

# Anzac Parade Resilience Building Project

Summary of community and stakeholder interviews

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1. Introduction .....	4
2. Background .....	4
3. Engagement .....	4
4. Research Objectives .....	5
5. Method .....	5
5.1. Data processing and analysis. ....	5
5.2. Ethics.....	6
5.3. Pre interview .....	7
5.4. Door-to-door interview process.....	8
6. Quantitative results .....	9
6.1. Relationship to property.....	9
6.2. Length of ownership/residence .....	9
6.3. Number of residents per household .....	10
6.4. Evacuation considerations.....	10
6.5. Awareness of Horizons Early Warning System.....	11
6.6. Have they experienced a flood?.....	11
6.7. Reach of 2015 flood waters .....	12
6.8. Breakdown of reach of 2015 flood waters above and below Dublin Street Bridge.....	13
6.9. Notes on quantitative data .....	14
7. Qualitative results.....	14
7.1. Vulnerability.....	14
7.2. Insurance .....	15
7.3. Evacuation experience.....	16
7.4. Ideas to increase flood resilience.....	17
7.4.1 Dredging .....	17
7.4.2 Stop banks .....	18
7.4.3 Lift houses.....	18
7.4.4 Managed retreat.....	18
7.5 Other issues frequently raised.....	19
7.5.1 The Matarawa Stream.....	19
7.5.2 Erosion.....	19
7.5.3 Climate Change.....	20



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7.5.4 Clearing drains .....	20
7.6. Private flood mitigation measures .....	20
7.7. Early warning system .....	21
7.8. Responsibility .....	21
7.9. Barriers to finding a solution.....	22
8. Key findings.....	23
8.1. Significant findings – quantitative data .....	23
8.2. Significant findings – qualitative data.....	23
8.3. Limitations and benefits .....	24
8.3.1 Limitations .....	24
8.3.2 Benefits.....	24
8.3.3 Identified short term improvements .....	24
9. Conclusion.....	25
10. References.....	26
11. Appendices .....	27



## 1. Introduction

This report synthesises results from 100 one-on-one interviews with Anzac Parade stakeholders and officials. These were carried out in two tranches. During July and September 2000 Dr Martin Garcia Cartagena conducted eight interviews with officials representing Whanganui District Council, Horizons Regional Council, Civil Defence and Emergency Management and one homeowner. The majority of the remaining interviews, 89, were with residents of Anzac Parade and affected side streets and were conducted in October/November 2021 by Research Officer Kath McDowell with a further three conducted following the public meeting of 5 May 2022.

In this report, the reader will find a brief section describing the broader background of the project as well as a brief description of the multiple types of engagement used to approach Anzac Parade residents and other key stakeholders and partners. Following the background section, there is an outline of the objectives that guided the interviewing process, and a brief explanation of the methodological process used. These sections will be followed by the presentation of key quantitative and qualitative results and a brief discussion on each.

## 2. Background

In 2020 Horizons Regional Council engaged two experts in flood resilience from Massey University (Professor Bruce Glavovic and Dr Martin Garcia Caratagena) to facilitate a strategy, co-designed with the community, to reduce flood risk and increase community resilience along Anzac Parade.

As independent facilitators Massey staff created safe spaces to foster constructive dialogue between Anzac Parade residents, homeowners, hapū, iwi, awa, WDC, Horizons, stakeholders and the public; in order to collaboratively assess the feasibility of a range of community-wide and property-specific interventions.

Once the research had been undertaken, the information gathered would contribute to Massey's recommendations to Horizons Regional Council on implications of interventions for flood risk reduction, resilience building and resident and community well-being.

## 3. Engagement

A key element of the development of the resilience building strategy relied on direct engagement and relationship building processes. To this end, Massey University staff engaged with Anzac Parade residents and other key stakeholders through multiple means. Firstly, three stages of Anzac Parade community meetings held between July 2021 and April 2022 and a public meeting with the wider Whanganui community on 5 May 2022. Meetings could be attended in person or via zoom. Attendees were encouraged to contribute during and following the presentations. Invitations to these meetings were sent via NZ Post to resident addresses, followed by reminders close to the



meeting date that were dropped in residents letter boxes. In addition, media releases were sent out each time. An *Anzac Parade Resilience-Building Project* web page hosted by Horizons Regional Council was also designed to provide information on the project; access to all of the community and public meeting resources; and a 'share your thoughts' option where people could email the Massey Researchers directly with their thoughts and queries.

Finally, 100 one-on-one interviews with residents and officials were recorded and transcribed. These interviews offer insight into participants understanding and actual experience of floods; their ideas for flood resilience and their emotional experience. The objectives that guided these interviews, together with some key findings and discussions will be presented in the following sections.

## 4. Research Objectives

The objectives of the direct and one-on-one engagement with residents through door-knocking were to gather residents' and stakeholders' perspectives on living by the awa; their perception of risk; their flood experiences; and their thoughts on flood resilience, vulnerability, and different flood resilience building options.

## 5. Method

To achieve these objectives semi-structured interviews were developed and two rounds of interviewing were conducted.

Dr Garcia Cartagena's interviews in 2020 primarily focused on perspectives of the 2015 floods from an official capacity. He contacted officials initially by phone and arranged to meet, either in their offices or via zoom. His set of semi-structured interviews gathered information about the interviewee's roles and responsibilities, their involvement in the 2015 flood and clean-up and thoughts on resilience and how to manage a future flooding scenario. Details of this work are attached on a separate annex. The second set of interviews were conducted by Kath McDowell and were focused on one-on-one conversations with residents.

### 5.1. Data processing and analysis.

Interviews were audio recorded and transcribed verbatim to gain familiarity and closeness with the data. Content analysis and narratives analysis were used to approach the narratives collected through the interviewing process.

Content analysis can be defined as a quantitative method to interpret different forms of visual and oral narrative forms (Mathison, 2011; Hsieh & Shannon, 2018). In this case, content analysis was used to quantify key characteristics of the residential population of Anzac Parade, for instance, their familiarity with evacuation procedures and early warning systems. Content analysis also allowed to quantify how many of the participants were renters, how many owned



their property, how long they had occupied the property for, and if they had pets or not. This information was key to be able to adequately inform strategic recommendations for the short, medium, and long term.

Narrative analysis is defined by Riessman (2008) as '(...) a family of methods for interpreting texts that have in common a storied form' (p. 11). In this case, narrative analysis was reflectively used in combination with thematic analysis (Braun et al., 2019,) to approach the multiple narratives that make up the complex and interrelated story of Anzac Parade. The key themes identified were the following: Vulnerability, insurance, evacuation experience, ideas to increase resilience, private flood mitigation measures, early warning system, responsibility, and barriers for resilience.

## 5.2. Ethics.

The peer review process through which the ethical issues present in this project were discussed and analyzed began with getting familiarized with and reading the Massey Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants. After reading the Code, we had a series of conversations with Prof. Bruce Glavovic where the ethical implications of this project were explored in depth and in reference to the Massey Code of Ethical Conduct. After having these discussions we also discussed our ethical observations with the Chair of the Southern B Human Ethics Committee (Dr. Gerald Harrison). Ethical issues were also discussed with local community leaders and local specialists of the areas of study where this research will be conducted. Finally, it is important to add that the initial phase of this research (pilot study) was consented as "low risk" (see related application No. 4000022739), and later fully reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application SOB 20/37.

