

# Litter in Northland, a bitter issue?



# How much of an issue is litter?

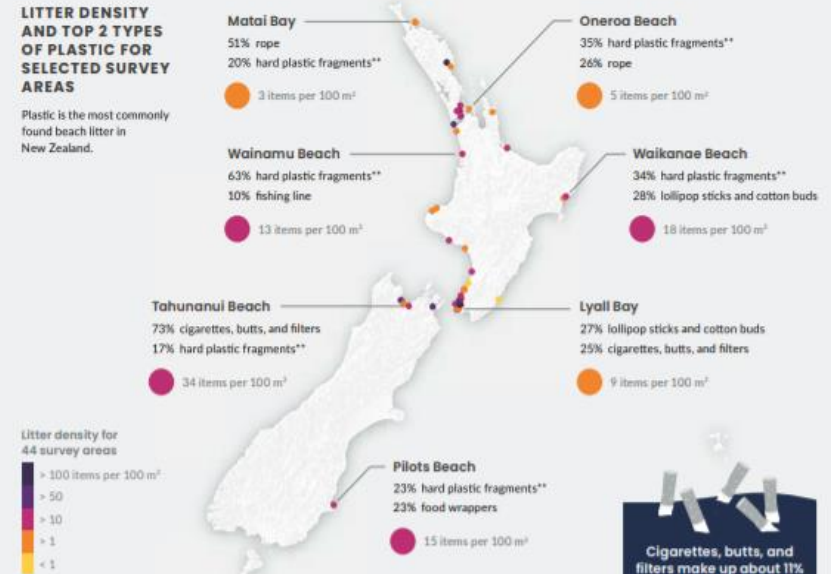
- Litter can be found everywhere, even in remote places
- However, there's a paucity of empirical data
- We need more baseline data (location, quantity, type) to address the knowledge gap

## ► Litter on our beaches

44 survey areas in the Sustainable Coastlines Litter Intelligence programme\* data snapshot: April 2019. Type and amount of waste in coastal marine habitats.

### LITTER DENSITY AND TOP 2 TYPES OF PLASTIC FOR SELECTED SURVEY AREAS

Plastic is the most commonly found beach litter in New Zealand.

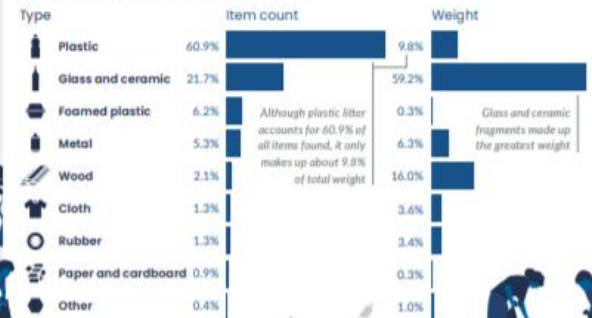


### \*CITIZEN SCIENCE

The Litter Intelligence programme is a citizen science project that collates the results of litter surveys around New Zealand. It is run by Sustainable Coastlines and funded by the Waste Minimisation Fund.

\*\*Unidentified hard plastic fragments

### LITTER BY CATEGORY, ALL SURVEYS



Cigarettes, butts, and filters make up about 11% of all plastic items collected and 6% of all items overall.



