

# Exotic Caulerpa Response update

28 July 2023



# Current response intent

- Prevent or slow the spread of exotic Caulerpa around Aotearoa
- Minimise the potential impacts to the environment and communities



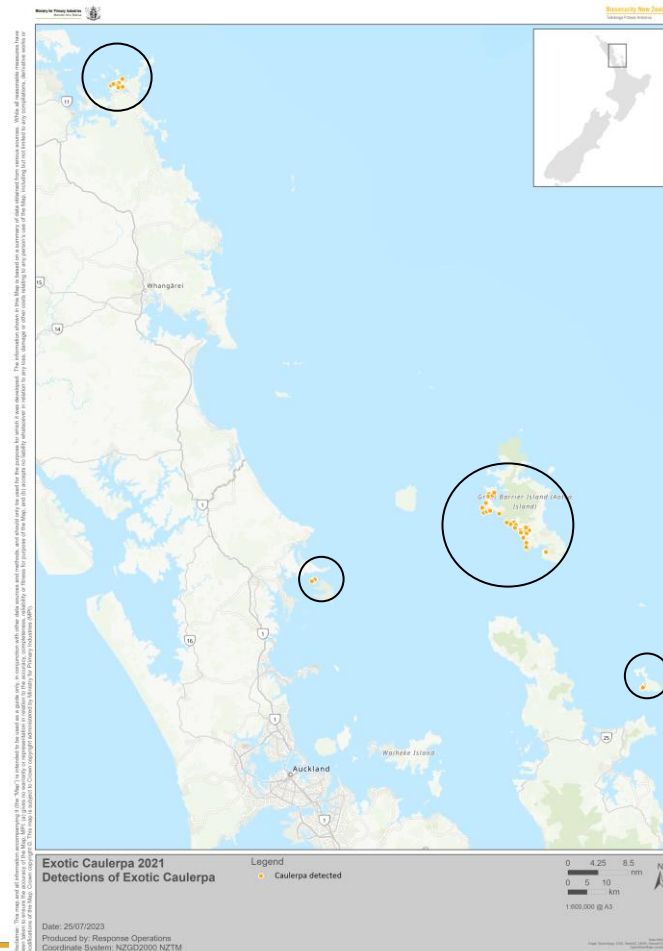


# Recent Detections



# What and where is exotic Caulerpa?

- *Caulerpa brachypus* and *Caulerpa parvifolia*
- First detected Aotea/Great Barrier Island in July 2021
- Ahuahu/Great Mercury Island, March 22
- Recently in Te Rāwhiti, Bay of Island & Kawau Island