One of the key ethical issues that emerged from the multiple peer review discussions was that by asking some interviewees (particularly some residents of the area of study) about their experiences with the 2015 Whanganui Flood, it may have been possible to expose them to some level of emotional distress. After consulting with local community leaders and local specialists (local CDEM and Red Cross staff) multiple strategies were suggested; conduct interviews with/in the presence of a support person of the choice of the interviewee (another family member, friend, neighbour, etc.), provide contact information for multiple health and mental health support services in the area in case participants require assistance after the conversations, and finally, have local emergency phone numbers at hand at all times (e.g. Crisis Assessment and Treatment Team) in case further assistance was needed during the conversation. Other than this, we kept ourselves open, tolerant, and respectful of the multiple worldviews of each participant.

Information sheets and consent forms were always provided to participants to review and sign before conducting interviews. Following the Massey Ethical Code, and the Privacy Act 1993, confidentiality was assured to the extent allowed by the law. This research did not use any methodologies that require withholding information about the purpose and/or procedures of the research. There is no conflict of interests identified. This research distributed the burden of



research participation as fairly as possible. And finally, this research respected the principles of the Treaty of Waitangi (participation, partnership, and protection) when involving Māori groups. In fact, there were key considerations that required special attention regarding partnership with local iwi and hāpu.

In 2017 the Te Awa Tupua (Whanganui River Claims Settlement) Act was passed in parliament making this river a very special one. This Act gives Te Awa Tupua legal personhood tying the river and the people who live with it very tightly together. This project does not focus on the river itself but in the residents who live in the floodplain located in Anzac Parade. This makes the involvement of local iwi as partners of the project a significant matter to approach and consider in this project.

Because of this special relationship between local iwi and the river, genuine and respectful engagement with Te Rūnanga o Tūpoho and Ngā Tāngata Tiaki o Whanganui as project partners was sought before beginning the door knocking process. A hui was held on the 16th of September and was attended by Uncle John Maihi (Kaumatua), Beryl Miller (Tūpoho Advisor), Mariana Waitai (Tūpoho Advisor), Jill Sheehy (Tūpoho Advisor), Wayne Spencer (Horizons Northern Area Engineer), Bruce Glavovic (Massey University) and Martin Garcia (Massey University). The purpose of this hui was to explore the iwi's perspectives on the project and the terms of the partnership through which the local iwi would prefer to engage with the project. The iwi representatives assessed the project as a positive endeavour for the iwi and provided their blessing and consent for the project to continue.

Representative of Te Rūnanga o Tūpoho also suggested arranging a meeting with Raymond Hall (Ngā Tāngata Tiaki o Whanganui) to inform of the project and also establish terms of the partnership with them. As a result, we were connected to Te Aroha McDonnell (Taiao Manager at Ngā Tāngata Tiaki o Whanganui) who was selected at her organisation to lead conversations with the project. Te Aroha also gave us her blessing for the project and asked to be kept informed of project progress.

With these partnership terms established with Te Rūnanga o Tūpoho and Ngā Tāngata Tiaki o Whanganui we were able to proceed with the project while always making sure that the necessary spaces were open for both iwi authorities to be kept informed and provide their feedback.

The door knocking stage of the interviewing process begun in October of 2021, and details of it will be provided in the following sections.

### 5.3. Pre interview

Letters were sent out to residents and property owners in Anzac Parade and flood prone side streets introducing Massey University Research Officer, Kath McDowell (see Appendix 1). A list of homeowners for Anzac Parade and flood impacted side streets was provided by Horizons Regional Council. This was a great starting point but did not include tenants' details. Kath



interviewed 87 residents face-to-face between 16 October and 30 October 2021. Fifteen of these were tenants and their details were passed onto Horizons for inclusion in future mail outs.

146 households were approached for interview. 109 on Anzac Parade and 37 on side streets. Of these 87 agreed to interview – 67 on Anzac Parade and 20 on side streets. Eight said no to interview – seven on Anzac Parade and one on a side street.

There was no answer at 51 Houses. 36 on Anzac Parade and 15 on side streets. The letter introducing Kath was left in the letter boxes of those who did not answer (Appendix 1) and a further two attempts were made to catch people at home by revisiting at different times of the day and on weekends.

An additional two interviews were carried out by phone in November 2021. These interviewees were ex-residents of Anzac Parade who had lived there during the 2015 floods and approached Massey for interview. One was an ex-tenant and one an ex-homeowner.

A further three interviews were conducted following the 5 May 2022 Public Meeting.

#### 5.4. Door-to-door interview process

Kath McDowell spent eight days in total knocking on doors in Anzac Parade and flood affected side streets. In addition to weekdays this included two Saturdays, one Sunday and two evenings to try and reach as many residents as possible – 87 in total. Most residents who agreed to interview were happy to talk straight away while a handful asked to have interviews scheduled – normally at the end of their working day. The median length of interviews was 11 minutes and 31 seconds. The longest interview was 38 minutes and 57 seconds and the shortest was three minutes and six seconds. More than 50% (48) of the door knocking interviews fell within the range of six to 11 minutes.

All interviewees were given a two-page Background Information sheet on the project (Appendix 2) and those that were recorded signed a Consent to be Recorded (Appendix 3). Four interviewees agreed to interview but not to recording so only notes were taken for their interviews.

Interviews began with an introduction to Kath McDowell and the project and then the interview was semi-structured around a list of questions (Appendix 4). The interviews were conducted following a conversational approach (Roulston, 2008; Freire, 1970). Thus, the semi-structured interview schedule was used as flexible guide for the interviewer rather than a rigid format that needed to be followed. This enabled the interview to unfold organically and reflectively between research and participant.

The results of these interviews will be presented in the following sections.

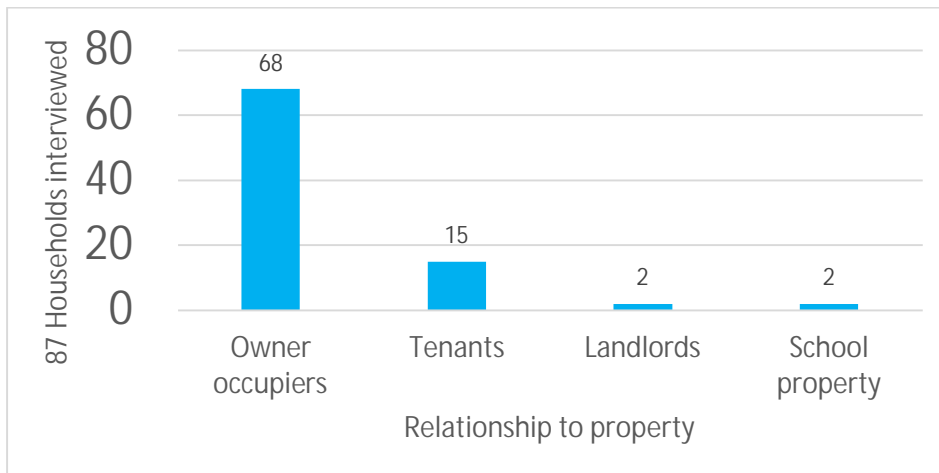




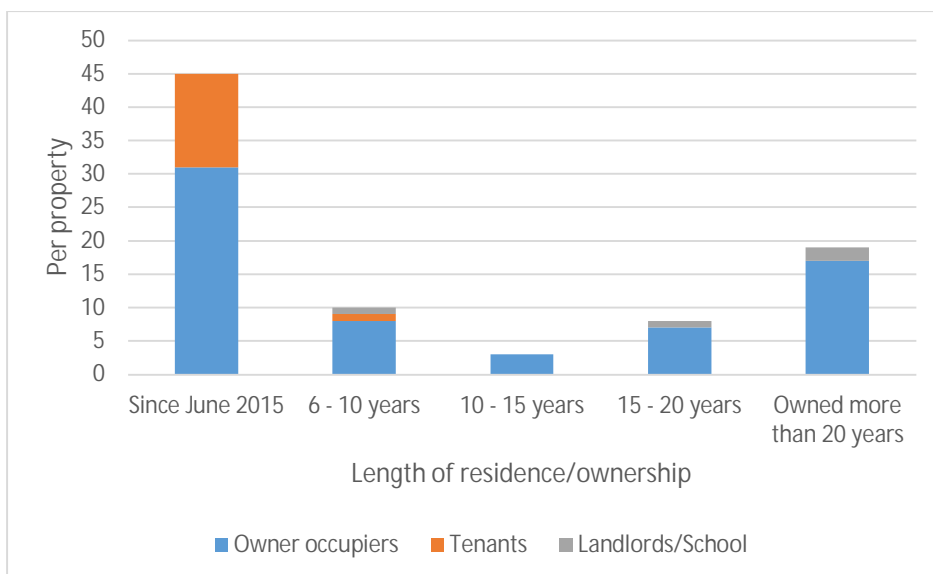
## 6. Quantitative results

Quantitative data collected from the 87 residents interviewed via door knocking was initially put into an excel spreadsheet and then summarised for inclusion in a powerpoint presentation at the second community meetings held on 9, 10 and 11 December 2021, as follows:

### 6.1. Relationship to property

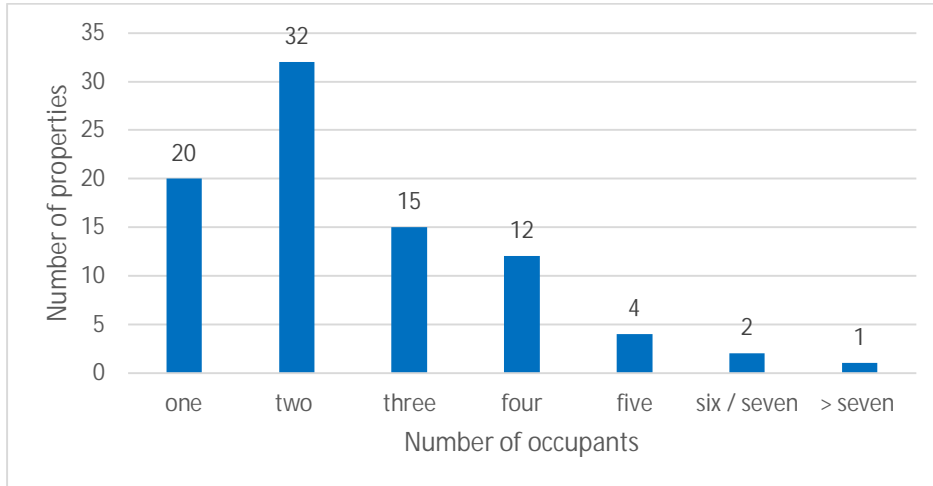


### 6.2. Length of ownership/residence





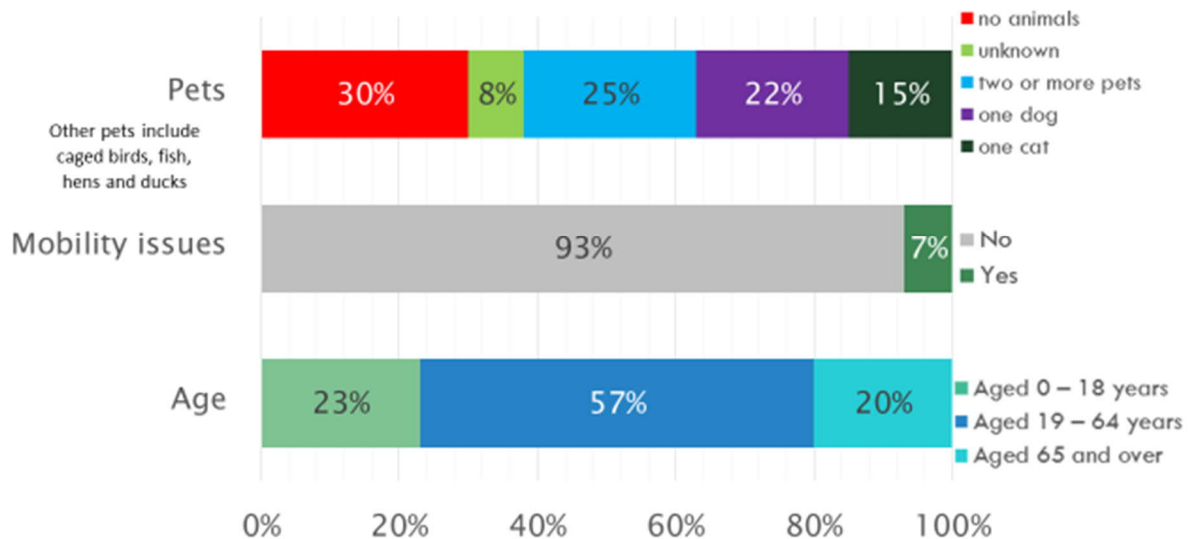
### 6.3. Number of residents per household



Note: this does not include residents at the School Hostel which are 35 boarders and 10 staff –in the hostel and attached housing

### 6.4. Evacuation considerations

## EVACUATION CONSIDERATIONS



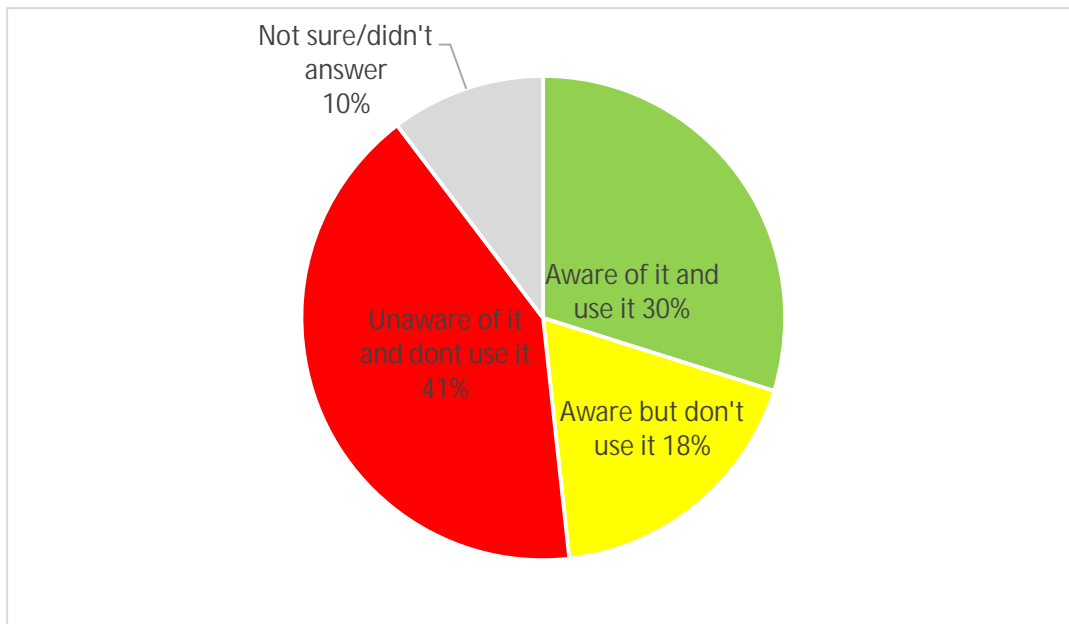
Note: this does not include residents at the School Hostel which are 35 boarders and 10 staff –in the hostel and attached housing

Note: total number of dogs = 49 over 37 households; total number of cats = 42 over 29 households.

