

**TE
MIRO.**
WATER

MORPHUM
environmental

Comprehensive Stormwater Discharge Consent Renewals

Stormwater Management in the Waikato – An Unexpected Journey

Stu Joyce – Morphem Environmental
Melissa Allfrey – Te Miro Water

water
NEW ZEALAND
The New Zealand Water & Wastes Association Waiora Aotearoa

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Stormwater 2024
15–17 May | Takina Wellington Te Whanganui-a-Tara

Agenda

Background

Project Overview

Our Approach

- GIS Tools

- Ongoing Stormwater Management

- Iwi Consultation

- Stormwater Network Management Plan

Summary

Background

Comprehensive
Stormwater
Discharge
Consents

Operating for
past 20+ years

Similar timing of
consent renewals
across the
Waikato Region

Project Overview

Collaboration between Morphum Environmental, Te Miro Water, and EnviroPlanning with Waikato Regional Council and numerous District Councils in the Waikato Region.

Focus on updating comprehensive urban stormwater discharge consents that have been operational for over 20 years.

Rare opportunity to use this window to significantly change the approach to stormwater discharge consents across the Waikato region.

Renewal effort prompted by regulatory changes, including the NPS-FM 2020.

Project Overview

Issues Identified

- Limited time & budget available
- Lots of technical assessments and reports required to address application requirements
- Inconsistencies between neighbouring Councils in their approach to stormwater management
- Huge workload put on small number of Council staff to keep up with compliance requirements
- Limited iwi engagement in previous applications

Our Approach

Changes
proposed
from previous
discharge
consents:

- **GIS tools** to reduce reporting requirements, ensure easily accessible detailed data, and provide easy to interpret stormwater management solutions.
- A focus on the **implementation and management** of existing and future stormwater services.
- Stronger focus on **iwi engagement** during the consenting process.
- Development of a **stormwater network management plan** to assist Council in the ongoing communication and management of their network.

