Te Rautaki Kōtuinga Waipara 2023

2023 Wastewater Network Strategy

Engagement summary – published June 2023

Watercare

Contents

He mihi

**He aha tēnei whakaputanga e whakaata nei i te pae?
He putanga hei whakaoho i te taiao,
he putanga hei whakaihi i te wairua tangata.
Ko te whakaputanga o Matariki i te ao tukupū,
he tohu whakamahara me anga atu ki te ao anamata.
He huarahi hou me whai
e oho ai te iwi whānui
ki ngā take e hāngai ana ki te wai.
Ko Puanga kua puta i te pae.
Ko Rehua kua rere atu i te tirohanga tangata.
Pūrere rā e te waitohu ā-rangi
kia piere mai ko te tau hou e whakaata mai nei!
Tūturu ō whiti, whakamaua kia tina... Tina!
Haumie, hui e... tāiki e!**

What is this phenomenon on the horizon?
‘tis a vision to rouse the forces of nature,
‘tis a manifestation to spark the human spirit.
It is the announcement of Matariki in the cosmos,
a reminder to look to our future.
There is a new pathway to be pursued
where communities shall be informed
about water-related issues and options.
Puanga has risen above the skyline.
Rehua has disappeared from our sight.
Fly on high heavenly harbinger
and make way for the new year!
Hold fast to your doctrines, don’t let go of them!
Join all, bind all... It is done!

Foreword

Managing wastewater overflows and investing in our wastewater network is critical to environmental and public health. Proper management of overflows is essential to protect the health of our communities and to ensure the wellbeing of our natural environment. Yet engineering better wastewater outcomes is costly. The age, scale and complexity of urban networks mean that we cannot stop all overflows, and ensuring that people put only the right things into the wastewater network requires an ongoing effort. To strike the right balance between environmental outcomes and affordability in partnership with our communities, we need to ensure that Aucklanders have the knowledge and understanding of the wastewater system to be meaningful and empowered partners in the effort to bring about a better water future.

After talking with our communities and stakeholders in late 2022 and combining it with our survey research, it became apparent that in addition to the operational and infrastructure fixes that were called for, we had another challenge relating to the feedback we were receiving. Many, if not most, Aucklanders remain unaware and unengaged with wastewater services, and do not understand the system and their part in it. Put frankly, most Aucklanders are not interested in attending our open days, answering surveys or providing us with feedback about wastewater services and investment. Yet these are the people who will pay the bills, and who contribute to wastewater overflows by way of incorrect stormwater plumbing during heavy rain, and by putting wet wipes, rubbish, fats, oils and grease down toilets and sinks. Those attending our events and giving feedback tended to be far more knowledgeable and engaged in wastewater issues, and more passionate about protecting their local environment. The problem – and the solution – was to get 'typical' Aucklanders involved in discussions about wastewater, but they weren't turning up.

An illustration of levels of community awareness and engagement about the wastewater network as determined from our community engagements and surveys.

We appreciate the commitment and care provided by attendees of our community events, but recognise we also need to work on increasing engagement with a wider audience if we want to see better wastewater outcomes. In response, we decided to run a global café – a community discussion in an informal setting – in which non-experts from the public listen to a challenge and work with each other to suggest solutions. The challenges we put before the public was "how can we increase Aucklanders' interest in the wastewater network?" and we challenged them to come up with innovative ideas on how we might change behaviour to prevent fatbergs from blocking up our pipes. The global café showed us that we are able to get a more representative group to care about deeper issues around wastewater and the environment if we approach them in an enjoyable and empowering way. Both groups in our global cafés were highly engaged, collaborating to provide many novel and thoughtful ideas on how the wastewater network can be better understood and protected.

Participants in our March 21 2023 global café event.

During our feedback journey, we have come to realise the increasing importance of building water literacy in the wider community. Water literacy is the understanding of water-related issues, including water and wastewater management, conservation, and sustainability. When the community is well-informed about water issues, they are better equipped to provide feedback and insights that are reflective of their needs and values. This feedback is crucial for developing sustainable water management strategies that balance costs and benefits for the community. Water knowledge is also crucial to building resilience in the context of climate change. If the public have the understanding to articulate the investment trade-offs that they can live with, then they are more empowered to support themselves and each other during extreme weather events that will increasingly characterise our future.

There were three other reasons we broadened our engagement with the public. First, we found that the people attending traditional engagement methods such as face-to-face meetings were mostly elderly, which presented a risk in terms of knowledge-sharing across the wider community over the longer-term. Secondly, our citizens' assembly recommended direct recycled water as the next source of water for Auckland and we know that to facilitate acceptance, we will need Aucklanders to understand and care about what is put into wastewater and how the network functions. Finally, factors like climate change and urban growth are increasing the urgency and importance of investing in the wastewater network. As a result, it's crucial that we hear from the wider community and incorporate their feedback into our decision-making around these investments. By involving more of the public in these conversations, we can ensure that our investments align with the needs and priorities of the community we serve.

Climate change and the Auckland Anniversary weekend floods

We acknowledge that climate change is one of the largest challenges we face as a business, as a city, and as New Zealanders. The impacts of climate change are often seen first through water, and at Watercare our responsibility to understand, mitigate and adapt to these impacts.

When we seek feedback on what our customers, communities and citizens want, it is important that they also understand the increased likelihood of severe droughts, flooding and storms. They need to factor more extreme weather and its impacts into discussions about the level of investment and environmental outcomes that they as the public want.

The timing of our call for feedback on wastewater overflows was in the second half of 2022 and as such, could not take into account the devastating and unprecedented flooding events which took place in Auckland at the end of January and the beginning of February, 2023. Flooding became a reality for many Aucklanders who had never considered or been impacted by an engineered overflow point or a wastewater or stormwater overflow more generally. Thousands of Aucklanders had homes contaminated with untreated wastewater due to stormwater overflows entering and overwhelming the wastewater network and assets. Cyclone Gabrielle, which came through days later, brought about more damage to our network. Had our research and engagement been carried out in the beginning of 2023, we believe that wastewater overflows would have been more of a top-of-mind issue for Aucklanders, and addressing the underlying cause - climate change - would be more of a priority, particularly for those who had previously never been impacted.

Watercare staff testing floodwater in Okahu Bay, 2 February 2023

We confirmed this hypothesis. We kept key questions about wastewater management in our ongoing surveys to track whether understanding and sentiment in the wider community is changing. More importantly, our global cafés in March served to ensure that we weren't missing key pieces of feedback on willingness to invest in our wastewater system in the context of climate change and the floods.

In the last three years, Auckland has experienced severe drought, flooding and storms which will inevitably change the way we designate land, build houses, invest in infrastructure and understand the importance of

water issues at the local and regional level. Watercare will continue to seek feedback, engage and co-design solutions with the public outside of our consent obligations and timeframes, because climate change and increasing community water literacy force us to step outside a business-as-usual framework. We need ongoing engagement, approaching the future in partnership with our communities.

The recognition and value of a community voice in planning for our future infrastructure continues to grow in importance. The network discharge consent (NDC) wastewater network strategy review has presented us with an opportunity to engage with and listen to our communities in new ways, but in effect we have gone 'beyond compliance' required by the resource consent to hold new, more purposeful conversations with our customers.

Participants in our March 21 2023 global café event.

Success of the wastewater network strategy relies on the understanding, involvement, and commitment of all Aucklanders as we continue the journey to reduce overflows and improve the health of our environment and the wellbeing of our people and wildlife.

We thank all Aucklanders who gave up their time to provide feedback and input into this strategy. Their voices have been crucial in helping us develop an approach to the wastewater network that is sustainable, effective, and reflective of the needs of the community.

Beyond compliance

Network discharge consent journey towards cleaner waterways: Community and stakeholder journey map to overflow reduction

Introduction

Introduction

Te Mana o te Wai

Water is precious, both in a spiritual and physical sense, as it sustains not only the land and the people but also our identity. This understanding is deeply ingrained in the Māori concept of interconnectedness of the water system, where the wellbeing of water takes precedence over its use as a resource. This guiding principle is embodied in Te Mana o te Wai, a framework that sets a hierarchy of obligations for managing freshwater in this country.

At the heart of Te Mana o te Wai is the recognition that the health and wellbeing of water is paramount. We need to care for the wider environment. Our rivers and lakes, from the mountains to the sea, and how we care for and use them, are a fundamental part of our national and regional identity. This is particularly relevant to Watercare's wastewater network strategy as the proper treatment and discharge of wastewater play such an important role in the health of our waterways.

As part of an integrated approach to managing land use and freshwater, Watercare is aligned with key national guidelines informed by Te Mana o te Wai, such as the National Policy Statement on Freshwater. Overall, Te Mana o te Wai is a reminder that water is essential to all life. This is reflected in our purpose:

Ki te ora te wai, ka ora te whenua; ka ora te tangata

When the water is healthy, the land and the people are healthy

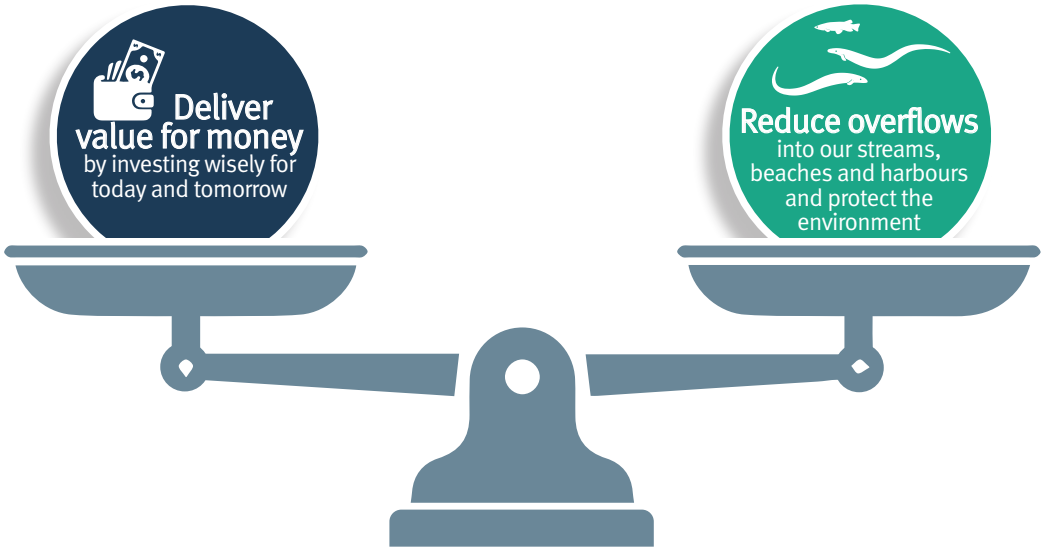
Getting the balance right: affordability

A major challenge in reducing overflows is balancing aspirational outcomes of the community, regulatory obligations, and affordability. We want to do right by our environment and waterways, and our communities but must also provide water and wastewater services that everyone can afford. Our operations and capital investment programme is funded by customers (today's bill payers) and borrowings (tomorrow's bill payers). We must also factor in unknowns which result in cost escalations and resource limitations which may delay projects. As such, there is a limit to how much and how fast we can spend money to bring about the environmental outcomes communities want.

