

An aerial, grayscale photograph of a city grid. A river winds through the city, starting from the top right and curving towards the bottom left. The grid of streets is clearly visible, with some larger buildings and open spaces interspersed. The overall tone is historical and analytical.

***Gaining
Insights From
Historic
Imagery***

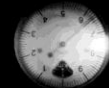
Background

The Crown archive contains over 500,000 photos on film from nearly 7,000 aerial surveys captured from as early as the 1930's

But there's a problem:

- Paper & film copies
- Hard to access and share
- Film suffers from decay

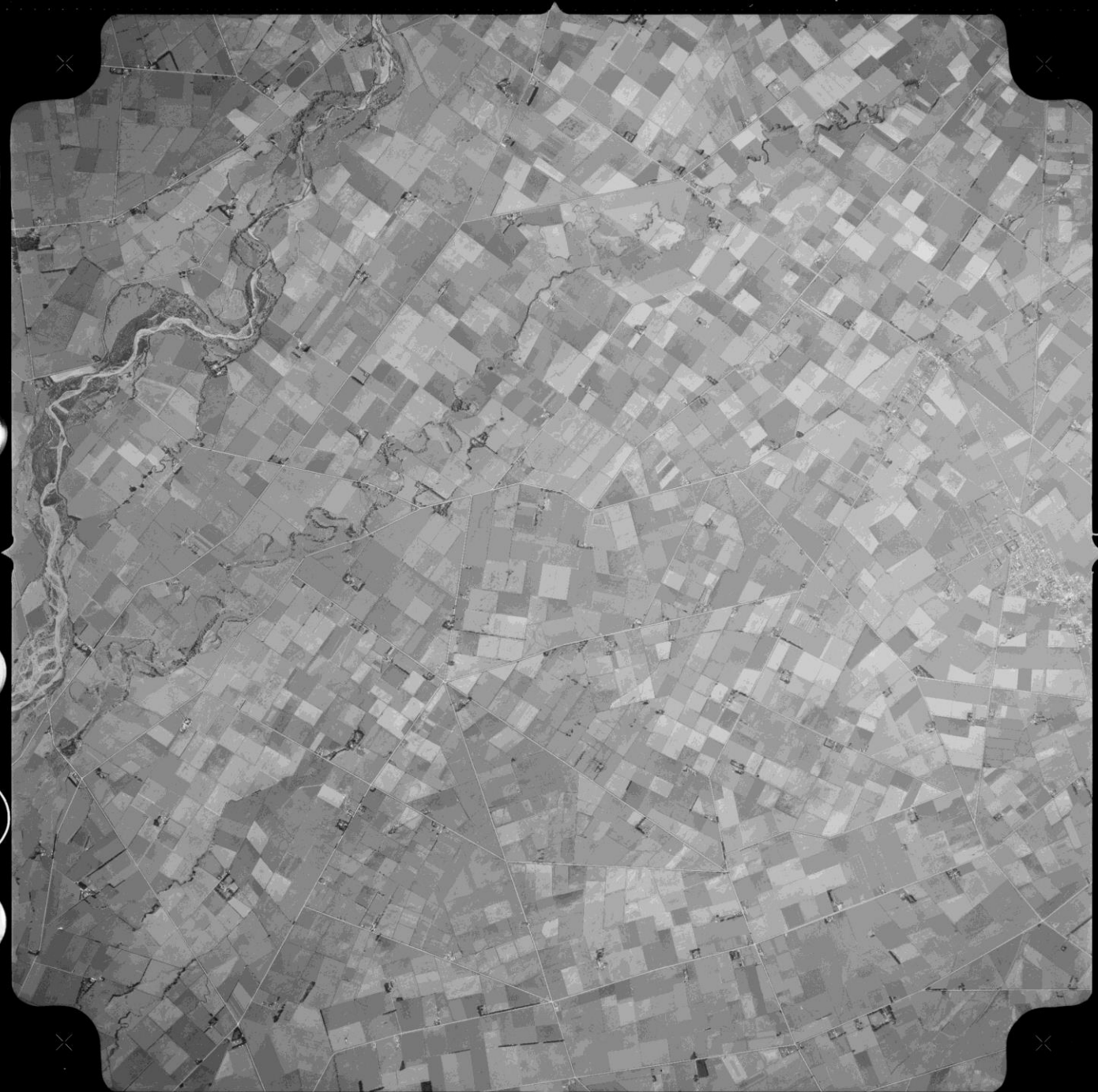
Ag 76
114.41



S83/8/C



1904



Background

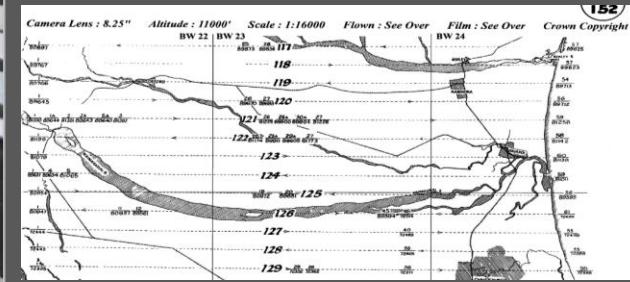
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Film Copies



Decay

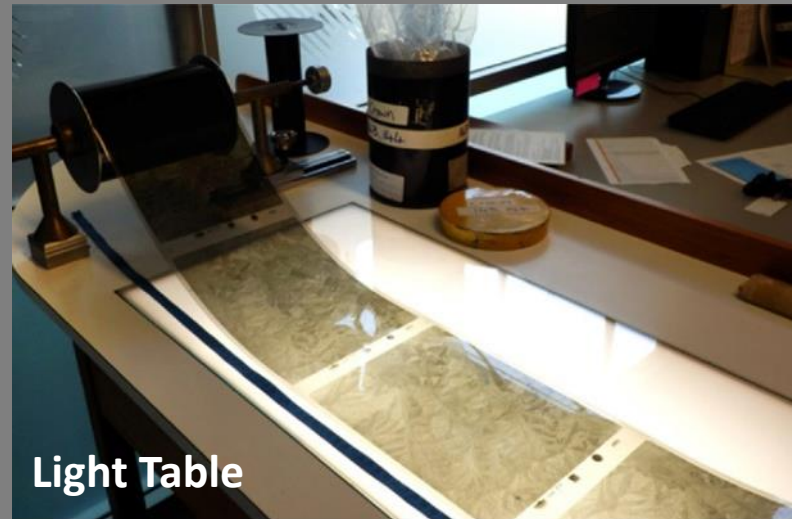
The Solution?