# Clean-ups & litter surveys, Northland

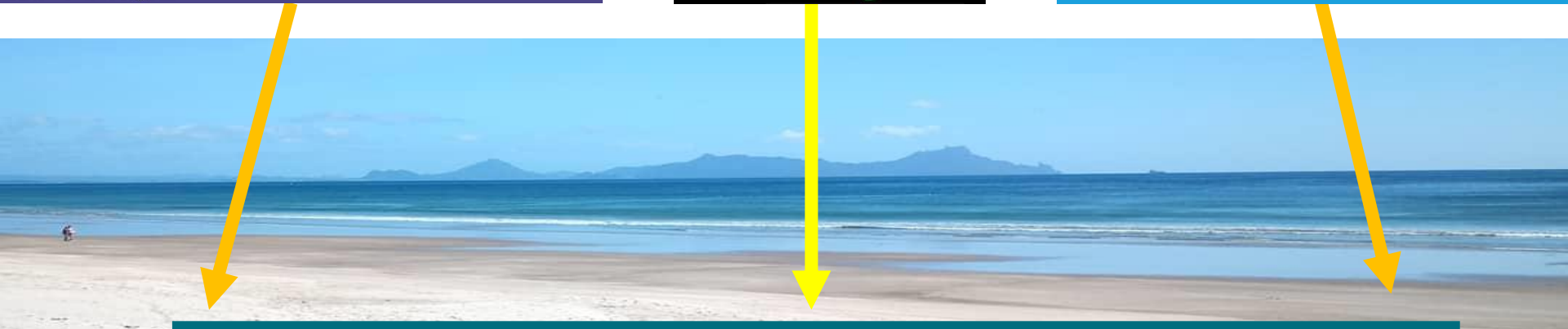
Community led clean-ups  
No data



Citizen-scientists  
Baseline data



Citizen-scientists  
Tier 1 data

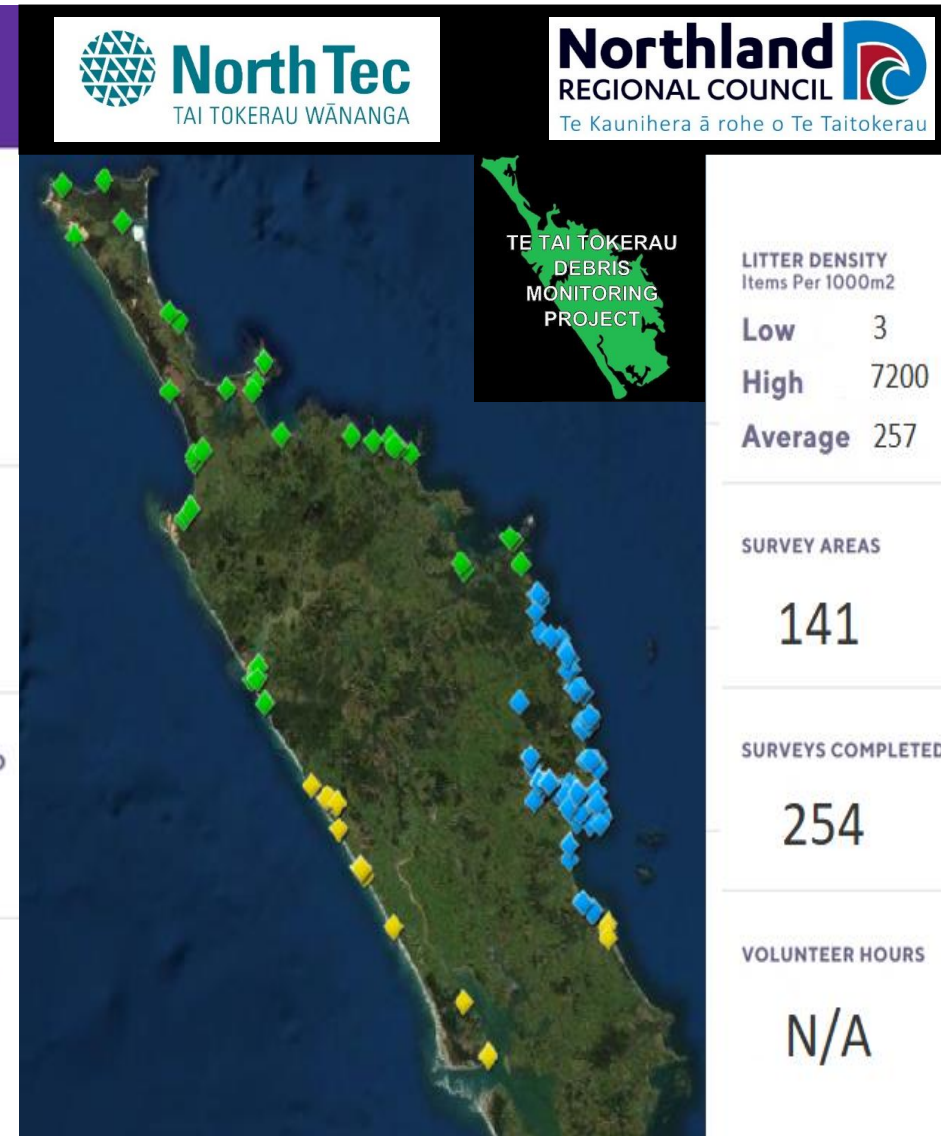
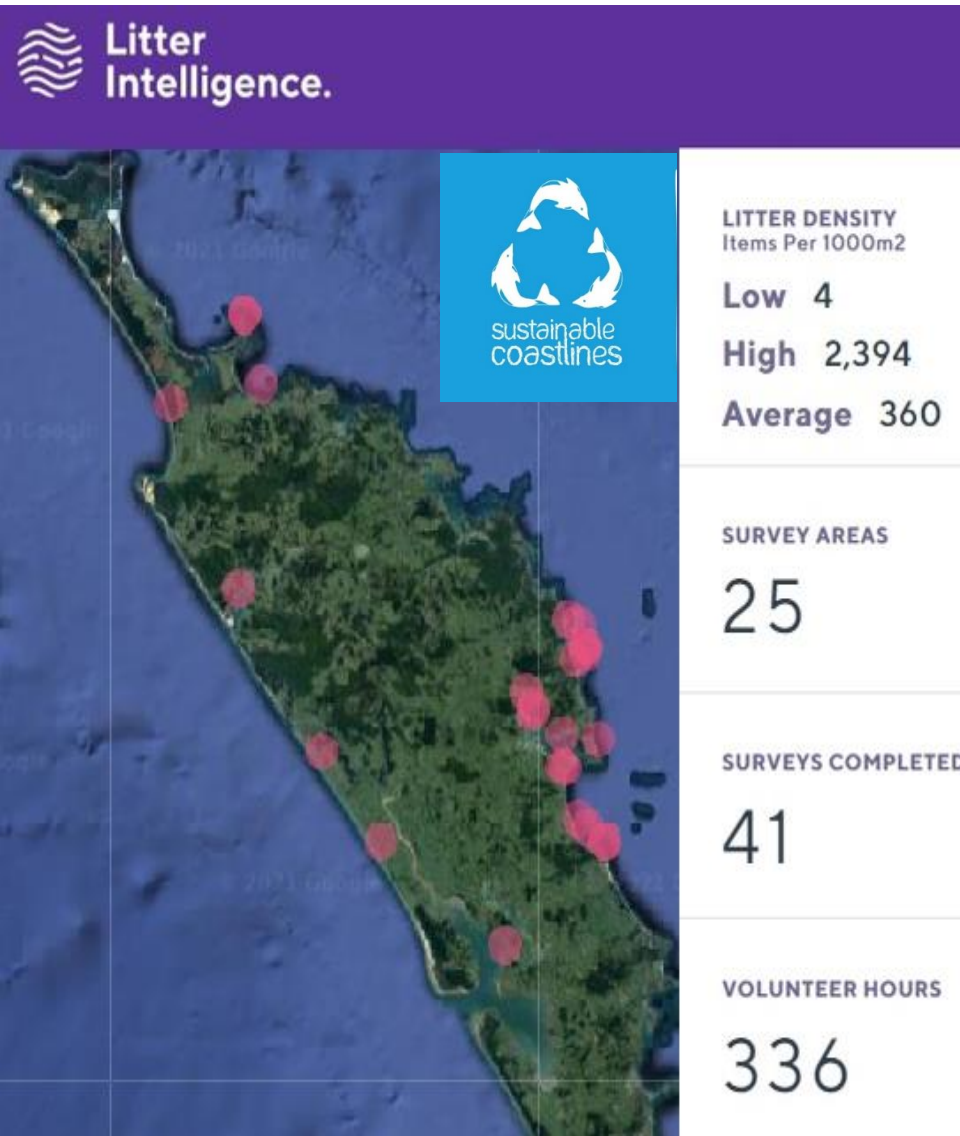