Finding this balance sometimes requires the use of a 'best practicable option' where excellent environmental outcomes cannot be easily or affordably achieved. Finding the right balance means making difficult trade-offs but we continue to ask ourselves "when considering both the short and long-term, what is the best way of managing our wastewater networks and reducing overflows in an affordable way?" and 'What role does the public play in bringing about better environmental outcomes?' Our wastewater network will only function well if both of the following are working:

1. the infrastructure is fit for purpose, and

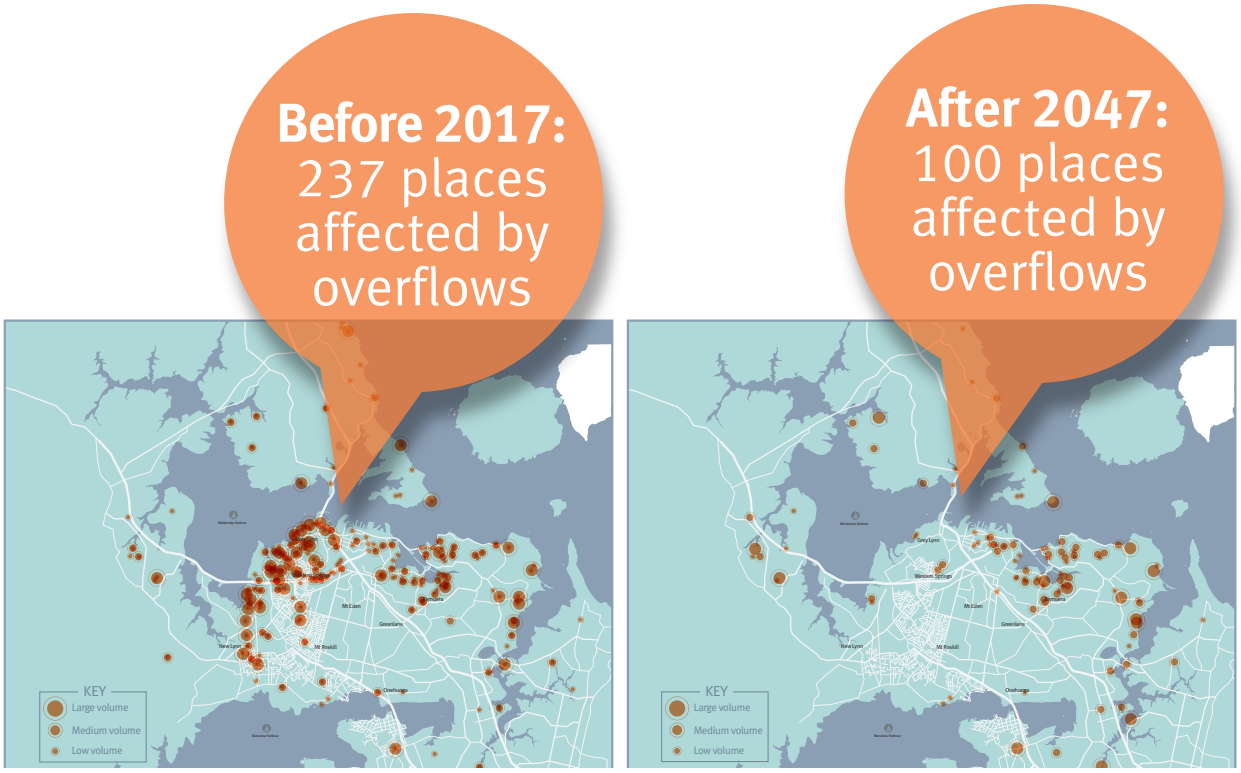
2. people (and their private plumbing) work towards ensuring that only the right things flow into it.



Our global café participants showed us that there is a desire to participate meaningfully in this balancing act, and they can do so when we get the pitch right. They don't need to become experts, they just need enough time and information to allow them to understand the main themes and to collectively bring their own values, knowledge and experience to the table. The more people can participate in the crucial conversations about trade-offs beyond their own local catchments, the more effective we will be in achieving outcomes. We see these kinds of events as a way forward beyond speaking to a community of highly literate and impacted residents and a non-invested, disinterested representative public. In the following sections we provide some of the information that was collated for the participants and then move on to talk about the wider engagement and feedback.

The network discharge consent

Our wastewater network discharge consent was issued by Auckland Council in 2014 for a 35-year period. Its purpose is to protect the health of Auckland's communities and environment (such as beaches and waterways) by setting performance standards for the wastewater network.



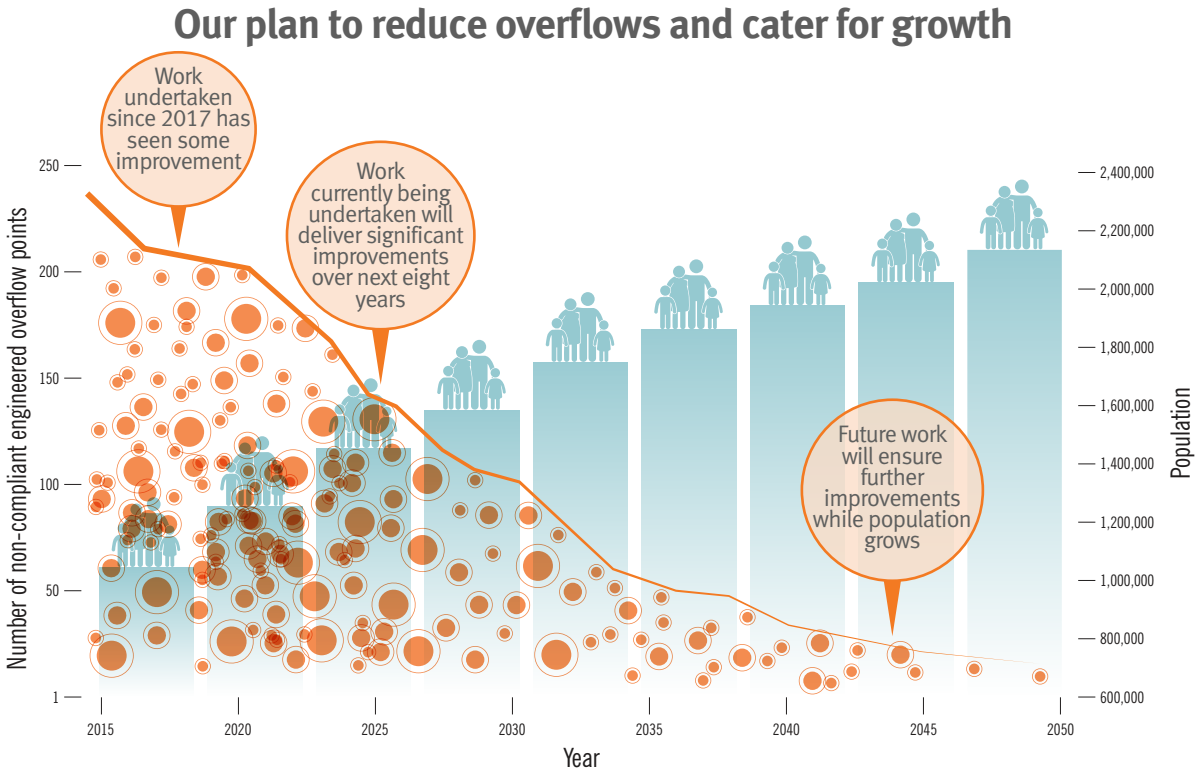
The images above show how wastewater overflows are expected to improve over a 35-year period. The projection for 2047 was created in 2017 and considers the projects that were planned at that time. More projects have been developed since then. The modelling for 2047 will be updated with additional plans and projects at the end of 2024.

The consent authorises an average of two spills per year or an alternative discharge frequency based on the best practicable option. Currently, there are areas in Auckland that do not meet this criterion. Therefore, we are required to rectify this situation and document the actions in the wastewater network strategy. The wastewater network strategy sets out the actions we plan to take over a six-year period to improve the performance of our wastewater network and is a requirement of the network discharge consent. As an organisation, the network discharge consent sets the conditions we are obligated to meet, however we are also guided by our customers and our purpose to protect the water's health, which will ensure the health of the people and the environment.

Our plan for reducing network overflows

We plan to invest $10.7 billion in wastewater infrastructure over the next 10 years. This is to ensure our ageing network continues to operate reliably as our city grows and climate changes. The investment will also ensure we protect the environment by meeting our consent conditions, including those of the network discharge consent.

In our 2023 wastewater network strategy and subsequent six yearly strategy reviews, we will identify the work we need to do to improve the performance of our wastewater network. Our aim is to invest in the network, reduce overflows and improve operation of the network over time consistent with conditions of the resource consent and our understanding that climate change will make us more vulnerable to extreme weather and wastewater overflows in the future.



Our strategy will outline three workstreams:

Infrastructure delivery: upgrading our assets.

Inflow and infiltration programme: identifying where stormwater is entering the wastewater network and work to remove it.

Community education: educating communities on the causes of overflows and how we all have a role to play in preventing them.

Mana whenua

Mana whenua

The Mana Whenua Kaitiaki Forum was established in 2012 to encourage discussion and guidance, and to share views on the management of water and wastewater. The forum's focus has widened to all matters affecting the strategic interests of mana whenua across the Auckland region. As we recognise each of the mana whenua entities, we offer each an opportunity to be involved directly outside the forum or working group.

In February 2022, we introduced the forum to the six-yearly wastewater network strategy as an opportunity for each mana whenua to provide feedback on Watercare's conduct during the review processes. As the last strategy was in 2017, this workshop provided an opportunity to reflect on past progress as well as providing further feedback on key areas of the strategy. The forum meeting identified several issues, grouped into three main areas. A volunteer working group was established from the forum to discuss these further.

Awakeri Wetlands

The three areas are:

Working group topics	Objectives
Catchment prioritisation: review criteria and methodology to incorporate Te Ao Māori views.	• Assess the performance of the network against the network discharge consent targets. • Understand the catchment prioritisation criteria and its role in setting out what is prioritised for the next six years and beyond. • Identify the considerations that mana whenua would like to be factored into the prioritisation process moving forward.
Standardisation process: review modelling with Mana Whenua Kaitiaki Forum to discuss long term monitoring processes for combined sewer overflows.	• Update on combined overflow projects and changes to the programme of work. • Assess the programme of works and its impact on Safeswim and water quality.
Education pathway and community: reviewing existing education initiatives and community engagement plans to incorporate Te Ao Māori views.	• Review our existing education initiatives and community engagement plans with a view to incorporating Te Ao Māori views.

Some of the feedback from the discussion included:

- *Mana whenua want more access to readily available information/data of the network discharge consent to share with their rohe. This information would support mana whenua to focus their priorities.*

- *The environmental effects of developments/intensification need to be seriously considered. Putting strain on the wastewater network and increasing discharges negatively impact natural ecosystems and the wairua (spiritual essence) of the moana (ocean) and awa (river).*

- *Explore options to review the prioritisation criteria that give effect to Te Mana o te Wai and mana whenua cultural values.*

- *Watercare's staff should have a better understanding of the environment through the lens of Māori. When environmental issues are discussed, communication should be offered to the community.*

- *The current classification of the receiving environments (where wastewater overflows discharge) and the prioritisation criteria (how we decide which catchment is prioritised) seems to imply that it is okay to spill and degrade the environment, which is unacceptable. This approach should be reviewed to ensure that the environment is enhanced and improved.*

The feedback will require us to work closely with mana whenua to explore possible opportunities which will help achieve the intended outcomes for programmes and projects. We acknowledge mana whenua and their ongoing contribution to the partnership to support the strategy and improve the environment of Tāmaki Makaurau.

Community feedback

17

Community feedback

Community engagement

This section summarises the different kinds of community feedback received and some of the insights gathered during our engagements with the public on the wastewater network strategy. It covers the themes and perspectives on wastewater that we learned, and the different respondents and participants with whom we engaged.