It was decided in 2014 to undertake a project to scan/digitise the archive.

The project began with three partner regions (Canterbury, Waikato and Bay of Plenty). Council partners continue to join the project progressively from across NZ as different areas became aware of the project and have funding to be able to join the initiative.



Scanners



Light Table

RETROLENS

Historical Image Resource

Retrolens.nz

RETROLENS

Historical Image Resource

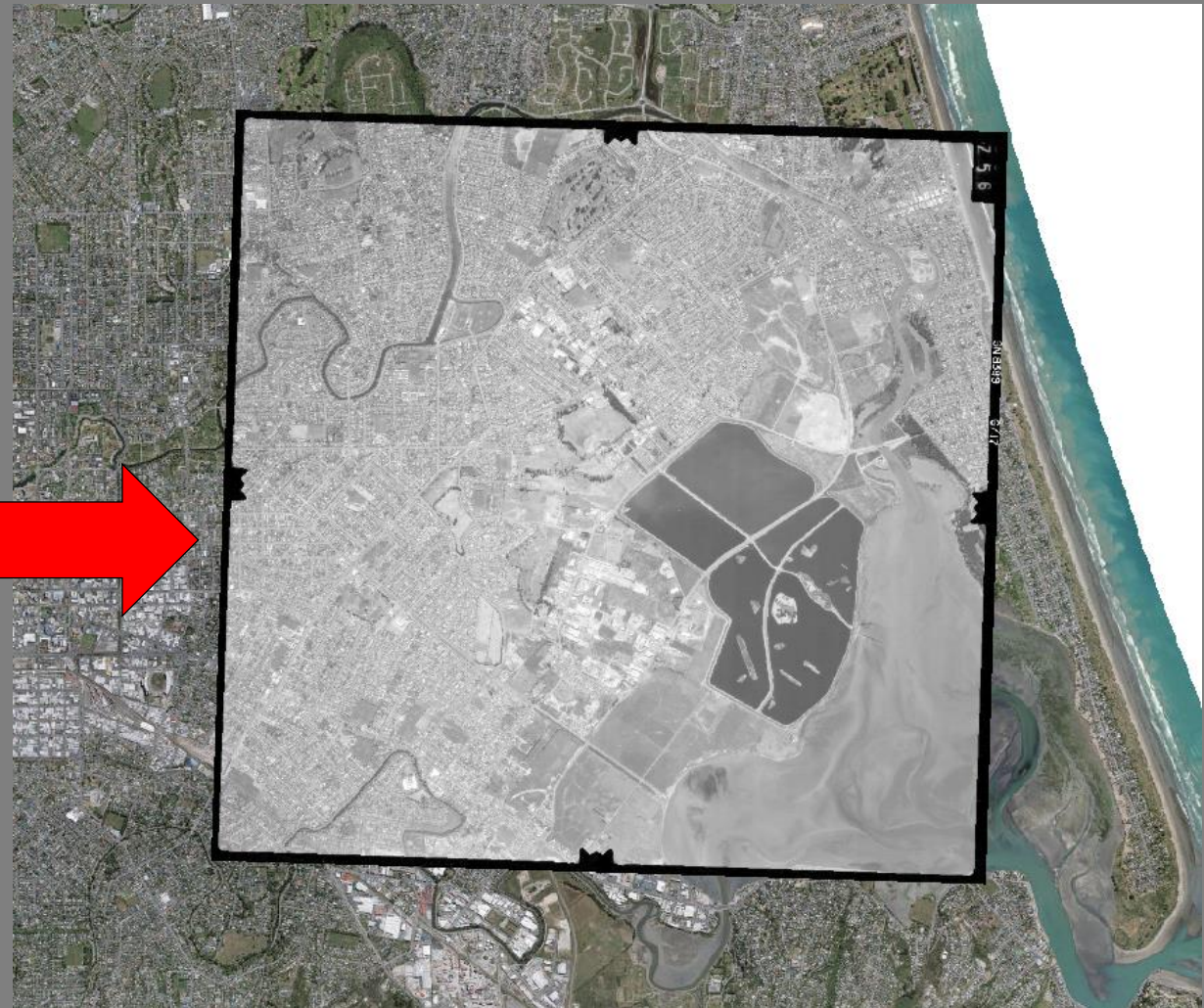
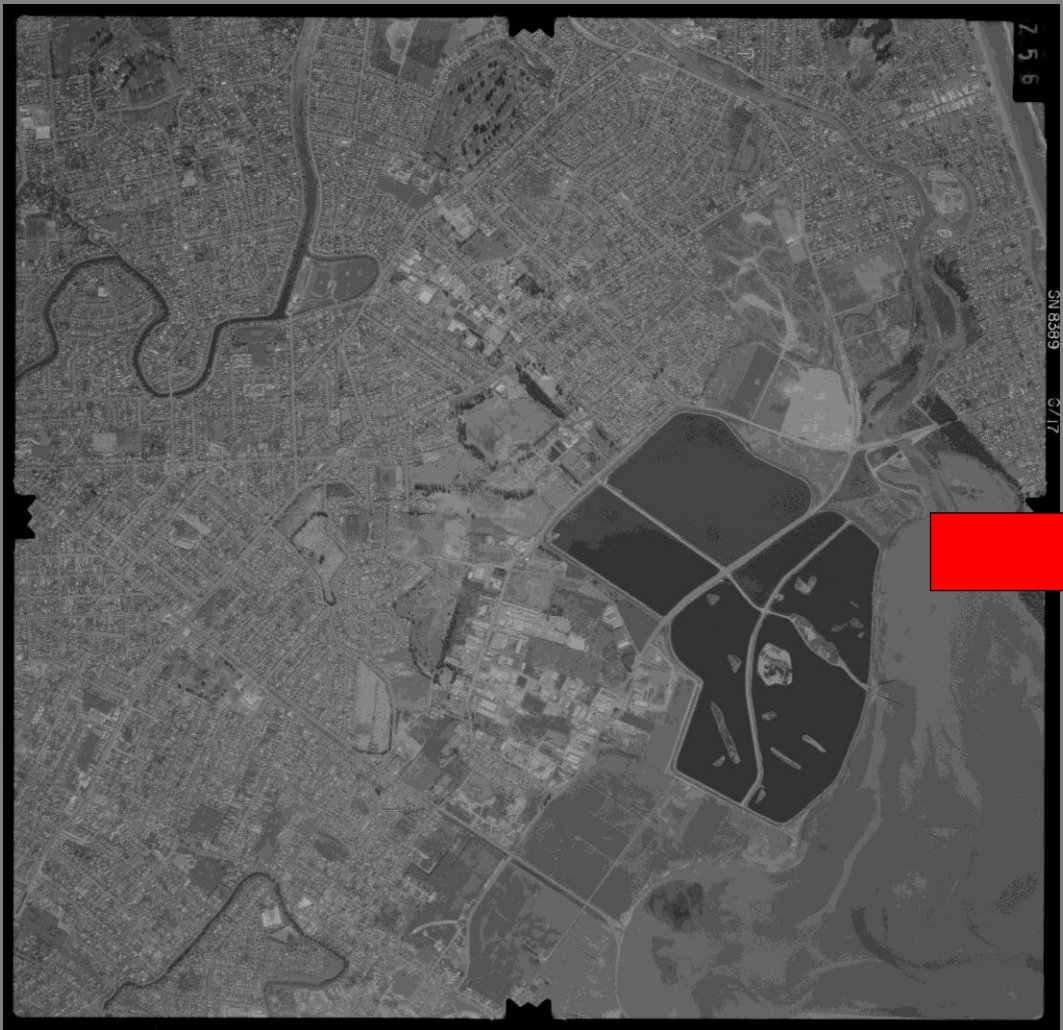
Enter your location here



