

**CASE STUDY:  
PUNAKAIKI, NEW ZEALAND**

# Davey provides superior drinking water at iconic Kiwi tourist destination

Davey Water Products New Zealand and Think Water West Coast have designed and installed a resilient, high-quality water treatment plant for the \$45 million Paparoa National Park Visitor Centre at Punakaiki, on New Zealand's remote West Coast – providing visitors with safe, great tasting water.

## The Challenge:

Punakaiki sits within the Paparoa National Park, a beautiful and remote location with its own unique ecosystem and weather environment. Water flowing to the visitors centre comes off the hill into a creek, but the area is prone to heavy downpours, which increase turbidity due to limestone sediment.

The previous system had two major faults. Firstly, it didn't comply to the drinking water standards. Secondly, the three 20-inch jumbo filters at the bottom of the hill needed to be removed and cleaned once a week due to clogging caused by limestone sediment.

## Our Solution

Commencing work in 2021, Davey Water Products took the lead in the design phase of the project, conducting extensive internal water testing and engineering to develop a system capable of withstanding the region's severe wind and rain.



We designed and installed an innovative containerised water treatment plant that is compact and produces excellent water quality. Equipped with advanced technologies such as multimedia filtration, carbon filters, softeners, ultra-filtration (UF), UV treatment, and chlorine dosing, this combination ensures the highest quality water treatment, effectively removing fine materials and contaminants, especially during severe weather events.

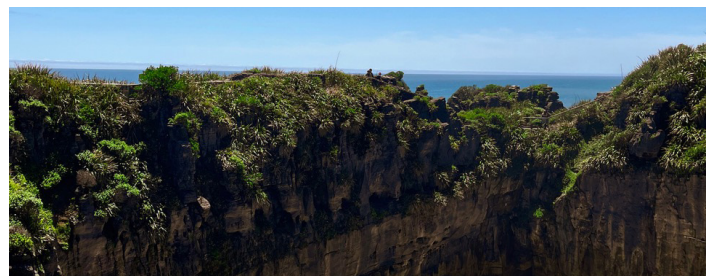
The solution included the following equipment:

- Pumps
- Multimedia Filtration
- Carbon Filters
- Water Softeners
- Ultra Filtration
- UV Disinfection

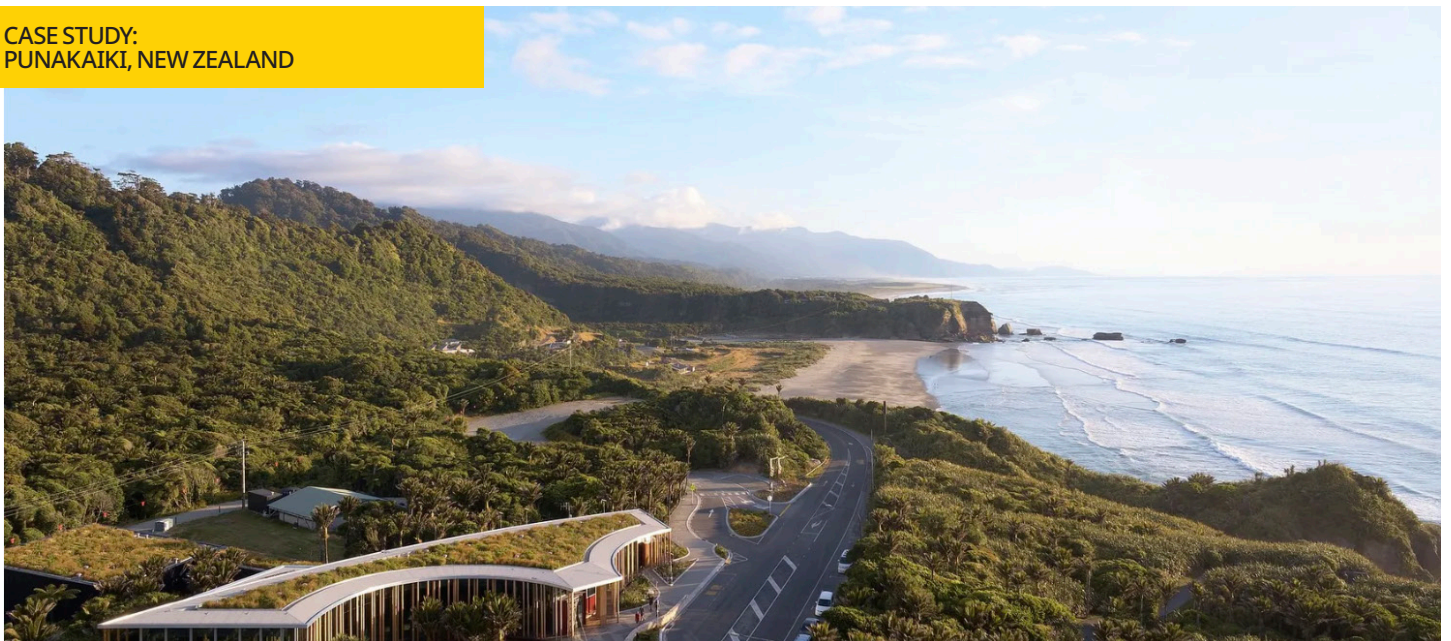
## Collaboration with our partners to deliver safe water

Davey Premium Master Dealer Think Water West Coast were integral to the successful delivery of this project. Led by Colin Thomas, Managing Director, the Think Water team ensured the smooth installation of the system and are now carrying out regular maintenance on the plant to ensure it continues to provide a clean, safe, uninterrupted supply of drinking water.

"It was quite a process to work through, but the system is doing exactly what it was designed to do," explains Colin. "Visitors are getting safe drinking water that complies with Taumata Arowai's water standards and because the system is fully automated DOC staff are no longer needing to manually check and clean clogged filters every week."







### Integrating tikanga and kaitiakitanga principles

A significant aspect of this project was the collaboration with Ngāti Waewae, who were handed over the site by the Department of Conservation.

To ensure our customers have the knowledge and resources to maintain the plant effectively, Davey led a culturally responsive training approach, providing ongoing training for iwi both on-site and through an online portal. It was important that we integrated tikanga and kaitiakitanga principles, emphasising the protection and stewardship of land and water.

Our commitment to quality and resilience in this project aligns closely with the requirements of the Small Waters and Wastewater System operations. The advanced technologies and comprehensive training programmes we implemented ensure sustainable and efficient water treatment solutions.



### Superior project management

The project was delivered on time, to the set budget with zero environmental non-compliances.

**On time delivery:** We implemented and followed stringent project management plans, including detailed scheduling and milestone tracking, proactive risk management and site assessments to minimise disruptions. Regular progress reports and effective stakeholder communication allowed for swift issue resolution, keeping the project on track.

**Budget performance:** Through detailed financial planning, real-time budget tracking, strategic procurement practices and rigorous cost control measures we ensured efficient resource allocation. By negotiating favourable terms with suppliers and subcontractors, we optimised expenditures without compromising quality, successfully delivering the project within the allocated budget.

**Developing environmental management plans:** Davey follow strict environmental controls on all our projects that are compliant with ISO 14001 environmental management standards. This includes extensive water testing of our product on the site which achieved resource consent requirements and Taumata Arowai standards.

