



NATURE BASED SOLUTIONS

Oroua and Pohangina Rivers Project

INTRO

Refresher:

- Room for the River Concept;
- Project Context.

Work programme update:

- Work to date;
- Proposed work packages and milestones;
- Timeframes.

Terms of Reference

Socialisation, communications and relationships



ROOM FOR THE RIVER

"Responding to climate change in a way that is effective, sustainable, and affordable for communities"

- Room for the River Guidelines



horizons.govt.nz

METHODOLOGY

- Geomorphic/geological mapping
- Catchment change and setting
- Catalogue of river management activities
- Topographical features
- Historic channel lines
- Empirical analysis

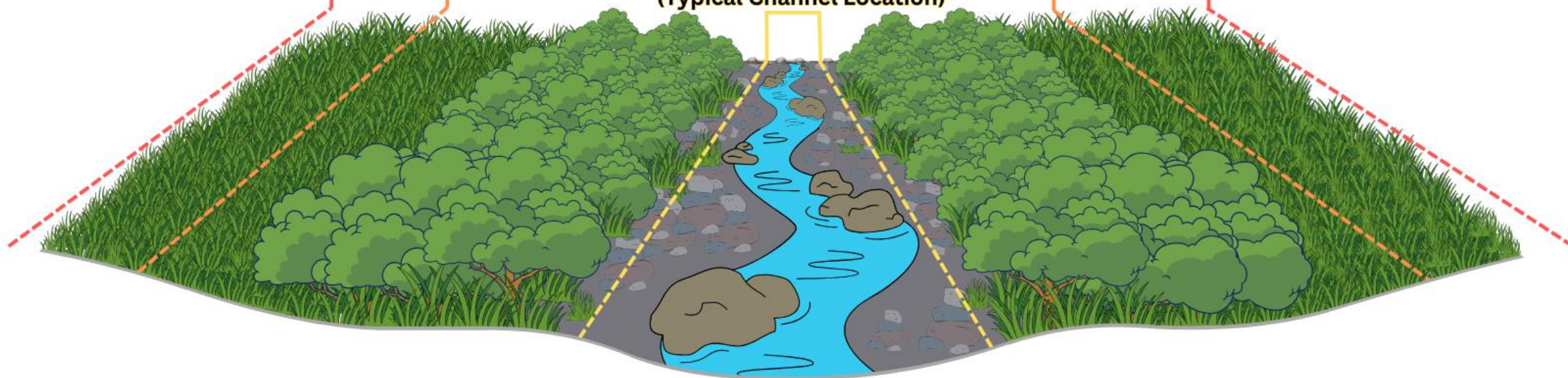
Additional Data Sources:

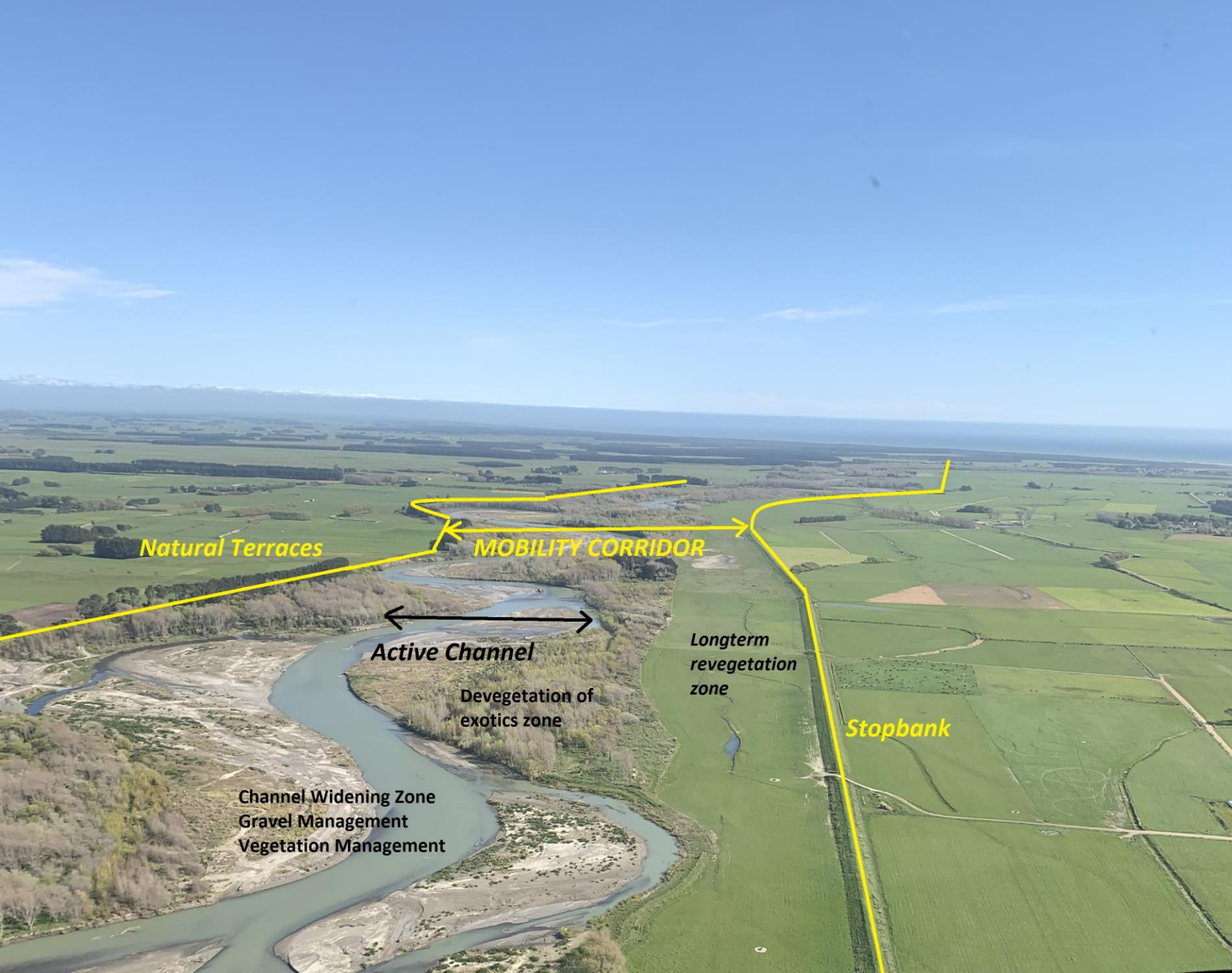
- Case Studies
- Socialisation Strategy
- Cultural Sites of Significance
- Infrastructure/Assets

River Corridor
(High Hazard Flood Extent)

Outer Management Lines
(River Management Envelope)