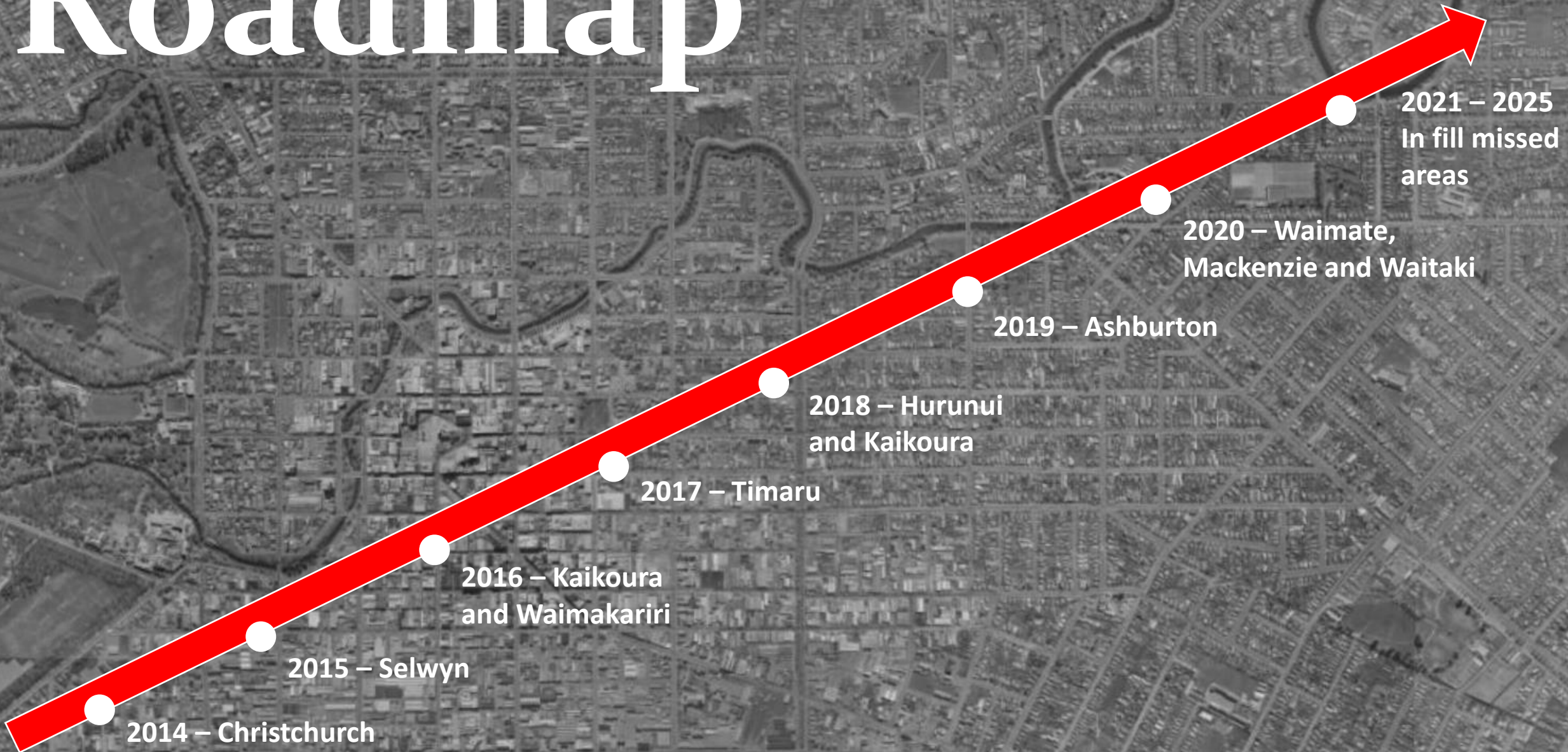
[Not sure how to use Retrolens?](#) | [Explore Map](#)

This site is made available through the work of the Local Government Geospatial Alliance (LGGA) and Abley. The images on the site have been scanned as a result of a joint project with Land Information New Zealand. [Read more...](#)