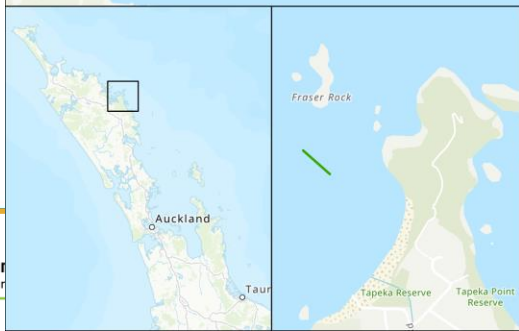
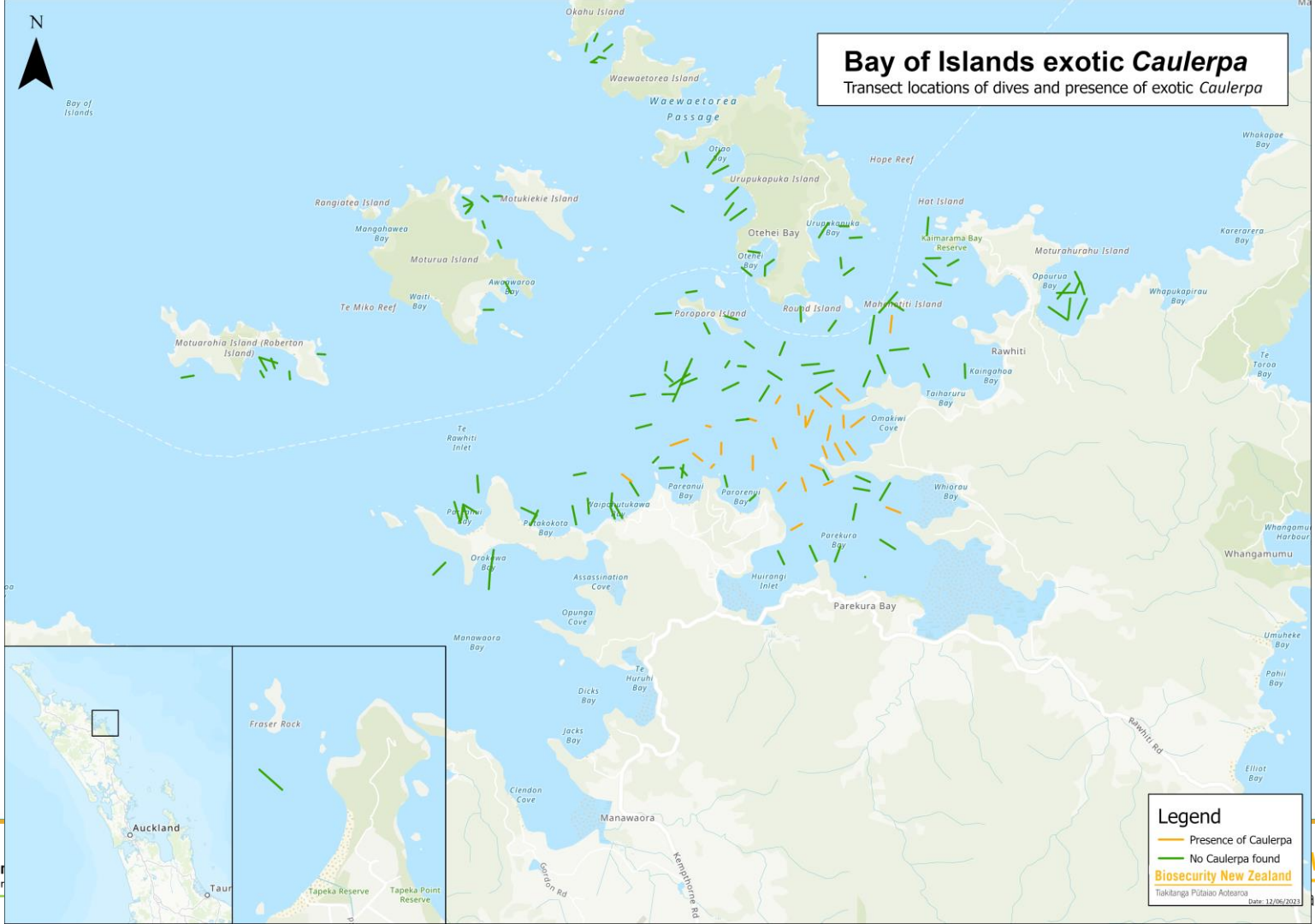




