



Photograph courtesy of PNCC

Palmerston North climate resilience and flood protection project

A highlight of living in Palmerston North is the beautiful Manawatū River flowing along the Massey University side of the city.

Horizons Regional Council is responsible for maintaining flood protection along this river and the Mangaone Stream

which weaves through the City from Flyers Line to Pioneer Highway before it joins the Manawatū River.

The advantage of easy access to these waterways is countered by the risk of flooding and the cost of protection. For decades Horizons has invested heavily to help protect the people of Palmerston North City and its billions of dollars of housing, businesses and public assets.

Central government funding

In 2020, central government’s budget included \$210 million for climate resilience and flood protection projects across New Zealand. This funding formed part of government’s response to the economic impacts of COVID-19.

Horizons received \$26.9 million of this funding from Kānoa, the government’s Regional Economic Development & Investment Unit (REDIU), for four climate resilience projects. Horizons contribution to the four projects is a further \$9 million. \$7 million of this total funding has been allocated to the Palmerston North climate resilience and flood protection project to increase resilience to the effects of climate change. This has provided an opportunity to accelerate some of the flood protection work outlined in our 2018–28 Long Term Plan.

Resilience and social procurement

The main objective of this project is to help keep our communities safe by improving the flood protection network in Palmerston North. Through the replacement and upgrading of ageing infrastructure, we’re building resilience to the impacts of natural hazards and climate change.

There is also a focus on social procurement that includes providing new employment and training opportunities for local businesses and iwi to help the region’s economy to thrive.

Scope of work

The scope of the Palmerston North flood protection resilience project work includes upgrades to flood defences (primarily stopbanks) and the replacement of a number of aging assets. New work will include additional amenities, such as pathways, native planting, signage, and enhanced public access to the Manawatū River and Mangaone Stream.

Initial work to assess the current state of the stopbanks began in mid-2021. This included CCTV investigation of the Palmerston North City Council storm water outlets where they pass under Horizons' stopbanks to determine the state of the current infrastructure.

Investigation of stopbank composition and foundation is also underway using the CPT rig pictured on the right.

One of the key enhancement projects Horizons is working on, in consultation with Rangitāne o Manawatū, is upgrading the area around the Ashhurst end of the Manawatū River bridle path. Plans include changing the current shady and often damp area to a river access path with bright open spaces, riparian planting, artwork and signage identifying the significance of the site. This work began in July 2021, with the removal of some poplar trees currently shading the site.

Along the Mangaone Stream, from below Flyers Line to the confluence of the Manawatū River, several pieces of ageing infrastructure, such as retaining walls and other flood protection assets, are being upgraded. Work is expected to begin in the summer of 2021/22 and will include realigning a section of the Mangaone Stream stopbank near Pioneer Highway.



The rig pictured is being used to conduct cone penetration testing (CPT), an in-situ test that is used to identify soil types, on the stopbanks of the Manawatū River and Mangaone Stream. In this test, a cone penetrometer is pushed into the ground at a standard rate and data is recorded at regular intervals during penetration. This gives us important information about the composition of the stopbank and also the ground the stopbank is built on, identifying areas where further river management work is required.



Work started in July 2021 to remove some of the poplar trees currently shading this site at the Ashhurst end of the Manawatū River bridle path.

Other planned work includes:

- Replacement of the timber Bisley Street retaining wall.
- Repair of berm erosion at the end of Albert Street.
- Replacement of temporary silt bag scour protection at Cecil Street.
- Realignment of the Kākātangiata stopbank.
- Remediation of the stopbank being built around the Associated Church of Christ on Botanical Road.
- Belvedere Crescent stopbank upgrade including redesign and removal of crib walls.
- Replacement of the existing gabion basket retaining structure in Tremaine Avenue.

The deadline for completion of all this work is March 2024.

To keep up to date with work underway visit the Infrastructure Climate Resilience Projects page on Horizons' website www.horizons.govt.nz or scan the link below.



For more information visit www.horizons.govt.nz or freephone Horizons on 0508 800 800