Taking it Further



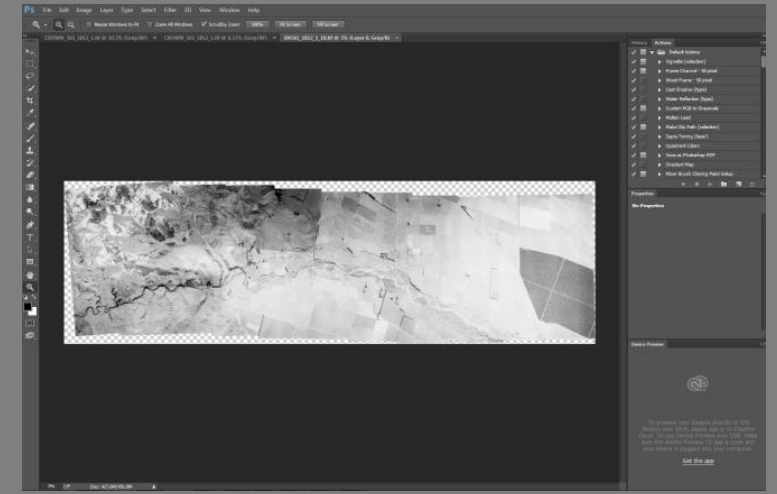
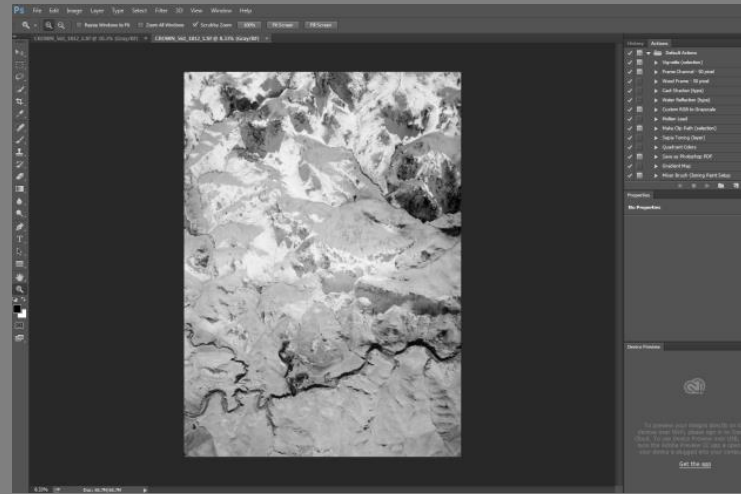
Roadmap