Inner Management Lines
(Typical Channel Location)





horizons.govt.nz

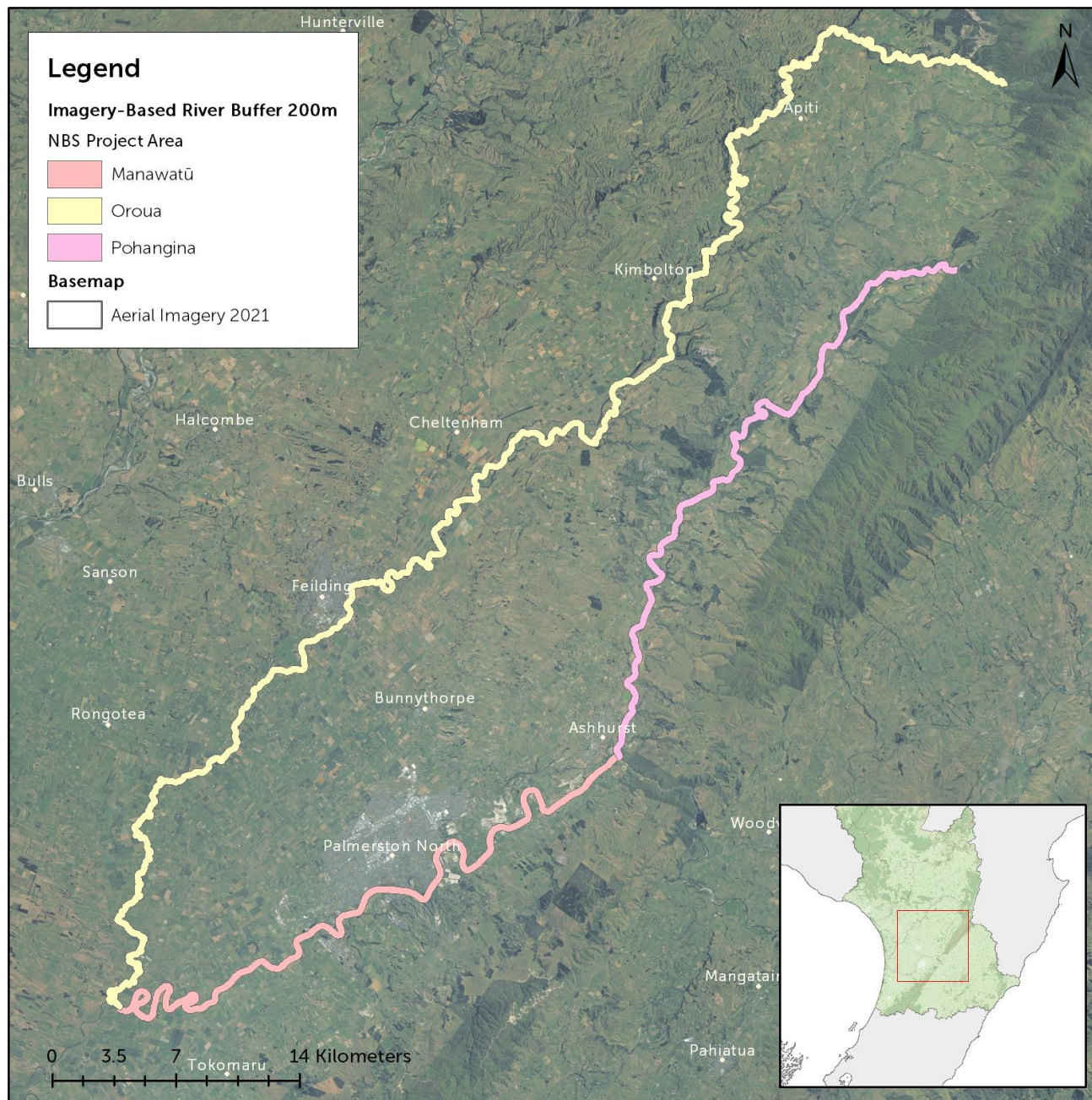


OVERVIEW OF FUNDING

- **Project name** – Oroua and Pohangina catchments nature-based flood mitigation solutions;
- **Project Objective** – To conduct a feasibility study that looks at whether management practices such as channel symmetry, alignment and confinement are still relevant and to further explore the concept of mobility corridors in the Oroua and Pohangina Rivers;
- Completion date of June 2025;
- \$300,000 total in funding (120k year 1, 180k year 2);
- Six monthly reporting (including employment hours);

The work is based on increasing resilience across a range of parameters for the two catchments. We have had a go at an initial drafting of these however, are open to additional considerations and comments:

1. Ecological resilience by providing gravel beaches, improving riparian zones, widening corridors for native species movement between the ranges and the floodplains, increasing bird habitat, and recreating in-river habitat by allowing habitat complexity with pools, riffles, runs, meanders and side channels;
2. Engineering resilience by increasing the channel size, increasing the capacity to maintain river flows within the defined channel/s, and less on-going design;
3. Financial resilience by decreasing the requirements to highly confine the river/s and the associated infrastructure to maintain the river within a highly confined channel, reducing future flood damage and on-going repairs and maintenance of tightly confined systems; and
4. Community wellbeing by creating open river spaces that the community can access, use and interact with.



APPROXIMATE PROJECT AREA

Manawatū River

From confluence with Oroua River to
confluence with Pohangina River

Oroua River

From confluence with Manawatū River
to confluence with Umutoi Creek

Pohangina River

From confluence with Manawatū River
to confluence with Piripiri Stream

Prepared by Freshwater
Feb 2024
Contains Crown Copyright Data

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION
Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.



2021



2023

Aerial Imagery of the Pohangina River

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION

Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.

Prepared by Freshwater Team, Feb 2024
Contains Crown Copyright Data

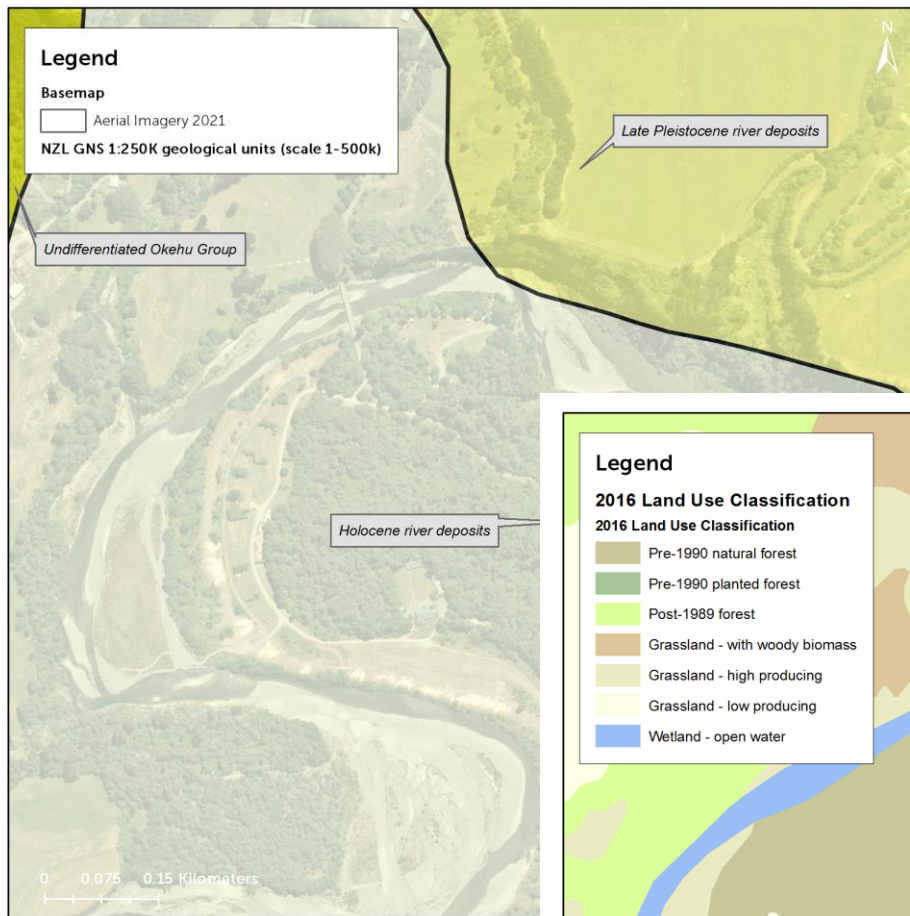


DATA COLLECTION EXAMPLES:

TŌTARA RESERVE, POHANGINA

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION
Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.

