
Myrtleford	32	0.8%
Elwood Canal	6	0.2%
Rest of Victoria	483	12.7%
Total	599	15.7%



### Online survey

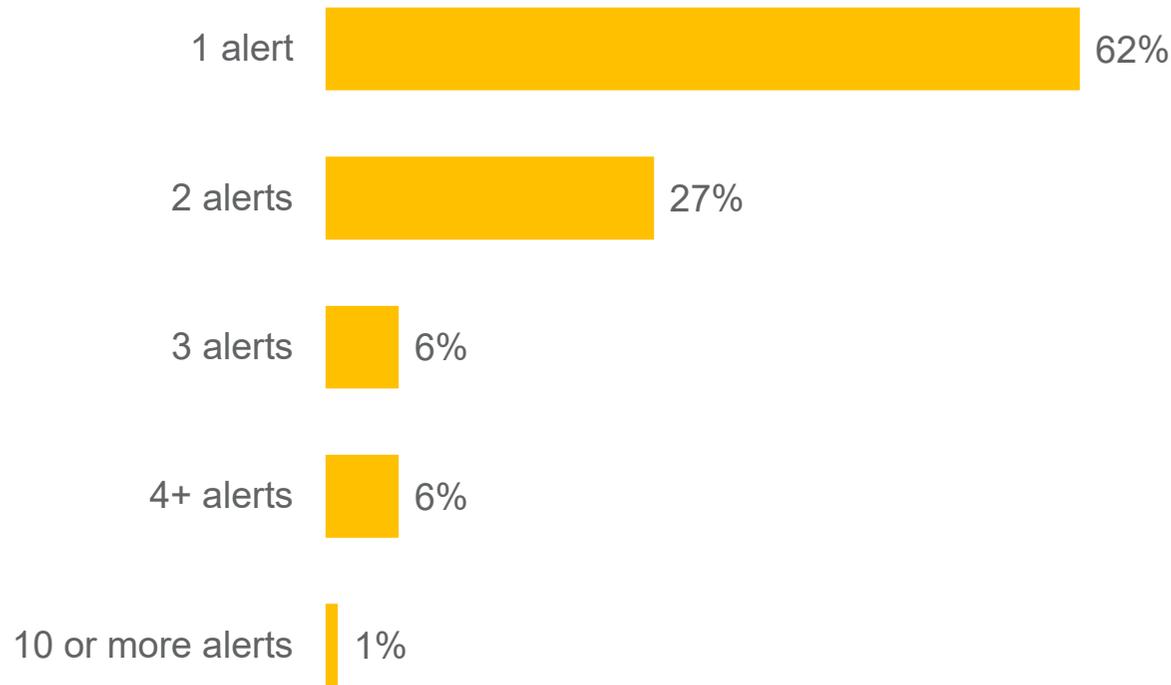
	n =	%
Euroa	1	<0.1%
Mansfield	4	0.1%
Myrtleford	1	<0.1%
Elwood Canal	200	5.3%
Rest of Victoria	2999	78.8%
Total	3205	84.3%

Areas that were more impacted by the heavy rain event or received targeted warnings were oversampled, including Euroa, Mansfield, Myrtleford and the Elwood Canal.