Raw Imagery

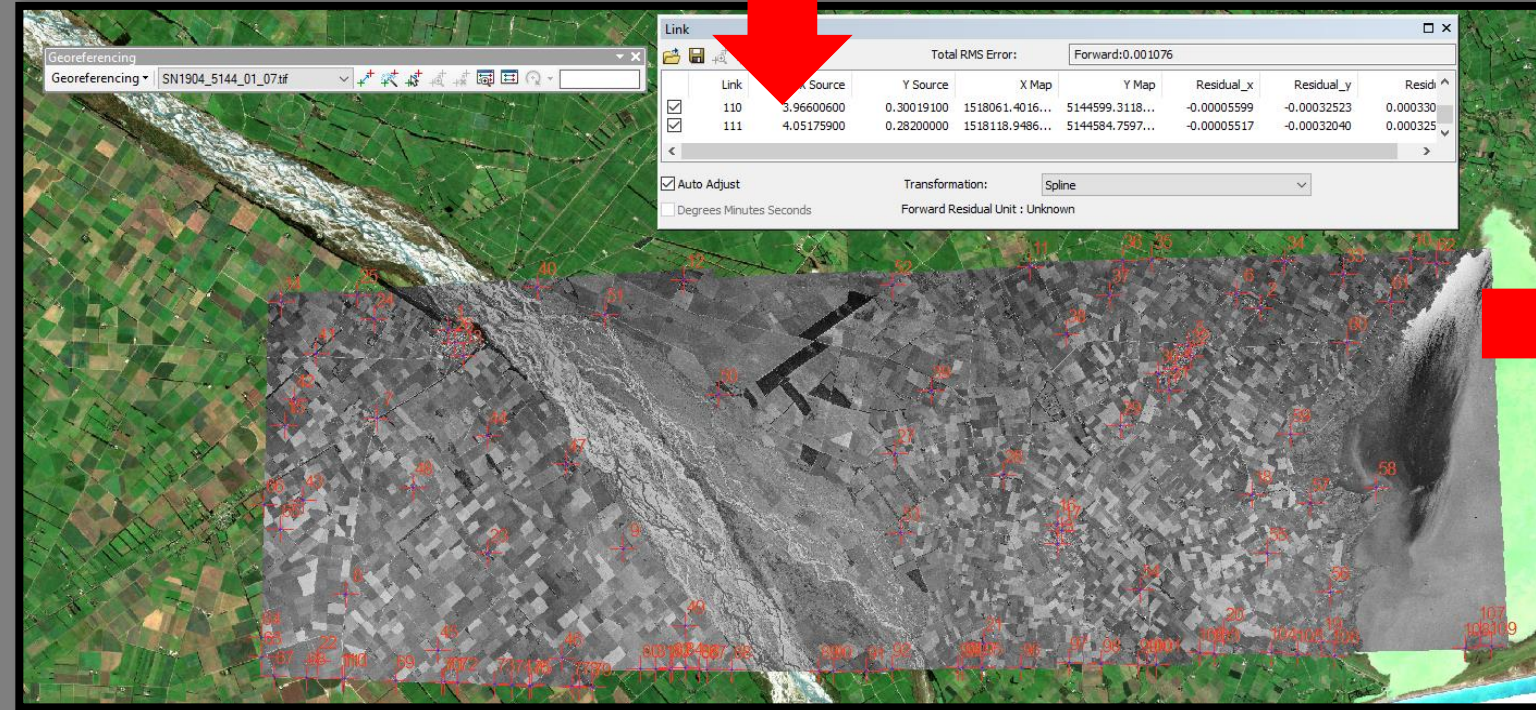
Batch cropping and rotating

Photo merging

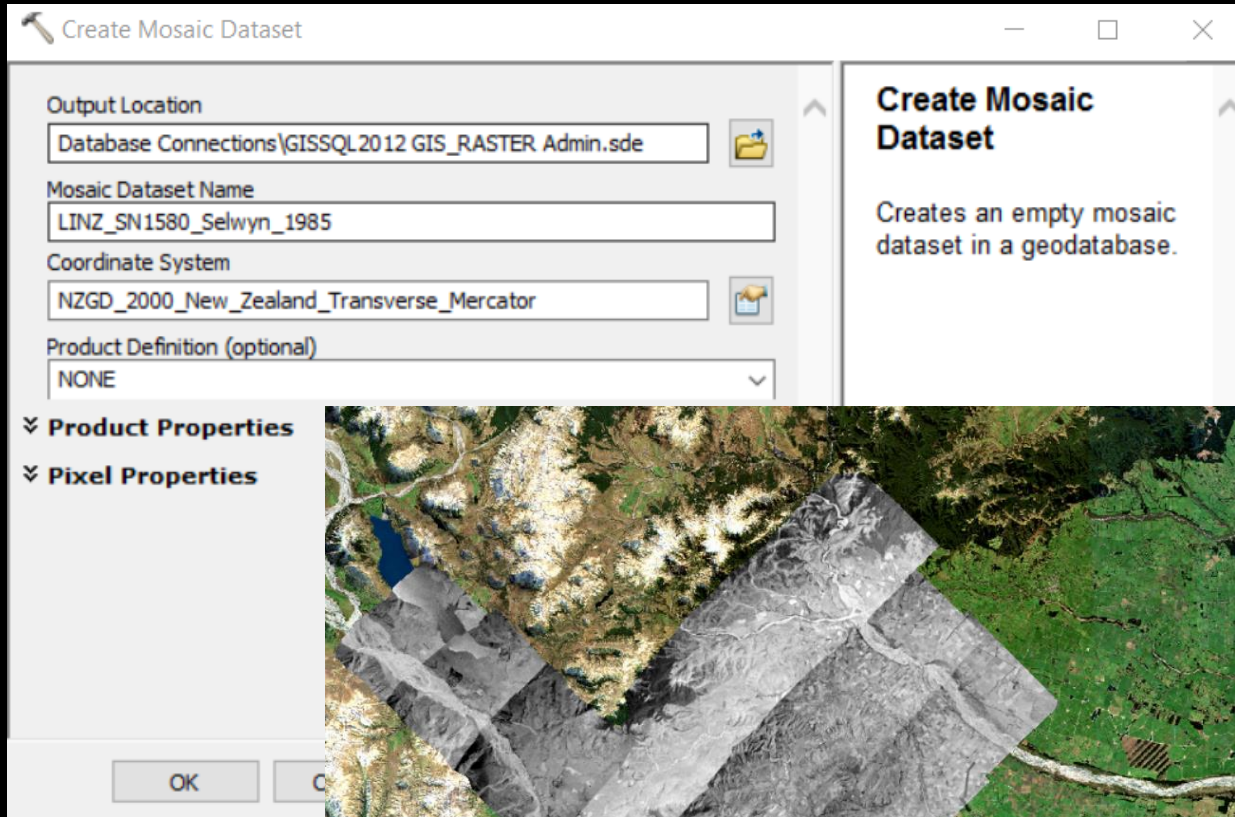


Photoshop

Georeferencing



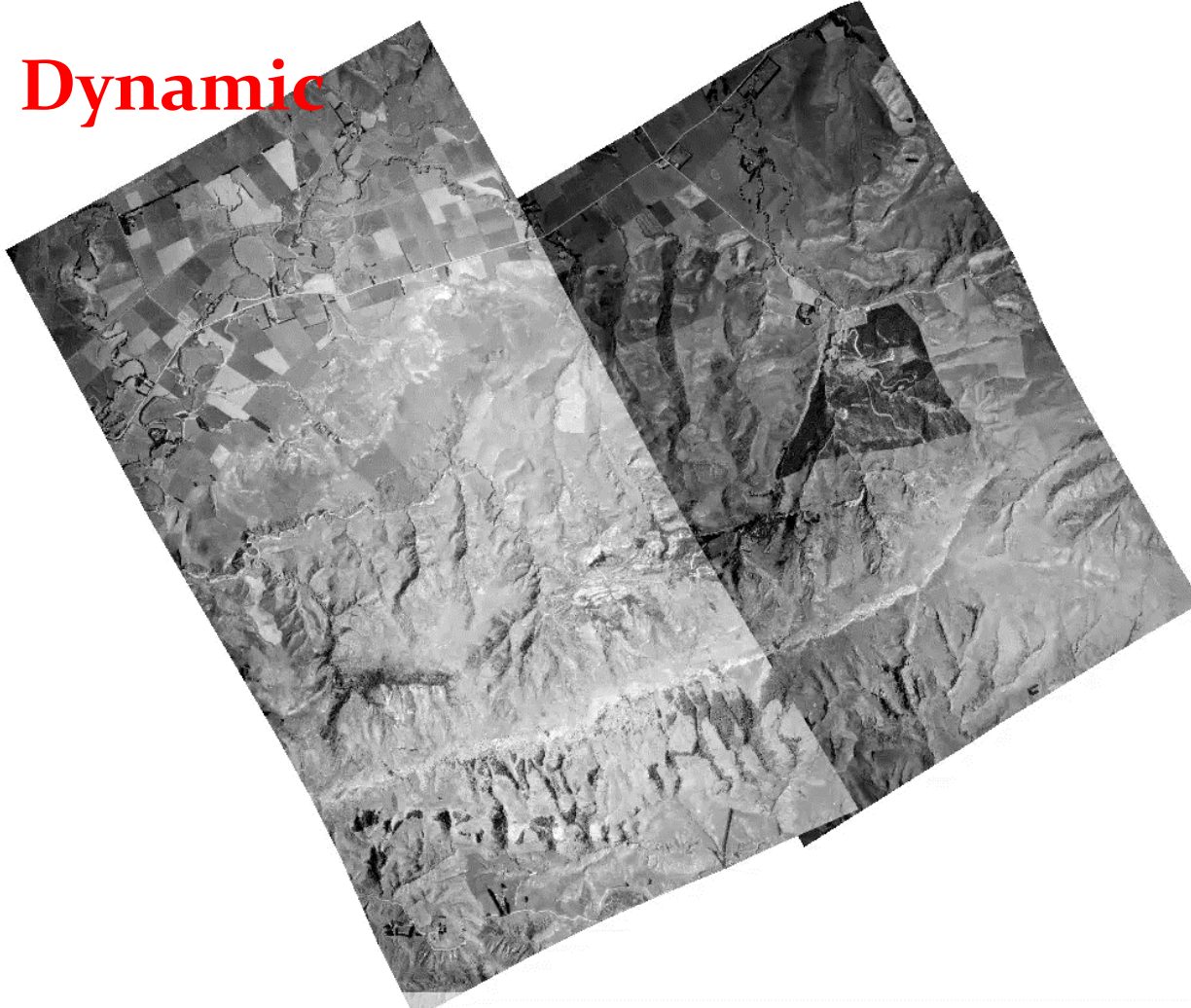
Mosaicking



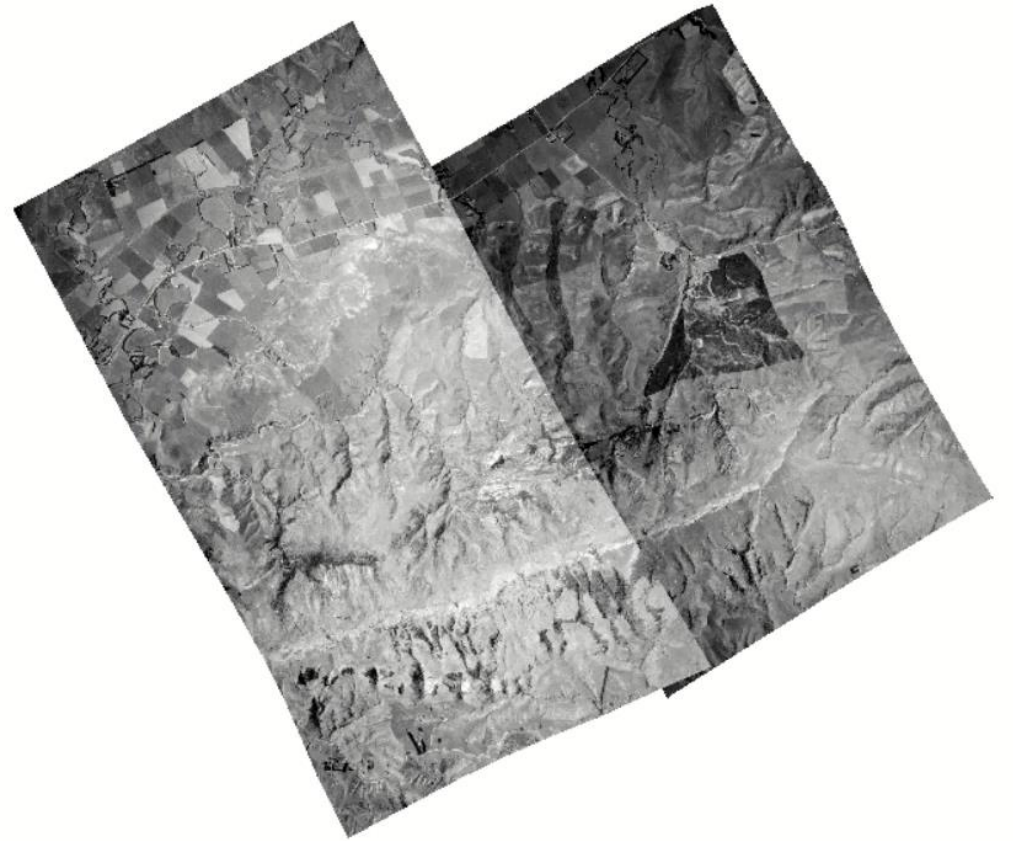
Name	Type
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GIS_RASTER.DBO.LINZ_SN175_Ashburton_1941	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN1796_Kaikoura_Hurunui_1965_A	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN1796_Kaikoura_Hurunui_1965_B	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN1796_Kaikoura_Hurunui_1965_C	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN1799_Ashburton_1965	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN1801_Selwyn_1965	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN1801_Selwyn_1966	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN1904_Selwyn_Ashburton_1966	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN1904_Selwyn_Ashburton_1968	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN1909_Hurunui_1966	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN1970_Hurunui_1968	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2139_Timaru_1969	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2140_Kaikoura_Hurunui_1969	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN224_Selwyn_1942	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2332_Selwyn_1970	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2333_Timaru_1970	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2351_Timaru_1970	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2395_Hurunui_1971	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN250_Selwyn_1943	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN251_Selwyn_1943	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2592_Timaru_1973	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2634_Christchurch_1973	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2634_Christchurch_1973_TEST	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2713_Selwyn_1974	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2738_Ashburton_1974	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2762_Hurunui_1974	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2824_Timaru_1975	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2835_Waimakariri_1975	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2841_Hurunui_1975	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2856_Waimakariri_1975	Mosaic Dataset