Prepared by Freshwater Team, Feb 2024
Contains Crown Copyright Data

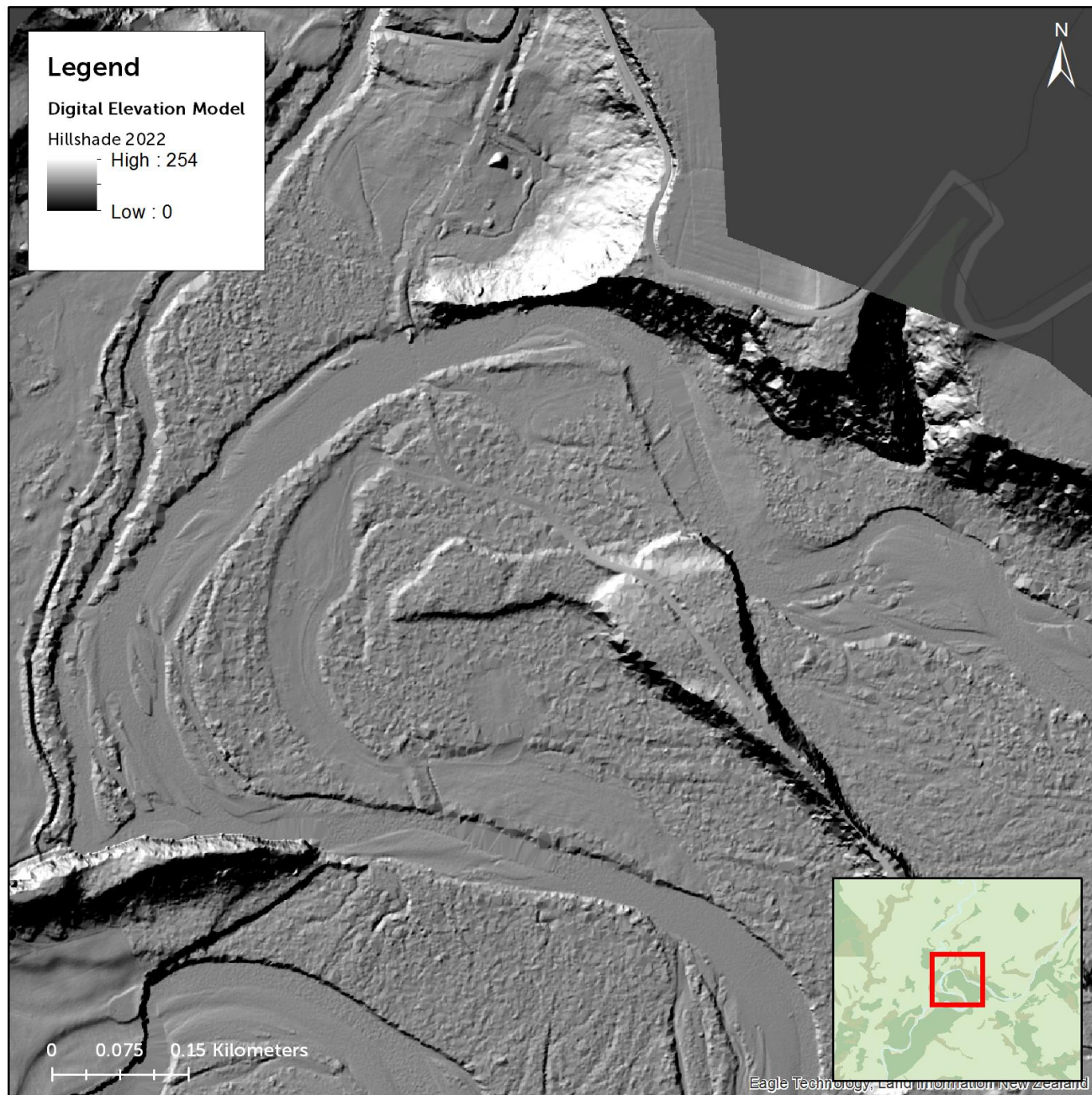


Tōtara Reserve: Geology/Land Use

Useful for broadly
understanding catchment
changes over time

Prepared by Freshwater Team, Feb 2024
Contains Crown Copyright Data

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION
Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.