This is a snapshot of some of the themes uncovered during our public engagement in December 2022 and covers the broader question of where this feedback sits in relation to the typical Aucklander and our global café on wastewater conducted in March 2023. It does not cover the activities, strategic direction or the long-term investments Watercare will engage in as a result of public feedback. This will be provided in early 2024.

Summary

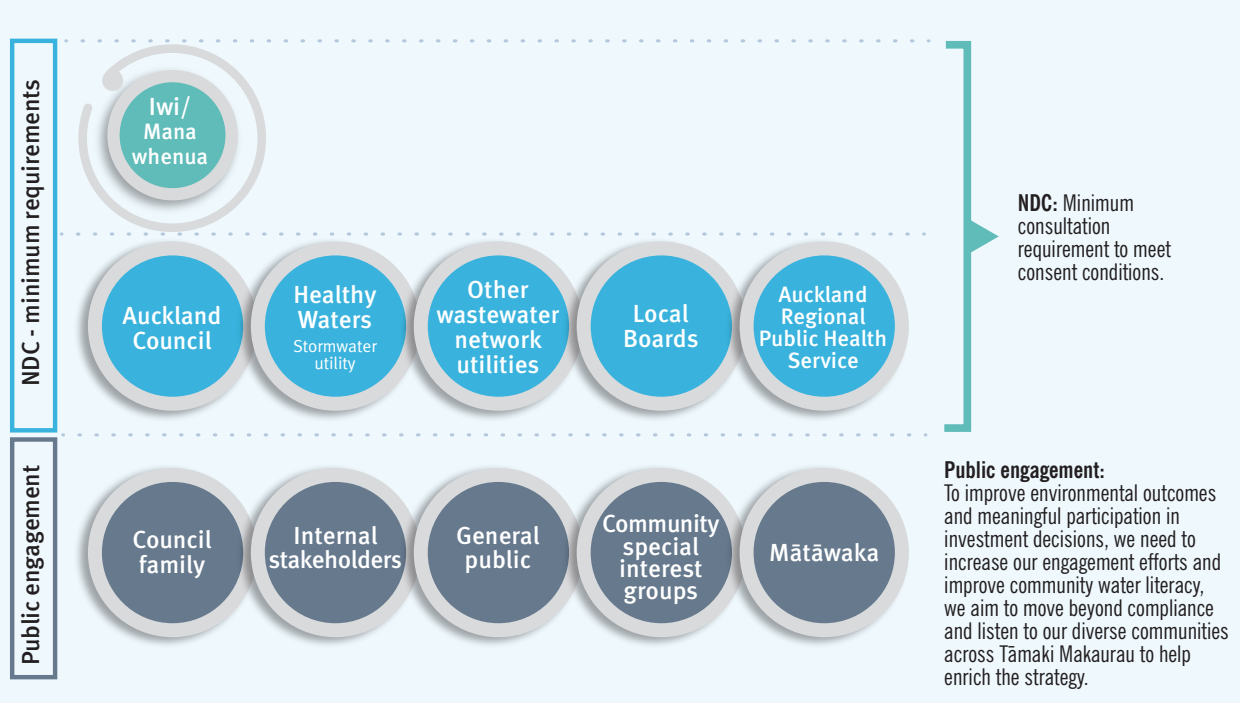
We ran events across the city and accepted submissions on our 2023 wastewater network strategy. This was in addition to our ongoing engagements with mana whenua and local boards and our work alongside Auckland Council and Healthy Waters. We also invited customers who were unfamiliar with the strategy to learn about how the wastewater and stormwater systems works and to complete a survey to better understand what people who hadn't been to our events thought of our wastewater network strategy.

We carried out further research and engagement based on the feedback received. Which highlighted the importance of partnering with our communities to develop and inform our strategies through transparency of information and a broader engagement approach. We have gone well beyond engaging only as required to maintain our social licence to operate, and thanks to the feedback received in 2022, we are actively pursuing a strategy of purposeful and empowering community engagement which will lead to:

- a better understanding of the respective responsibilities and actions required to manage the wastewater network, reduce overflows, and improve community wellbeing.
- a more informed water literate community who are resilient, particularly in the face of climate change which may include more pronounced storms, flooding and droughts.
- balanced advice on future investment decisions including trade-offs which articulate the cost of providing that level of service as well as potential trade-offs in terms of delays or environmental outcomes.

Our partnership and discussions with mana whenua continues as we review and explore opportunities and solutions to our shared challenges. We will also continue to develop our knowledge and understanding of Te Mana o te Wai as it relates to water quality outcomes and continue to grow our partnership recognising mana whenua support is critical for the successful outcome of wastewater projects.

Who are we engaging with?



Community events

Various engagement tactics were deployed to connect with the local community and gather feedback. This included setting up public library displays and hosting events throughout Tāmaki Makaurau from 5 November to 20 December 2022. The events were held in Newmarket, Manukau, New Lynn, Takapuna, and Ponsonby, and were chosen to align with areas known to have frequent wastewater overflows.

Some of the common discussion points from each event were:

- The key themes and discussions at the **Newmarket event** included the availability of information and transparency around the Newmarket Gully project, the desire for further community engagement and involvement in making project progress, commitment to improvements, and concerns about infill housing and population growth.

  'Visibility of unsafe water is too limited - only the SafeSwim website.' (St Johns resident)

Technical update: Newmarket Gully Project (July 2023):

We acknowledge the desire of several community members to accelerate this project in light of the overflows affecting Newmarket stream and Hobson Bay. Watercare needs to ensure that thorough planning and designs are completed – leading to a successful delivery and construction programme. As of July 2023, we are currently in the scoping phase, assessing the feasibility and concept design. The route of the Newmarket tunnel is along a steep valley and watercourse and under the harbour, and therefore it is essential that we undertake thorough ground condition investigations. There will be several large shafts and complex hydraulics. Access to private properties and resource consents will also likely be required. We also need to carry out noise pollution, ground vibrations, traffic, and environmental assessments, as well as other specialist investigations. These will be costed to secure funding and avoid cost overrun. As this project is based on tunnelling, specialist tunnelling equipment may need be to shipped in from overseas.

It is important to note that the development and delivery of this project is expected to span approximately eight years, from 2023 to 2031. Throughout this timeline, we are committed to keeping the community well-informed about the progress and updates on the project.

- Our **Ponsonby event** focused on the need for education about current projects in the area and impact on the community and the environment.

  'Sewage entering our waters is a Victorian era concept that needs to stop' (Herne Bay resident)

- Our **Manukau event** attendees emphasised the need for transparency with data and information, community education, when Watercare is implementing projects to demonstrate the connection between the project and its impact on the environment (including local waterways) e.g. currently spilling four times a year, expected impact less then twice a year.

  'Can the council fix the wastewater system that affects the coastline all around the Tahuna Torea reserve and bird sanctuary?' (Tamaki resident)

- In our **New Lynn event**, the discussions focused on the importance of information communication and transparency, the need to build trust, and the need for more education.

  'I don't think I fully understand how waste water works. It would be great to have a visual tour following water from your sink etc to where it goes...' (New Lynn resident)

- In addition to the New Lynn event, we spent time with community advocates in the Te Atatu and Henderson creek area, providing information on major infrastructure required to reduce wastewater overflows. An update on the Northern Interceptor project is noted below.

Northern Interceptor update (July 2023):

We understand that the community residing near Henderson Creek is eager to witness expedited progress in the project, especially considering the impact of high-level overflows on Te Wai o Pereira River. As a multifaceted initiative with various stages spanning short, mid, and long term, this comprehensive program of work is estimated to cost around $350M - $450M over the next decade. Engaging with the community is a crucial aspect of this endeavour, as we aim to foster open dialogue and collaboration to ensure that their concerns are heard and addressed throughout the project journey.

The upgrade to Rosedale Wastewater Treatment Plant is required to take the additional flow, this includes upgrades such as odour, diffuser and digester replacement/renewal.

The Northern Interceptor route involved going through challenging areas, such as dense housing areas, working along a motorway and going under the harbour. These all have their own challenges. Extensive consenting and ground conditions will need to be carried out. Construction methodology will also vary depending on site conditions. Impact to residents and the motorway will need to be assessed. These constraints will need to be understood before costing can be carried out to secure funding and resources.

We will work within our constraints to keep the community informed and engaged.

Community advocacy groups also played a role in informing people about the community events, and stimulating engagement around issues of local importance. Other areas have been highlighted for attention and we want to assure the community that we are taking the concerns into consideration. However, we recognise that funding and resource constraints may impact the pace and extent of our efforts.

As well as providing valuable feedback and insights, the events offered an opportunity for Watercare to engage with the community, establish new relationships, foster collaboration and build trust. By being present and listening to the community's concerns and ideas ideas in areas where wastewater overflows are a problem, we are learning as an organisation and being accountable.

Libraries

We placed library display stands in five locations: Warkworth, Pukekohe, Central Library, Henderson, and Ōtāhuhu. We also distributed materials to all libraries across Auckland, with the aim of raising awareness of the strategy and inviting people to attend events and provide feedback. The displays offered an overview of the Wastewater Network Strategy and provided a feedback form for individuals to leave their comments. From these display stands, we received 19 completed survey feedback forms.

The main themes from the library feedback were:

- Support for the strategy, citing its potential benefits for both people and the environment.
- Support for cleaner oceans and harbours - some respondents noted that improvements were necessary because people are less willing to put up with degradation of the natural environment than in the past.
- Lack of knowledge and understanding about the strategy resulting in a lack of opinion or feedback.

Overall, the library display stands were a valuable engagement tool that helped gain a better understanding of the community's perspective on the Wastewater Network Strategy. While feedback was limited, it did offer important insights into the community's views on the strategy. For example:

> *'Our concern is with the health of the entire Hauraki Gulf Marine Park. We feel that if there is any prioritisation it needs to be based on the amount of impact from wastewater run-off and not where respondents are located.' (The Hauraki Gulf and Catchments)*

We will continue to explore different ways to engage with the community and gather feedback to inform the ongoing development of the wastewater network strategy.

Community advocacy groups

We regularly engage with community and environmental groups in Auckland who have concerns about wastewater overflows and their impact on the land, environment and people. These groups are often well informed and connected to networks. Ten environmental groups took the opportunity to engage with us about the wastewater network strategy, providing valuable feedback on the challenges and opportunities presented by the wastewater network.

Key feedback themes from the community groups/individuals included:

- Concerns about the impact of urban development on the wastewater network's ability to cope and the negative effects on public health and the environment. Infrastructure improvements are needed to mitigate these effects.

- Discharging untreated wastewater into waterways is unacceptable for cultural, environmental, and public health reasons. The catchment prioritisation should consider environmental and cultural impacts, and provisions for restoring the natural environment should be included in the consent.

- Community involvement and advocacy are important for addressing concerns about the impact of wastewater on the environment. Education and awareness about the community's impact on the wastewater network can help promote involvement and advocacy.

- Improving transparency and making data and information more accessible and understandable to the public is important. Information about overflows is often difficult to access or presented in a format that is hard to understand.

- A comprehensive plan is necessary to ensure progress in reducing wastewater overflows. This plan should include specific information on the expected impact of each project, including projected reductions in overflows per year.

Feedback also included concerns about our wastewater overflows and their impact on the environment and public health. We acknowledge the efforts of community groups, in particular their active engagement and feedback which is often undertaken in a voluntary capacity. We will continue to work with such groups to identify and take opportunities to improve outcomes where we can.