# Number of alerts received

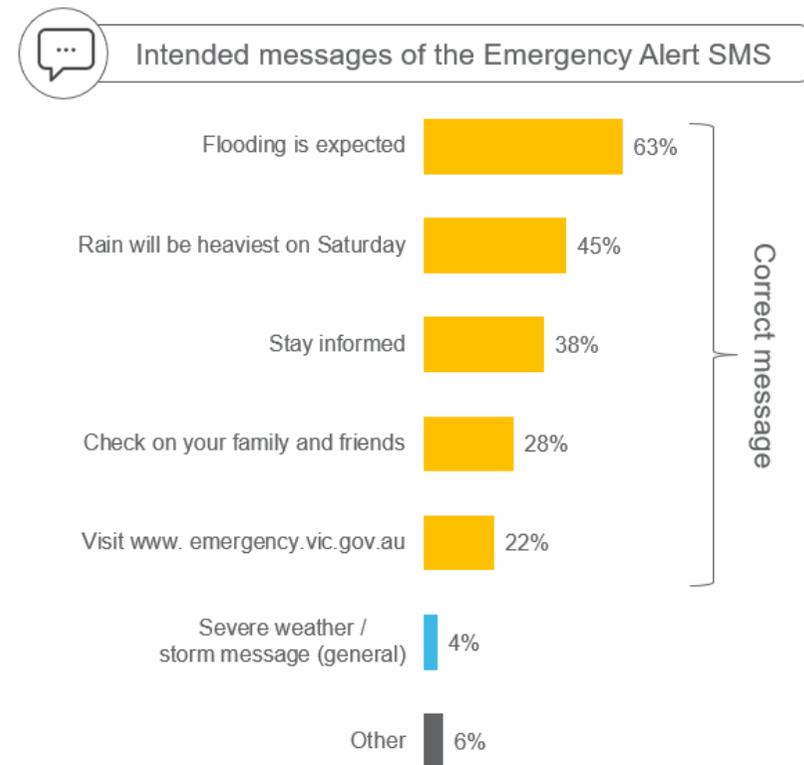
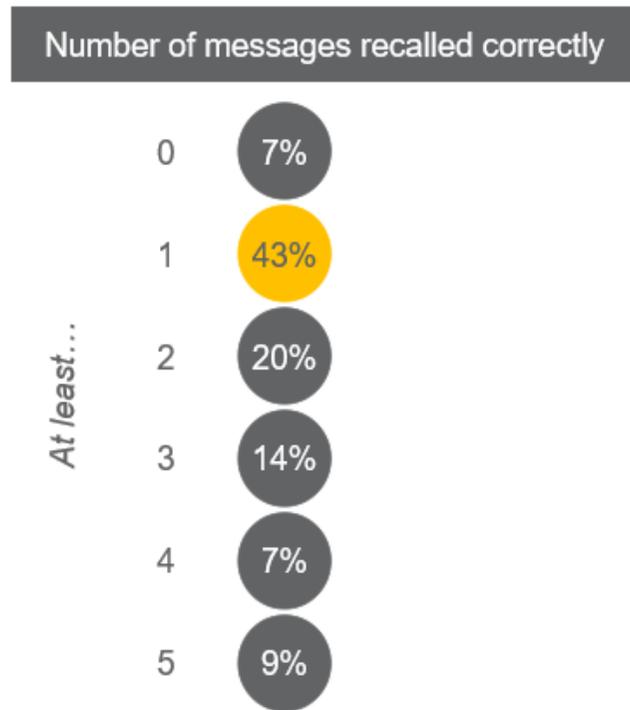
- 48% recalled receiving the Emergency Alert message.
- Due to the use of multiple Emergency Alert campaigns, some individuals received multiple messages with 6% receiving 4 or more messages and 1% receiving 10 or more.