GIS_RASTER.DBO.LINZ_SN2860_Ashburton_Selwyn_Waima...	Mosaic Dataset

Caching

Dynamic



Cached



Web Applications

Basemap Gallery

The screenshot displays the Canterbury Maps Viewer web application. The main map area shows a 3D topographic view of New Zealand, with the South Island in the foreground and the North Island visible in the distance. The terrain is color-coded by elevation, with green for lower elevations and brown/grey for higher elevations. A scale bar at the bottom left indicates 60km. The application interface includes a search bar at the top left with the text "Find address or place" and a search icon. A vertical toolbar on the left contains various navigation and map control icons. At the top right, there is a blue header bar with the text "Canterbury Maps Viewer" and "About", along with a row of icons for map layers, measurement, and other tools. On the right side, a "Basemap Gallery" sidebar is open, showing a grid of 18 basemap thumbnails. The thumbnails are arranged in a 6x3 grid and represent different time periods of imagery. The labels for the thumbnails are: Latest Imagery, Latest Imagery - labelled, Imagery 1925 - 1929, Imagery 1935 - 1939, Imagery 1940 - 1944, Imagery 1945 - 1949, Imagery 1950 - 1954, Imagery 1955 - 1959, Imagery 1960 - 1964, Imagery 1965 - 1969, Imagery 1970 - 1974, Imagery 1975 - 1979, Imagery 1980 - 1984, Imagery 1985 - 1989, Imagery 1990 - 1994, Imagery 1995 - 1999, Imagery 2000 - 2004, and Imagery 2004 - 2010. The sidebar also has a "Basemap Type" dropdown menu set to "Imagery basemaps".

Web Applications

Swipe Tool

The screenshot displays the Canterbury Maps Viewer interface. The main map area shows a combination of modern satellite imagery (green fields) and historical grayscale aerial photography (urban areas). A red box highlights the 'Swipe' tool icon in the left-hand navigation panel, which is used to toggle between different data layers. The top navigation bar includes the title 'Canterbury Maps Viewer', an 'About' link, and various utility icons. The right-hand panel, titled 'Add Data', contains a search bar with the text 'imagery' and a list of historical imagery layers with 'ADD' and 'DETAILS' buttons. The bottom status bar shows coordinates and the text 'Environment Canterbury | New Zealand Aerial Mapping, Environi'.