No requirement.  
Simply showing up

No set up. Anywhere, any  
time, no minimum area

Need a set up. Specific  
survey area, every 3  
months, incl. weight

# Citizen-Science based litter surveys





# Working with schools & stakeholders



## Te Tai Tokerau Debris Monitoring Project

Published by IG TTTDMP · 20 November 2019 · Instagram ·

It was a great pleasure to talk to Year 7 to Year 10 students at the Christian Renewal School today about litter and what we can do to be part of the solution. We look forward to receiving litter data from their great mahi in 2020. If your school is interested in taking part in the Te Tai Tokerau Debris Monitoring Project, get in touch with us. We'd love to hear from you 😊 #tttdmp #citizenscience #datacollection #planetorplastic #makeadifference #saveouroceans #northland

Edit





# Random sampling of clean-up events



One random bag sampled,  
Onerahi, Whangārei

**Force** Love Whangārei Monthly Clean Up 

Supporting community for a clean environment



Join us!

See [Force.org.nz](http://Force.org.nz)

The driving Force:  
Nick and Karen 



# Taking part in local events



**NORTHLAND LitterBlitz**  
29 Feb - 8 Mar 2020

**ONE WEEK**  
to collect and record as much litter as possible!

**Are you in? Follow:**

NorthlandRegionalCouncil   
ttdmp 

**Seaweed**

2020 (NRC)

