

A stylized botanical illustration featuring a large, curved, orange leaf-like shape with horizontal lines, a pinkish-red fern frond, a teal fern frond, and a blue leaf. The background is a dark blue with faint, repeating patterns of the same botanical elements.

Love  
Rimu-  
rimu

# Love Rimurimu Project

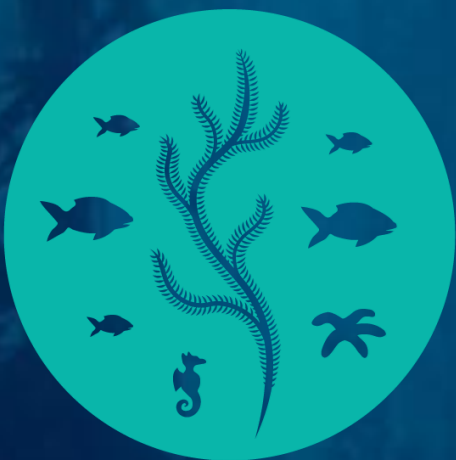
- Aim of project
- Building on Experiencing Marine Reserves – focus on rimurimu (seaweed) & climate change action.
- Engage community and students with the importance and role of seaweed.
- Connect young people with scientists, mana whenua and local government expertise
- Find pathways for community engagement, restoration, utilisation and research.



**TERM 1 – GETTING TO KNOW  
RIMURIMU.**



# TERM 1





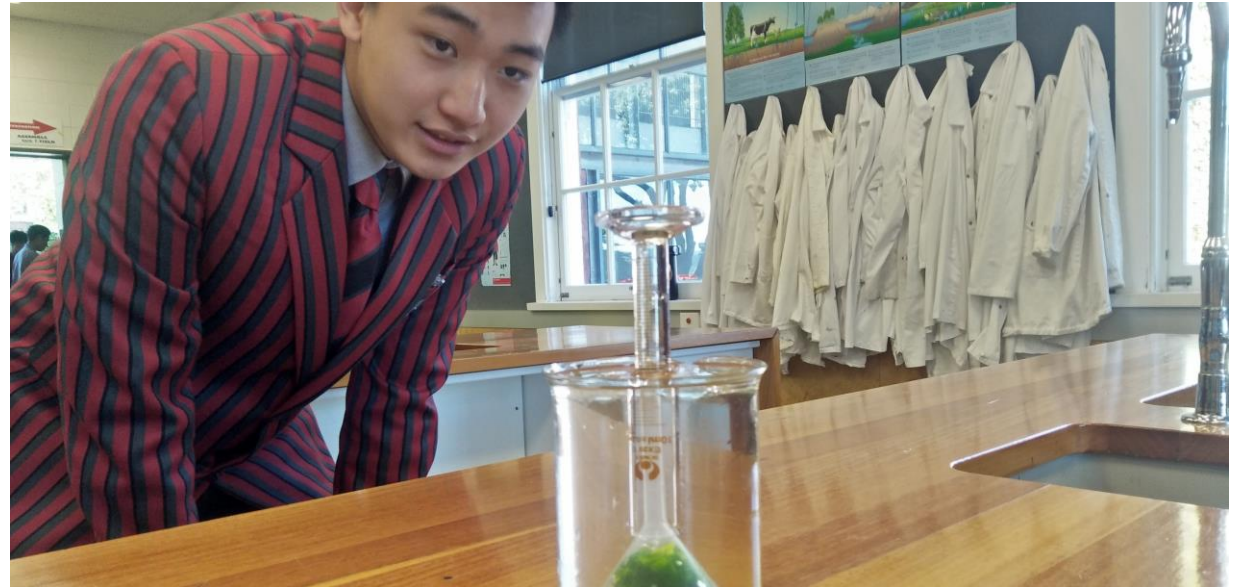
EMR

Experiencing  
Marine Reserves

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Te Kura Moana





A stylized botanical illustration featuring a large orange leaf with horizontal veins, a pinkish-red fern frond, a teal fern frond, and a blue leaf. The background is a dark blue with faint, repeating silhouettes of ferns.

