

# News Update

## To Tatou Vai

**Water is a universal resource provided by nature - owned by no-one, but valued by all.**



### At a glance

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- Investigating our options for disinfection

### Mei Te Vai Ki Te Vai - What's happening?

#### Beach nourishment and protection works at Nukupure Beach

#### Update on beach nourishment and protection works at Nukupure Beach and Vai Te Renga Stream

At the beginning of this month, the Government awarded the contract to S & T Contractors Ltd to carry out the beach nourishment at Nukupure Park working in partnership with the Muri Environment Care Group (MEC). In addition to this work is the erosion protection works at the Vai Te Renga Stream.



Left: During construction at the stream mouth.  
Right: During construction at Nukupure Beach

The work involved moving a large volume of sand from the lagoon at the mouth of the Vai Te Renga Stream and using this to build up the beach at Nukupure Park where considerable erosion has taken place. To stabilise the area further, the sand was covered with biodegradable coconut matting. The contractor has now completed their

part of the beach nourishment and protection work, greatly improving the beach at Nukupure Park.

The MEC Group, together with community groups, have started planting vegetation in the coconut matting along the top of Nukupure Beach. The plants will strengthen the top of the beach, helping to prevent erosion from waves, wind and foot traffic. By the time the coconut matting has broken down,

the plants and trees should be well established and will help to reduce the effects of the waves from eroding the beach. The MEC Group expects to complete the planting by early March 2019.



Removing the sand at the mouth of the stream and building erosion protection to the south side of the stream will improve the water flow in this area, reducing the build-up of algae in this part of the lagoon.

Nukupure Beach before and after

## Going forward with MTVKTV

On 19 February, the PMU facilitated a workshop at the USP Centre to review the plans for the Mei Te Vai Ki Te Vai Project with Government representatives and environmental NGOs. The workshop provided an opportunity to discuss and debate the four key work streams for the project - environmental, engineering, engagement and finance. Wide representation by Government authorities and interest groups helped ensure the project objectives and process were thoroughly tested. We



captured many useful suggestions and translated this into actions through a set of recommendations to MFEM.

The sequence of key steps required for the project business case and Government decision on a preferred option were particularly relevant. Once approved, the PMU will share this with the public in our upcoming meetings.



We also discussed the work needed to progress an environmental impact assessment (EIA) for the preferred option, along with issues of concern for assessment by environment NGOs. Overall, the workshop helped clarify next steps for the project, and it was especially pleasing to have a lot of constructive debate, and useful opportunities identified.

## **Te Mato Vai - What's happening?**

### **Stage 2 Construction Update**

#### **Key milestones achieved, by the end of January 2019:**

- We have completed 49% of the project since commencing in March 2018.
- We have laid 6,558m of trunk main.
- Construction has commenced at 9 of the 10 sites.

#### **When will sites be commissioned?**

- Turangi, Avana and Matavera are scheduled to be commissioned in May/June 2019
- Takuvaine, Ngatoe and Tupapa are scheduled to be commissioned in July/August 2019
- Papua, Totokoitu, Avatiu and Taipara to be commissioned October/November 2019

To commission a site, all components must be functioning. The above dates may or may not represent the completion of all water quality aspects of the project – those may be implemented towards the end of 2019. There may be some minor construction works left to be finished post commissioning dates above, such as landscaping, but the site will generally be operating as intended.

We anticipate the construction to be completed by the end of December 2019.

There are currently 91 McConnell Dowell staff on the project excluding subcontractors. 73 members of staff are of Cook Island nationality. 12 of those came home to Rarotonga to work on the project.

McConnell Dowell have engaged local subcontractors including:

- Mike Rennie Builders – concrete supply and concrete works
- T&M Heather – aggregate supply and plant hire
- G&S – plant hire
- S&T – plant hire
- Landholdings – civil and pipeline works

### **Site visits to Takuvaine and Tupapa led by DPM Mark Brown**

At the beginning of this month, Deputy Prime Minister Hon. Mark Brown led a team up to the Takuvaine and Tupapa sites to check on the progress of construction. Construction started on these sites in September and October 2018 respectively.

The minister was very impressed by the progress made at Takuvaine. At the last site visit just before Christmas the concrete was being poured for the settlement tank: “Now we can see the tank is almost completed and work is now commenced on filtration” said the DPM.

Construction has started on 9 of the 10 sites, with the completion date currently set for November 2019. Out of the 91 McConnell Dowell staff working on this project, 73 are of Cook Island nationality, with 12 coming home to Rarotonga to work. “There are a lot of people benefitting from this, and a lot of local businesses are also being sub-contracted to do services and work like concreting and so forth so it’s a project where benefits are spilling out into the community and where its directly employing a number of Cook Islanders,” says Brown.

We are working towards having landowner tours for the remaining sites at appropriate times throughout the year, more information will be provided closer to the time.

## Investigating our options for disinfection

Part of the Te Mato Vai project includes investigating different methods of disinfection to meet the World Health Organisation’s standards for potable water. World Health Organization (WHO) water quality specifications state that ‘drinking-water available at the tap shall be microbiologically safe, wholesome and potable’. Currently all water intakes on Rarotonga are untreated and do not provide potable water, and the current filtration systems have failed MoH drinking water safety surveillance tests on several occasions.

In order to meet the standards set by WHO, the Te Mato Vai project is constructing a treatment plant at 10 intake sites along with investigating disinfection options. Deputy Prime Minister Hon. Mark Brown says, “The standard system used around the world is chlorination, and currently that’s what we are looking at, however we are more than happy to look at any other forms of disinfection that people might consider.”

Key factors being assessed are safety, complexity, reliability, capital cost, and ongoing operational and maintenance costs. “The biggest thing is an assurance of good quality water, all the time,” says DPM. DPM Brown recently led a tour around the Takuvaine and Tupapa intake sites where the storage tanks are under construction. The Takuvaine storage tank will hold 400,000 litres of water, and the Tupapa storage tank will hold 1.8 million litres of water.

“We are looking forward to this project being completed and providing clean water to all households in Rarotonga,” states DPM.

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