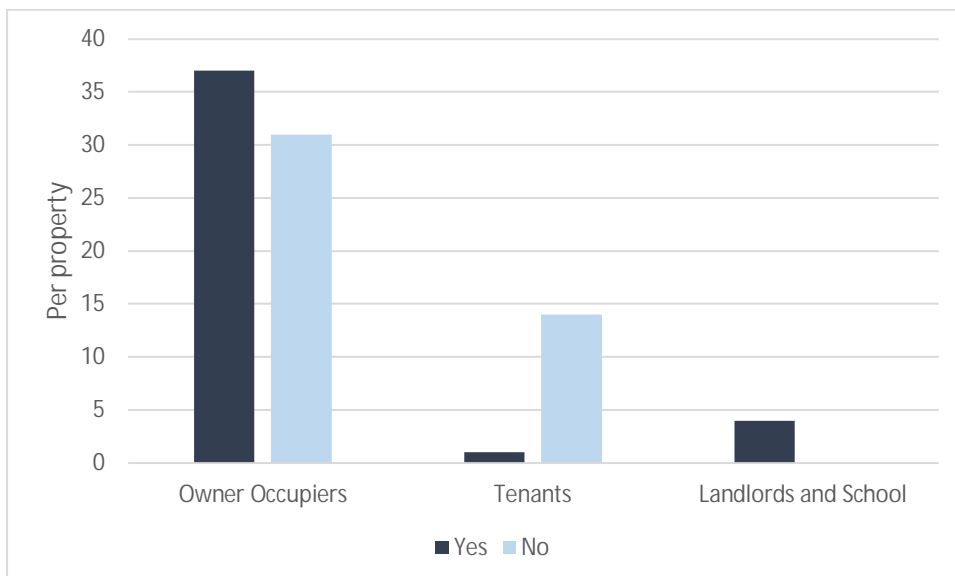
Other pets included in the multiple pets included caged birds, fish, hens



### 6.5. Awareness of Horizons Early Warning System



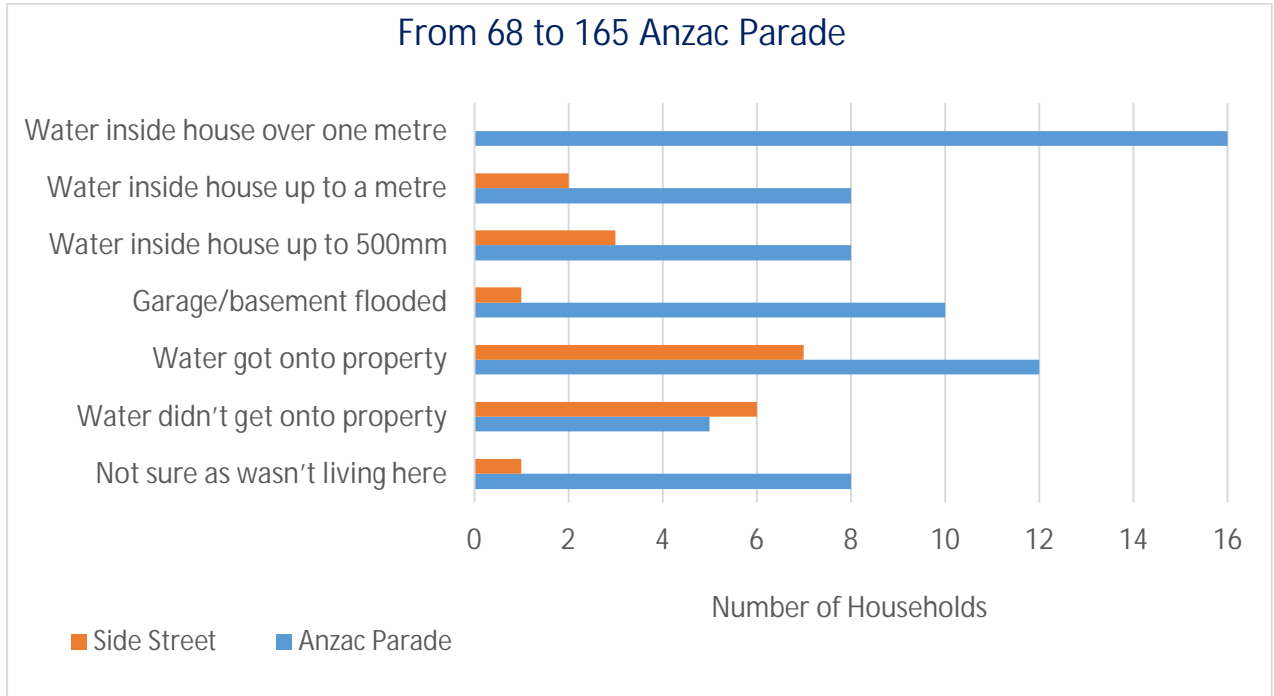
### 6.6. Have they experienced a flood?



*Note re School - Hostel had to be evacuated in 2015 but water only got as far as their kitchen. At the School water only got onto the lower playing fields.*