Love  
Rimu-  
rimu

**TERM 2 – HUMAN IMPACTS &  
CLIMATE CHANGE**

# Co-culture



# Water Quality Contaminants

- nutrients
- pathogens
- heavy metals
- sediment
- hydrocarbons
- hydrology
- temperature



# Living through the haze

Mareike Babuder

Ranukitnu Project | 2020

A story about SEDIMENTATION and SEAWEEDS



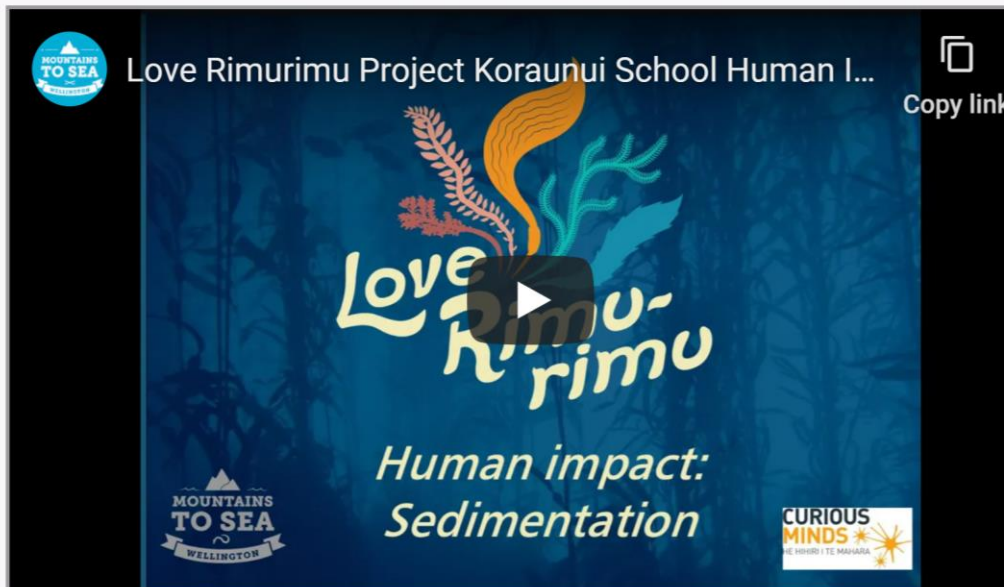


### Learning Activity 3 - Human Impact: Sedimentation.

This session will explore the human activities that cause sedimentation and the impacts sedimentation has on the distribution of seaweed in our marine environment.

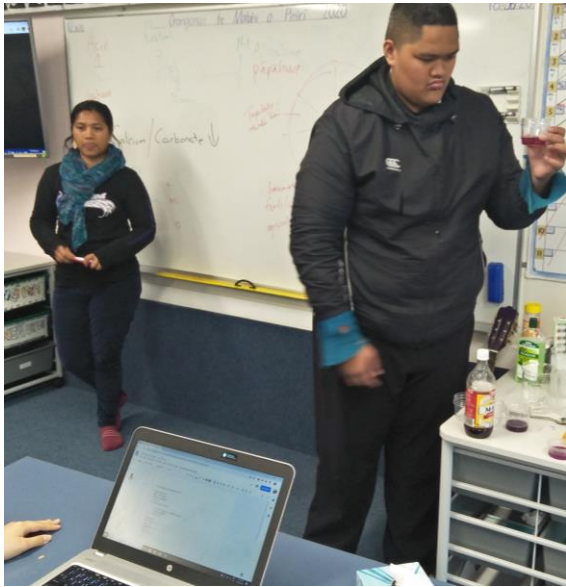
#### To complete this session:

1. Join the MTSW livestream or watch the recording.



2. Complete the [Sedimentation Kahoot Quiz](#).
3. Follow up the learning with these videos: [Mareike's Living Through the Haze video](#) and [Sustainable Seas national marine experiment](#) and [Estuary issues and protection on sedimentation](#).
4. Students can track sediment plumes through [Cawthron Eye Satellite](#) and participate in the [Sedimentation Citizen Science project](#).

A screenshot of a learning management system interface. At the top, there is a header for 'Love Rimurimu Term 2 - Teacher Stream' with the 'MOUNTAINS TO SEA WELLINGTON' logo. Below the header is a navigation bar with 'Home' and 'Settings' buttons. The main content area is titled 'Your progress' and shows a list of activities. The first activity is 'Introduction session' with a 'DO' button. The second activity is 'Seaweed ID Guide' with a 'LEARN' button. The third activity is 'Learning Activity 1 - Intro to Human Im...' with a 'DO' button. The interface is dark-themed with purple and teal accents.