Surveys of Aucklanders November 2022 – March 2023

To complement our face-to-face and ongoing engagement to support our wastewater network strategy, we ran two surveys. One was a survey asking for feedback from 2,000 Aucklanders across all the suburbs of Auckland, which elicited responses from 108 people from 69 suburbs on:

- Knowledge about wastewater overflows and how they occur
- Feedback on the target of reducing overflows from 247 to 100 by 2047
- Willingness to pay to have healthier waterways (fewer overflows)
- The root cause of fatbergs: lack of education or lack of care
- Local water quality (perceptions of waterway health)

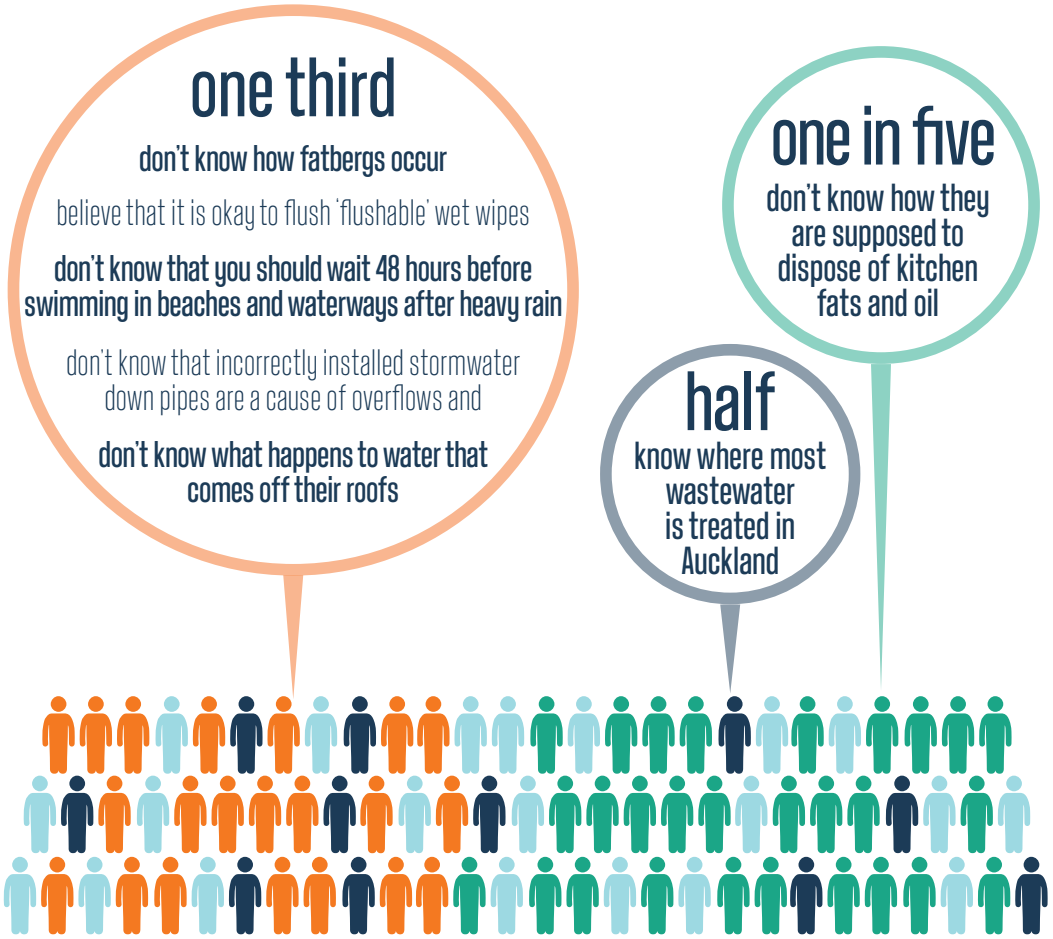
We asked Aucklanders if they knew that incorrectly installed stormwater pipes could cause a wastewater overflow

In addition to this we included questions about wastewater in our regular surveys of Aucklanders (a 'representative' sample, based on census data) for months during the feedback period and beyond. This survey has thousands of responses from Aucklanders and covers:

- What people believe happens to water that goes down the kitchen sink
- What they believe should be flushed down the toilet or put down the kitchen sink
- Where in Auckland they think sewage is treated
- How long people believe they should wait to swim in waterways and beaches after heavy rain
- Whether they think wastewater overflows are a problem for Auckland
- (if they said they were a problem) their willingness to pay to have healthier waterways (fewer overflows)

Together the surveys provided us with a snapshot of the views of less engaged Aucklanders on the performance of our wastewater network. More importantly, we have some measure of the gaps in knowledge held by 'typical' Aucklanders. Whereas those who attended our events, mana whenua and community groups knew how, when and where they occur, and their impacts, our representative sample of Aucklanders have much more limited knowledge; many did not have a clear understanding of how or which pipes from their houses connect to the public wastewater and stormwater networks, for example.

We learned from our survey of Aucklanders that...



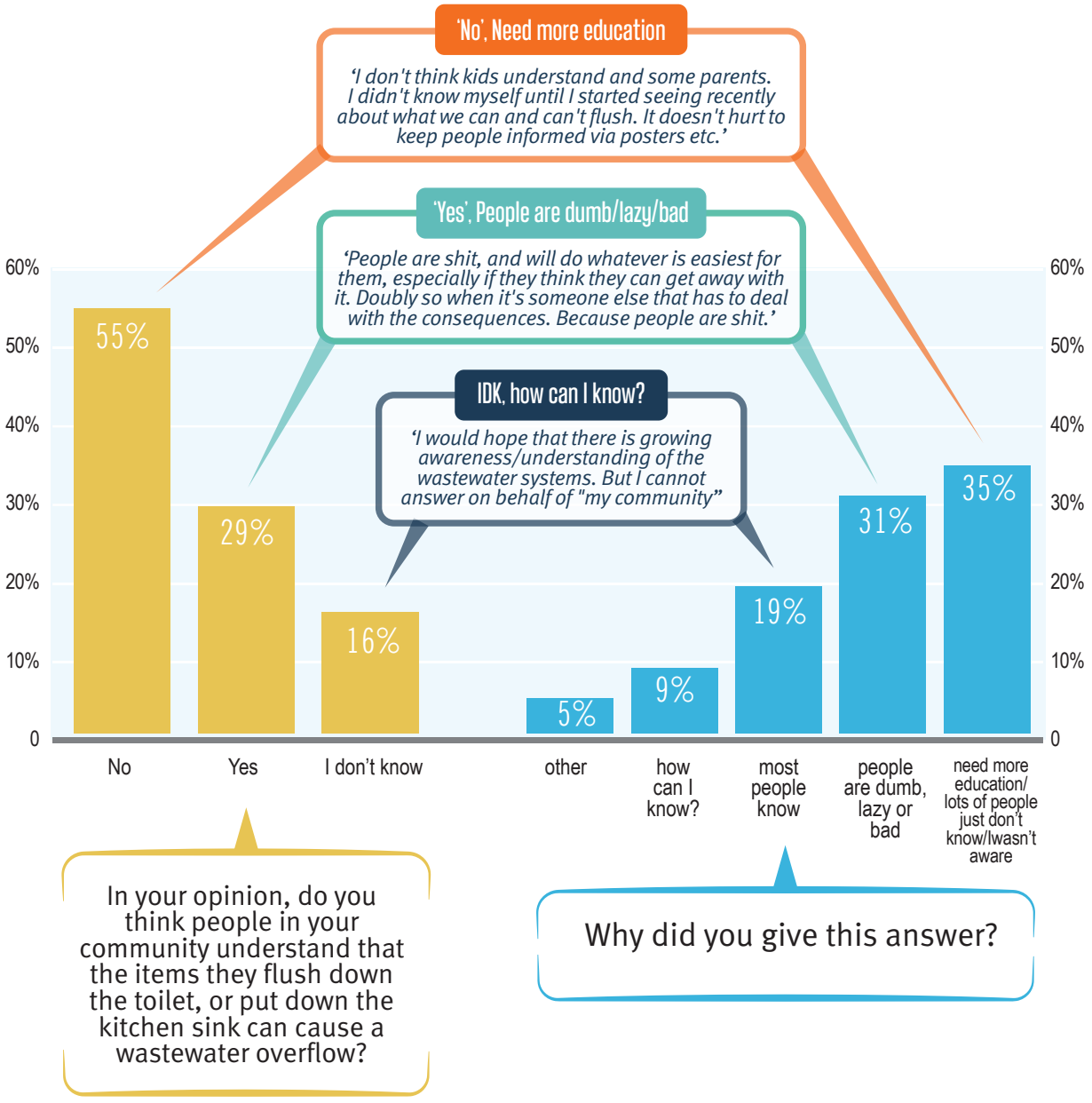
It became clear that to engage with a representative group of Aucklanders about our wastewater strategy we would need to change how we talk to and get feedback from them. If a quarter believe that food from the kitchen sink goes into the stormwater drain, we cannot expect them to make meaningful trade-offs around preventing wastewater overflows caused by fatbergs, for examples see appendix 2 and 3 for more details.

We interrogated the answers to the survey we sent eliciting feedback on our wastewater network strategy (the first one described above) to see if there were any clues to help us understand willingness to pay for fewer wastewater overflows. As part of this survey we described the strategy and asked respondents what they thought of our target and why. Like the more engaged groups we talked to, in our community events, many from this survey were similarly unimpressed by our target of reducing the number of places where more than two wastewater overflows occur by 2050, but more thought it was a reasonable goal and would address the bulk of the issue. The table below provides examples of the feedback we received (excluding those who said 'I don't know'):

The target is not ambitious enough (37%)	The target is reasonable (40%)	The target is too ambitious (10%)
'I am not impressed by a reduction from 247 to 100 overflows in 30 years. We don't really seem to be serious.'	*'the edge-cases will always require a disproportionate amount of resources to address…'*	*'Slow down the burden to rate payers - Looks like a Ponsonby, Point Chev issue…'*
'The rate that houses are being built is increasing… Example previously one home is now five, therefore infrastructure needs to keep pace if not be ahead of building development.'	*'[the strategy] appears to address the problem in the inner west effectively where there are the greatest number of overflows, which seems reasonable. And should help beaches like Pt Chev and Herne Bay. The improvement looks linked [to] the central interceptor.'*	*'Shit happens. Infrequent disruptions have to be accepted when we cannot afford 'gold-plated repairs'*
'the climate crisis… isn't waiting for us'		*'wasting money, only got excuse for increasing water bills.'*

We also asked this group whether they believed other people knew about what not to flush or put into the sink as a gauge around whether people believe knowledge or behaviour is the problem we should be addressing. Most people thought that others did not know what should go into the wastewater network, while a sizeable minority felt that people do know what they can flush, but they are too lazy to do the right thing.

Different views of human nature lead to different views about why fatbergs occur



We continued to ask wastewater questions after the Auckland Anniversary weekend floods and as can be expected, a greater percentage of Aucklanders believe that the city has a problem with wastewater overflows than was evident in 2022. Nevertheless, even if we do have relatively good awareness, there is still some resistance from the public to pay to fix wastewater problems if the costs and benefits of what they are investing in are not articulated. Transparency plays a key role here in how money is spent, but also in showing that the environmental outcomes have been achieved (through publishing data on water quality from impacted streams and beaches).