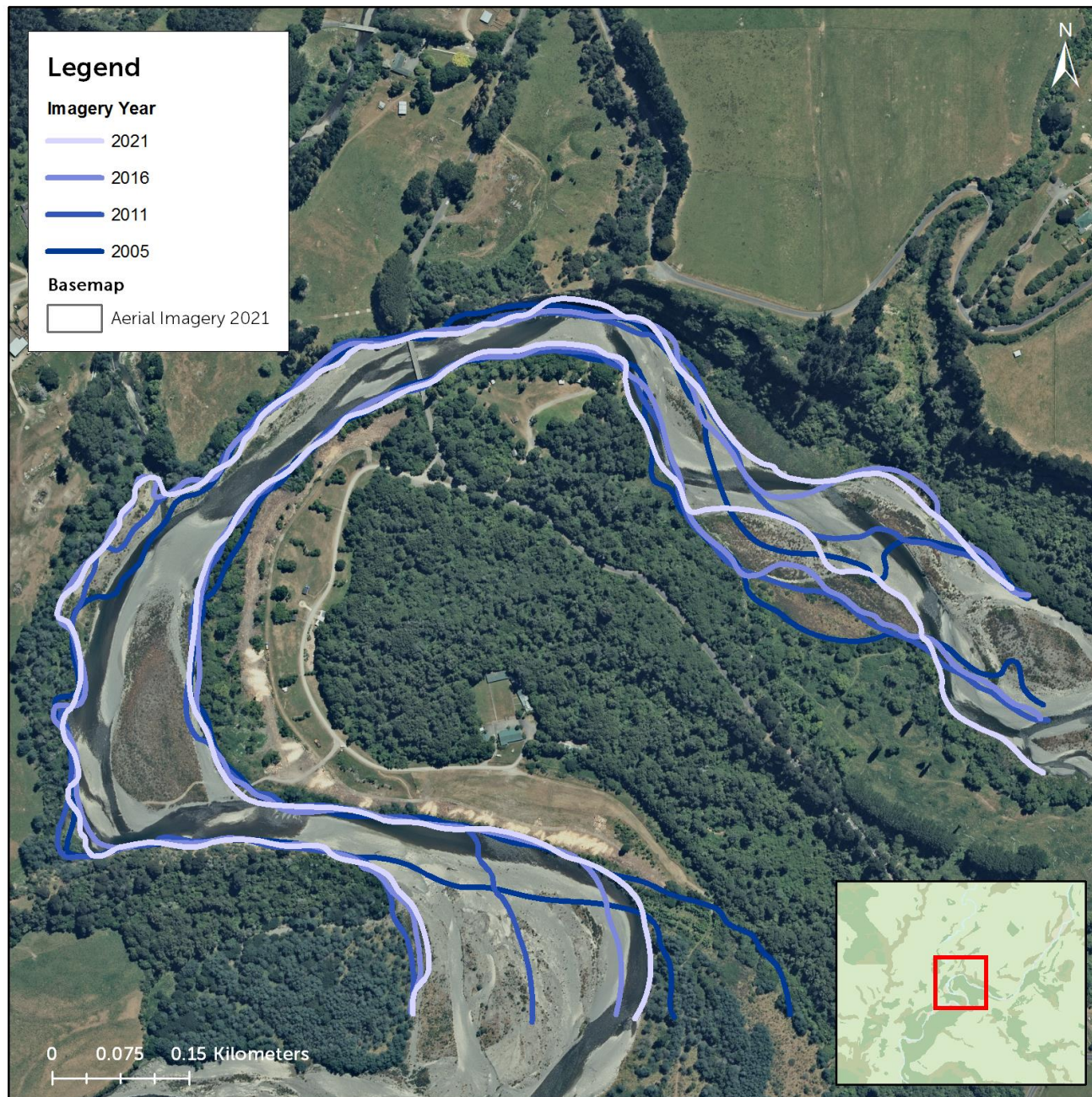
Tōtara Reserve: Surface Elevation Data

Provides evidence of recent
channel cut-offs and
terraces.

Useful for determining
natural features that
constrain the river.

Prepared by Freshwater Team, Feb 2024
Contains Crown Copyright Data

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION
Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.



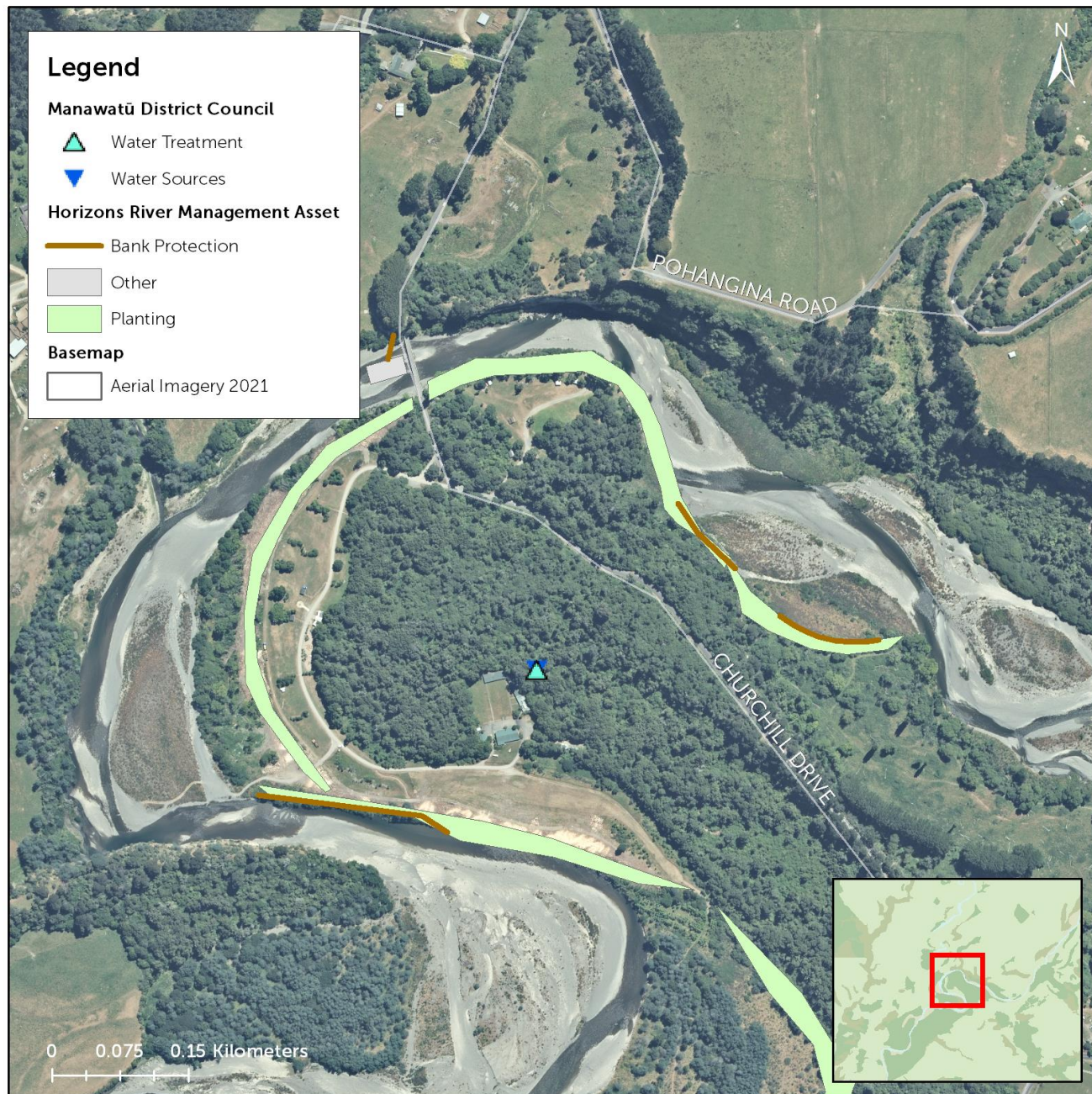
Tōtara Reserve: Historic Channel Movement from Aerial Imagery

Reflects the behaviour of
the river, typically over the
last 70-80 years.

Considered to be the most
useful dataset in
determining the river
management envelope.

Prepared by Freshwater Team, Feb 2024
Contains Crown Copyright Data

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION
Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.