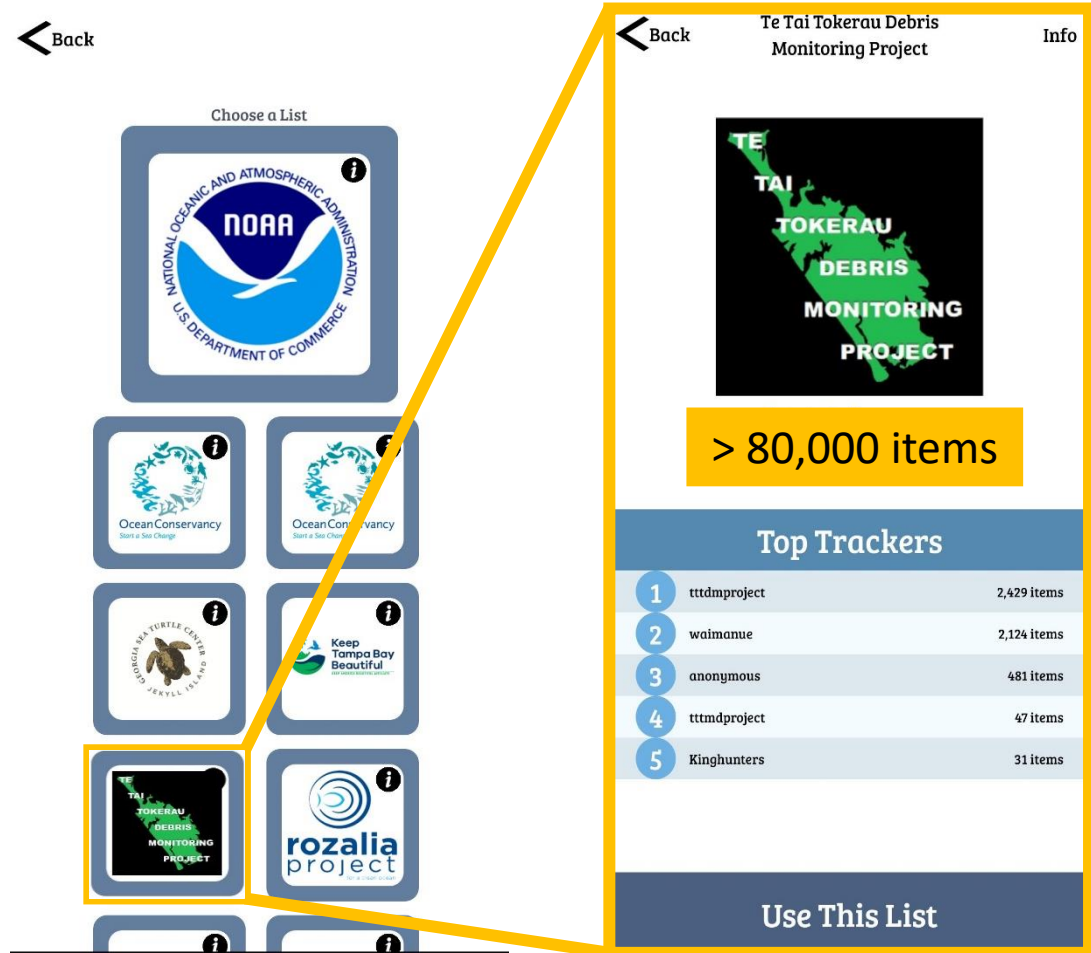
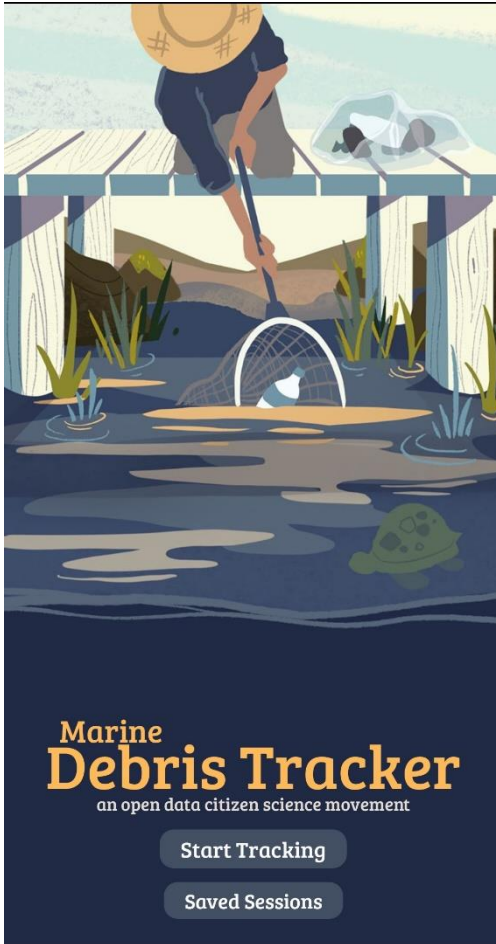
2021 (DOC)

**Cons. Week**

2021 (DOC)