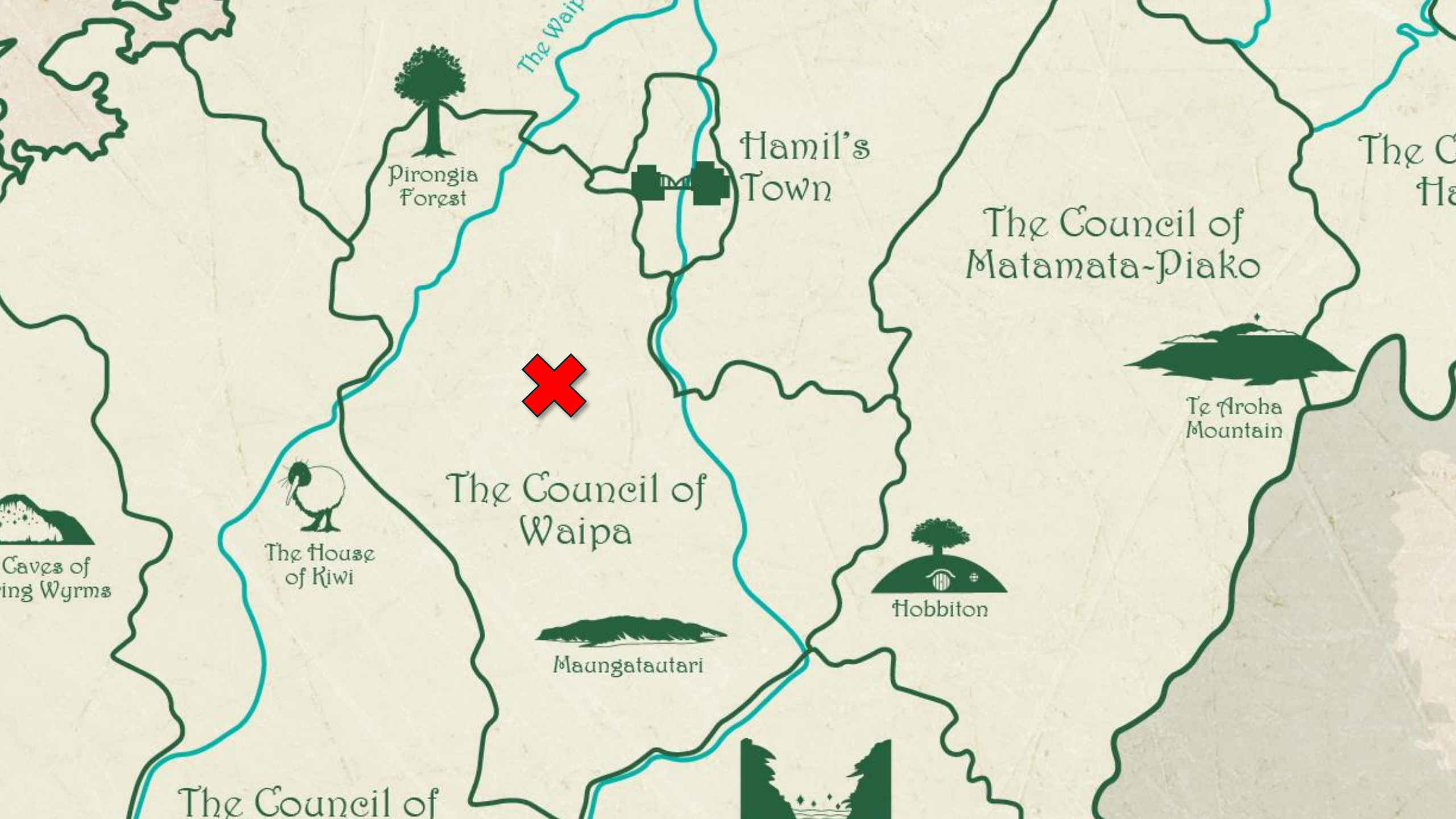


To the land of
Orcs



To the town of
Wells

The land of Waikato



The Waipara



Pirongia Forest



Hamil's Town

The Council of Matamata-Piako



Te Aroha Mountain



The Council of Waipa



Hobbiton



Maungatautari



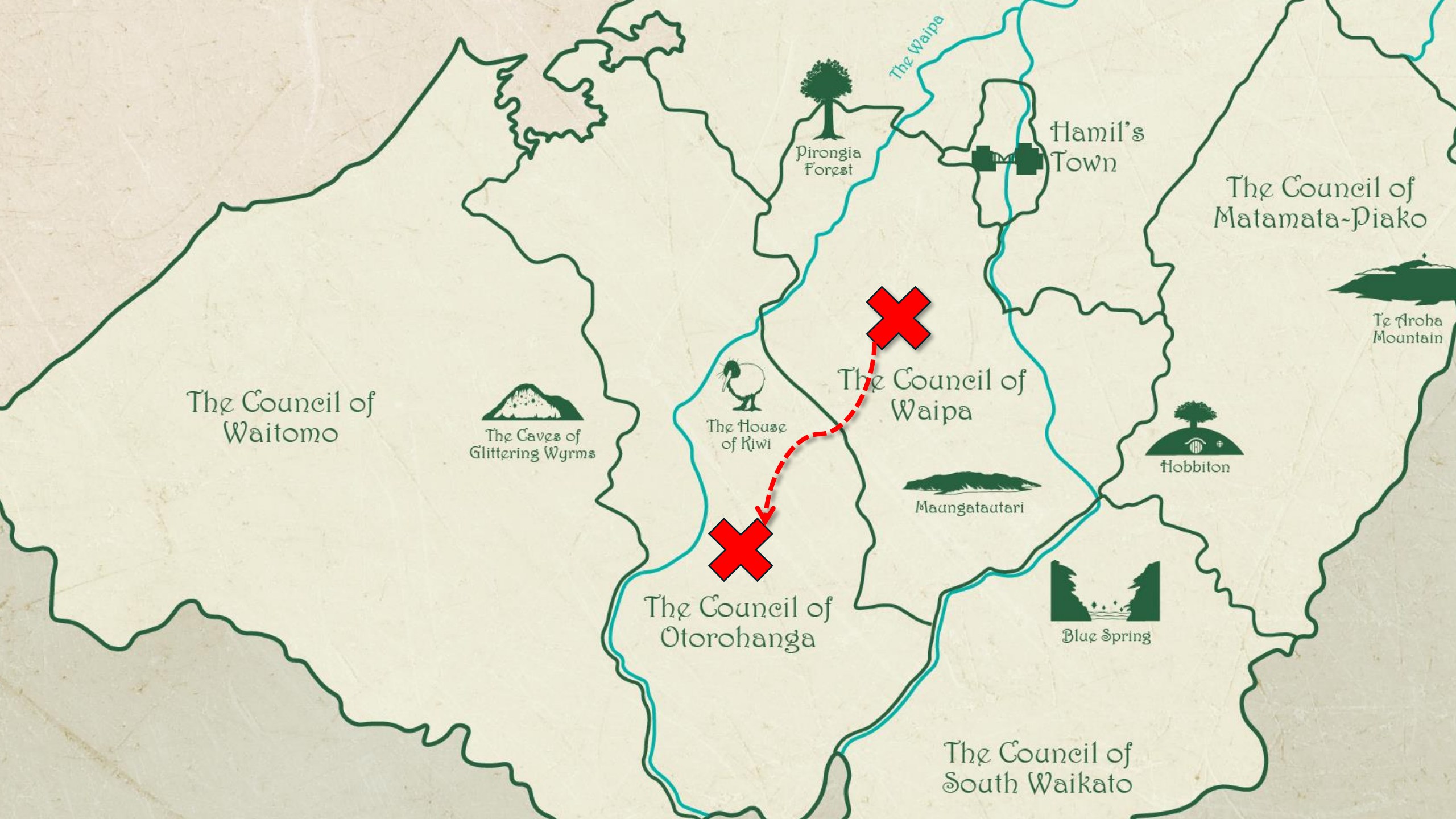
The House of Kiwi



Caves of Living Wyrms

The Council of

The Council of



The Council of Waitomo

The Caves of Glittering Wyrms

Pirongia Forest

The Waipa

Hamil's Town

The Council of Matamata-Piako