Bay of Islands

# Bay of Islands exotic *Caulerpa*

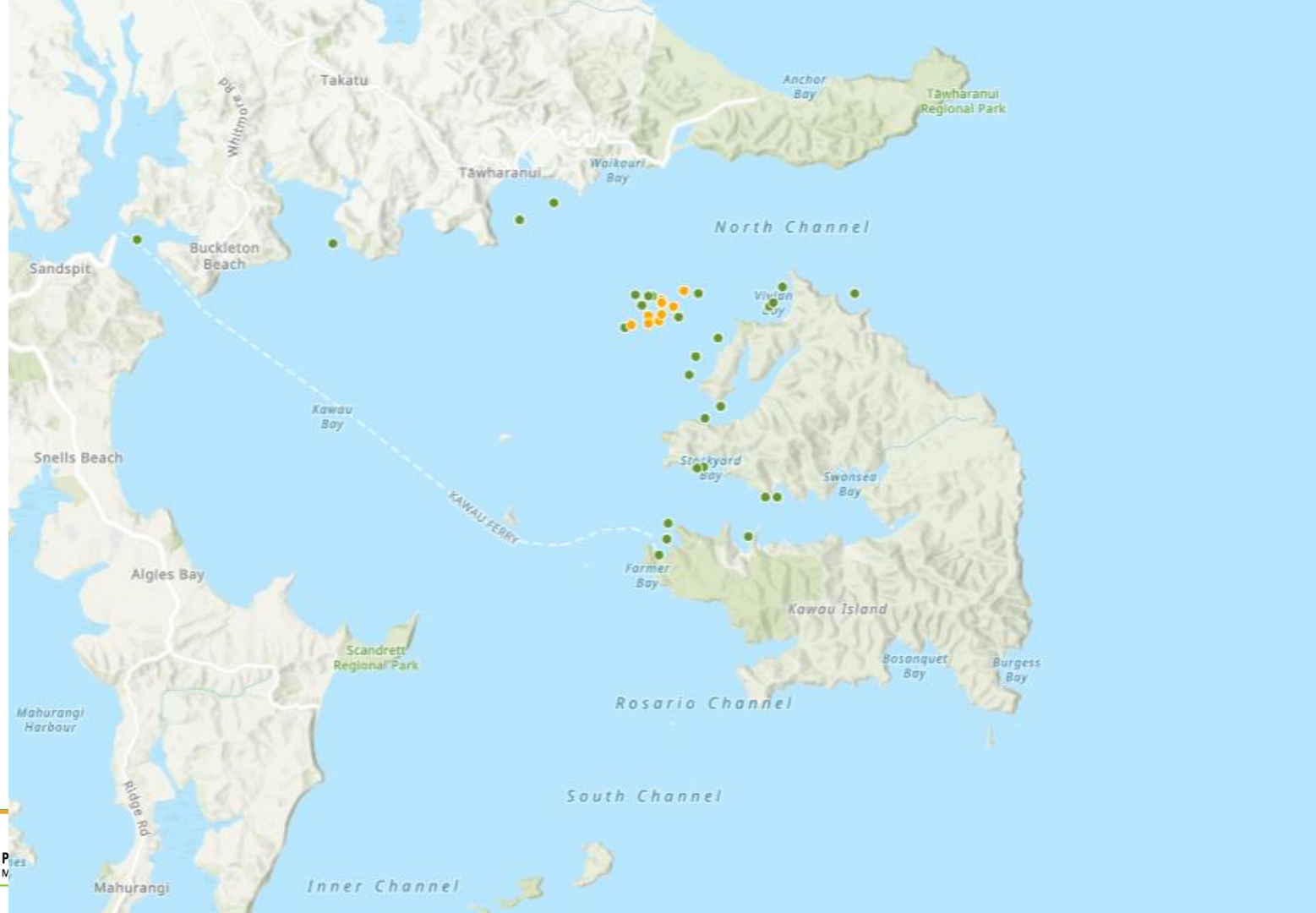
Transect locations of dives and presence of exotic *Caulerpa*



