

## **Manaaki Taha Moana: Enhancing Coastal Ecosystems for Iwi**

Professor Murray Patterson, Director of New Zealand Centre for Ecological Economics (NZCEE) at Massey University is the Science Leader for this large, collaborative programme. Derrylea Hardy, Research Officer at NZCEE is the Project Manager, and Associate Professor Marjan van den Belt, Deputy Director of NZCEE, will also contribute her ‘mediated modelling’ expertise. We will also utilise the expertise of world-renown ecological economist from the Gund Institute at the University of Maryland, Distinguished Visiting Professor at Massey, Robert Costanza.

This 6-year programme builds upon NZCEE’s previous research with Ngāti Raukawa in the lower north island: ‘Ecosystem Services Benefits in Terrestrial Ecosystems for iwi’. In the newly-funded research , we will continue our work with Te Iwi o Ngāti Tukorehe Trust and Taiao Raukawa (the wider Environmental Research Unit for the entire takiwā), and are now also collaborating with iwi in Bay of Plenty through Manaaki Taiao Incorporated; WakaDigital; and the Cawthron Institute in Nelson. There is also extensive and enthusiastic support for this programme from many central and local government agencies; as well as from iwi authorities, hapū and kaumatua.

### **The aim is:**

to restore and enhance coastal ecosystems and their services of importance to iwi, through a better knowledge of these ecosystems and the degradation processes that affect them.

We will utilise western science and Mātauranga Māori knowledge, as well as ‘mediated modelling’ tools and processes, to assist iwi/hapū to evaluate and define preferred options for enhancing/restoring coastal ecosystems.

This evaluation of options will also be assisted by the development of innovative IT and decision support tools (simulation modelling, interactive mapping, 3D depiction, real-time monitoring) by Wakadigital Ltd.

Action Plans will be produced for improving coastal ecosystems in each rohe.

The research team will work closely with iwi/hapū in the case study regions to develop tools and approaches to facilitate the uptake of this knowledge and its practical implementation.

Mechanisms will also be put in place to facilitate uptake amongst other iwi throughout NZ.