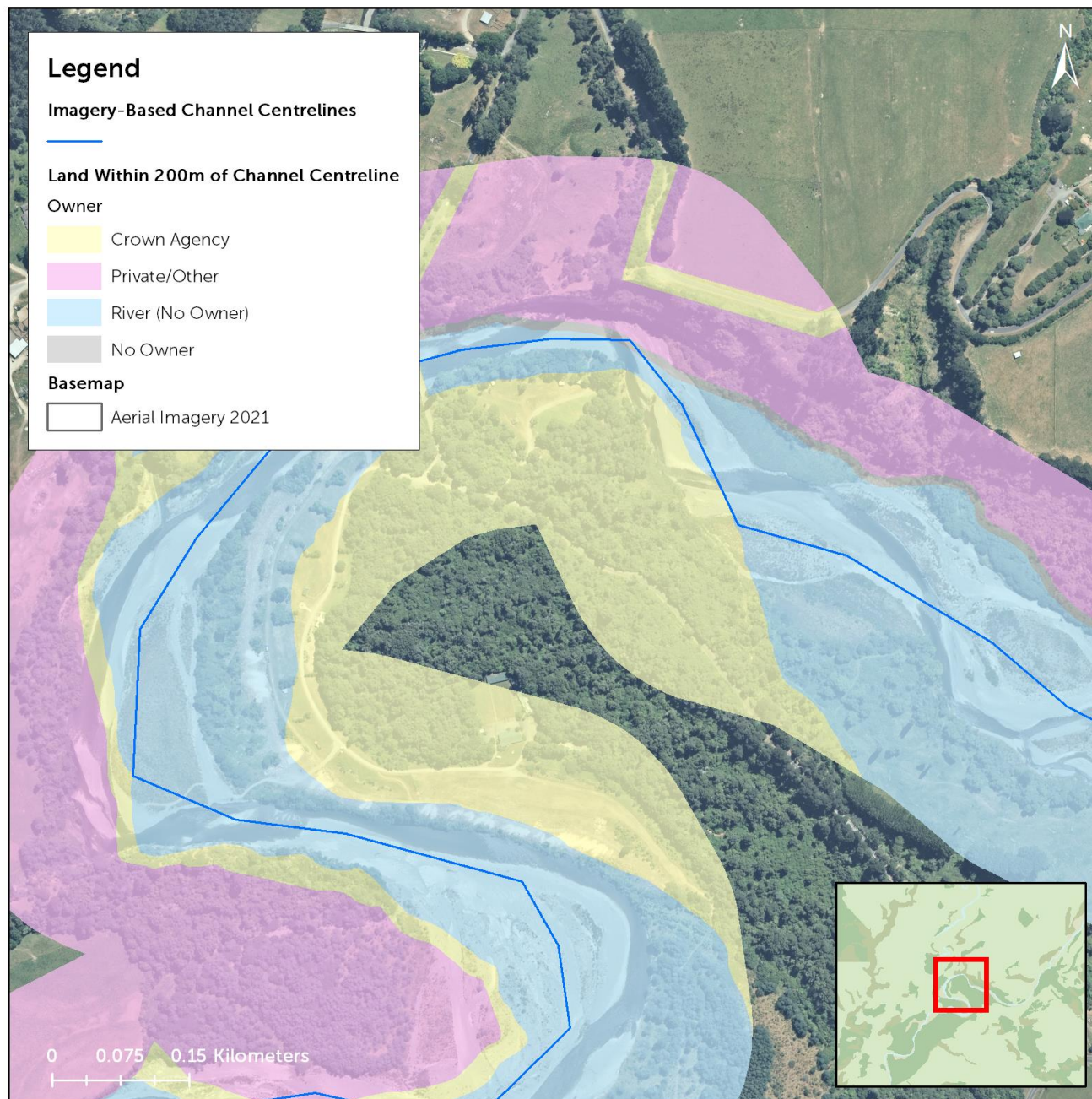
Tōtara Reserve: Utilities and Infrastructure

Useful for identifying critical assets.

Assets could include essential flood protection, wastewater treatments plants, etc.

Prepared by Freshwater Team, Feb 2024
Contains Crown Copyright Data

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION
Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.



Tōtara Reserve

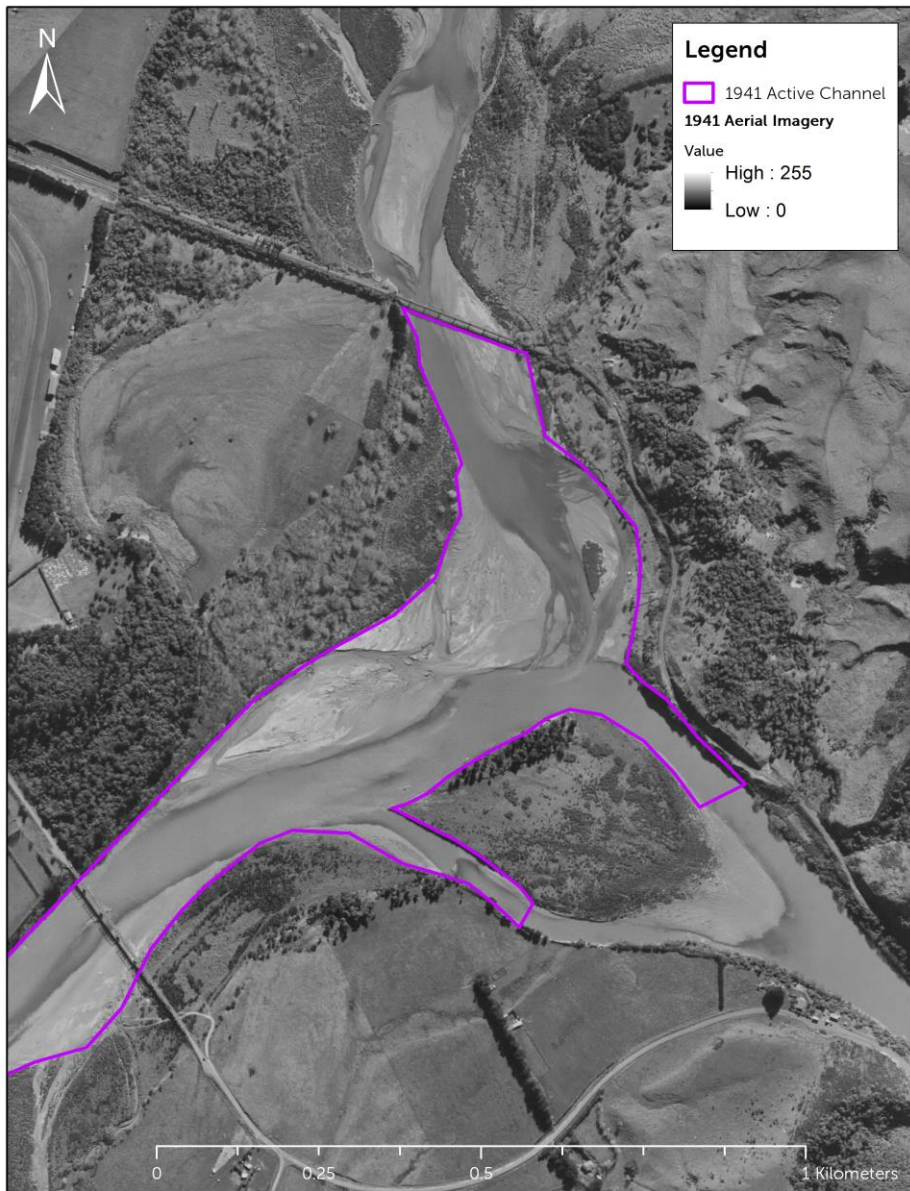
Example: Land Parcels

Extrapolated for the entire project area, the approximate ownership proportions are:

Owner	% of Area
Private/Other	56%
River (No Owner)	27%
Crown Agency	16%
No Owner	1%

Prepared by Freshwater Team, Feb 2024
Contains Crown Copyright Data

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION
Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.