# Recall of Emergency Alert message elements

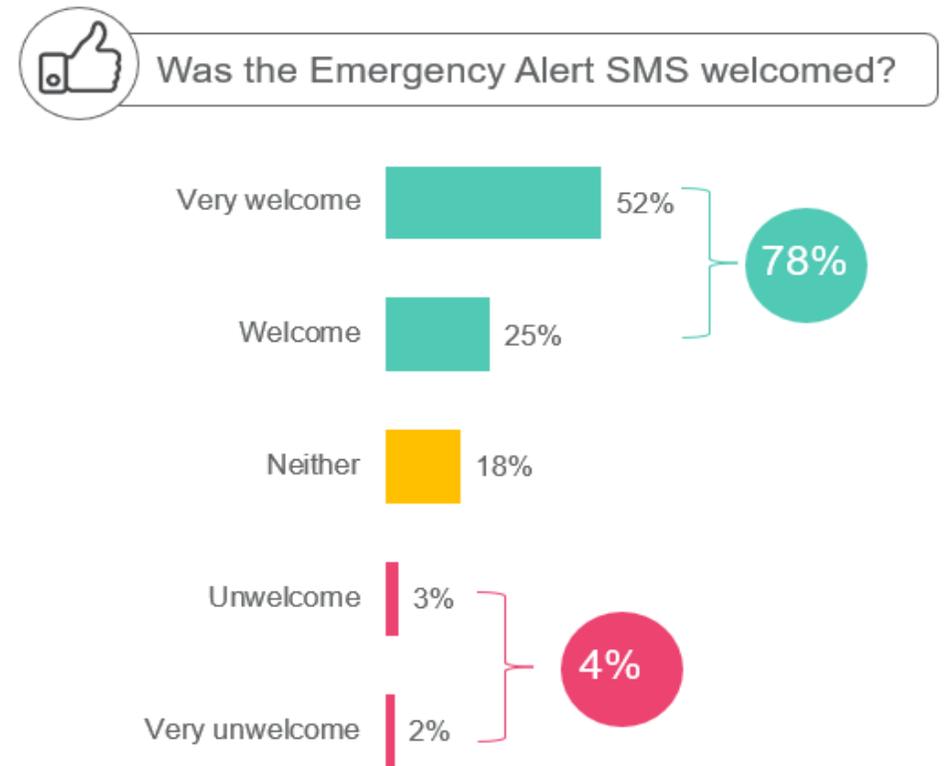
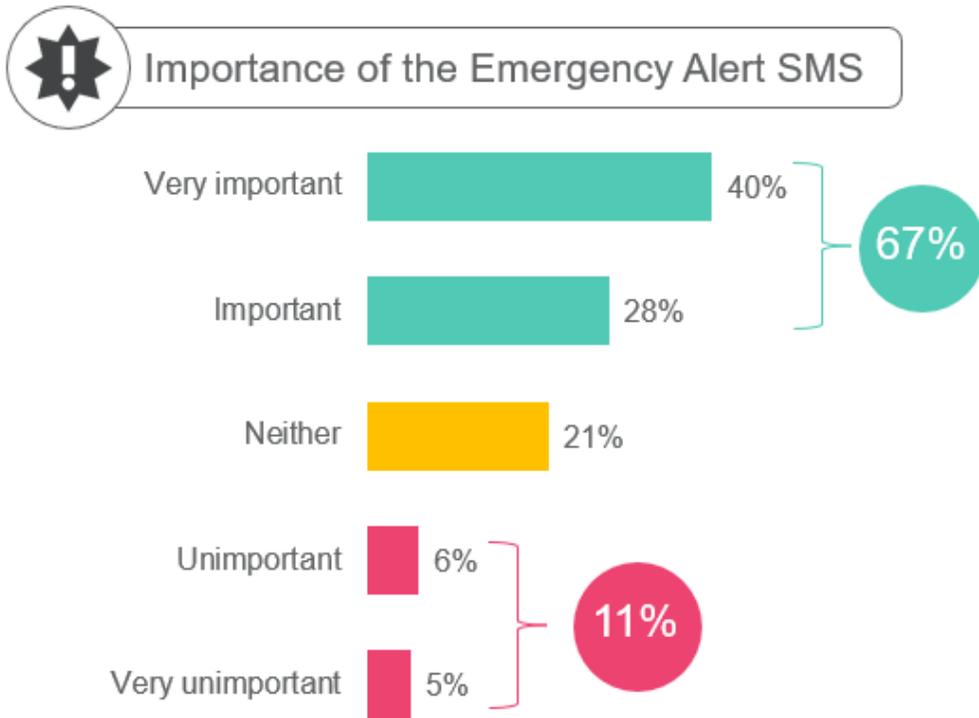
- Comprehension of the message and its contents was high, with 98% believing they understood the message and 94% understanding who it was from.
- Recall of elements of the Emergency Alert message was also high, with 93% recalling at least one element.





# Perceived importance of Emergency Alert SMS and perceptions of welcomeness

- The majority of those who received the Emergency Alert believed it was important (67%) and welcomed it (78%), with only a small proportion of respondents reacting negatively.