Te Aroha Mountain

The House of Kivi

The Council of Waipa

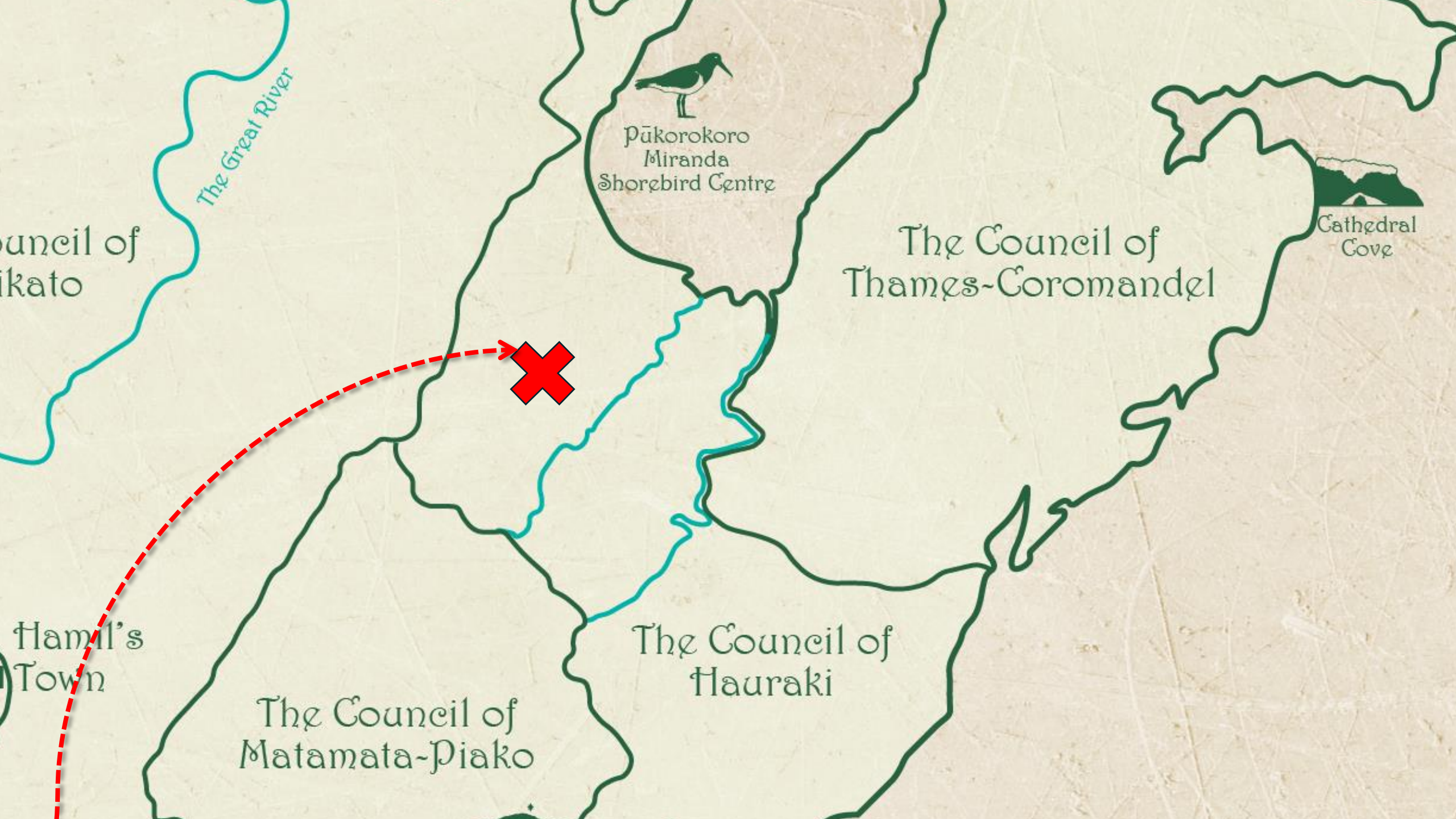
Hobbiton

Maungatautari

The Council of Otorohanga

Blue Spring

The Council of South Waikato



The Great River

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ikato

Pūkoro
Mirānda
Shorebird Centre

The Council of
Thames-Coromandel

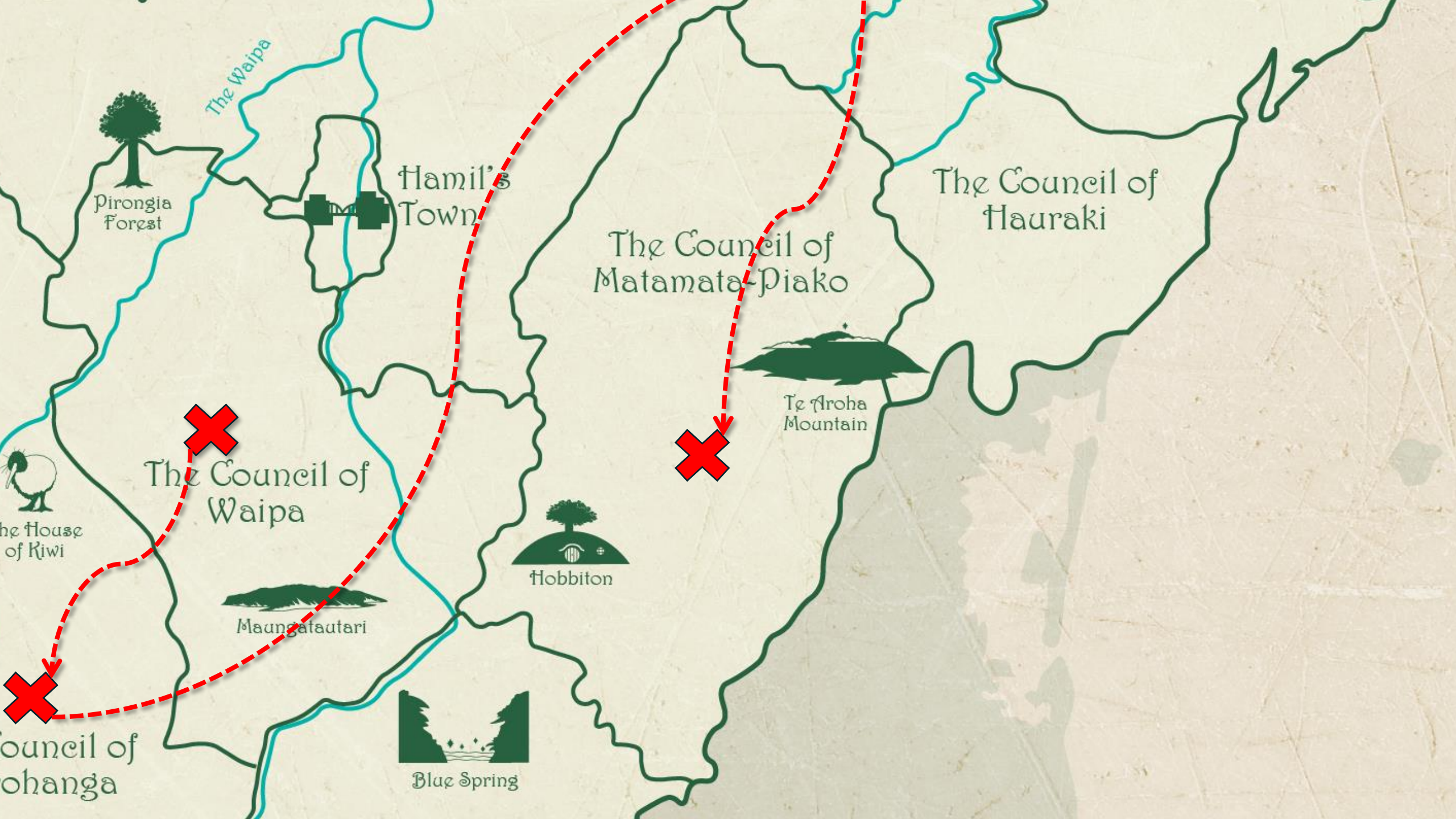
Cathedral
Cove



Hamil's
Town

The Council of
Matamata-Piako

The Council of
Hauraki



The Waipa

Pirongia Forest

Hamil's Town

The Council of Hauraki

The Council of Matamata-Piako

Te Aroha Mountain



The Council of Waipara



The House of Kivi



Hobbiton



Maungatautari



Blue Spring



The Council of Mōhanga



Waipa



The Council of
Otorohanga

The Council of
South Waikato





The Waikato

Pirongia Forest

Hamilton's Town

The Council of Waitomo

The Caves of Glittering Wyrms

The House of Kivi

The Council of Waipa

Maungatautari

Hobbiton



The Council of Otorohanga

Blue Springs

The Council of South Waikato





To the land of
Orcs



To the town of
Wells

The land of Waikato



To the land of
Orcs



To the town of
Wells

The land of Waikato

GIS Tools

TE MIRO SOUTH WAIKATO DISTRICT COUNCIL CSDC GIS DATA PORTAL

Legend Layers Feedback

- > Morphum Data Collection
- Receiving Environments
- Site Visit Devices
- ▼ Potential Walkovers SWDC
 - Properties of Interest
 - Waterways of Interest
- > Stormwater Network SWDC
- > Flood Models
- > Urban Catchments
- ▼ CLM/VOL Desktop Assessment
 - > Tokoroa
 - ▼ Putaruru
 - > VOL