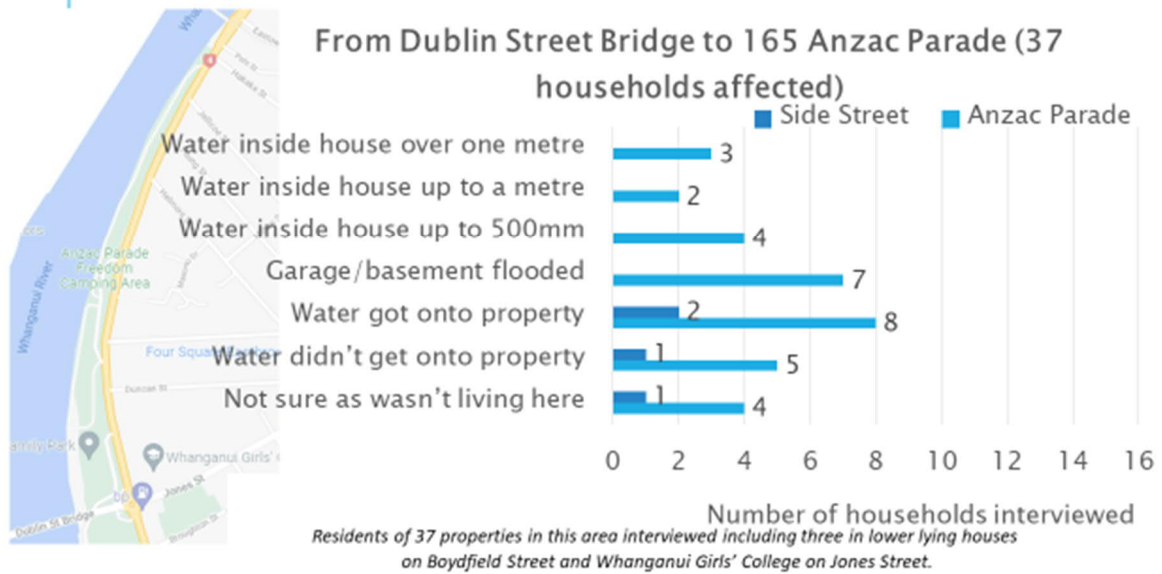
6.7. Reach of 2015 flood waters



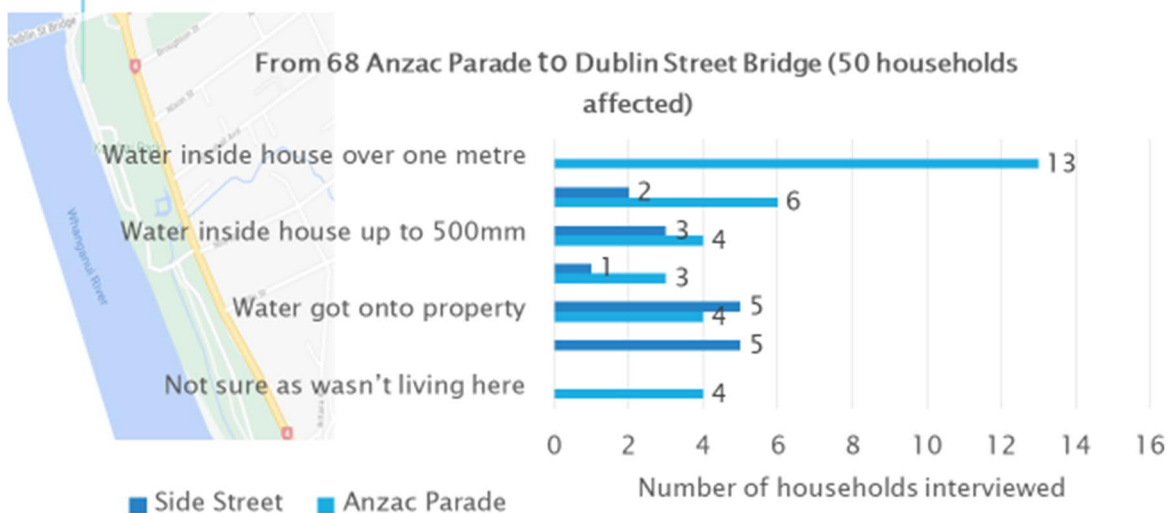


6.8. Breakdown of reach of 2015 flood waters above and below Dublin Street Bridge

## REACH OF 2015 FLOOD WATERS



## REACH OF 2015 FLOOD WATERS



Residents of 50 households in this area interviewed including 15 properties in lower lying houses on side streets – one in Ikitara Road, two in Willis Street, four in Nile Street, two in Marshall Avenue, four in Nixon Street and two in Sedgebrook Street close to the Matarawa Stream.



## 6.9. Notes on quantitative data

In total 41 properties had been owned for 6 years or more (including WGC and the WGC Hostel) with only one having been tenanted during the 2015 floods.

31 of the 87 properties represented had been purchased since the 2015 flood and 14, of the 15 tenants interviewed, had moved in to their residence since the 2015 floods.

Almost 60% of these homes are occupied by less than three people. 56.7% of residents are aged between 19 – 64 years with 23.3% aged 18 years or younger and 20% aged 65 or over. Of the total surveyed 6.66% had mobility issues (not including infants).

Pets were included in the survey to give us an idea of potential evacuation issues. The majority of households had at least one pet. The total number of dogs was 49 over 37 households and there were 42 cats over 29 households.

## 7. Qualitative results

The qualitative data used for this section of the report is compiled from all 100 interviews and is ordered around recurring themes that were spoken of not only by residents but by officials and others stakeholders.

### 7.1. Vulnerability

One thing that was really striking was how pragmatic some of the residents were about the 2015 flood – particularly the older residents. One resident, who had lived on Anzac Parade for 38 years and had been evacuated seven times when asked why she stayed replied:

*When it's all over the sun shines.*

- Homeowner

Others however become nervous whenever it rains for any length of time and would like to leave but feel they would not be able to get a place with as nice a view and surroundings. Several said if it did flood again they would definitely sell.

*...if it did happen again I would sell up I wouldn't start again, not at my age now  
and not without my husband*

- Homeowner

Tenants who moved into the area in the years following the 2015 floods seemed on the whole to have had little awareness of the vulnerability of themselves and their homes when they moved in. Many were not that concerned as their landlord had insurance and they felt it wasn't their problem.



*...I moved here and then when I started working, my work mates ...figured out where I lived and they was like they were 'oh my gosh you know when (the) 2015 floods happened your house was like nearly fully submerged.' I was like, 'WOW I didn't know that.'*

- Tenant since 2015 flood

Following the 2015 floods it was a requirement of any estate agent selling a property in the area to inform the potential buyer of the flood risk and, where applicable, show them where the flood had reached inside the house. Information on flood risk was also included in the LIM report.

However many buyers, from out of town in particular, were attracted by houses that had been recently renovated and were much more affordable than ones in the area they had come from.

*...I don't think we really understood how bad the flood risk was. So we moved here from Wellington and we had been looking at properties in Wellington and a lot of the properties we looked at were either in the tsunami zone, on a fault line or in the flood zone and the price difference of coming here when we found this house and it had been partially renovated compared to some of the other houses we were looking at and we were able to buy it mortgage free we kinda were like arrrggghhh how bad could it possibly be (laughs).*

- Homeowners since 2015 flood

Some did not fully understand what a 1 in 100 year flood risk meant, or if they did understand were prepared to take the risk.

*We didn't do any research into it, we just thought ahhh 1 in 100 years that means it has been*

- Homeowners since 2015 flood

## 7.2. Insurance

Understandably insurance was a big thing for most people. Those still living in the area following the 2015 flood all have insurance and those purchasing have been able to get it. However there were some residents who were not insured during the 2015 and several people have said they are the ones that left.

*...and everything was gone, we pretty much lost everything.*

*Q: Ok – did you have insurance?*

*No – I do now (laughs)*

- Tenant in 2015 flood

A lot of new homeowners who purchased after the 2015 flood were reassured by being able to get insurance. However there is definitely awareness that this is a changing climate and that being reinsured will not continue if flooding becomes more prevalent.



*So the insurance company will cover, me anyway, if there is flooding again  
but I don't know about the next person*

- Homeowner

*I could understand how people could say that insurance companies should/ could contribute but I don't think it is realistic, I don't expect it of them. They are in the business of insurance not flood protection. I mean it could very well get to the point where, and I am surprised it hasn't actually happened by now, that they won't insure people*

- Homeowner

### 7.3. Evacuation experience

A lot of residents feel the 2015 evacuation was not handled very well, with the primary concern that they were not given enough warning. Whilst most who had been there in 2015 understood it was a weather bomb with a high tide; days of torrential rain in Whanganui as well as rain upstream. The fact that things didn't look too bad at Pipiriki<sup>1</sup> did not actually represent the reality in Whanganui.

*Horizons must have known what was happening and they didn't do anything. They had all day to go along the road through all the houses 'get ready, get your stuff organised – just in case' and they didn't do anything*

- Homeowner

Some said Business' on the other side of the river by Taupo Quay had known to evacuate since lunchtime but no one had spoken to them. Some made the decision to evacuate themselves

*We literally, we decided to go...when people in a row boat came down and said 'oh you'd better get out'*

- Homeowner

while others were away and couldn't get back.

*Oh I went out to watch the rugby and came home five months later basically (laughter)*

- Homeowner

Most were evacuated by the Police and Civil Defence and had little time to get their things together.

*And the police says 'now where are you going?' and I says 'upstairs' (laughter) they said 'no you're not'. One took one arm, one took the other and they carried me (out)*

- Homeowner

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<sup>1</sup> Pipiriki is where the automated river level alert used by Horizons Early Warning System for Whanganui township is situated.





People were not so concerned about furniture and things that could be replaced. The things that residents who were evacuated in 2015 were most upset about losing were photographs and memorabilia.

*You know somebody should have told us to evacuate, just in case, cos we, people don't mind evacuating cos it saves a lot of their stuff. Like I was making my sons album for his 21<sup>st</sup> birthday, his baby photos and things through school, I had it all here and I lost the whole lot*

- Homeowner

Those involved from an official capacity in the evacuation and cleanup found it a traumatising experience too.