How
Environment
Canterbury Uses
it



**Environment
Canterbury
Regional Council**
Kaunihera Taiao ki Waitaha

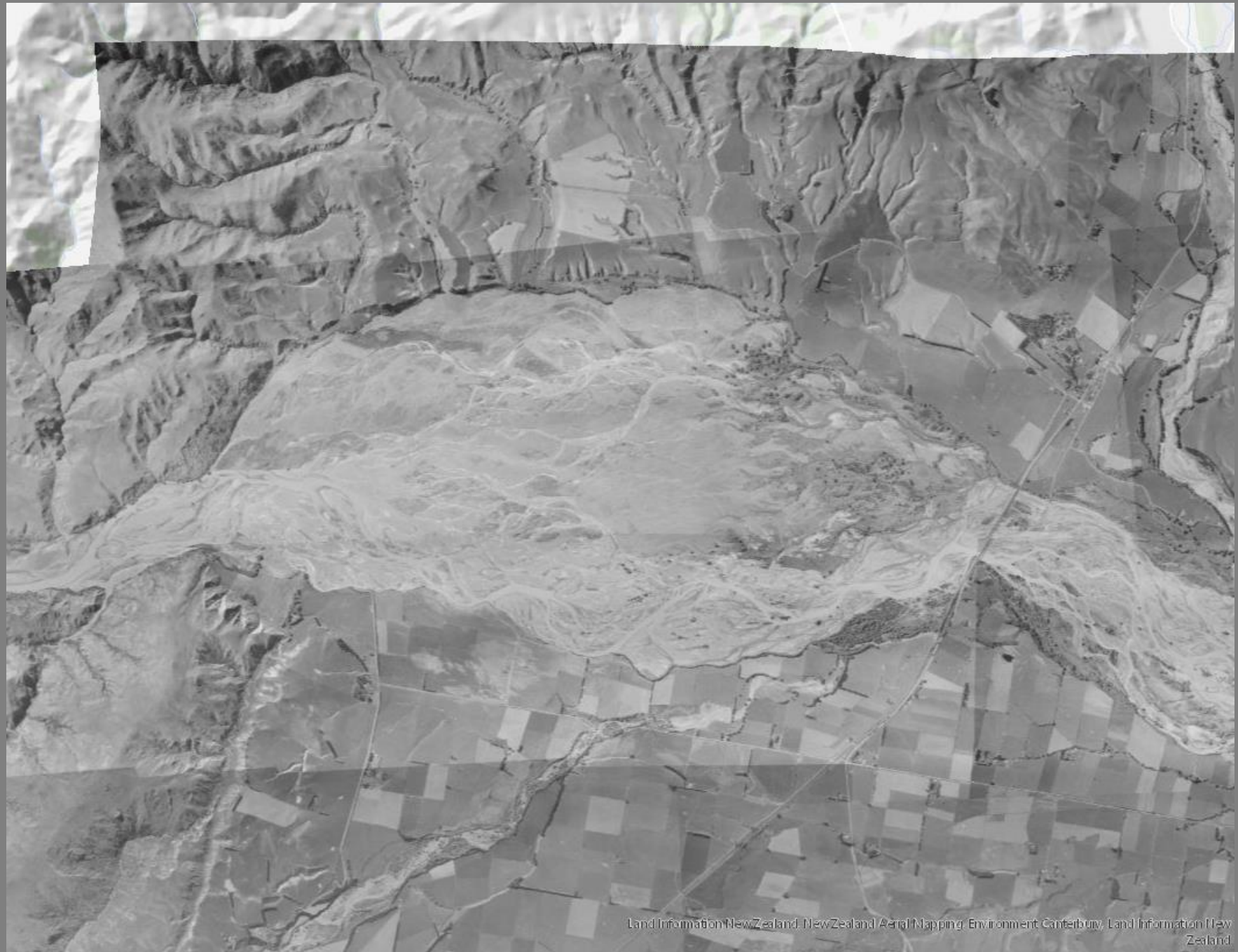
Hazardous Activities and Industries List (HAIL)