# TTTDMP & Marine Debris Tracker App

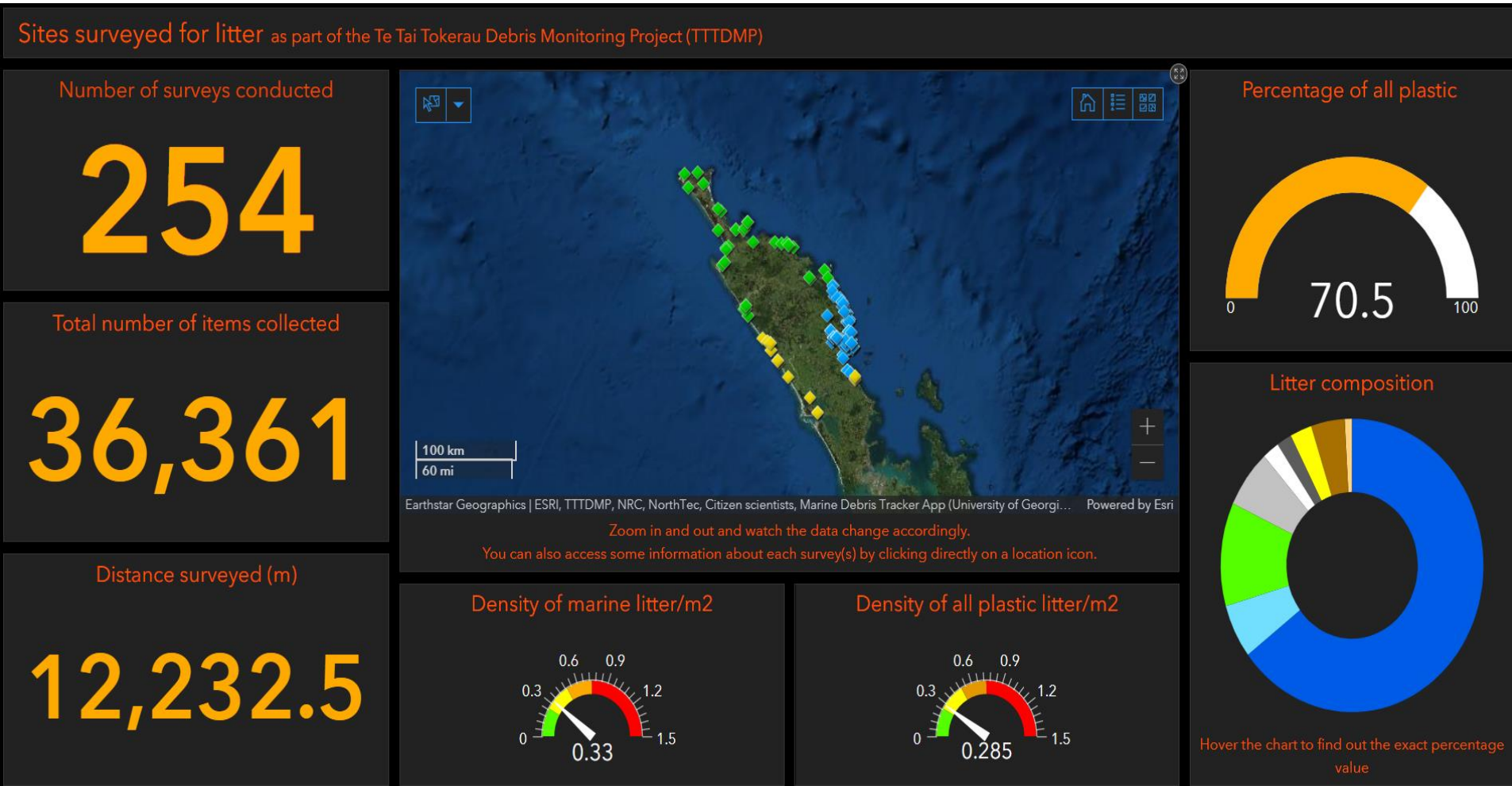


The MDT app is not only **FREE** but it also allows any group to design their **OWN** survey (i.e. categories)



# Any data available are shared publicly

- Data are displayed on an interactive dashboard using ESRI tools



# Advantage of the MDT App

GPS location of each item  
Effort also recorded



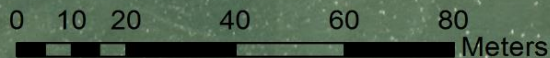
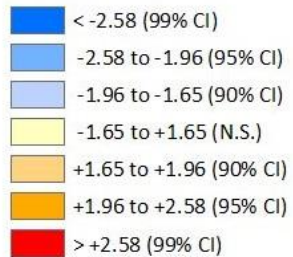