**Legend**

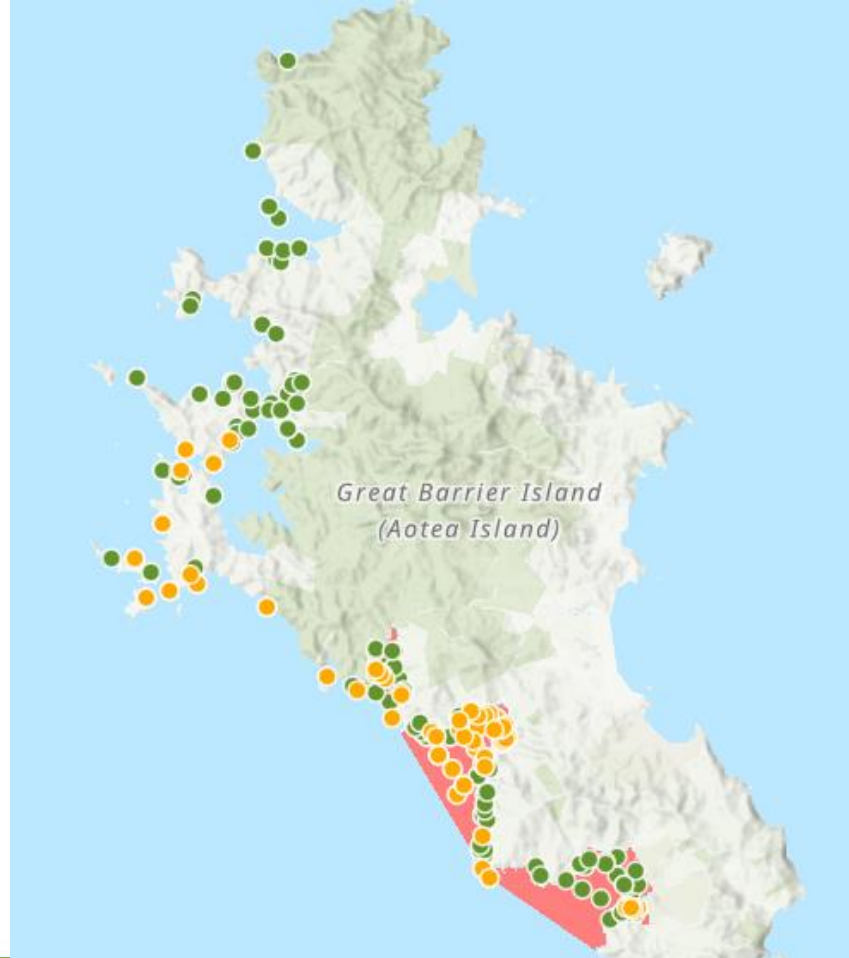
- Presence of *Caulerpa*
- - - No *Caulerpa* found