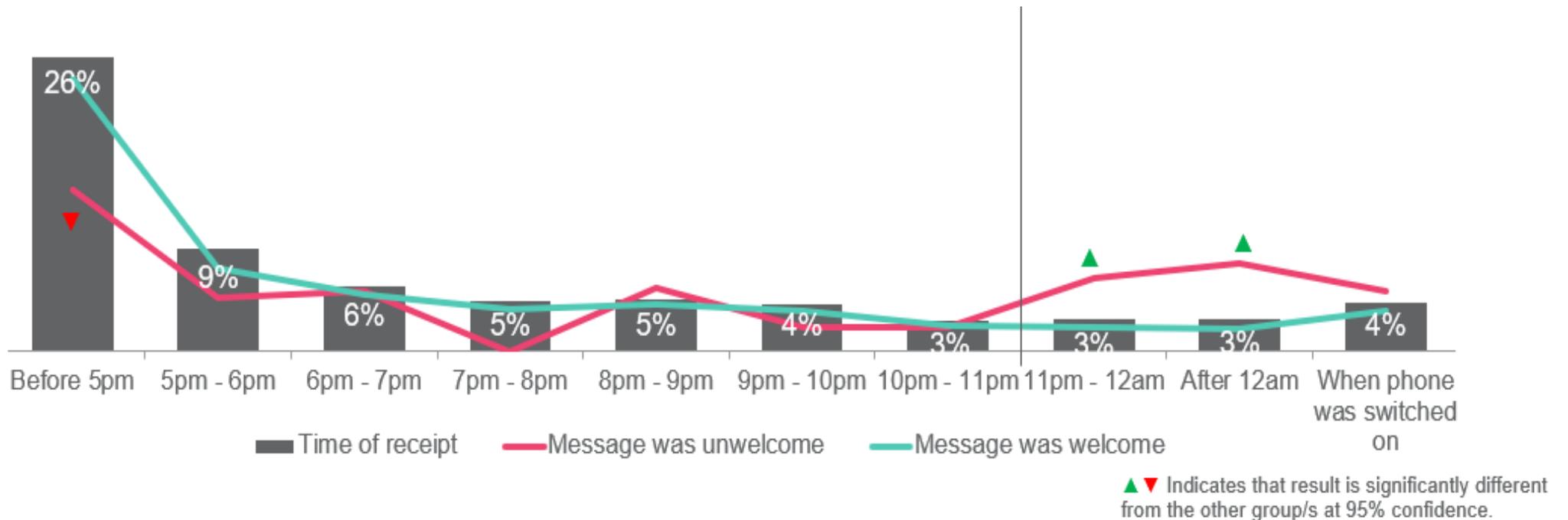


Q21. How important or unimportant did you feel this message was, please answer on a scale of 1 to 5 where 1 means very unimportant and 5 means very important. & Q22. How welcomed or unwelcomed did you feel this message was, please answer on a scale of 1 to 5 where 1 means very unwelcome and 5 means very welcome. Base: Those who recall receiving an Alert (n=1,805).



# Time of Alert receipt and perceptions of welcomeness

- The recalled time of receipt of the Emergency Alert message didn't affect its perceived importance. However those who recalled receiving the message after 10pm were more likely to consider it unwelcome.

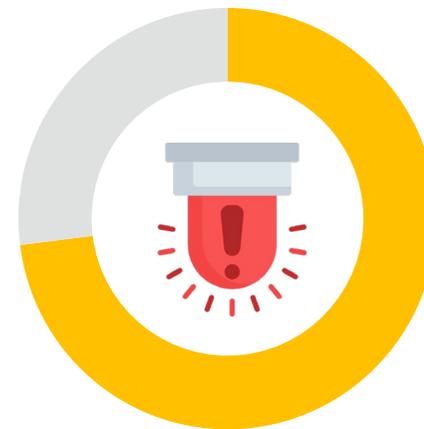
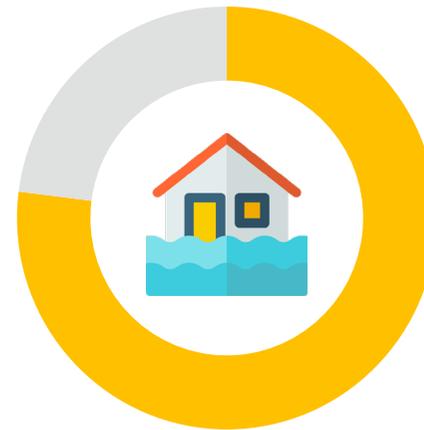
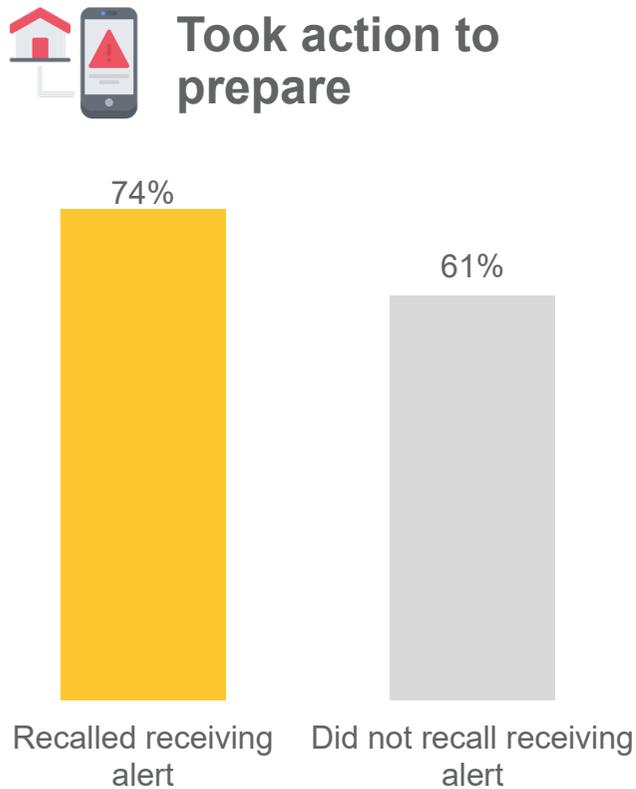