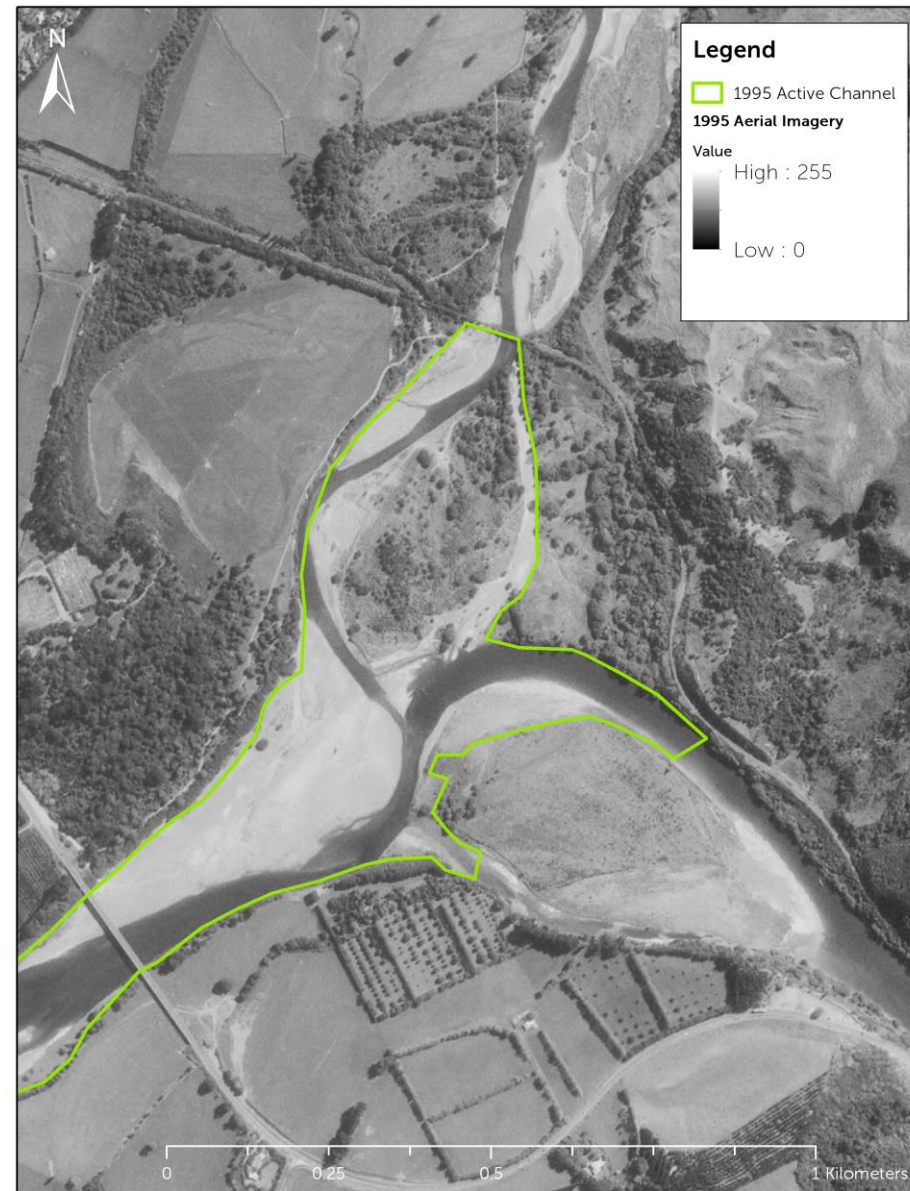
PARAHAKI ISLAND - POHANGINA/MANAWATŪ CONFLUENCE

1941

Date: 31/01/2024

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION

Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.



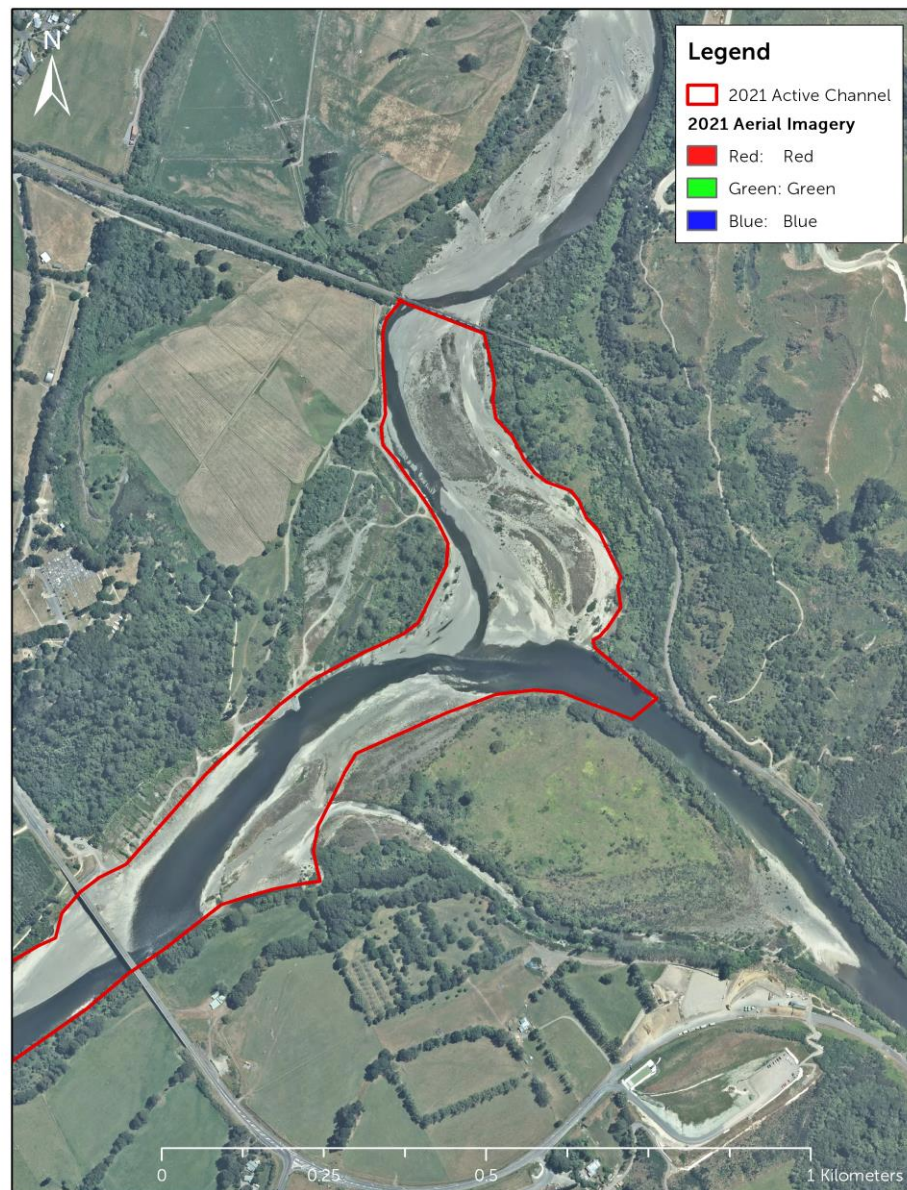
PARAHAKI ISLAND - POHANGINA/MANAWATŪ CONFLUENCE

1995

Date: 31/01/2024

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION

Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.