Putāruru

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Putāruru

Tairāu Street

Talbot Street

State Highway 1

State Highway

Putāruru

Tokoroa

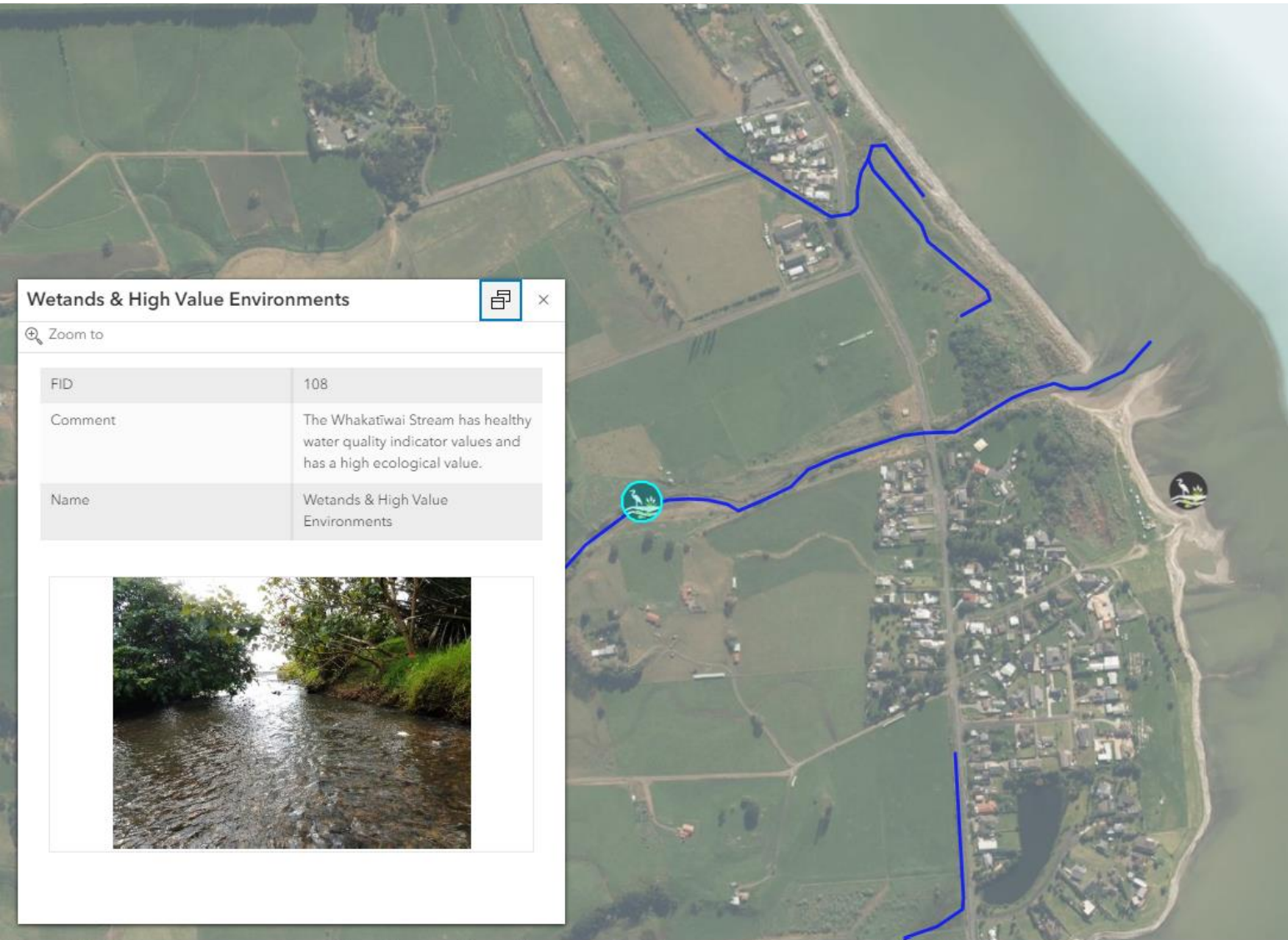
Putāruru

Tokoroa

Esri Community Maps Contributors, LINZ, Stats NZ, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

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GIS Tools



Identified Effects

Key Areas or Issues

- It is noted that [council land](#) is present through parks and coastal areas.
- The community have indicated that they would like a [stopbank upgrade](#).
- There is an [artificial pond](#) maintained by residents

Specific Effects

- [Wetlands and High Value Environments](#)- The river and the coast are high value environments.
- [Level of Service](#)- There is evidence that these stopbanks may be eroded, and the level of service is unknown.
- [Flooding](#)- Much of the coastal plain, is at or below mean sea level. Sea level rise will restrict the capacity of the coastal river systems and therefore is projected to increase the frequency of overbank river flooding events, particularly on low-lying coastal plains

Further details can be found [here](#)

GIS Tools

Matamata-Piako Stormwater Discharge Consent



Bookmarks

Morrinsville

Te Aroha

Waharoa

Matamata

Home



North-West Drain

Zoom to

Stream Name

Tributary Code

Town Name

Date and Time

Assessor

Probe Model

Probe Calibration By

Waterbody Type

Waterbody Depth (m)

Sampling Depth (m)

Temperature (C)

pH

DO (%)

DO (mg/L)

Conductivity (mS/cm)

Salinity (ppt)