**Biosecurity New Zealand**  
 Tikaitanga Pōtiao Aotearoa  
 Date: 12/06/2023



# Aotea Detections

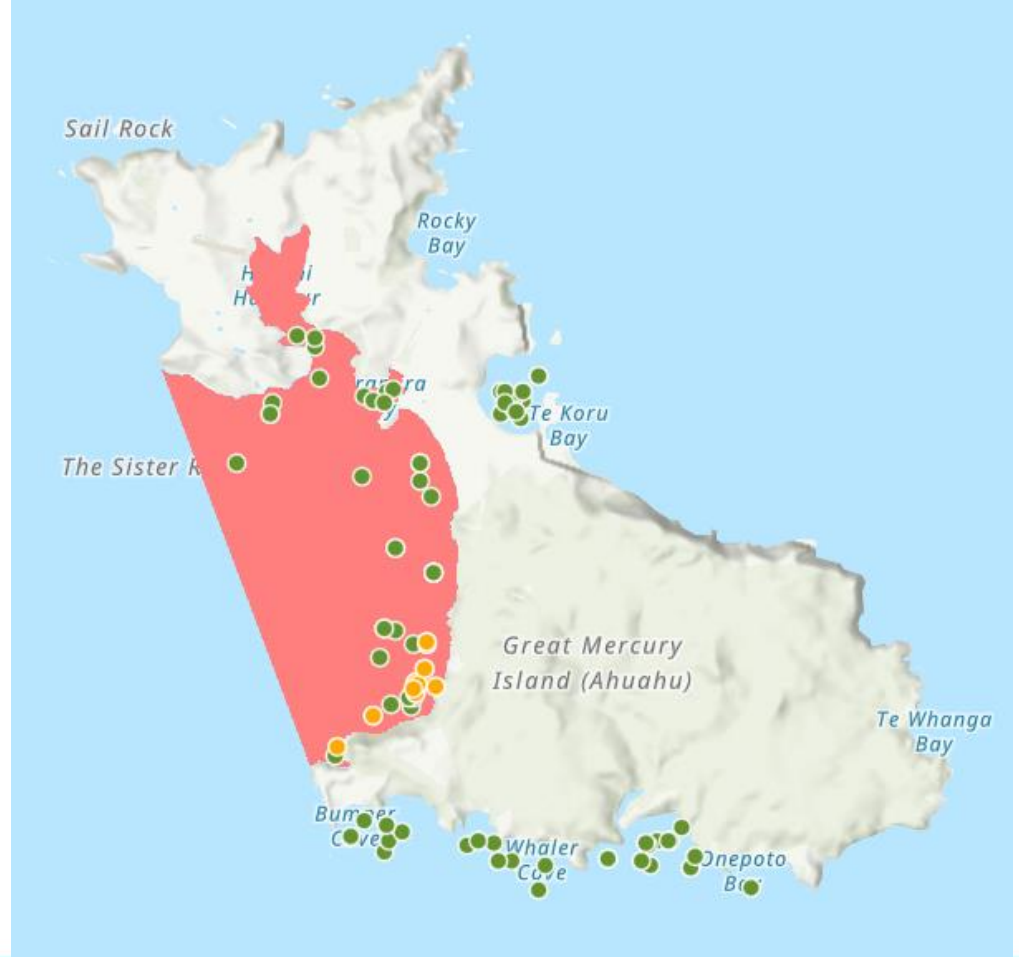
- NIWA survey over the last few days
- Caulerpa in several new locations outside of CAN (Bowling Alley Bay, Broken Islands, Port Fitzroy, )
- Some dense coverage