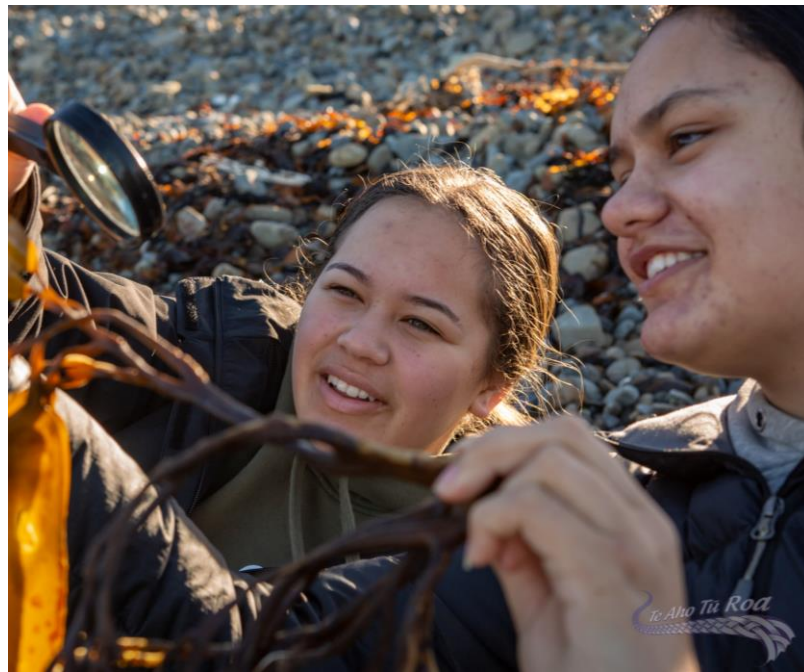
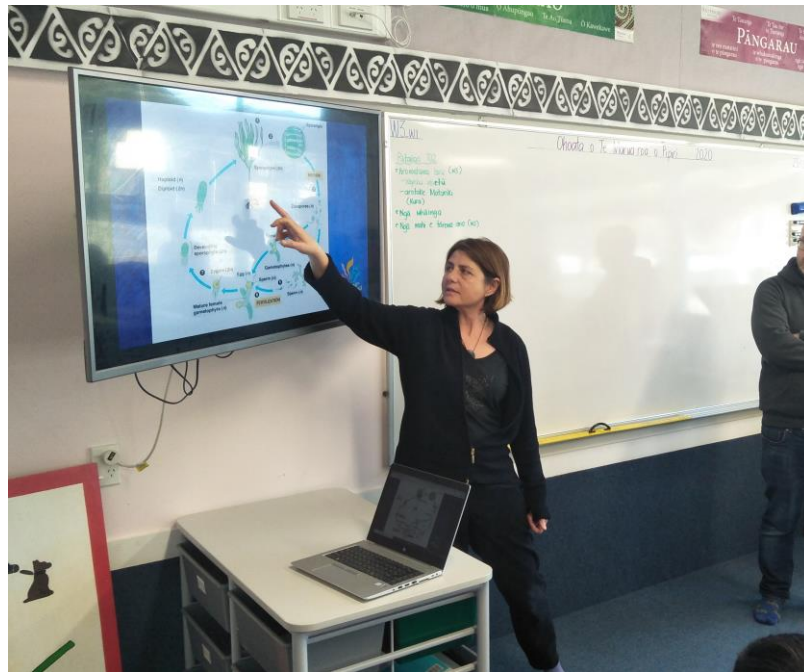