# Advantage of the MDT App

Can then perform  
GIS analysis

## Legend

### GiZScore



# Preliminary Results for Northland

- Comparing Northland with the rest of Aotearoa

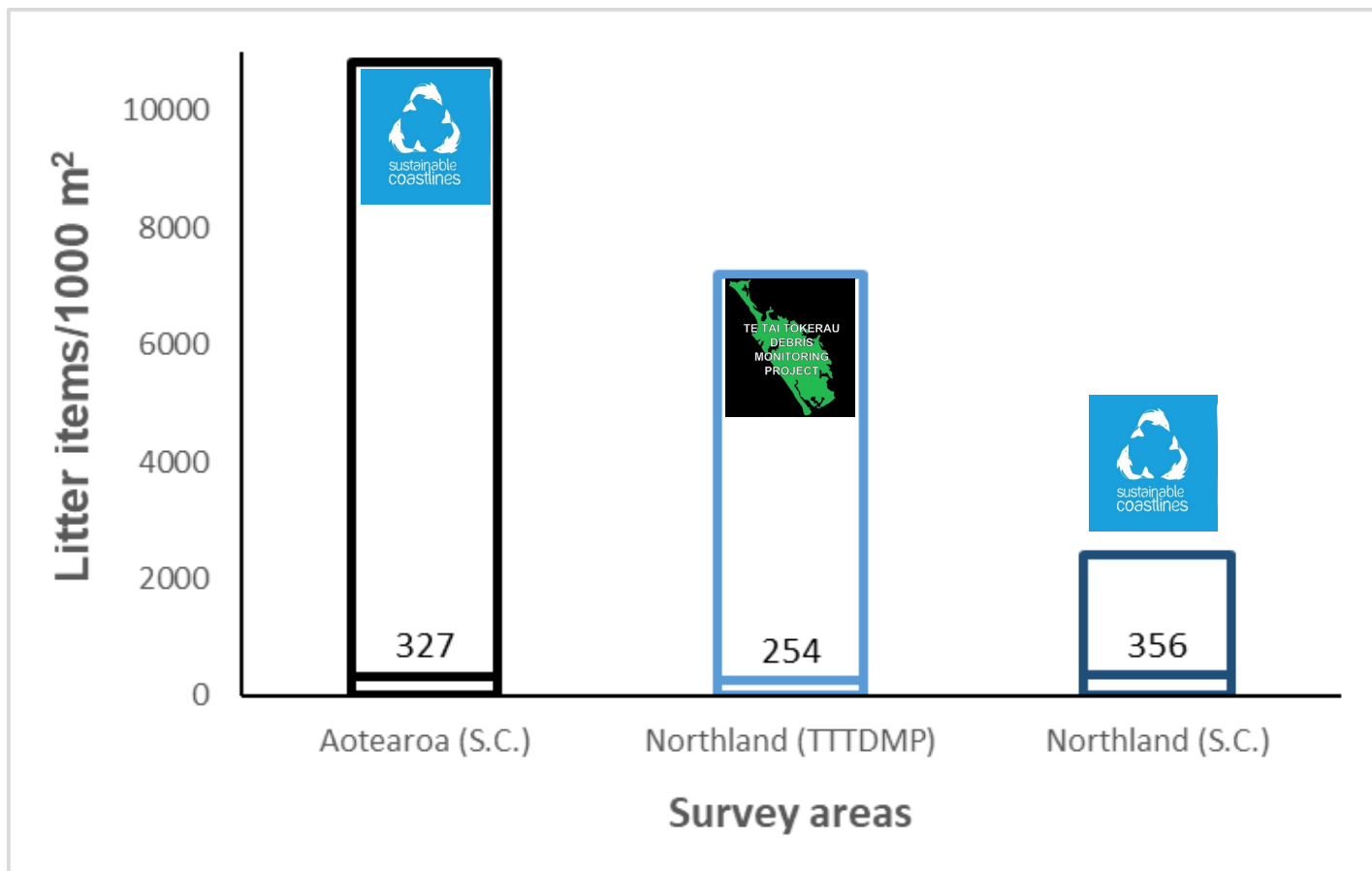


Fig. 1: Mean litter items/1000m<sup>2</sup> across NZ and Northland, including range (min and max values)



# Preliminary Results for Northland

- Comparing the 3 District Councils in the region

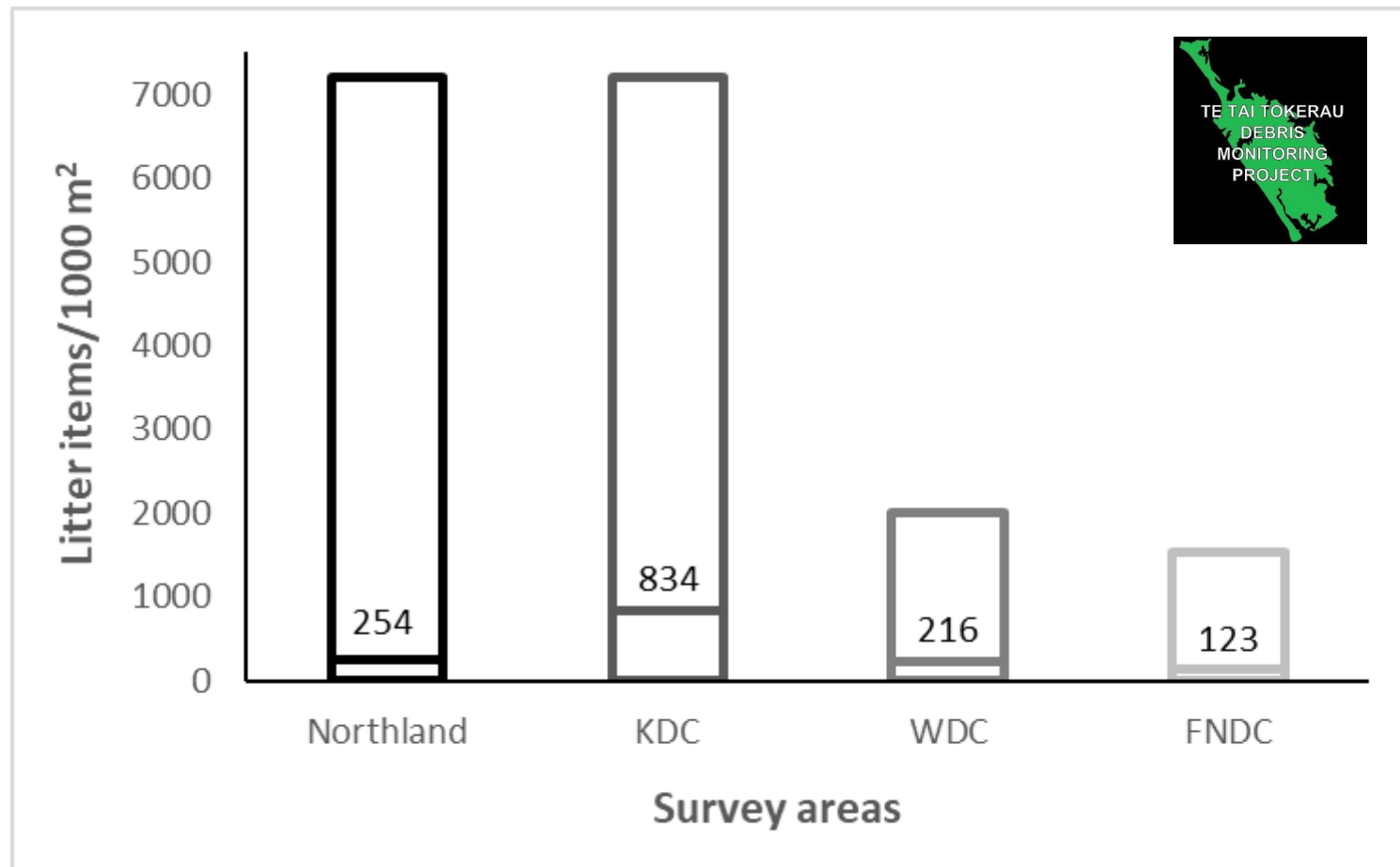


Fig. 2: Mean litter items/1000m<sup>2</sup> in the different districts of Northland, including range (min, max values)