Q17. Approximately what time did you receive the messages? If you're unsure please give us your best estimate.

Q22. How welcomed or unwelcomed did you feel this message was, please answer on a scale of 1 to 5 where 1 means very unwelcome and 5 means very welcome. Base: Those who recall receiving an Alert (n=1,805).



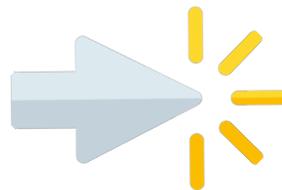
# Preparedness actions for those who received the Emergency Alert was similar to those who had previously experienced a flood, and those who expected the event to be severe



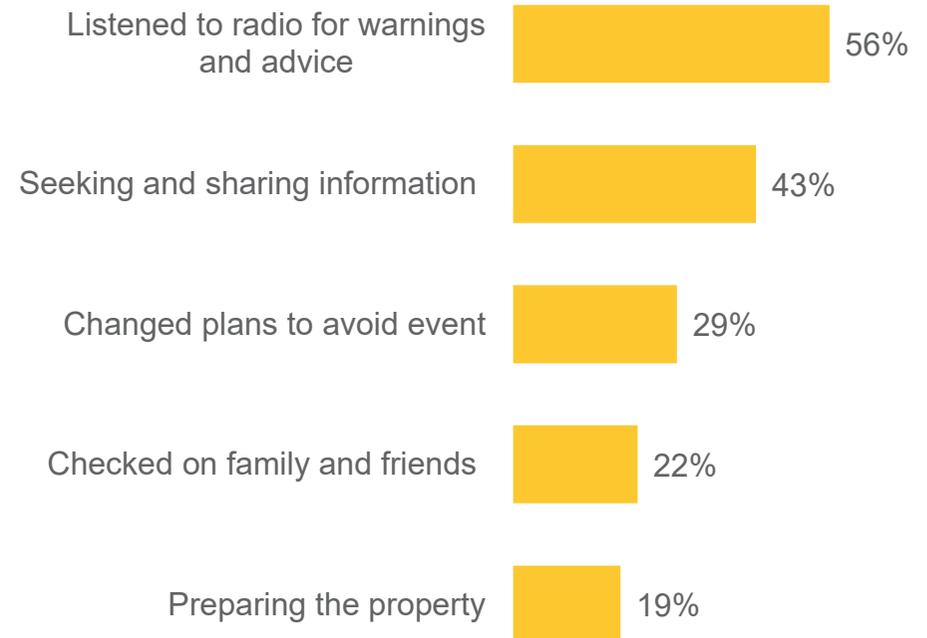


# The majority took action after receiving the alert, including listening for further advice

60% took action after receiving the alert

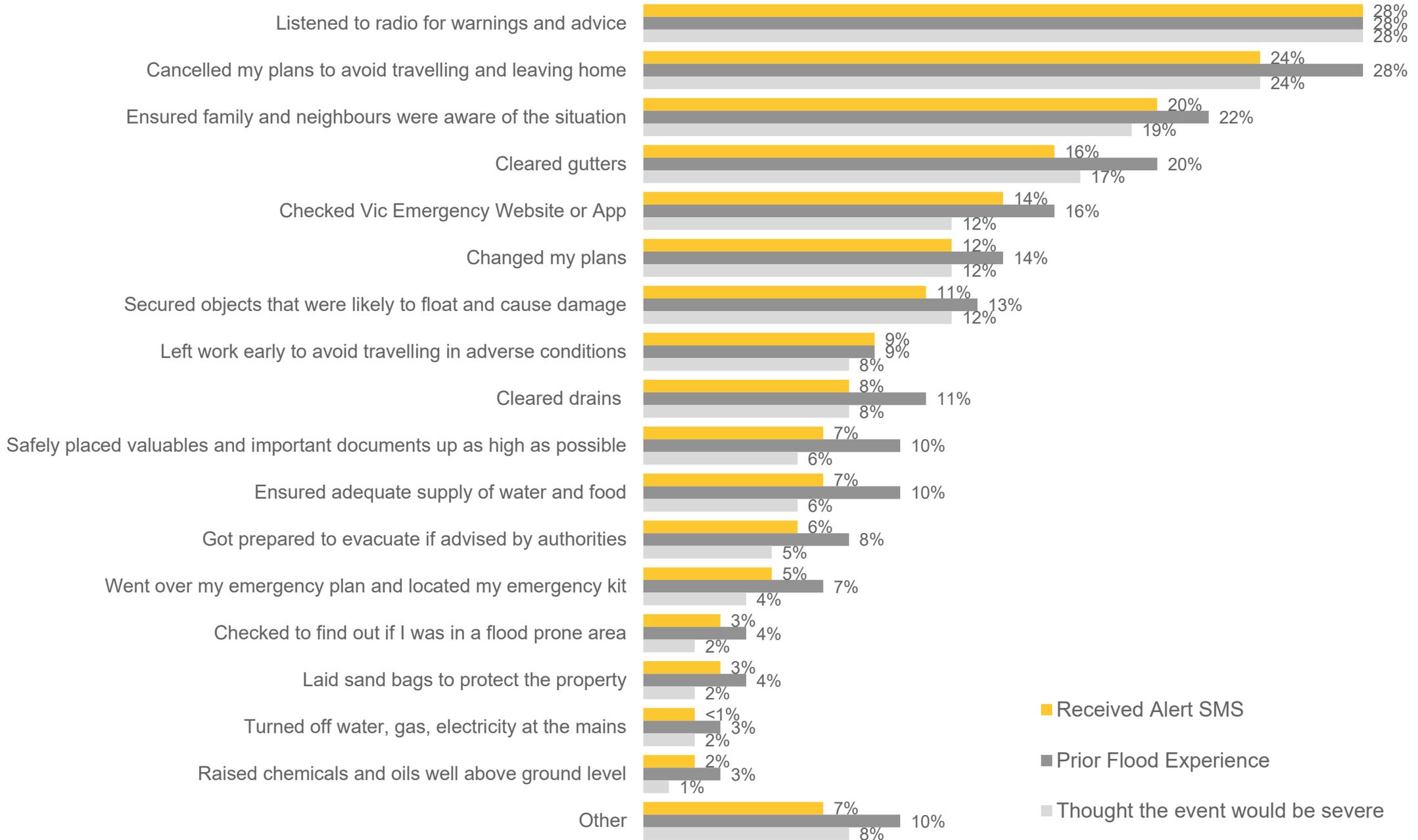


## Actions taken





# Preparedness actions



Q10. What did you do to prepare for the heavy rain event was going to occur between 30th of November and 3rd of December? by received/not received and flood experience/expected severe.  
 Base: Those who recall receiving an Alert (n=1,805).



# Implications for Research

1. A unique opportunity – few published reports on use of EA in recent years
2. High rates of recall = value in rapid deployment
3. Small subgroup analysis = value of large sample size
4. Does the general public interpret the word 'warnings' how we do?



1. Use of Emergency Alert was valuable in this instance
2. Keep messages short and calls-to-action clear
3. Avoid sending non-time-critical EA messages after 10pm
4. Future upgrades to EA system should consider the large-scale use case
5. Explore 'Just-in-time' preparedness campaigns