**TERM 3 – USES & REPRODUCTION**

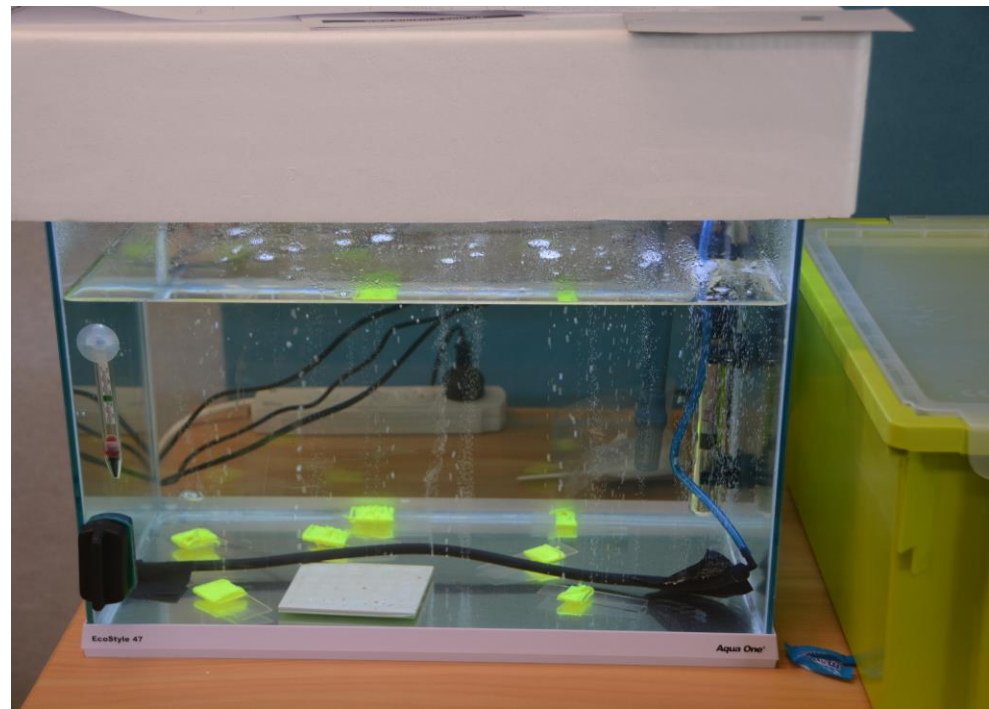
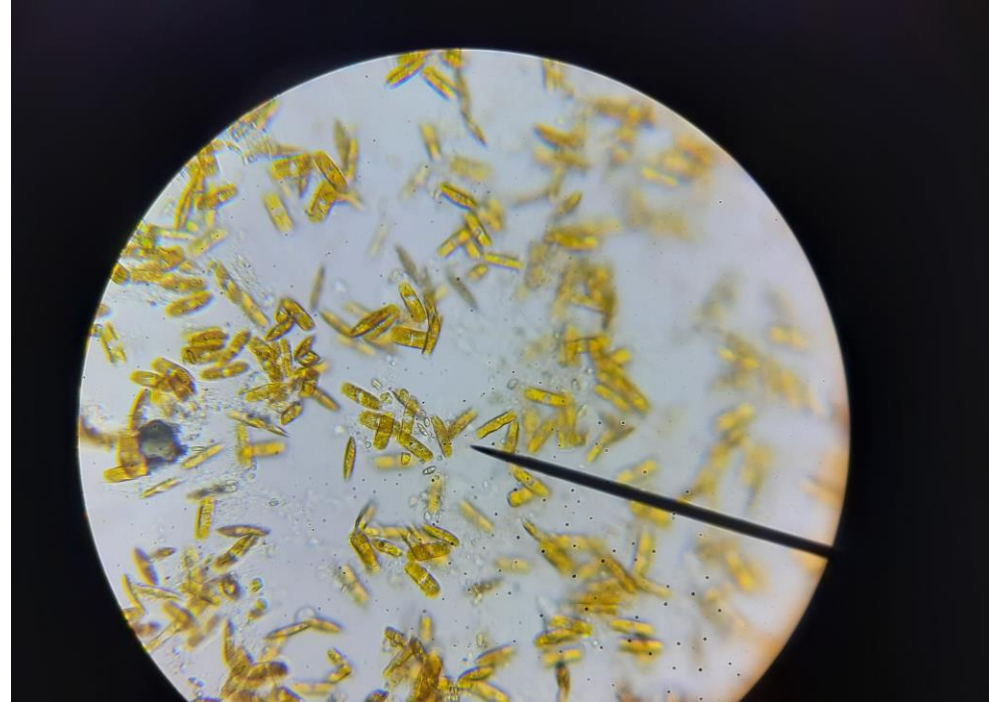














**TERM 4 – TAKING ACTION**







# Highlights

- Outcomes

- 120 students became seaweed experts, and engaged their wider community
- Partnership with Te Aho Tu Roa - resources created in te reo Māori -
- 4 Community snorkels held - with a seaweed focus.
- Strong science collaborations with NIWA & Vic Uni & Greater Wellington
- Developed a completely new programme.
- Many new resources available in online portal – Make Ripples.