Turbidity

Turbidity Unit

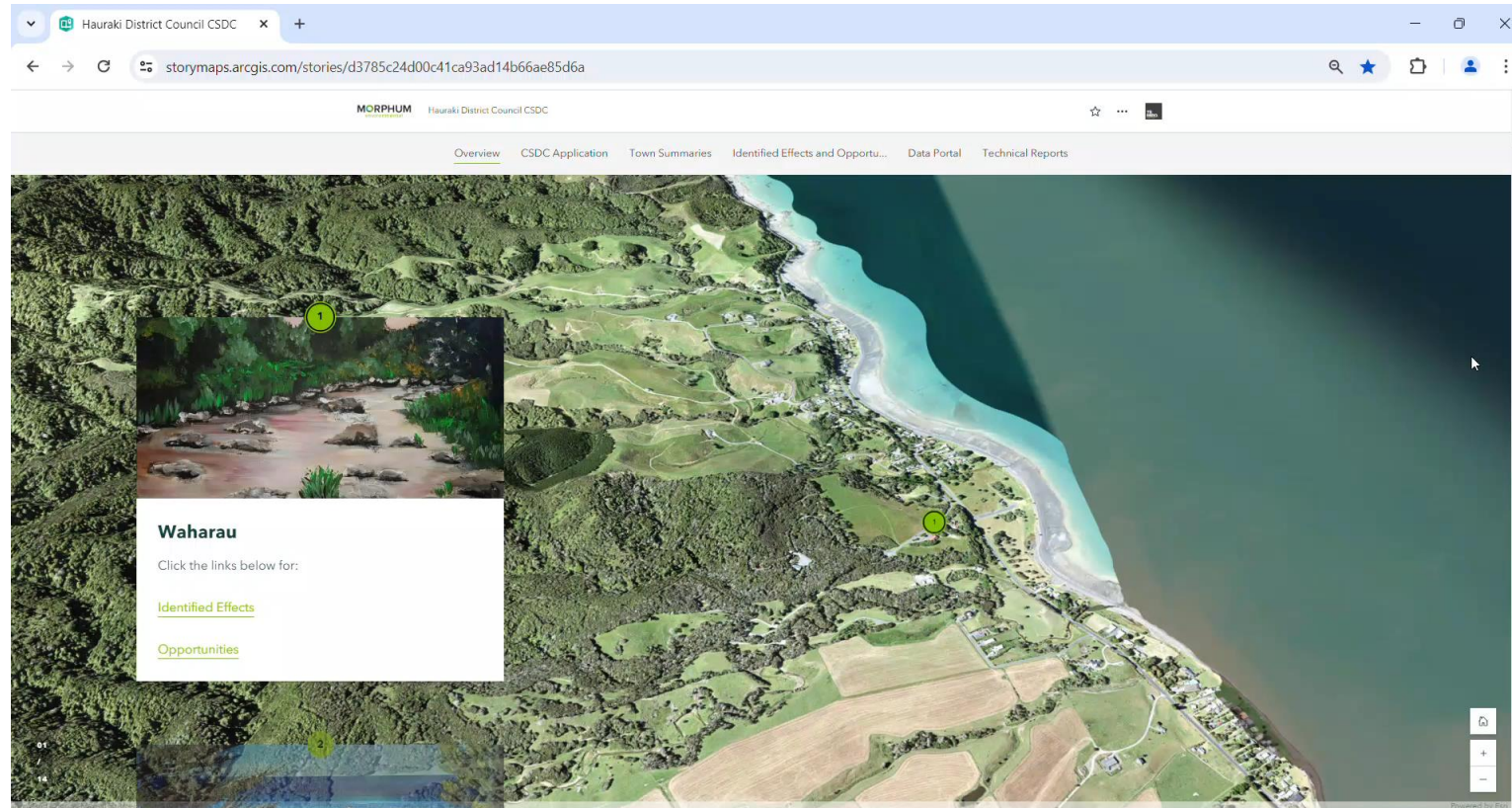
GIS Tools

What worked well?

- Excellent tools for storytelling and consolidating large quantities of data
- Once built, the tools can be easily adapted to suit each Council
- Significant reduction in the amount of report writing required
- Very beneficial having a single source of truth for all the project data

What didn't?

- Can be time consuming to build some elements
- Councils all have different GIS capabilities and systems
- Variance in end users being familiar and comfortable with GIS



On-going SW management

- Significant time and costs invested
- Important to address regulatory requirements
- Critical to ensure it continues into the future

HOW DO WE KEEP IT ALIVE?

On-going SW management

- Engaged with Waikato Regional Council early and regularly
- Worked with Council(s) and stakeholders to seek and improve based on feedback
- Shared ideas across the Districts i.e. monitoring applications