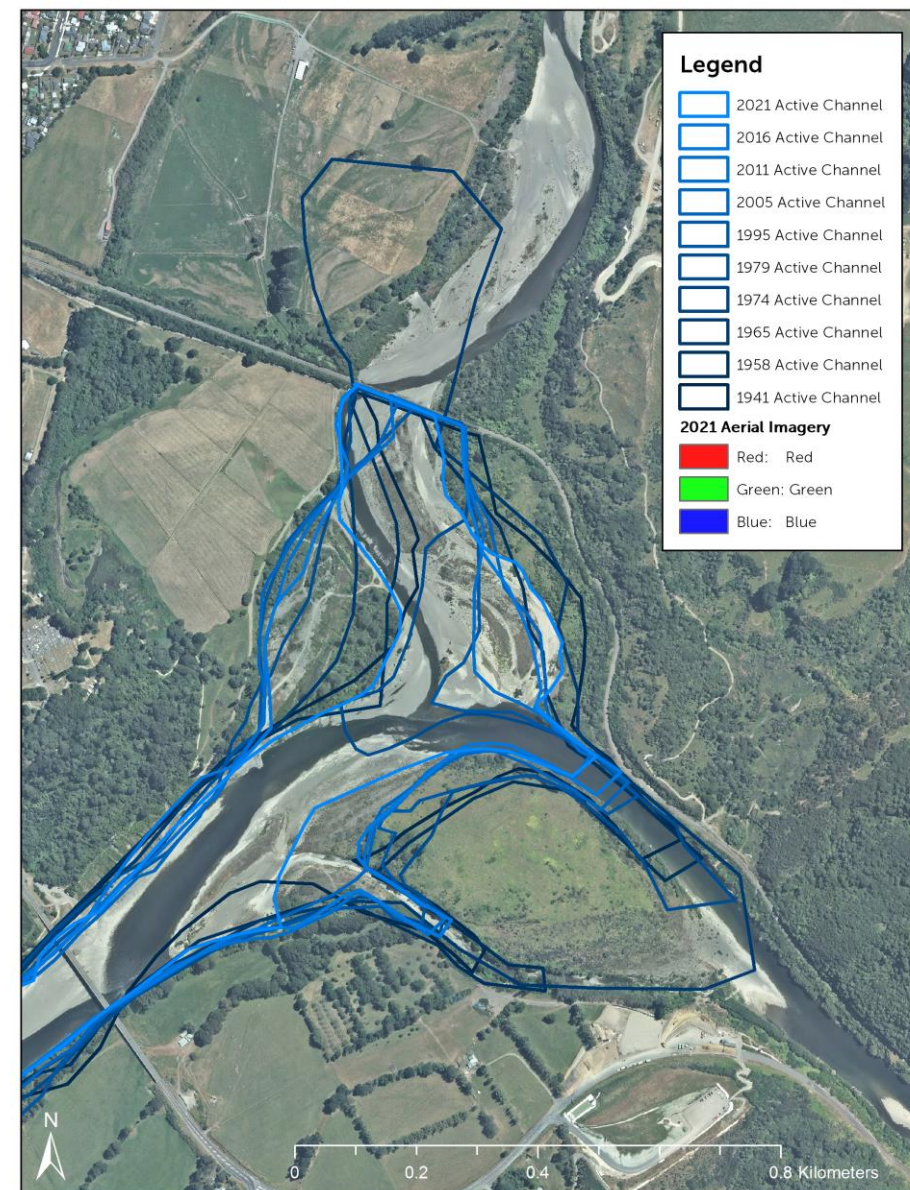


PARAHAKI ISLAND - POHANGINA/MANAWATŪ CONFLUENCE

2021

Date: 31/01/2024

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION
Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.

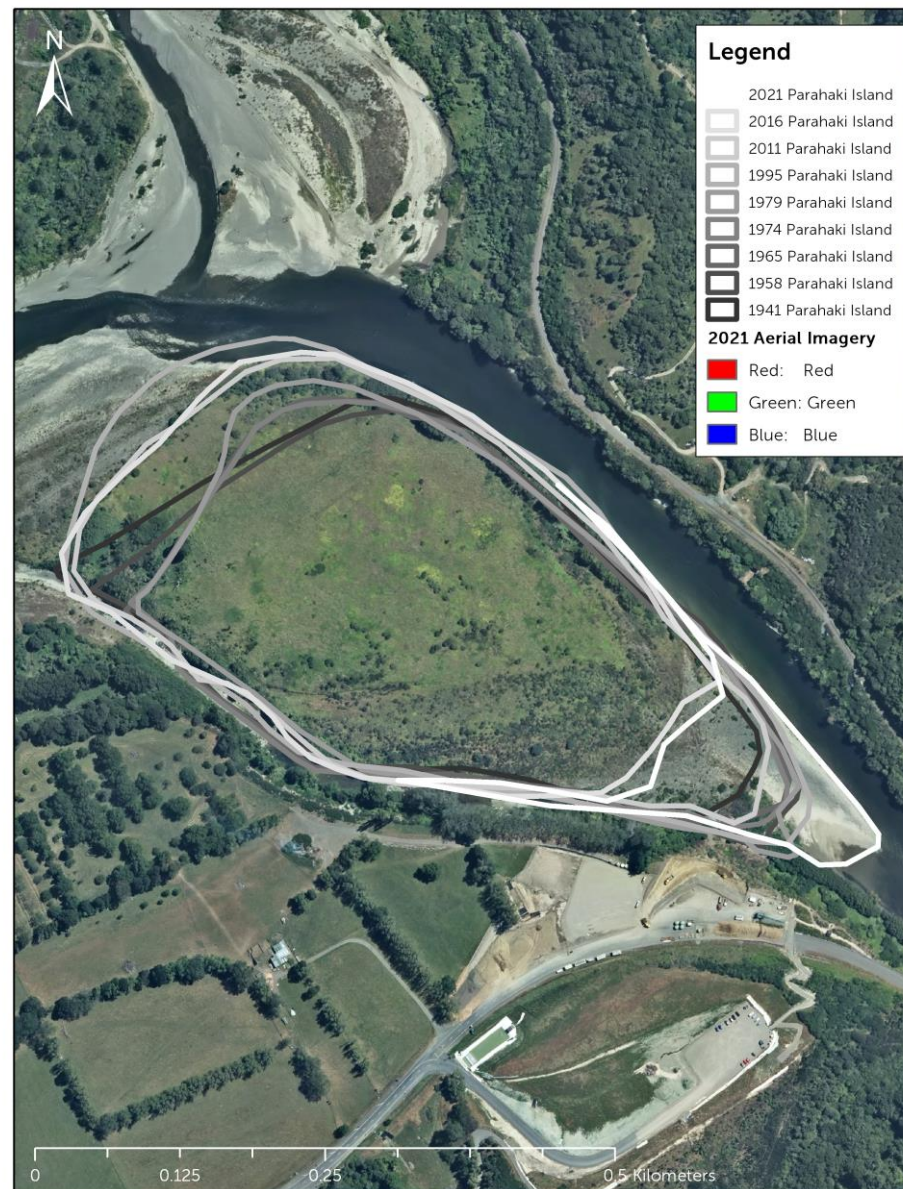


PARAHAKI ISLAND - POHANGINA/MANAWATŪ CONFLUENCE

Channel Planform Change Over Time

Date: 31/01/2024

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION
Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.