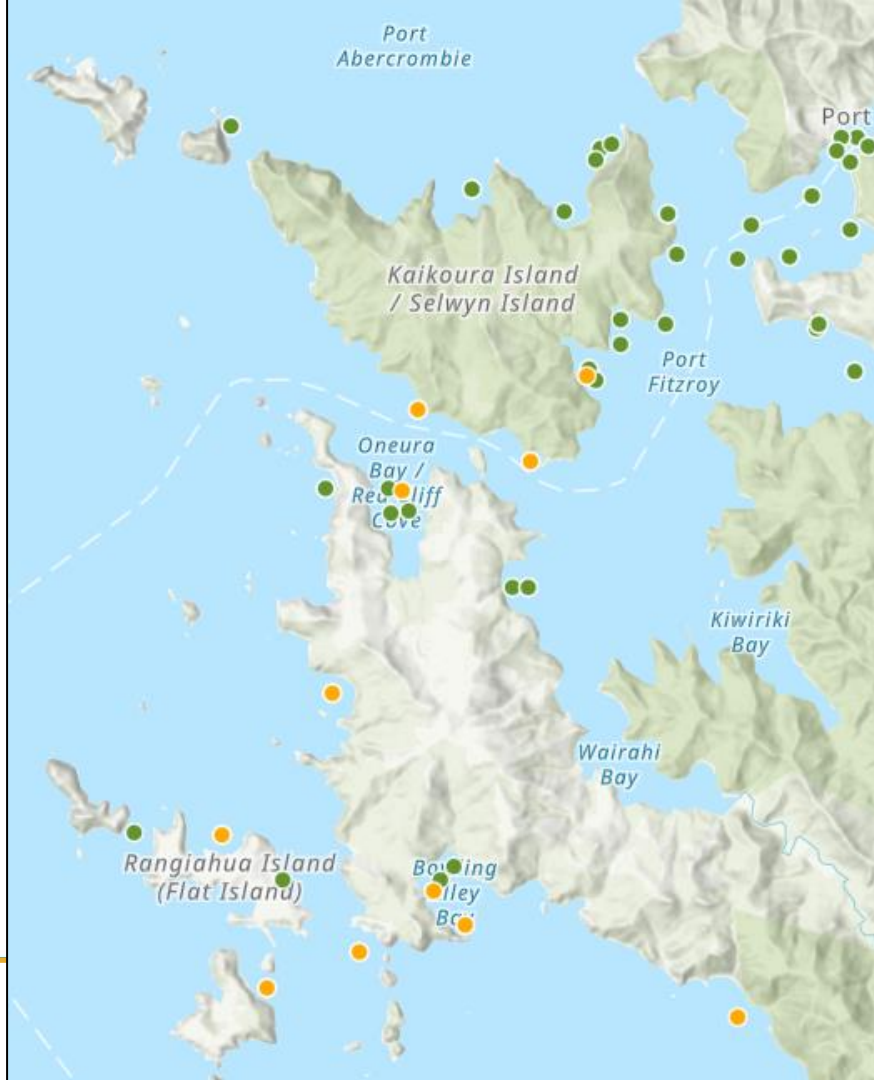




# Ahuahu Detections

- NIWA survey over the last week



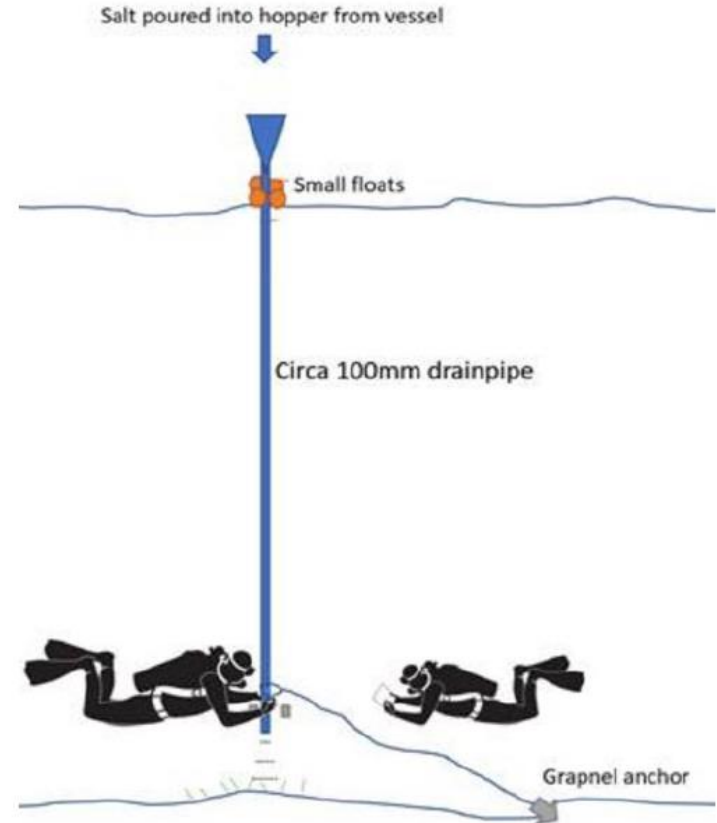


# Suction Dredging



# Treatment Tools

- Suction Dredge
- Benthic Mat
- Salt
- Chemical treatment (chlorine etc.)
- Hand Removal
- Heat
- Dredge Spoil
- Biocontrol
- Copper Mesh



# Suction Dredge TAG

- Should be trialled immediately
- Could be useful for Caulerpa management
- Effective at biomass reduction
- Won't achieve total removal
- Part of a combo package
- Mainland and offshore trials recommended

