

ENCOURAGING THE INSTALLATION OF RAINWATER TANKS IN URBAN AREAS

BRIEF OVERVIEW

This study aimed to answer the question ‘What influences the installation of above-ground rainwater tanks in urban areas and which audiences would be the most useful to target?’.

By applying the systematic behaviour change framework – the Behaviour Change Wheel (Michie et al. 2014) – and audience segmentation techniques we identified the main factors influencing installation for four potential audience segments and recommend the most effective campaign designs to meaningful on-the-ground results.

BACKGROUND

Water is a precious resource, and in urban river catchments, freshwater systems are affected by modifications made to the natural waterways, over-exploitation and pollution.

The behaviours of urban citizens are a fundamental part of protecting and restoring freshwater resources.

The installation of above-ground rainwater tanks has been identified as an effective behaviour to improve the outcomes of urban freshwater management in Aotearoa New Zealand (McLeod et al., 2024).

However, urban populations are diverse, and very little is known about citizens’ capabilities, opportunities and motivations for rainwater tank installation.

This knowledge gap poses a significant challenge for policymakers and professionals who need to develop campaigns to promote this behaviour.

RESEARCH

We surveyed 1291 urban homeowners across Aotearoa New Zealand to determine the factors that encourage or impede the installation of above-ground rainwater tanks on their property.



AT A GLANCE

Installing rainwater tanks is seen as a desirable decision by a household to help improve freshwater management in cities and urban areas. This research identifies the missing gaps in knowledge, to enable policymakers and professionals developing campaigns that are effective. Just like rainwater tanks, there is no one-size-fits-all.

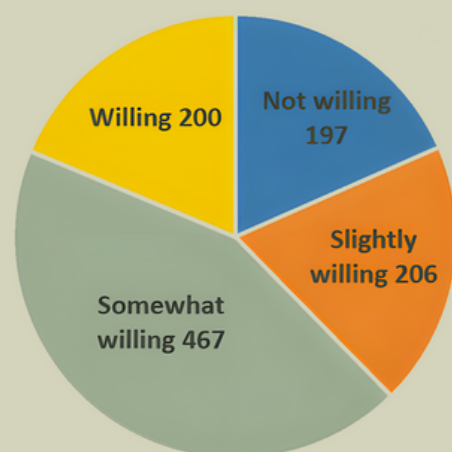


Figure 1:

Future willingness to install an above-ground rainwater tank

OUTCOMES/ IMPACTS

Most of the respondents (83%, n=1070) did not have a rainwater tank installed on their property.

Of those that did not have a tank installed, 19% were willing to do so (Figure 1). We identified four distinct target audience segments

Supportive' (n = 44, 4%)

- Most willing to install a rainwater tank. Strong environmental identity and sense of community.
- This group would be the easiest to target and campaigns should aim to educate about tanks and instruct how to install, using strong environmental and/or community messages.

'Motivated but Lack Support' (n = 257, 24%)

- Willing to install a rainwater tank. Strong environmental identity but a low sense of community.
- They are personally motivated but lack capability, opportunity and social motivation so campaigns should not only aim to educate and instruct but also make it easier to install a rainwater tank, promote social role model behaviour and offer support.
- Messages should be framed around members' environmental values and delivered by credible local sources that people associate with and trust

Receptive' (n = 629, 59%)

- Somewhat willing to install a rainwater tank. Weak environmental identity and sense of community.
- Campaigns should target this groups' capacity and motivation to install a rainwater tank so should not only aim to educate and make it easier to install a rainwater tank but should also increase the availability of type and sizes rainwater tanks, incentivise installation and demonstrate the benefits using stories and feedback from other local people.
- Messages should be framed around the personal benefits to members as opposed to environmental or community benefits.

'Reluctant' (n = 140, 13%)

- Not willing to install a rainwater tank. They have a weak environmental identity and sense of community but strong national identity.
- Members would be the toughest to encourage to report, and considering this groups relatively small size, the least preferred to target.
- Campaigns would need to target all elements and use messages that build upon members' strong national identity, and be delivered by credible 'national icons'.



Keywords:

Rainwater tanks, water conservation, installation, behaviours, effective, campaign, water, waterways, urban

References:

McLeod, L.J., Hine, D.W., Milfont, T.L., Dorner, Z., Tassell-Matamua, N.A., Maris, R.D.C., Kitson, J.C., Stahlmann-Brown, P. (2024). Protecting and restoring freshwater biodiversity across urban areas in Aotearoa New Zealand: Citizens' reporting of pollution in stormwater drains and waterways. *Journal of Environmental Management*, 351, 120019. <https://doi.org/10.1016/j.jenvman.2024.120019>

Michie, S., Atkins, L., & West, R. (2014). *The behaviour change wheel. A guide to designing interventions.* Silverback Publishing, UK

IMPLICATIONS & POTENTIAL APPLICATIONS

Various factors impact the installation of rainwater tanks.

Employing a tailored approach, rather than a one-size-fits-all method, is crucial.

The Behaviour Change Wheel allows easy identification of precise strategies and behaviour change techniques to address these factors which is essential for creating successful campaigns and achieving meaningful results.