On-going SW management

Hauraki District Council Stormwater Management



Technical Assessments



Stormwater and Receiving Environment Monitoring Plan



Final Report



GIS Data Portal



Participatory Mapping



Water Quality Monitoring

On-going SW management

Matamata-Piako Stormwater Discharge Consent



Bookmarks

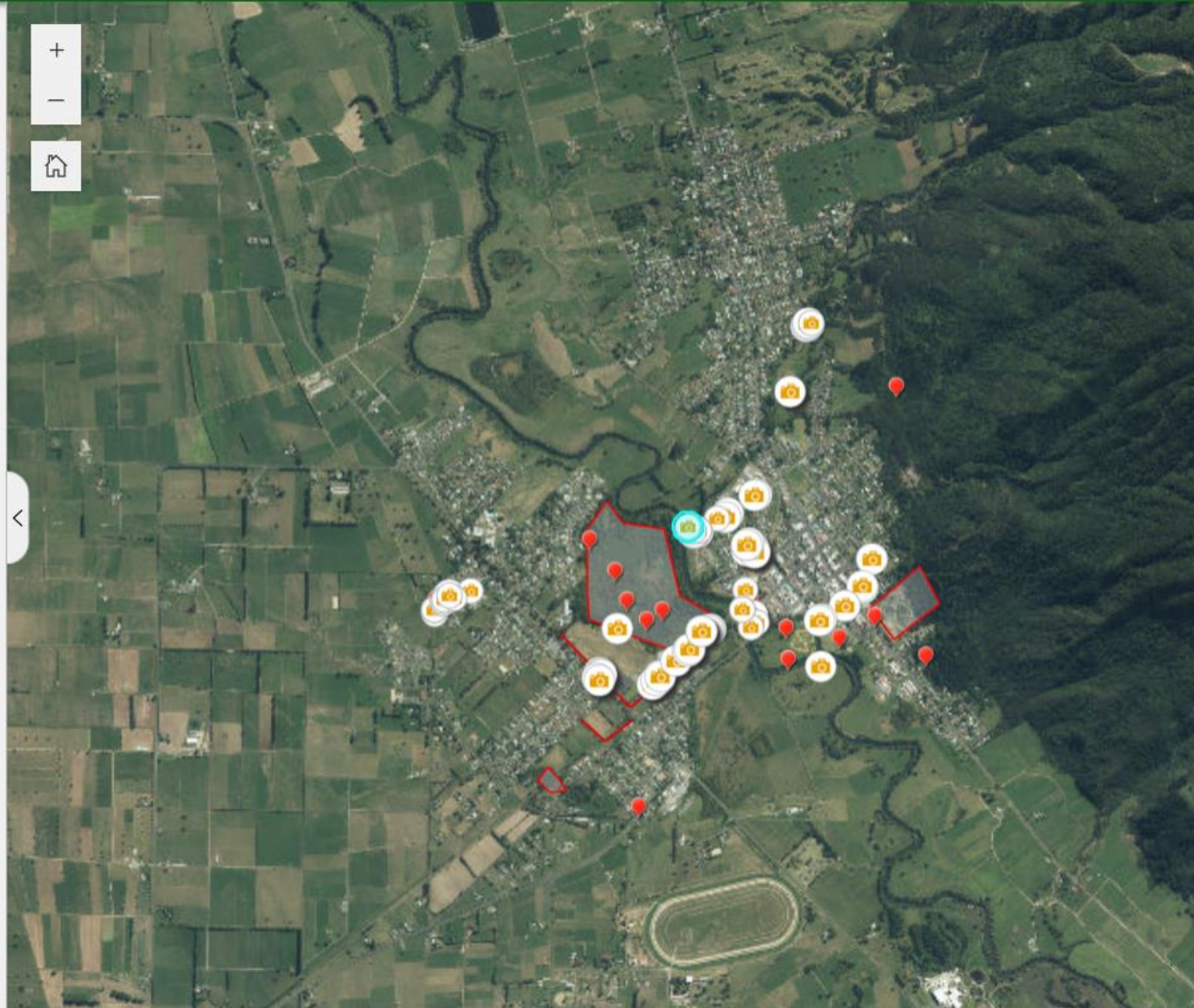
Morrinsville

Te Aroha

Waharoa

Matamata

Home



IMG_6390.JPG

Zoom to

Y	-37.541264
Z	7.387350

On-going SW management

What worked well?

- Good engagement with stakeholders early
- High energy in seeing what can be done
- Great sharing of ideas and feedback
- Important to keep developing

What didn't?

- Lower use of some tools later in the project when engagement reduces
- Emails with numerous links

Iwi Engagement

What worked well?

- Terms of engagement – payment
- kanohi ki te kanohi (face-to-face) communication / hui
- Early and continued engagement

What didn't?

- Competing priorities for mana whenua i.e. treaty settlements taking precedence
- "Rushing" - need to manage RMA timeframes with meaningful engagement

Stormwater Network Management Plan

What worked well?

- Engagement with wider Council teams i.e. parks, roading, planning, building consents
- Workshops

What didn't?

- Getting collective buy-in often difficult
- Assuming someone else is responsible internally

Summary

- Rare opportunity to overhaul the approach to stormwater discharge consents in the Waikato region.
- Acknowledged the limited value and infrequent use of 20-year-old consent applications.
- Substantial technical assessments, time, and costs involved in meeting CSDC regulatory requirements.
- Increased focus on iwi engagement, incorporating cultural values and indigenous storytelling alongside scientific insights.
- Prioritised leveraging data, processes, and outputs from the CSDC application process for ongoing use by District Councils.
- Aimed to enhance understanding and management of stormwater networks for improved efficiency and effectiveness beyond the application phase.



Thank you!
Questions? Patai?