# Preliminary Results for Northland

- Comparing 2 sites in Whangārei

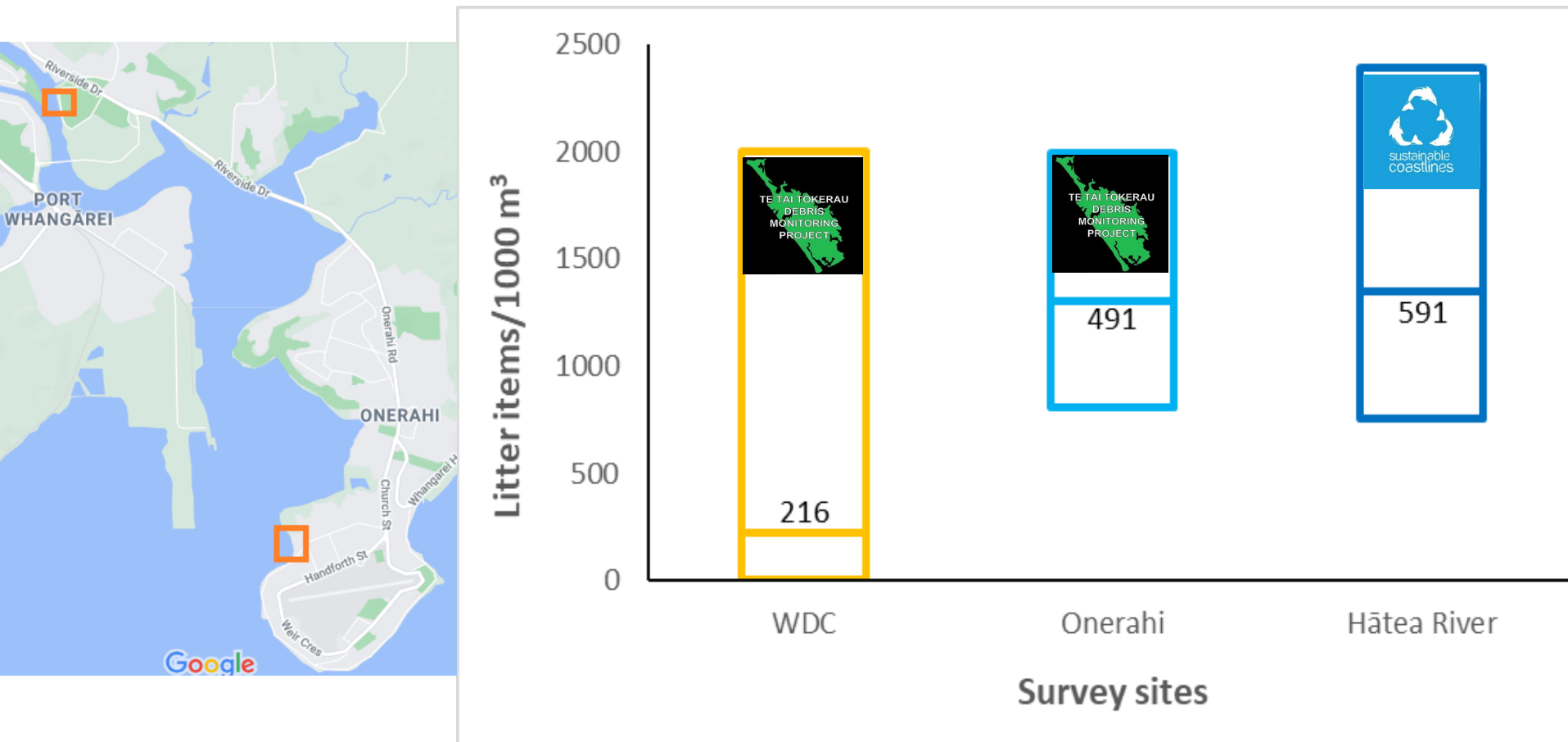


Fig. 3: Mean litter items/1000m<sup>2</sup> along the Hātea and at Onerahi, Whangārei, including range (min, max)