# What's next?

WWF funding for 3 classes in 2021.

Science Learning Hub – Development and refinement of resources/programme content.

National Expansion – resource training to the EMR team.  
A larger bid to Unlocking Curious Minds? Who's keen?

Restoration Sites in Wellington – Long term funding for restoration – The Love Rimurimu Restoration Project.



**Restoring Wellington's**  
*Underwater Forests*

TOGETHER FOR A SUSTAINABLE FUTURE

**Zoe Studd**

24th of February 2021





# *A blueprint for Blue Carbon and Bioremediation in Wellington.*

## Project Aims:

*Establish native seaweed regeneration projects in marine areas around the 'Blue Belt' of Te Upoko o Te Ika a Maui.*

*Regenerate our marine environment into a thriving ecosystem: absorbing carbon, improving water quality and restoring biodiversity.*

# PROJECT OUTCOMES

Four Seaweed and Marine Restoration in Te Upoko o te ika a Māui

Development of a 'tool kit' for marine restoration: planning, technical support, education and research which can be utilised in other regions.

Mana whenua leadership of marine restoration priorities – co-design

Knowledge Building - supported by leading scientists and researchers through Centre of Research Excellence

Advocacy at central and local government for marine restoration and as part of 'Blue Belt' priorities.

Exploration of innovative harvest uses, and other economic/ecological opportunities.