Improving community knowledge about wastewater will need to be front and centre as we look ahead. To summarise, this research validated two issues Watercare has in developing a wastewater network strategy which reflects the informed values held by Auckland as a whole:

- Most Aucklanders don't know enough to help the wastewater network function as we want it to; and

- Most people don't know enough to have a meaningful say about what and where we invest without learning more about how the wastewater system works

Water literacy

Combined with older survey findings that two thirds of Aucklanders believe Watercare is responsible for managing stormwater, we accept that the public's lack of knowledge is Watercare's problem, and we need to take a leadership role in helping people better understand the world of water. Additionally, we accept that without an educational way of engaging Aucklanders on some basic issues, we will not be able to meaningfully engage with them about levels of investment that will best balance their preferences.

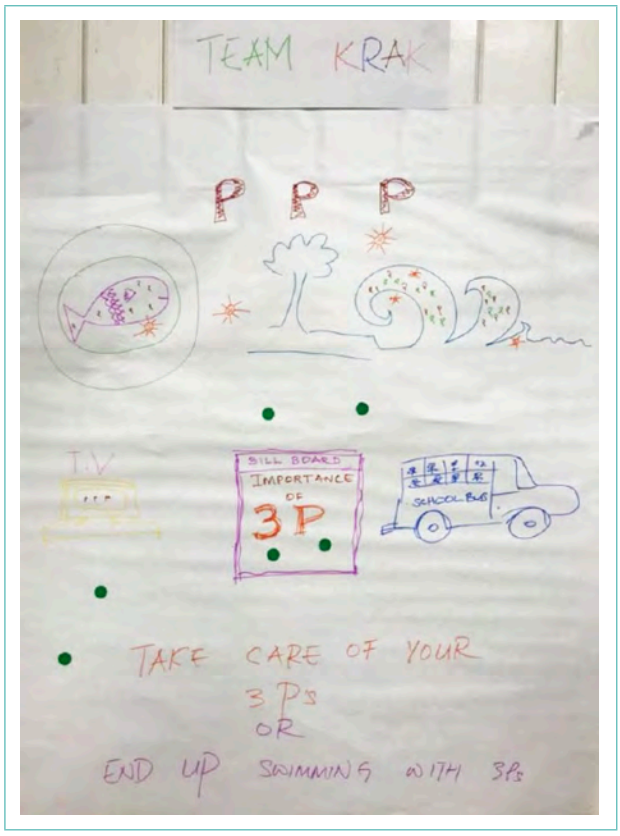
Moreover, many of our wastewater network issues are caused or exacerbated by actions or conditions on private property (eg. behaviour, plumbing, planting). If we do not address the lack of water literacy in the general community, people will not only struggle to have a say in what gets invested under the ground, they won't be equipped with the knowledge of how to prevent stormwater and wastewater from (literally) rising above it. Our first effort at this was the global café: a method which gives participants time to explore an issue in an informal setting, offer advice and to co-design solutions to address the issues we ultimately all face.

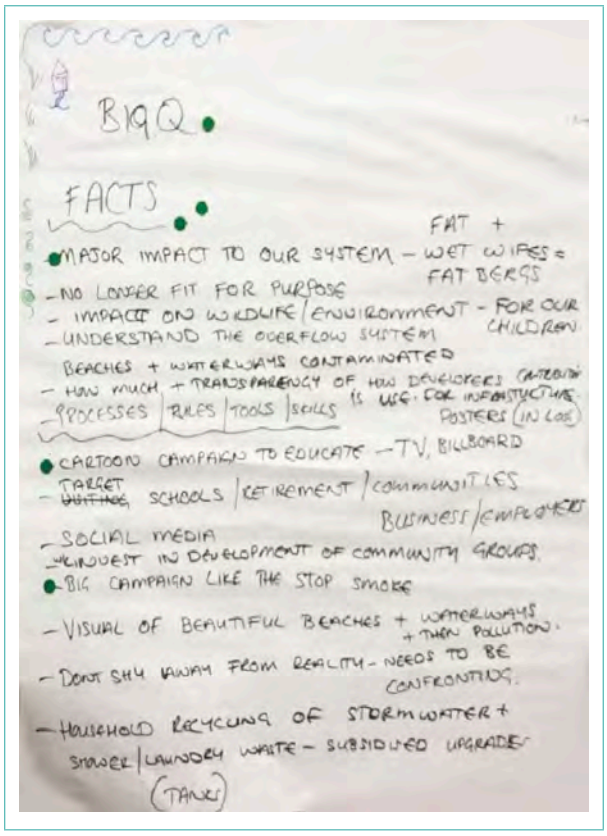
Global Café

As a result of what we learned from October to February, in March 2023, we engaged GoodSense, an ethical marketing company, to help deliver two global café-style events, hosting 30 non-experts, or 'typical' Aucklanders, at two different locations across Auckland. The aim was to ask the public to problem solve how Watercare could inspire more Aucklanders to care about what happens in our hidden wastewater pipes and to help solve the problem of people putting fats, oils, wet wipes and other blockage-causing items into the network. The method of engagement gives non-experts time to learn and deliberate in a relaxed atmosphere that enables them to work together to create solutions.

The events included small groups of 3-4 participants enjoying a meal together and getting to know one another, then working collaboratively. The feedback from the global café events was overwhelmingly positive, and strongly in support of making the invisible wastewater system visible to Aucklanders. Participants suggested the use of humour, visual metaphors, and emotive language. For more detailed ideas offered by the global café participants, see Appendix 4. They recommended a two-pronged approach to any communications campaign, including a broad campaign that talks to all Aucklanders and localised education campaigns in multiple languages.

Giving people enough time to learn and get to know each other can be instrumental in fostering an environment where non-experts feel comfortable providing meaningful feedback. Watercare provided advanced materials such as videos and posters to participants to support them, and GoodSense facilitated the events, with support from Watercare staff. By the end of the sessions, participants naturally came to discuss the balance between investment in infrastructure to improve environmental outcomes and the burden to bill payers. They did not arrive at any solution, but there was an acceptance of the trade-off that needs to be made. Participant feedback will help us to understand how to better support individuals in reducing wastewater overflows in homes, neighbourhoods, and communities, thereby mitigating blockages resulting from private networks and behaviour. Feedback will inform insights for delivering awareness-raising and behaviour change strategies. It also highlights the public's desire to be engaged in decision-making and solutions for these issues when we engage in a manner that suits their preferences.





Ideas generated by our global café participants

When individuals have a chance to familiarise themselves with a particular subject or topic, they are better equipped to provide insightful and informed opinions. Additionally, when people have the opportunity to develop relationships and build trust with one another, they are more likely to share their thoughts and ideas in a constructive and productive manner. By creating a supportive and collaborative environment, our attendees were empowered to contribute their unique perspectives and insights, leading to more comprehensive and valuable feedback from, crucially, a diverse and more representative audience.

Many people know the wastewater system is important, but they don't want to take surveys or attend workshops or meetings for free in their spare time. By engaging Aucklanders in an enjoyable way to solve a problem they were empowered, their confidence grew and they were motivated to contribute to the decision-making process. Their interest levels grew substantially over the two and a half hours of the event. They expect to see their ideas in Watercare's collateral around preventing fatbergs. By having a diverse audience learn in an enjoyable atmosphere, we also confirmed the appeal of our water literacy strategy with the public. We knew that they needed to know more in order to act as guardians of our wastewater network, but these engagements showed that, done well, this is also what Aucklanders want.

Other organisations we engage with

Healthy Waters

Here at Watercare we work very closely with Auckland Council's Healthy Waters team to achieve shared water quality outcomes. There are occasional overlaps in our networks including the combined stormwater and wastewater networks in older parts of the city, but it is essential that we collaborate and with communities for better outcomes.

Healthy Waters manages the primary programmes that aim to identify public health risks linked to faecal contamination known as the Safe Networks programme. Healthy Waters also manages the Safeswim beach water quality tool which has become an international benchmark for transparent water quality monitoring at bathing beaches. We work closely with Healthy Waters in support of these programmes, as well as the ongoing water quality projects in the Western and Eastern Isthmus. Our relationship and interaction with Healthy Waters continues to grow as part of the government's proposed affordable water reforms programme.

Te Whatu Ora - Health New Zealand Auckland District Health Board

Engaging with the Auckland District Health Board (ADHB) on wastewater matters provides an avenue for collaboration, expertise, advocacy, and education. Health NZ has an active role in safeguarding public health and protecting the environment.

The wastewater network strategy was shared with ADHB and the proposed works plan over the next six years.

Concerns were raised about the level of intensification and growth and the ability for the infrastructure to cope and the potential impact on public health and safety with more wastewater entering waterways.

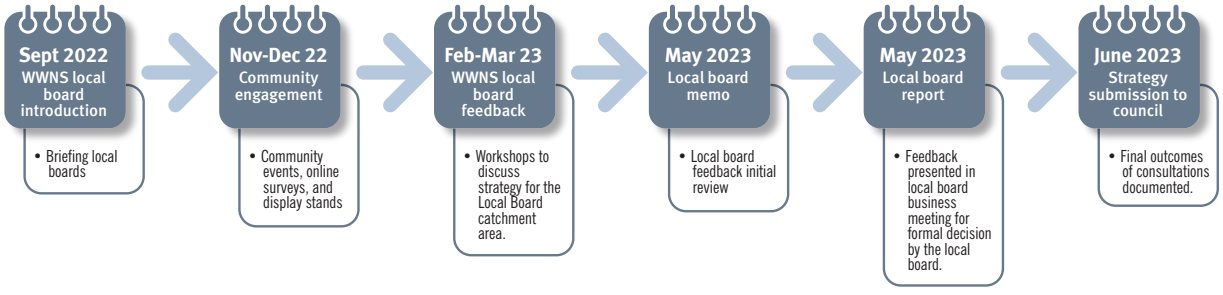
The feedback highlights the desire for improvements in the strategy, focusing on key areas. Firstly, there is a need to enhance communication and keep communities well-informed about the public health risks associated with wastewater overflows. Secondly, it is important to ensure that the plans and upgrades of the network are designed to accommodate future growth while minimising any negative impact on the environment.

Local Boards

Local board engagement on our wastewater strategy started in September 2022 and is ongoing. Local boards were reintroduced to the Network Discharge Consent and the Wastewater Network Strategy via a webinar and memorandums providing details about the performance of the network and proposed works for the catchments in their areas.

We also invited local boards to participate in workshops with us to share the strategy and seek feedback. Overall, the workshops were well received and local boards appreciated the opportunity to be involved with the review.

Local Board engagement timeline



Key feedback themes from the local boards included:

- Support for our proposed plan and strategy over the next six years, subject to greater information and more details on how the strategy will implemented and expected outcomes, to help gain a better understanding of the proposed works and the impact.