*During the 2015 flood I was also involved the next morning and I saw inside some of the houses and the devastation that water flowing through houses can do. In particular there was one old lady who I knew well...she'd been warned but they had lost track of where she was. So I was actually part of the group that went into her house the next day to see if she was there and that was pretty sobering...to search through a house – is there a person here?...fortunately she wasn't there and we found out later one of her family members had come and picked her up. But it certainly highlights the damage that can be done and the risk to people and the importance of taking people out of risk.*

- Official

#### 7.4. Ideas to increase flood resilience

Some residents and officials had very clear ideas on what could be done to increase flood resilience while others had either, 'not thought about it, or said they 'were not experts in this area'.

##### 7.4.1 Dredging

More than 50% of the residents interviewed thought that dredging the river would be the most sensible way of reducing flood risk. Older people spoke of being able to jump off the Dublin Street Bridge. A lot of people felt the flooding had increased since dredging ceased.

*But you talk to the old people and, like, they used to dredge out the mouth of the river and the water and they'd dredge and we didn't have those problems*

- Homeowner

*People always talk about digging out the river. My knowledge of coasts and river and nature are that nature abhors a vacuum and gravity pulls stuff into the centre...when they have dredged the river in the past all it takes is one medium size flood and you are back to square zero. It's not an option. It's one of those false flag hopes that people give.*

- Official



#### 7.4.2 Stop banks

Most people didn't think raising the stop banks was a good idea. Views of the Park and the Awa were key reasons for people buying in the area and they felt stop banks detract from their view.

*I mean actually I'd hate to see, you know, that we couldn't see the river, you know what I mean, you see the paddle steamer coming up and it is just beautiful and you look out to the Park over the thing (stop bank) which is slightly elevated.*

- Homeowner

#### 7.4.3 Lift houses

There was some support for this option although also an awareness that it was not a fix it for all properties. Residents and officials were conscious of the impact it might have on the 'feeling' of community with some houses being able to be raised but others not. The cost and actual technical difficult of doing it was also a concern.

*Yeah we've thought about doing the stilts thing, Dad who owns the house, has thought about doing that but then we were obviously concerned about like, would that be imposing on the neighbours etcetera, like how would it all go? If anything we thought we would potentially move the house to the back and put a garage underneath.*

- Resident in family owned home

*I mean you've got your three basic rules they haven't changed. You get out of the way; you accept the risk and pay the penalty; or you engineer um whatever measures you think... Cos the issue of raising houses is, most of that area is liquefaction prone. It is wet clay prone to seeping. If you're gonna bore down, um you're going a long way down*

- Official

#### 7.4.4 Managed retreat

While some residents were quite pragmatic in their belief that houses shouldn't be there, there was not much appetite for a managed retreat. People like where they live and they feel they would find themselves in a worse position if they had to leave.

*I've met some people who are strangers to me but who have said, "We want to just live with the risk. We don't want to shift. We like where we are and getting a place that we can afford with a view and being this close. We can't afford other places, we don't wanna leave. And yes there are floods but if we are prepared for them then that is just a risk we are prepared to live with."*

- Official

*Managed retreat for me is the medium and long term solution*

- Official



*Now as far as the um managed retreat is concerned, well what are they going to do? Wait until every poor bugger gets flooded out and offer them \$50 grand for their house?*

- Homeowner

*I think in the next 50 – 100 years the retreat option is appropriate, but I don't want...my property to lose value.*

- Homeowner

*Houses are an emotional connection and also, as New Zealanders, our number one financial investment. So it is not that straight forward so it will be really interesting. But I, what I've really hoped from this project is that we can help people, including, not just the residents, but people who care about the residents and care about the space, envisage a different, beautiful place...That you like to take your dog on, you like to grow community food in, you like to have your kids play in, a new extended Kowhai Park.*

- Official

## 7.5. Other issues frequently raised

### 7.5.1 The Matarawa Stream

Those who live along the banks of the Matarawa Stream were some of the worst impacted by the 2015 flood and felt the stream was the reason their houses were flooded rather than the Whanganui Awa. A lot of people said the worst flooding they had was at the back of their section closer to the Matarawa Stream whereas the front of the property wasn't as badly affected.

*Everything came from the Matarawa Stream. It didn't come from the river. So the stream hadn't been maintained. You could tell at the depth at the back of the house because we slope it was .9m the water mark out the front was .4m*

- Homeowner

*...the water didn't actually come in that way (point towards the road and awa) ... it actually came into the house from the back because of the stream*

- Homeowner

### 7.5.2 Erosion

People felt erosion and land use up river were contributing to the silt problem in the Whanganui Awa.



*My answer is a broader one rather than the specific steps we could make I'd look at the broader stuff and wonder about, you know, how much the farming and the use of the land further up the river affects erosion and the fall of the water into the river?*

- Homeowner

### 7.5.3 Climate Change

Although climate change was not referred to directly in the questions asked a lot of people felt it was something that needed to be factored into any decision made.

*Um, who do I think is responsible? God (laughs)... Climate change. That's the only reason it is happening.*

- Homeowner

*Since 2018 we've now been taking account of climate change. We've basically been working with, through NIWA and the Ministry of the Environment.*

- Official

### 7.5.4 Clearing drains

Residents spoke of manholes rising during heavy rain and lots of localised flooding. Some residents felt that blocked drains were a key contributor to the 2015 flood.

*Clean out the drains, clean out the streams and keep all the drains clear cos I think a lot of the water came up the drains cos the manholes came off.*

- Homeowner

And that they are an ongoing problem.

*I wouldn't say I feel vulnerable, I'd say it's, well I probably do, I just find it really annoying when I come home from work and the driveway is like there's heaps of water in it...my car is really low, so I get nervous driving down the driveway cos it's not just like in the gutter it actually goes quite out of it onto the road as well as over the front lawn.*

- Tenant

## 7.6. Private flood mitigation measures

Most residents didn't have any knowledge of how they could improve their own flood resilience. One resident and one official spoke of waterproofing houses. Some people had built retaining walls but thought they would be ineffective in a big flood. A couple of residents had purchased pumps but were concerned they would only be effective until the power went off.



*I've thought of that but what can I do? I just, I don't have a clue. I mean I have done the basic things like...my daughter and I, have organised with some friends that, once the warning comes in, they have got a truck and they are coming straight here (laughs) but other than actual physical how to stop it flooding, that's just, I don't know how they'd do it.*

- Tenant

*Well for instance my place here, I've spent \$5,000 waterproofing it*

- Homeowner

### 7.7. Early warning system

While only 30% of residents interviewed used the Early warning system most thought it was a good idea and were interested in finding out more about it.

*I do think the flood warning system is a really good peace-of-mind for people because they can check that out, you know when it is heavy raining, 'ah, am I going to be ok? What's my next two or three days gonna look like?' And I think that Civil Defence will be better prepared this time but you know it's just, I just wouldn't want to do that 2015 one again*

- Homeowner

However at least half-a-dozen people expressed frustration at having tried to get registered and not been successful.

*I went to the website and they said download a form and print it off and mail it back and I don't have a printer and I meant to, I've been meaning to call them and get the form sent to us*

- Homeowner

There was a lot of concern about evacuation and the practical steps of this. Definitely a belief it had to be managed better next time

*... we cannot do anything with Mother Nature but I wasn't aware of any of those things that were going on like ... who is going to let us know? Where do we go? How do we get evacuated? All of that stuff would help me feel less anxiety I think*

- Homeowners purchased since 2015 flood

### 7.8. Responsibility

Most thought Councils were responsible for finding a solution – primarily Horizons but a lot thought in conjunction with Whanganui District Council. There was also an expectation that Central Government should be involved and Waka Kotahi.



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Those who lived higher up, on safer ground, were more inclined to think the homeowner had responsibility whereas those that were most likely to get flooded felt it should not be a ratepayer cost. A lot of people believe this is the view of the rest of Whanganui.