# Litter Trap Project



**NORTHLAND DISTRICT HEALTH BOARD**  
*Te Poari Hauora Ā Rohe O Te Tai Tokerau*



Kaipara te Oranganui • Two Oceans Two Harbours



Te Kaunihera o Tai Tokerau ki te Raki





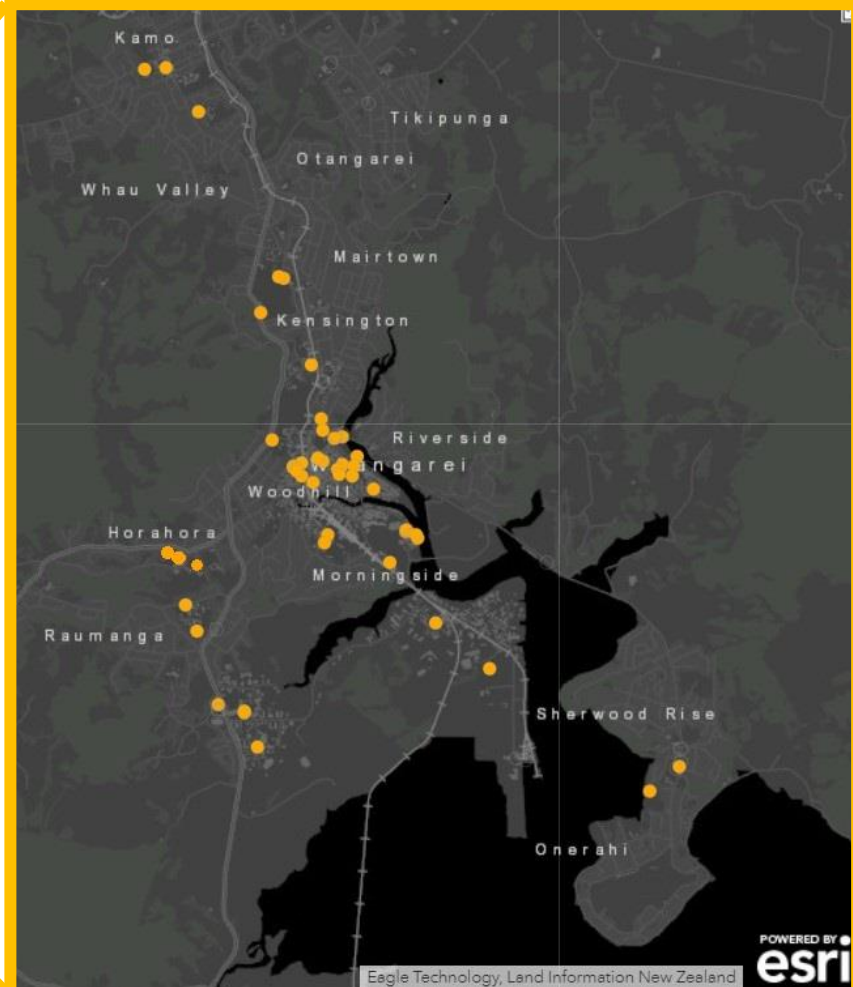
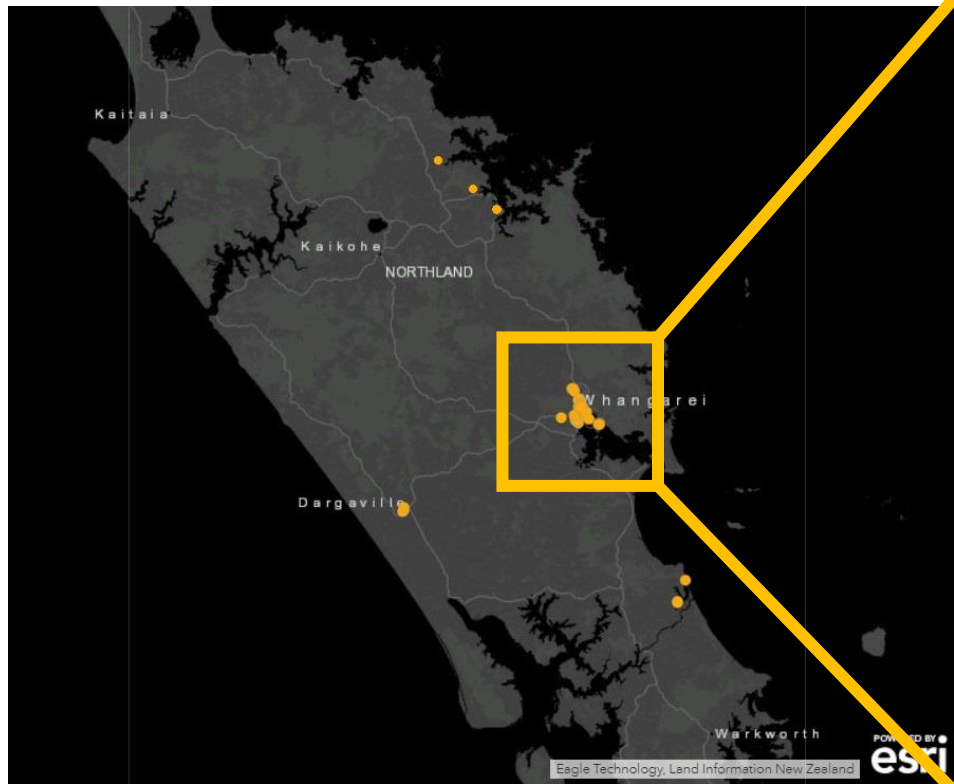
# LittaTraps installation





# LittaTraps locations

- 53 LittaTraps installed to estimate the quantity of litter entering our estuaries and coast annually



# Auditing of the LittaTraps

- Project started at the start of the Summer 2020
- LittaTraps audited at the end of each season





# Results will be shared publicly



Plan is to share data on the Litter Intelligence site for stormwater



**Search Data:**

Search for a monitoring group, location etc...

GO

**Filter by:**

Survey Type: Stormwater

Country: All

Region: All

Data Quality:  OFFICIAL  AD HOC  Verified  Unverified

0  
CITIZEN SCIENTISTS

0  
SURVEYS COMPLETED

0  
SURVEY AREAS



# What's next?

- Compile data and share it with local, regional, and central government agencies
- Encourage more citizen-scientists to participate
- Encourage more stakeholders to collaborate
- Conduct more surveys in terrestrial & freshwater areas
- Expand our database to also include microplastics (collaboration with NIWA and SIT)





# Acknowledgments



All business, groups, who are supporting the projects



**TOGETHER**  
**WE CAN**  
**MAKE A**  
**DIFFERENCE**