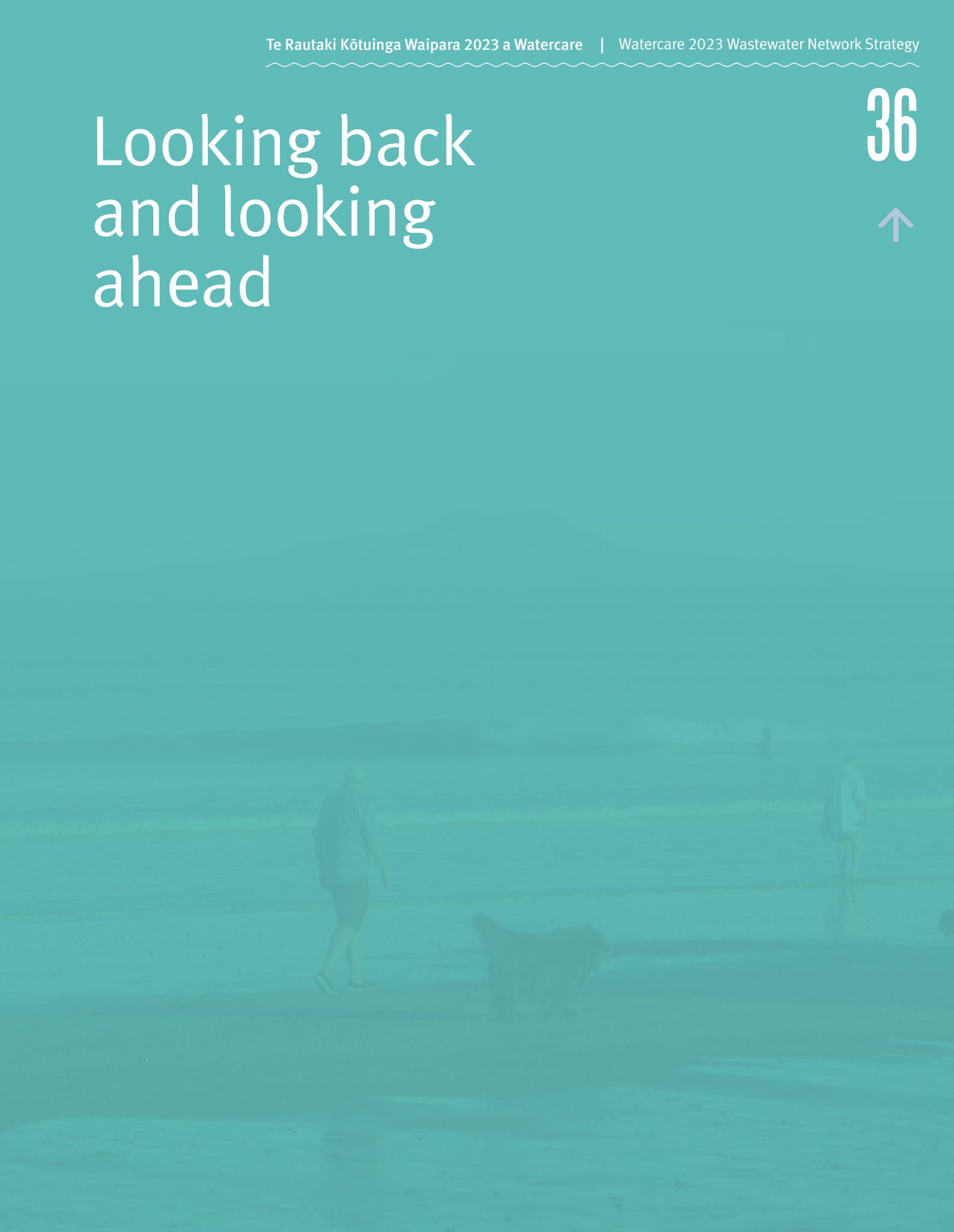
- The need for specific projects or outcomes achieved in particular local areas, especially improving the western and eastern isthmus areas that have significant wet weather overflows and impact on the Waitematā Harbour due to discharges.

- A call for improved education and awareness of the community's impact on the wastewater network, including greater transparency of information/data and a diverse range of communication channels to build awareness and promote community participation in reducing the network's impact. Campaigns and tools should be made available to encourage the community to play their part in reducing the impact of overflows on the environment.

- Concerns about development and the network's ability to cope with intensification, including negative impacts on public health and recreational spaces. There is a need for more infrastructure improvements to ensure the network can handle the increased demand and mitigate potential negative effects on the community and the environment.

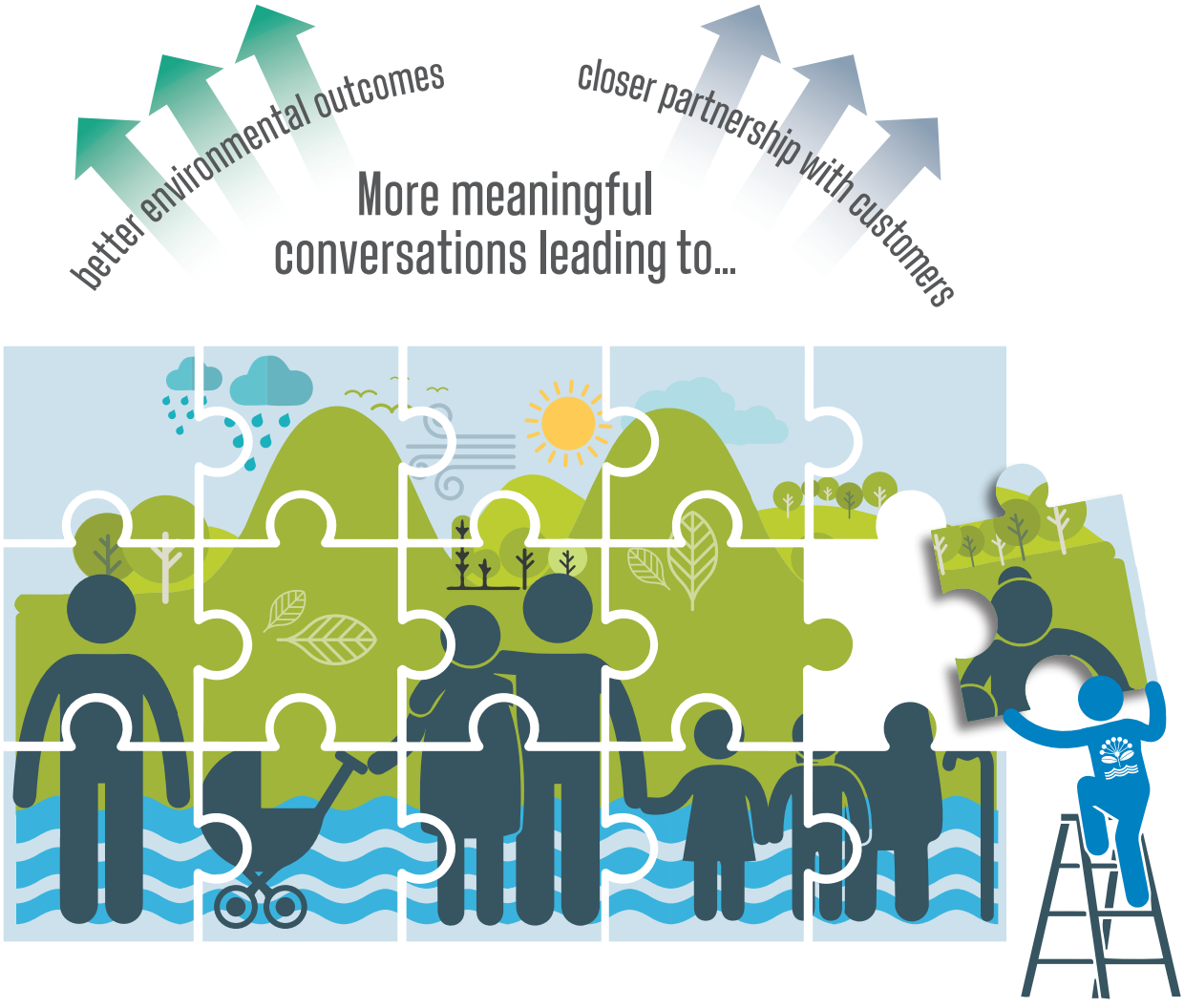
Overall, the feedback received emphasises the importance of addressing the impact of wastewater on the environment and the need for specific, actionable projects in local areas. Local boards told us that we should continue to engage with the community to ensure that the strategy and work plan align with its needs and concerns, and that the community is well-informed and involved in efforts to reduce overflows.

Looking back and looking ahead



Looking back and looking ahead

Our engagement strategy journey began with a sincere effort to understand the community's knowledge, beliefs, and behaviour around wastewater. We knew that reducing overflows and their causes required more than just some people having technical knowledge of the wastewater network – it required more people to care enough to learn about the system and the impact of their actions on it. This was particularly challenging given the 'silent service' nature of wastewater, where the infrastructure is largely hidden from view and taboo in polite conversation. Despite these challenges, we recognised the importance of engaging with the broader community on this issue, particularly in light of ongoing and sometimes increasing challenges with stormwater management on private properties and items like wipes, sanitary products, and fat and grease being improperly disposed of in the network.



The more feedback we get, the clearer the picture and the better the outcomes will be.

Image of toys pulled out of the wastewater network

We gathered diverse perspectives, needs, and values to better reflect the experiences of everyday Aucklanders, rather than relying only on the input of our community experts and the people with whom we are 'required' to consult. This approach helped to ensure that the feedback on our strategy is more inclusive and reflective of the needs of the wider community.

The data and insights will enable us to create tangible correction to form meaningful and proactive engagement on wastewater with the people of Auckland. This will move beyond the current six-yearly community consultation process and deliver pathways that will enable our communities to improve their knowledge and performance of Auckland's wastewater network. A community that understands and cares about the network is more likely to support beneficial reuse of water and by-products to see themselves, their houses and their behaviour in connection to environmental outcomes, and they will be better able to protect the environmental future of the city in the face of climate change.

Overall, our engagement journey highlights the importance of broadening engagement channels and timelines to reach a wider audience and improve community knowledge and understanding of complex environmental challenges. This, in turn, will support more sustainable and effective management of our wastewater network in the future.

What's next?

We have heard the feedback and are committed to making meaningful improvements in community engagement practices to improve the strategy. In this section, we highlight the steps we are taking to ensure better communication, transparency, and resilience. By actively involving the community, incorporating their feedback, we aim to build stronger partnerships and address the concerns that matter most to the diverse communities we serve. Below are some of the steps to improve what we do and how we will be enabling positive change:

Engage more consistently: We will establish an ongoing and regular engagement process to ensure continuous communication and involvement.

Meaningful communication: We will ensure our annual report addresses the issues and concerns that matter most to our communities.

Ongoing involvement: We will actively seek input and consider the opinions and suggestions provided by our communities. This feedback will influence how we engage with the public and guide our investment decisions.

Building resilient communities: We will focus on strategies and initiatives that promote resilience and preparedness.

Improving data and transparency: In order to enhance transparency and accessibility to data and information regarding the wastewater network performance, we are actively exploring opportunities, systems, and practices that will facilitate increased visibility of overflow information and provide a better view of the wastewater network's performance.

Representation of diverse communities: We will ensure diverse communities are adequately represented in our engagement processes.

Innovative approaches: We will continue to pioneer and refine new engagement practices that empower the community, foster trust, and build strong partnerships. By embracing innovative methods, we aim to create an environment where the community feels empowered and valued.

We appreciate the valuable feedback received from the community and we acknowledge specific feedback regarding improvements in local waterways/beaches and preventing wastewater overflows. Specific areas like Newmarket Gully, Henderson Creek and other areas have been highlighted for attention and we want to assure the community that we are taking the concerns into consideration. However, we recognise that funding and resource constraints may impact the pace and extent of our efforts. Despite these limitations, we are committed to transparency and collaboration.

We will work within our constraints to keep the community informed and engaged. Together, we can make progress towards improving local waterways, preventing overflows, to ensure we protect the health and wellbeing of the people and supporting the health of the environment.

How will we know if we're doing well?

We will look for specific indicators to gauge our success. Here are some key factors we will consider:

Water knowledge and awareness: Our objective is to promote water literacy within the community, fostering a deeper understanding of our wastewater network and facilitating more meaningful discussions in the future. We want to increase water literacy using different methods to help communities understand the problems caused by fats, wet wipes, and other items clogging our pipes and causing overflows. By reducing these blockages, we can improve wastewater management and prevent unnecessary overflows.