PARAHAKI ISLAND - POHANGINA/MANAWATŪ CONFLUENCE

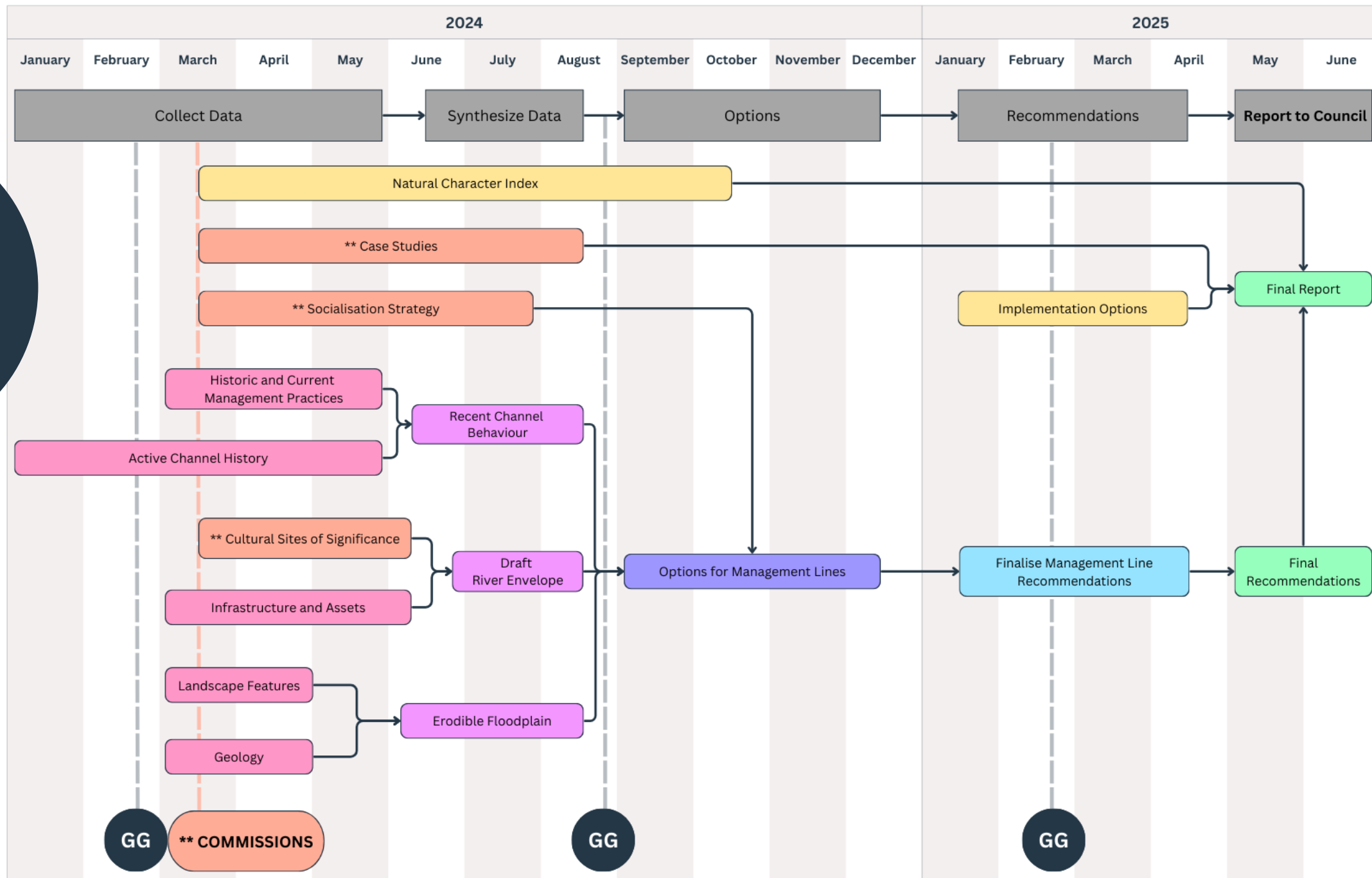
1941 - 2021

Date: 13/02/2024

EXCLUSION OF LIABILITY ARISING FROM SUPPLY OF INFORMATION

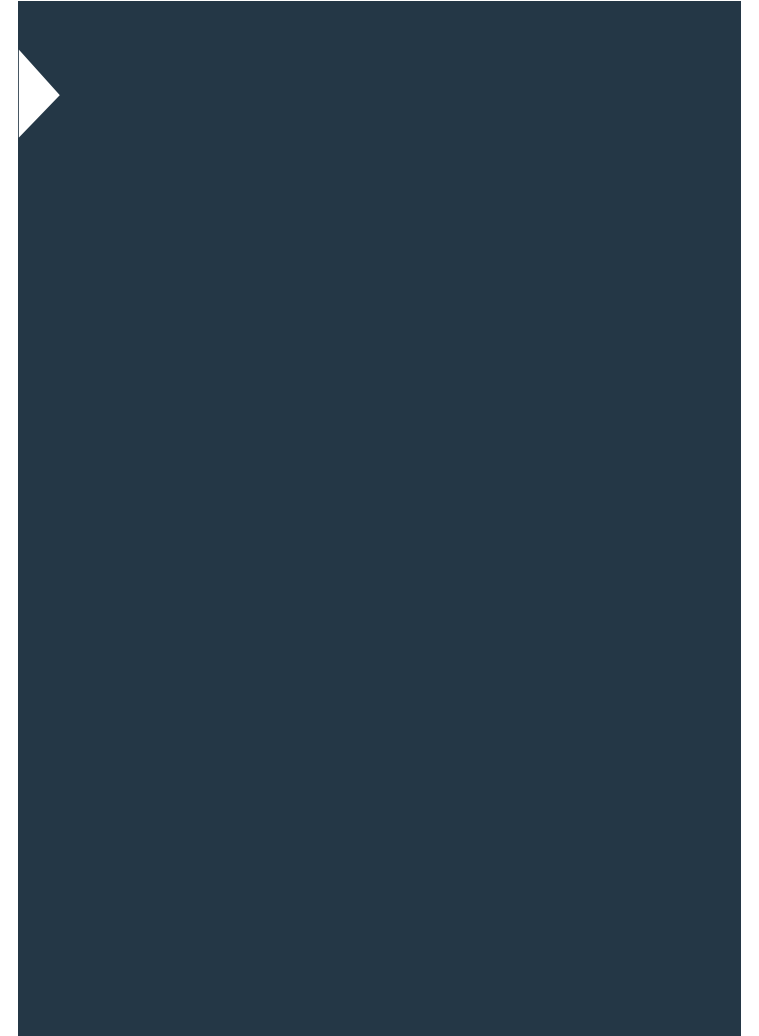
Horizons Regional Council endeavours to provide useful and accurate information. Horizons Regional Council shall not, however be liable whether in contract, tort, equity or otherwise, for any loss or damage of any type (including consequential losses) arising directly or indirectly from the inadequacy, inaccuracy or any other deficiency in information supplied irrespective of the cause. Use of information supplied is entirely at the risk of the recipient and shall be deemed to be acceptance of this liability exclusion.

Project Workflow (indicative only)



CURRENT WORKSTREAMS

- Digitisation of historical aerals;
- Engagement of T&T for Lower Manawatū Reach;
- Infrastructure data requests;
- Initial approaches to experts for Natural Character Index project;
- Report 1 completed to MfE;
- Next four months to focus on projects in the workflow diagram.



PROJECT SOCIALISATION

Who and when?



horizons.govt.nz

GOVERNANCE GROUP

Next Meeting...



horizons.govt.nz



horizons

REGIONAL COUNCIL



For more information visit www.horizons.govt.nz
or freephone Horizons on **0508 800 800**