Photo 7



© Marine Technomic Services, LTD. Photo by M. Rydel

Photo 6



© Marine Technomic Services, LTD. Photo by M. Rydel



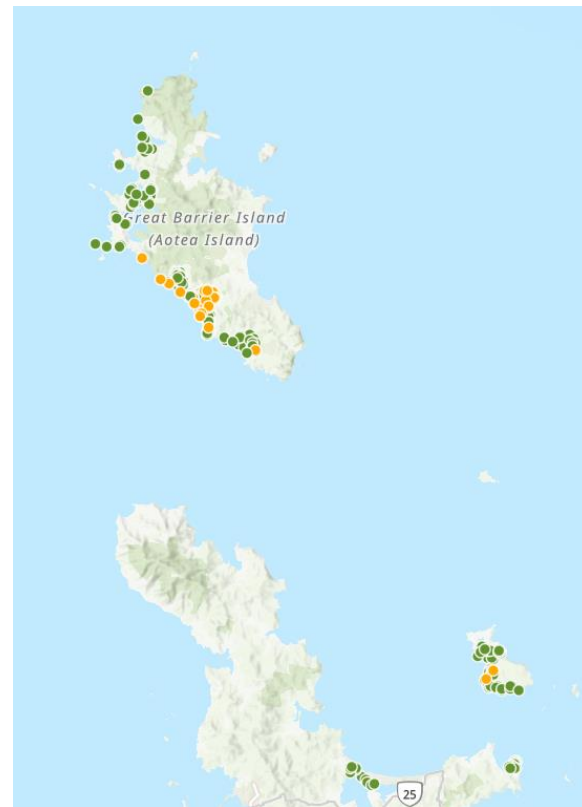
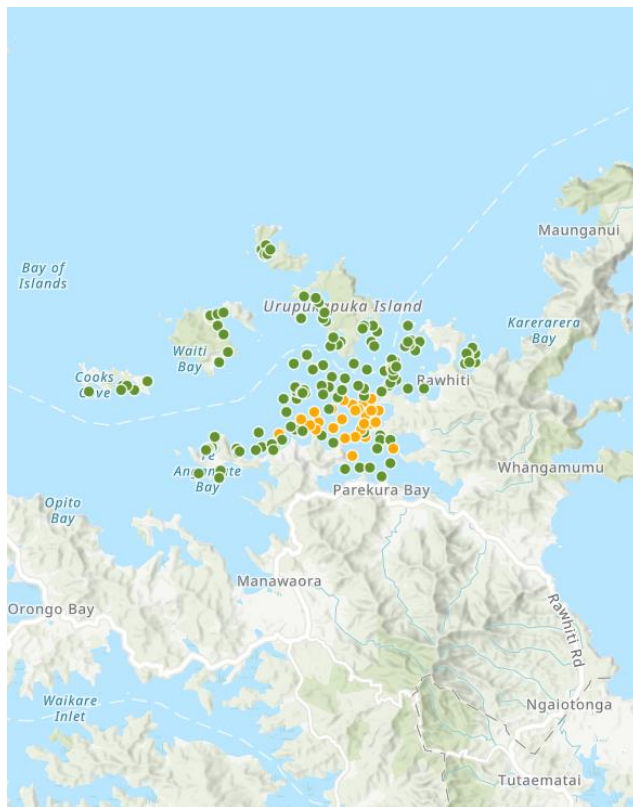
# Suction Dredge TAG

- Not a silver bullet
- Multi-year project
- Never deployed at Aotearoa scale of Caulerpa infestations
- Ecological impacts



# Trials

- What?
- Where?
- Who?
- When?



# Te Rāwhiti Trial

1. Hand removal and benthic mats for perimeter management
2. Suction dredge and benthic mats
3. Late August/September start
4. Trial design well advanced
5. Procurement to begin next few weeks – including local procurement





# Aotea Trial

1. Suction Dredge for biomass control or elimination
2. Need to understand
  - effectiveness
  - ecological impact
  - reinvasion rate
  - disposal
  - cost effectiveness / ability to scale



# Aotea Trial

1. Okupe – at least one hectare
2. Combination of suction dredging and benthic mats
3. Late August/September start
4. Trial design well advanced
5. Procurement to begin next few weeks – including local procurement
6. Kina cage trial – in planning



# Discussion