We believe that a more water literate community will also be better equipped to support good decision-making about the investments and levels of service that their water services provider should undertake six-year strategy reviews. Instead of waiting, we will be more proactive in engaging with the community, continuously learning from engagement and tracking the benefits of engagement. We want to find ways to involve and support the community in order to improve what we do. This means using the information we gather to make decisions in partnership with the people who are impacted, whether they know and understand what is happening or not. We are currently developing a plan, and we will share this approach on the wastewater network strategy website in 2024.

Empowered community: We will provide accessible information and support so that people can actively contribute to water-related matters in their community, including strategic decisions about how we bring about the outcomes that Aucklanders want in the longer term.

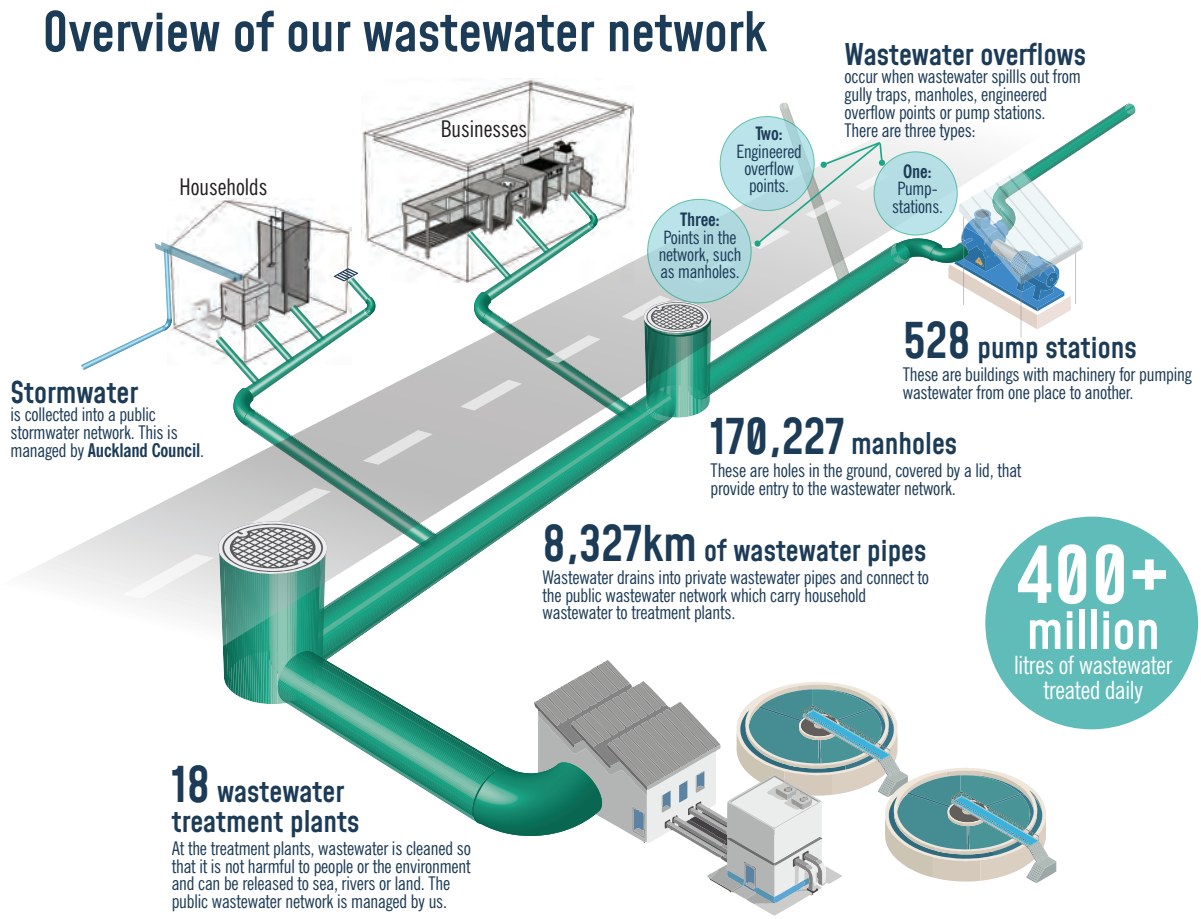
We will be monitoring and measuring how we are tracking, so we know if we're making progress in increasing water knowledge, tackling fatbergs, being proactive in engagement, and empowering people to be part of the solution to reducing overflows and delivering on the commitments of the network discharge consent. We will publish this information so the public can see where we are doing well and where we need to put in more effort or investment.

We extend our appreciation to the mana whenua, the community and all those who provided feedback for the 2023 Wastewater network strategy. The willingness and effort made to share thoughts and experiences is valuable to us. It is through your engagement that we have gained a deeper understanding of the needs and aspirations of the community to improve what we do. The feedback has been the driving force behind our continuous improvement efforts, enabling us to make meaningful changes that aim to positively impact the community as a whole and we look forward to the communities continued involvement.

Appendices

Appendix 1: Background information about the wastewater network

Wastewater, also known as sewage, is the used water that goes down sinks, washing machines, showers, baths, and toilets. Most of it is water. The rest includes human waste, detergents, food scraps, cooking oils and debris.



Wastewater drains into private wastewater pipes. These connect to the public wastewater network which carry household wastewater via gravity and pump stations to treatment plants. At the treatment plants, wastewater is cleaned so that it is not harmful to people or the environment. Depending on the treatment plant, the treated wastewater will be released to sea, rivers or land.

Wastewater overflows

A wastewater overflow occurs when wastewater (sewage) spills out from gully traps, manholes, engineered overflow points or pump stations and flows into public or private property. It can flow into waterways and the sea. There are three types of overflows:

Type one:

Wastewater pump station

These are from pump stations. These may occur due to power outages or equipment failures, in addition to wet weather and blockages, such as occurred during the Auckland Anniversary weekend flooding in January 2023.

Type two:

Engineered overflow point during an overflow

These are from engineered overflow points. They are designed to overflow during heavy storms.

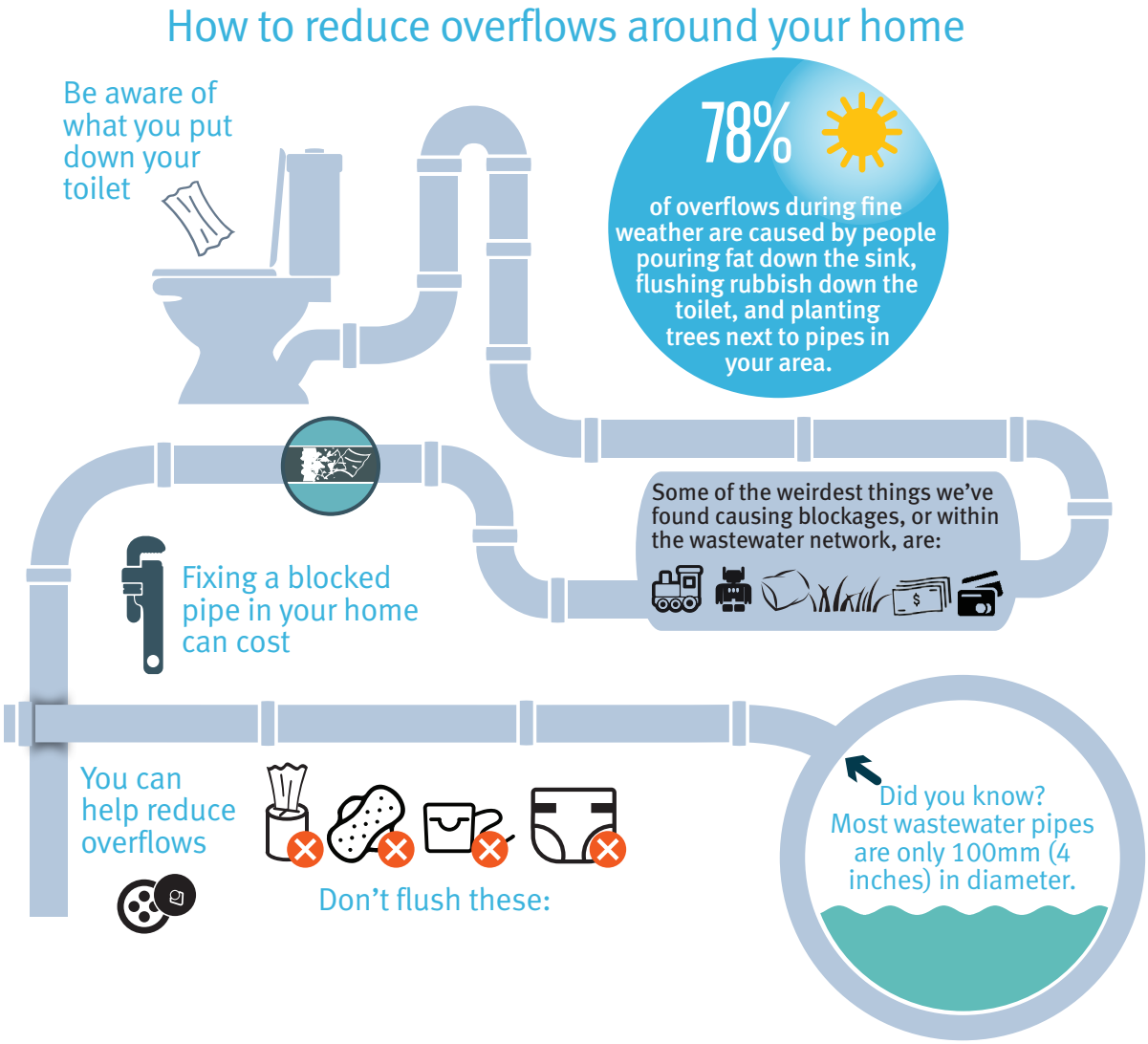
Type three:

Overflowing manhole

These are from points in the network, such as manholes and private gully traps. We rely on people reporting these overflows.

Why do overflows occur?

Overflows can occur anytime, anywhere. The causes may be lack of capacity in the network or blockages or a combination of both. The blockages may be caused by fat, rubbish and tree roots clumping together and restricting the flow. When this happens, wastewater can spill through private gully traps, manholes, engineered overflow points or pump stations.



Leaflet showing residential customers practical ways to reduce wastewater overflows.