# WHY SEAWEEEDS?

*Ngahere o te moana*

Carbon sink

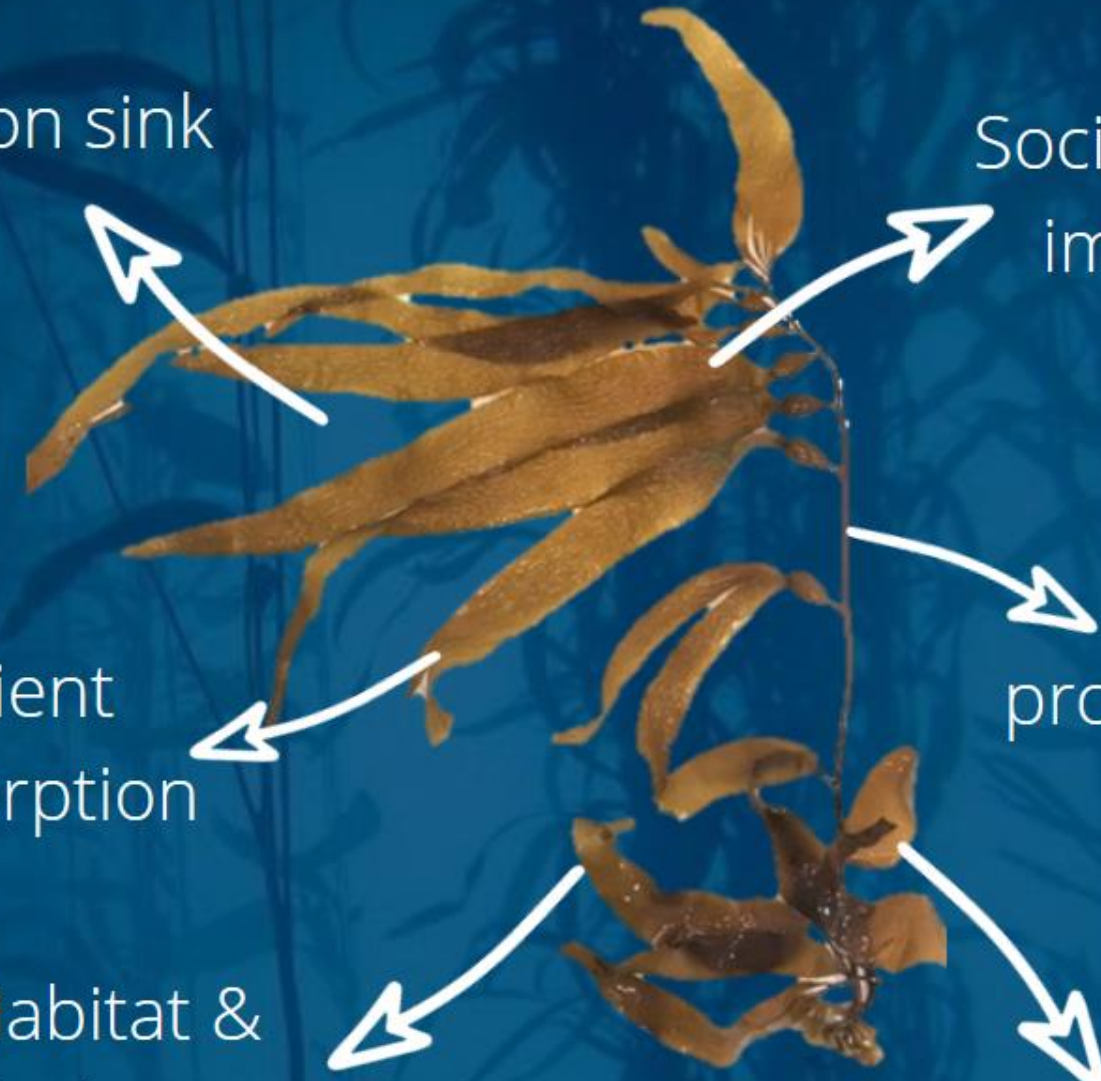
Sociocultural  
importance

Nutrient  
absorption

Coastal  
protection

Habitat &  
Shelter

Food source



# STATUS OF WELLINGTON HARBOUR

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Degradation & Loss !





# MULTIPLE STRESSORS

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- Overfishing
- Kina barren
- Pollution
- Sedimentation
- Climate change





# RESTORATION

A nature-based solution



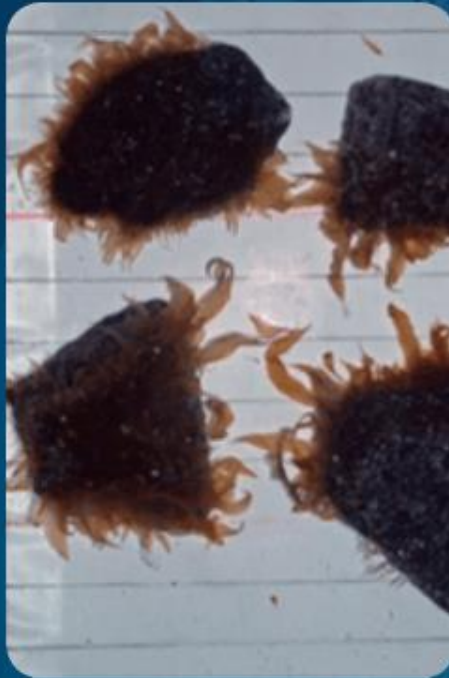


# Methodologies

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**Transplantation**



**Re-seeding**  
(**'Green gravel'**)



**Artificial reefs**



**Aquaculture**  
**lines**



# BENEFITS OF HEALTHY SEAWEED FORESTS

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## **Blue carbon and bioremediation**

Increased carbon sequestration,  
biodiversity & abundance,...



## **Community resilience**

Coastal protection, food security,  
skills creation



## **Community Advocacy**

Education, community buy-in,  
regulatory structure





# Setting up for *success*

- Our team
- Mana Whenua
- Science experts
- Central and local government
- Community groups
- Aquaculture companies





# WHAT WE CAN *build* ON



**Community-Snorkels  
& Public Info Events**



**Educational  
Projects**



**CoRE research +  
Seaweed & Kina  
Monitoring**



# MANA MOANA MANA WHENUA

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- Site selection guidance
- '*Check in*' process
- Opportunities to engage and benefit



# HOW WE ARE GOING TO DO IT



Education, Advocacy & Research

# WHO BENEFITS?





## Carbon Sequestration & Ecosystem Health

CO2 absorption (OA reduction), increase in biodiversity and abundance of species



## Knowledge Building

Toolkit for restoration, scientific data, community engagement, aquaculture



## Opportunities

Employment pathways, innovative uses, Blue Carbon credits, ecological enterprise







# Challenges WE MIGHT FACE



## Environmental

- water quality
- kina



## Methodology

- re-seeding?
- translocation?



## Investment and Policy & Advocacy settings



# Thank you



greater WELLINGTON  
REGIONAL COUNCIL  
Te Pane Matua Taiao



VICTORIA UNIVERSITY OF  
**WELLINGTON**  
TE HERENGA WAKA