*Um and from the other rate payers, feedback we get, when we used to talk, we still do talk to people at home-shows or we do our outreaches, "why should I pay for them who choose to live in an area like that."*

- Official

A few also thought responsibility should be shared between Homeowners, Councils and Central Government.

*Oh I think it needs to be a combined thing with both of the Councils and the property owners*

- Homeowner

*You should be responsible for your own property but the Council, be it Whanganui or Horizons, need to be responsible for the stream and the river and sorting something out.*

- Homeowner

### 7.9. Barriers to finding a solution

Money and agreement on who should pay were the most identified barriers. The whole process of finding a solution was also seen as a barrier.

*Q: So what do you see as barriers to anything getting done?*

*(laughs) endless committee meetings, a lot of different opinions that stalls things, apathy and also peoples resistance in not wanting to move. Having their lives changed. Engaging in the, in the whole process... you really need to be invested in it.*

- Homeowner



## 8. Key findings

### 8.1. Significant findings – quantitative data

- Just over half of the properties had been purchased or tenanted since the 2015 floods. So residents have not experienced a flood first hand.
- Only 30% of the households surveyed are aware of and use the Horizons Early Warning System
- The area most impacted by flooding is from 68 Anzac Parade to Dublin Street Bridge where 32 of the 50 houses (64%) interviewed had water inside their homes compared to nine of the 37 properties (24.32%) above Dublin Street Bridge.

### 8.2. Significant findings – qualitative data

- Understanding of the flood risk and therefore feelings of vulnerability varies significantly between:
  - those whose homes were flooded and those whose homes were undamaged
  - those who lived through the 2015 flood and newer residents
  - tenants and homeowners
  - and most surprisingly between residents who have had similar experiences. Some appear quite resilient and have a 'whatever will be will be' while others are much more nervous and anxious
- Currently those living in the area are still able to get insurance although there is an awareness this may not be long term
- The evacuation in 2015 was not handled well from residents perspectives. A lot felt they could have had more warning or at least have been given a heads-up earlier in the day that they might be evacuated.
- Residents had similar views around dredging, stop banks and lifting houses. Officials had technical arguments for these not being feasible in the long term.
- Most residents did not want a managed retreat because they:
  - love where they live – the awa, the trees, the bird life
  - do not feel they will be able to get anything comparable if they leave
- Most residents did not know what they could do to protect their homes
- The majority of residents did not feel they should pay for the solution. They felt responsibility landed on Horizons Regional Council, Whanganui District Council and to some extent Central Government.



- Almost everybody saw money as the barrier to finding a solution.

### 8.3. Limitations and benefits

#### 8.3.1 Limitations

One of the limitations of this research was not having contact details for people who had lived through the 2015 flood but had then either not returned to their home or had renovated and then sold. We were contacted by one ex-tenant and one ex-homeowner and their input was important but statistically they did not represent the number of people who moved away following the 2015 flood.

None of the insurance companies contacted were prepared to speak to us or give us any idea of the cost of repairs following the 2015 floods which meant there was a gap in understanding of the cost of repair.

#### 8.3.2 Benefits

Door knocking meant Researchers were able to engage directly with 87 households. This face-to-face approach, in an environment the participants were comfortable in, was essential to building strong relationship and trust upon which the strategy could rely and gain its legitimacy. Officials that were interviewed represented agencies that have responsibility for the awa and the community. Some had been in their current role during 2015 floods and some had not.

#### 8.3.3 Identified short term improvements

One of the key advantages of conducting these interviews has been the identification of things that can be improved in the short term. These are:

1. Making the Horizons Early Warning System easier to enrol on
2. Staying in touch. Because of the high turnover of residents in this area it would be worth both CDEM and Horizons making contact with residents on a regular basis – at least bi-yearly.  
Through rates information it might be valuable for either Horizons or Whanganui District Council to put in place a process for ensuring new residents are aware of the early warning system and the evacuation process. However this would not work for tenants but maybe a 'pack' could be provided to landlords for new tenants.
3. Providing information on evacuation procedures and reassuring residents that things have improved since 2015.
4. There is an obvious need for closer liaison between groups responsible for this community. Ideally a team comprising Horizons Regional Council, Whanganui District Council, CDEM and Red Cross who could meet as often as needed to share information, identify issues, and





ensure residents are being kept informed. A collegial relationship between these groups would be of huge benefit from a communications and knowledge sharing perspective and also in their ability to work together in an emergency.

## 9. Conclusion

People know there will be another flood. Some choose to remain uninformed, enjoy their homes while they can and not dwell on it. The majority of these people have moved into the area since 2015 and have not experienced a flood first hand. Others worry about getting adequate warning; about their homes; their pets; financial and insurance implications - although few consider loss of life.

All are reluctant to leave the area with its awa, greenery and bird life. They definitely feel they will not get another property with these advantages.

There are no 'quick fixes' for flood and community resilience for Anzac Parade. However, as outlined above, there are some straight forward things that have been identified by residents and that can be done now to increase resident knowledge and preparation for the next flood event.

Centre outside back page

*People have to remember that 200 years ago the whole of the catchment was in forest. And then Europeans came along and cleared the land and put in grass, in areas probably too steep to do so. I don't believe that the river dynamics and the land dynamics have stabilised since then. It's still changing.*

- Official

*Thanks to all the residents and officials who so generously gave their time, experience and knowledge to this research.*



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## 11. Appendices.

### Appendix One

Dear Sir/Madam

#### ANZAC PARADE FLOOD RESILIENCE PROJECT

We are writing to update you on the Anzac Parade resilience strategy public consultation. This consultation is about developing strategies to reduce flood risk and increase community resilience along the most at-risk areas of Whanganui East. We are writing to you directly as flooding is a potential risk for your property/residence.

Due to Covid-19 we were unable to go ahead with the second round of community consultation planned for 21 and 23 August at the Hakeke Community Centre and Library.

We do plan to hold further consultation but in the short term, to move forward with community engagement, our Research Officer, Kath McDowell will be door knocking over the next few weeks to engage residents and property owners directly for one-on-one conversations. While we are still at Level 2, Kath will be wearing a mask and will follow physical distancing guidelines.

These one-on-one conversations, together with the first round of community meetings will inform a more detailed development of options and costing. This information will be presented in the following round of community meetings that, depending on Covid, we hope to hold during November and December 2021.

We will continue to update our website [www.horizons.govt.nz/anzac-parade](http://www.horizons.govt.nz/anzac-parade) and will write to you as soon as we have new consultation dates. In the meantime our Research Officer Kath will be consulting you directly to further understand your experiences and views on flood resilience.

Kind regards,

Martín García Cartagena and Bruce Glavovic  
School of People, Environment, and Planning  
Massey University



## Appendix Two

### BACKGROUND INFORMATION UPDATE (July/August 2021) Building community resilience and reducing flood risk in a changing climate: Towards a flood risk reduction strategy for Anzac Parade

#### INTRODUCTION

In 2018 Horizons Regional Council consulted with Whanganui residents about how best to address river flooding of parts of Whanganui. According to its Long-term Plan, Horizons introduced mandated provisions to “*make the Anzac Parade area more resilient to flooding*” (HRC, 2018, p. 7). Horizons Regional Council, in dialogue with the Whanganui District Council, has appointed Massey University to provide advice on how to reduce flood risk and increase community resilience on Anzac Parade. This information sheet describes the project, including the flood risk context, the project aim, team and activities, and opportunities for interested and affected parties to contribute.