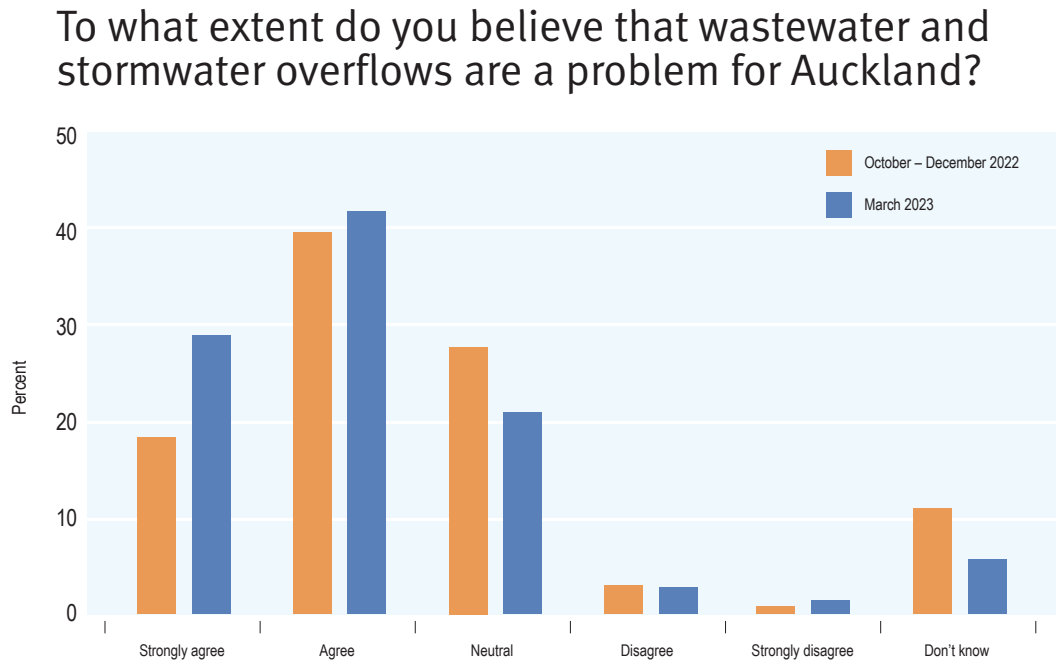
Overflows can occur in dry weather from blockages, but also occur on rainy days when stormwater enters our wastewater network overwhelms its capacity. In heavy rain, the amount of stormwater that drains from an average roof can be equivalent to the wastewater flows from more than 40 households. That's why it is essential for houses to have rainwater plumbed into approved stormwater outlets, rather than allow it to flow into the wastewater network.

Our operations staff regularly pull unusual objects out of the wastewater network. When blockages occur, they are prioritised for response based on the weather, their location and potential impact. Our crews will normally clear blockages and thoroughly clean the area affected by a wastewater overflow within 5 hours but this can take longer in large storms. Our focus is on minimising the risk to public and environmental health.

To learn more about our wastewater network and the wastewater network strategy, refer to the Watercare website: https://www.watercare.co.nz/Water-and-wastewater/Wastewater-network-strategy-2023

Appendix 2. Belief in whether there is a problem

Around 6 in 10 Aucklanders believe that wastewater and stormwater overflows are a problem for Auckland.



Only those who agreed – these 6 out of 10 – were asked 'Would you be prepared to pay more through your water bill to reduce wastewater and stormwater overflow problems for Auckland?'

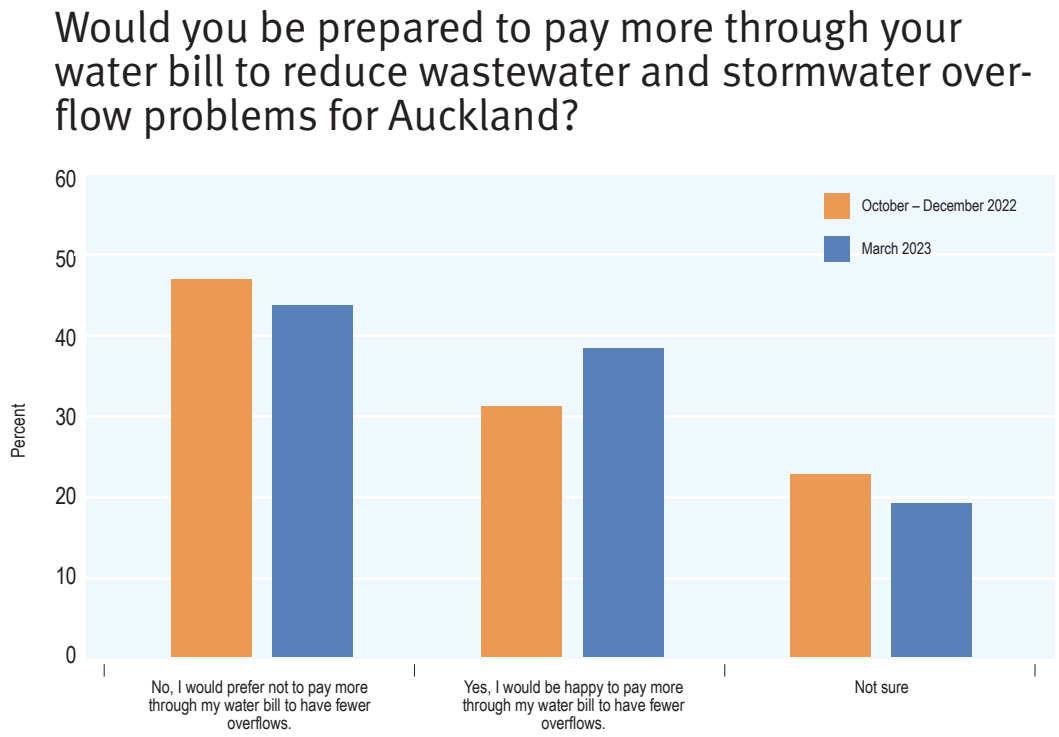


Figure E: Would you be prepared to pay more through your water bill to reduce wastewater and stormwater overflow problems? (only those who believe it's a problem were asked this question)

Appendix 3: Engagement, experience and willingness to pay

Engagement, knowledge and willingness to pay for better outcomes are connected. This became apparent when we compared the answers of three on the question of whether we should pay more to get better environmental outcomes sooner:

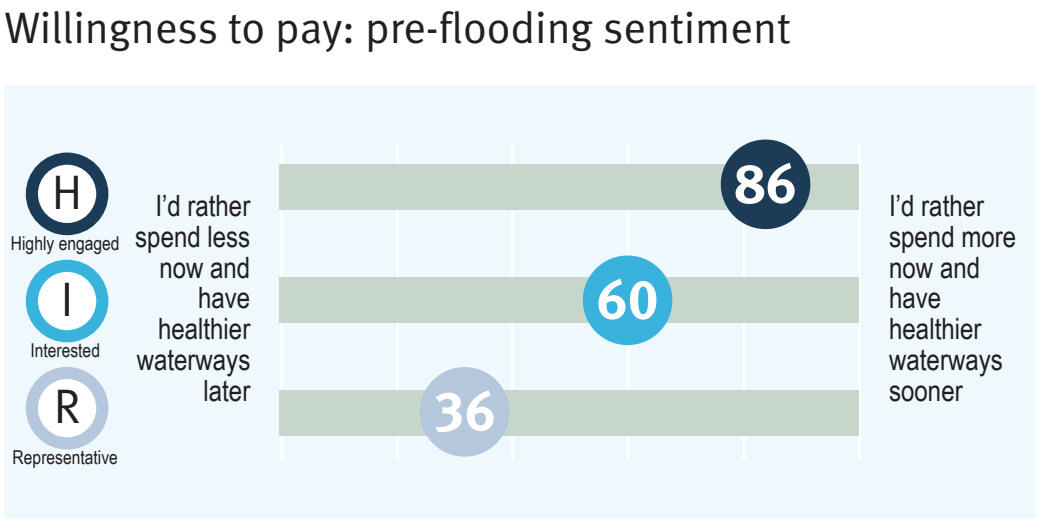


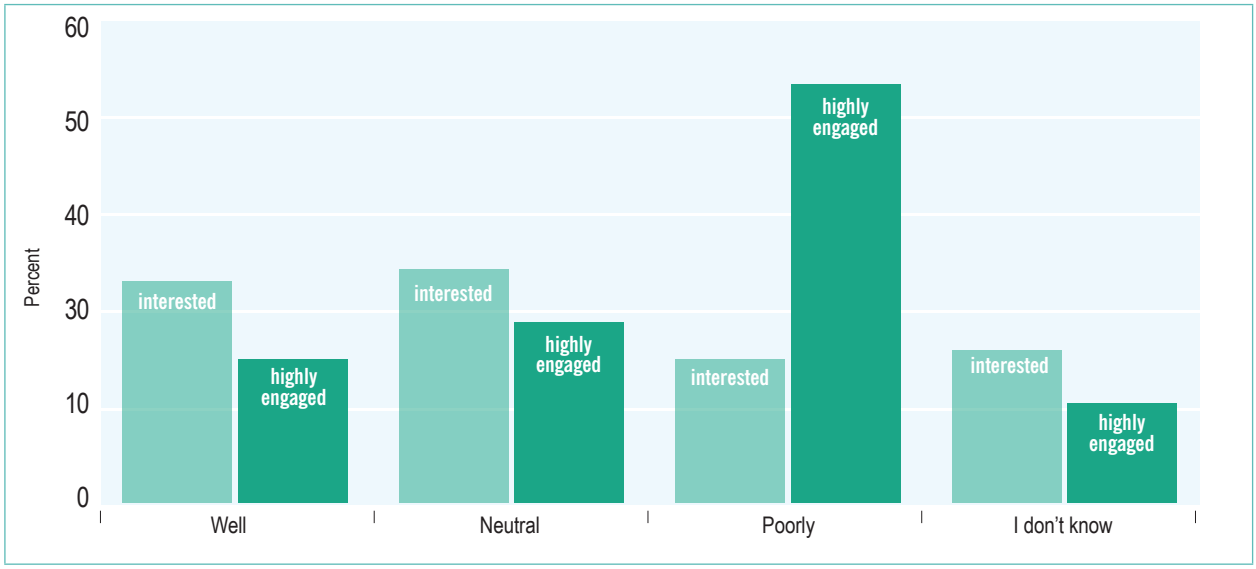
Figure C: comparison of the three different groups average willingness to pay (scores were between 0 and 100) for better waterways, November/December 2022

Key: H = Highly engagement community members I= Somewhat engaged community R: Representative group (paid survey)

Nearly all the highly engaged group are willing to pay more to get better environmental outcomes sooner, against only a third of the representative sample. These are often impacted groups and individuals who engage as a result of their motivation to solve local environmental issues:

> *'My wife and I have full frontal view of the torrent pouring from the storm water drain at Masefield Beach after rain and can often smell the faeces.'*

We also see evidence of impacted communities at our events through the relatively poor ratings of local wastewater network given by attendees:



Higher engagement is correlated with poorer ratings of local wastewater network performance

Appendix 4: ideas from the wastewater Global Café

At the end of each global café, once the small groups had listened to each other present, they were given two green stickers to vote on the top two things they think Watercare should do to inspire more Aucklanders to care about what happens in the hidden wastewater pipes and to understand Aucklander's role in how the wastewater system works.

The ideas that people voted most for were:

A. Deliver a big communications campaign across social media, outdoor, website, media, leaflets, signage and online, print, radio and television advertising to educate all Aucklanders about how the system works and the impact of fats, grease and wet wipes on Auckland's wastewater network system.

B. Give away air fryers to Aucklanders so they create less waste fats from cooking that could go down the drain.

C. Deliver education programmes in schools and through education providers to teach rangatahi about the importance of looking after our drains.

D. Ask communities to help by educating and empowering advocates to share the information throughout their community.

E. Develop a humorous app or video game about the "poo bomb" – players learn what happens when they do or don't do the right thing for the wastewater network and what the outcomes are.

F. Make manufacturers of wet wipes put warnings on their products and fine them if they produce flushable wipes that aren't flushable and cause blockages.

G. Offer re-useable menstruation products to Aucklanders so that they move away from single-use sanitary pads and tampons, which cause blockages.

In summary, the global café participants identified a two-pronged approach to any communications campaign:

A. A broad campaign that talks to all Aucklanders via key communications channels, including online, broadcast and print

B. Localised education campaigns activated by community groups and education providers to talk to communities about their specific issues. This might include educating rangatahi in a way that creates 'pester power' for behaviour change for the whole whānau.