#### FLOOD RISK IN WHANGANUI

The Whanganui district is exposed to many natural hazards, with floods having caused significant economic and social impacts in recent times. Climate change projections developed by the National Institute of Water and Atmospheric Research (NIWA) for the Manawatu-Whanganui region indicate that there will be a significant increase in the frequency and intensity of rainfall events; an overall increase in rainfall during the winter season, and an increase in sediment loads. In short, this means that the frequency of large extreme flood events is increasing and will continue to increase. Low-lying areas of Whanganui adjacent to the river will become more exposed to extreme flood events. Flood risk reduction actions are already incorporated into District Council and Regional Council planning provisions, such as the Horizons Long-term Plan 2018-2028, and special attention has been given to parts of the Anzac Parade area. This area was significantly affected in the June 2015 flood event, causing resident displacement, and damage to infrastructure and about 100 homes. It is inevitable that there will be future extreme flood events that exceed the design standards of existing protective works. In addition, after careful consideration, Horizons has concluded that improving the existing protection (stop-banks) is an unaffordable and ineffective solution for the long-term sustainability of the area. Hence the urgent need to identify a pool of alternative proactive and innovative short, medium, and long-term risk reduction and resilience building measures (e.g.: improved flood-warning and evacuation systems, flood-proofing residences, raising houses, managed retreat, etc.).

#### THE PROJECT AIM

The aim is to create a co-designed strategy to reduce flood risk and increase community resilience in Anzac Parade. The feasibility of a range of community-wide and property-specific interventions will be assessed. Recommendations will be made based on the implications of alternative interventions for flood risk reduction, resilience building, and resident and community well-being.

#### THE PROJECT TEAM AND CORE ACTIVITIES

The project is led by Massey's Professor Bruce Glavovic and Dr. Martín García Cartagena, who are experts in natural hazards planning, flood risk reduction, and community resilience building. Other specialists may become involved in developing the strategy. We aim to build shared understanding about the risks faced, and the pros and cons of alternative interventions in the short-, medium- and long-term. The recommendations made will be based on the best available information and consider the strengths and weaknesses of regulatory and non-regulatory provisions for flood risk reduction and resilience building in Whanganui.

To date, initial conversations have been held with more than 20 people from multiple government offices at central, regional, and local levels, as well as local and regional councilors, relevant iwi authorities, Red Cross, and the insurance sector. Their input has provided background information about flood risk, and some aspects of the viability of options for the area. A summary of this initial work has been presented to both Horizons Regional Council and Whanganui District Council for information, and local elected members feedback has been considered in planning the next steps of this project. Findings from this initial background work will soon be made publicly available.

This project is founded on respecting the views and needs of tangata whenua as original inhabitants of this place and their ongoing guardianship, rights and responsibilities to the land. To honor and respect the unique cultural and legal status of the



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awa, (Te Awa Tupua, Whanganui River Claims Settlement Act 2017), we have consulted and sought guidance from Te Rūnanga o Tūpoho and they have agreed to support this process and contribute as foundation partners in this project. In addition, Ngā Tāngata Tiaki o Whanganui has also been consulted and will be kept informed as the project unfolds and opportunity for this organization to participate and contribute as they consider necessary.

In August 2020, Horizons Regional Council sent a letter to all residents of Anzac Parade to introduce this strategy formulation project. Public consultation with residents of the area was meant to start by late September 2020, but due to COVID-19 complications and the longer than expected time taken to do initial background work, the public consultation stage had to be postponed until 2021. We are now initiating engagement with local residents, property owners, and other interested and affected parties through information sharing and a series of small group meetings / workshops and public meetings that will take place in the coming months.

#### HOW CAN YOU CONTRIBUTE?

This initial public consultation phase will consist of a series of conversations with residents and property owners, as well as other interested and affected parties. We would very much appreciate your involvement in this project, including your views on:

1. The role/s you have played or experience you have in relation to Whanganui flooding.
2. How do you and other people view flood risk along Anzac Parade?
3. What could be done, by whom, and when, to manage this flood risk in the short- (1-10 years), medium- (10-50 years) and long-term (50+ years)?
4. What are the main barriers and opportunities to reduce flood risk and build resilience in Anzac Parade?

Participating in this project may involve your participation in two or three conversations in the next two to three months. The conversations will be held in small groups and are expected to take about 90 minutes. The group conversations will be scheduled as shown in the attached schedule document, and you can enroll in any of the programmed conversations. With your permission, the conversations will be recorded and transcribed. Information obtained from the conversations will be stored securely by the researchers for the duration of the project, and may be destroyed thereafter. The findings will be reported so that the individual identity of participants is strictly confidential, unless participants indicate otherwise. You are under no obligation to accept this invitation. If you decide to participate, you have the right to: decline to answer any particular question; withdraw from the study; ask any questions about the study at any time; provide information on the understanding that your name will not be used unless you give permission to the researcher; be given access to a summary of the project findings when it is concluded; and ask for the recorder to be turned off at any time during the conversation.

#### COVID-19 CONSIDERATIONS

Because we are currently in Level 1, and face-to-face contact is still recommended to be avoided whenever possible, this initial stage of the engagement process will use necessary social distancing and other precautions, and, where possible, use internet communication technologies such as zoom, skype, WhatsApp calls, or cellphone communications. In cases where internet or phone communications are not possible, then face-to-face interactions may be considered with the consent of the interviewee, and applying a two-meter social distancing precautionary measure.

For updates on this project and upcoming public meetings please refer to this website: [www.Horizons.govt.nz/Anzac-parade](http://www.Horizons.govt.nz/Anzac-parade). Thank you so much for considering this invitation, and we sincerely hope to hear from you sometime in the very near future.

Martín García Cartagena and Bruce Glavovic  
School of People, Environment, and Planning  
Massey University

*This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application SOB 20/37. If you have any concerns about the conduct of this research, please contact Dr Gerald Harrison, Chair, Massey University Human Ethics Committee: Southern B, telephone 06 356 9099 x 83570, email [humanethicssouthb@massey.ac.nz](mailto:humanethicssouthb@massey.ac.nz).*



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Appendix Three

Building community resilience and reducing flood risk in a changing climate:  
Towards a flood risk reduction strategy for Anzac Parade

PARTICIPANT CONSENT FORM - INDIVIDUAL

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the interview being sound recorded and transcribed.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature:                      Date:

Name:

Contact details (phone/email):



Appendix Four

Reducing flood risk in a changing climate:

A project to inform Horizons Regional Council flood risk reduction strategy for Anzac Parade

Participant Name \_\_\_\_\_ Date \_\_\_\_\_

Interview location \_\_\_\_\_

How long have you lived here? \_\_\_\_\_ Do you rent or own? \_\_\_\_\_

Number of people living in the house? \_\_\_\_\_ Age of residents? \_\_\_\_\_

Any mobility issues? \_\_\_\_\_

1. Questions around your experience of living in this area.
  - a) Have you lived here during a flood? What was your experience?
  - b) If not what is your knowledge of flooding in this area?
  - c) Do you feel vulnerable or at risk knowing the river floods? [incl. is anyone particularly vulnerable e.g., need assistance in an evacuation, etc.]
  - d) Are you aware of the early warning system?
  - e) What ties you to this house/area?
  - f) Have you had any contact with a local authority such as WDC or Horizons around the flood risk in this area?
  
2. Questions around your preparation and expectation around a future flood
  - a. Have you done anything to your property to help protect it in a flood?
  - b. If so how effective do you think your preparation will be?
  - c. What do you think your experience in a major flood would look like?
  
3. Questions around your ideas on options for increasing flood resilience in this area
  - a. What do you think would be the best options to reduce flood risk – for you personally? For the area? For say over the next 10 years; 50 years; 100 years from now?
  - b. What can you do yourself to increase your properties flood resilience?
  - c. What would you need help from others to do – and who? WDC, Horizons, Central Govt?
  - d. Who do you think should be responsible for finding a solution?
  - e. What other options are there? What do you see as barriers?

End time \_\_\_\_\_