River Delineation

1959



River Delineation

1983



River Delineation

1995



River Delineation

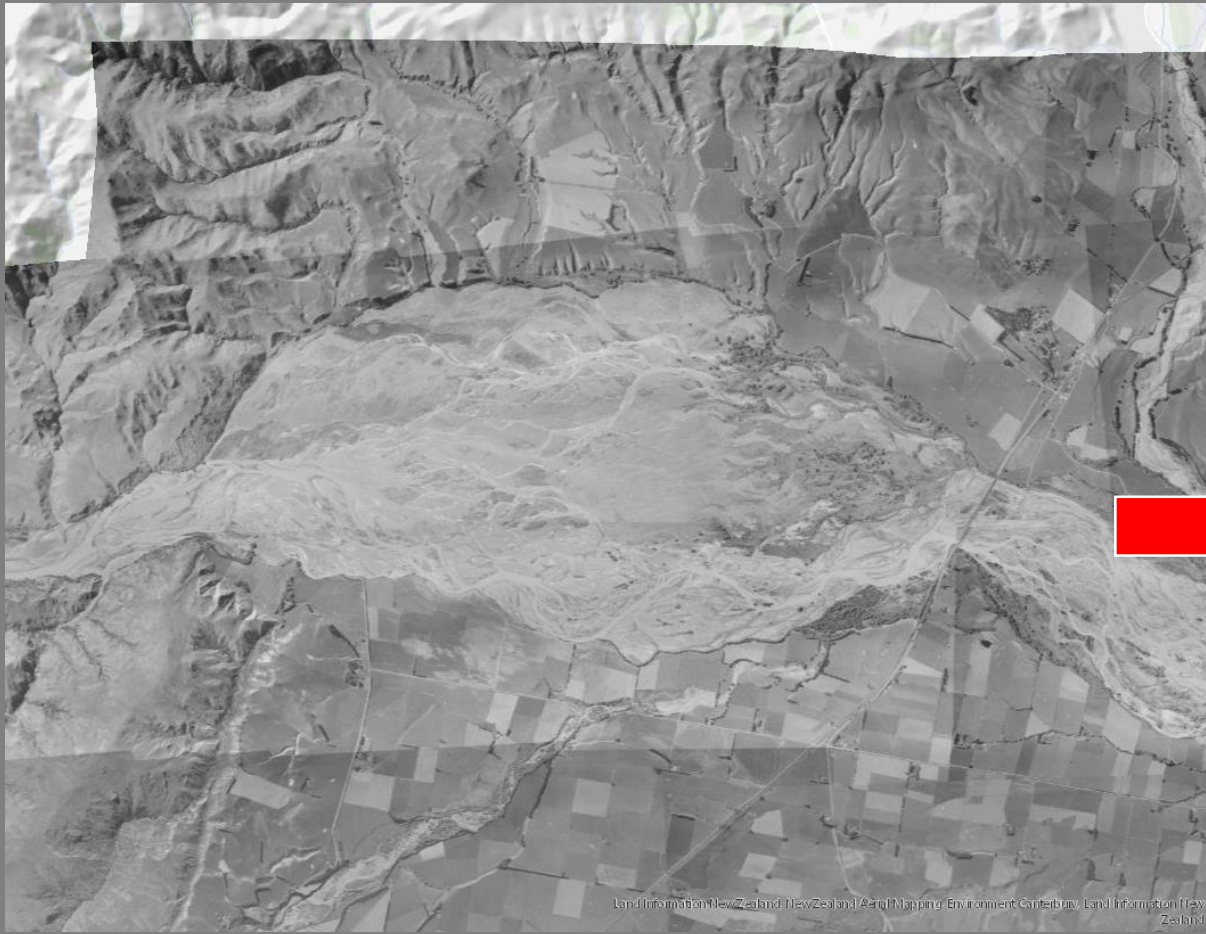
2004



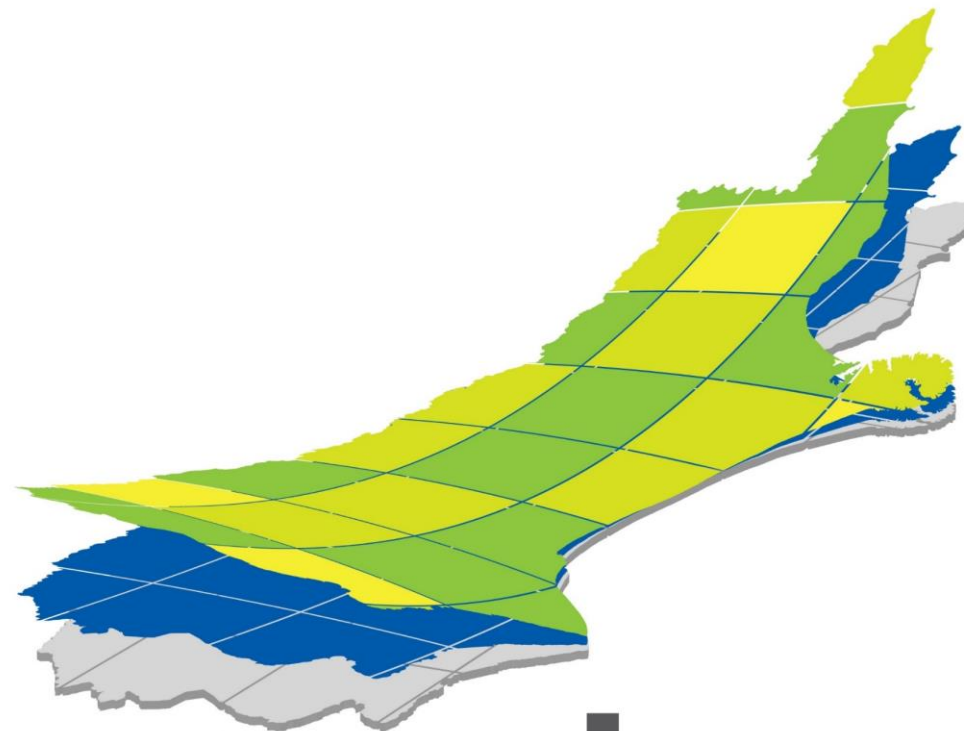
River Delineation

2017





How the Public
Uses it

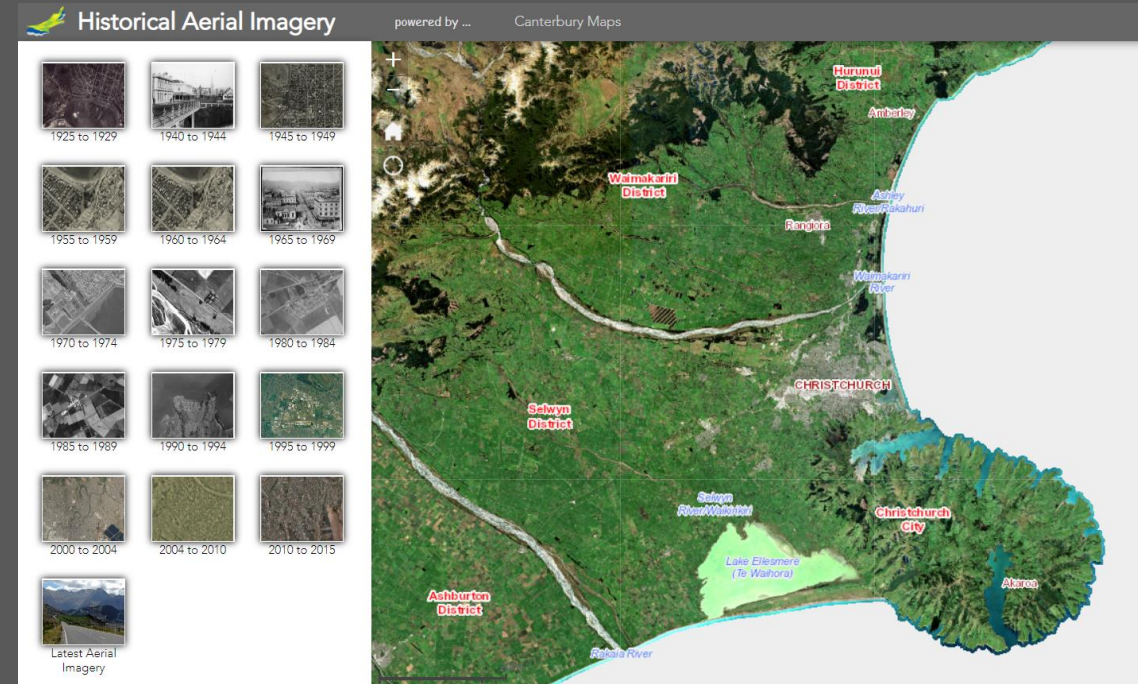


canterbury
maps

canterburymaps.govt.nz

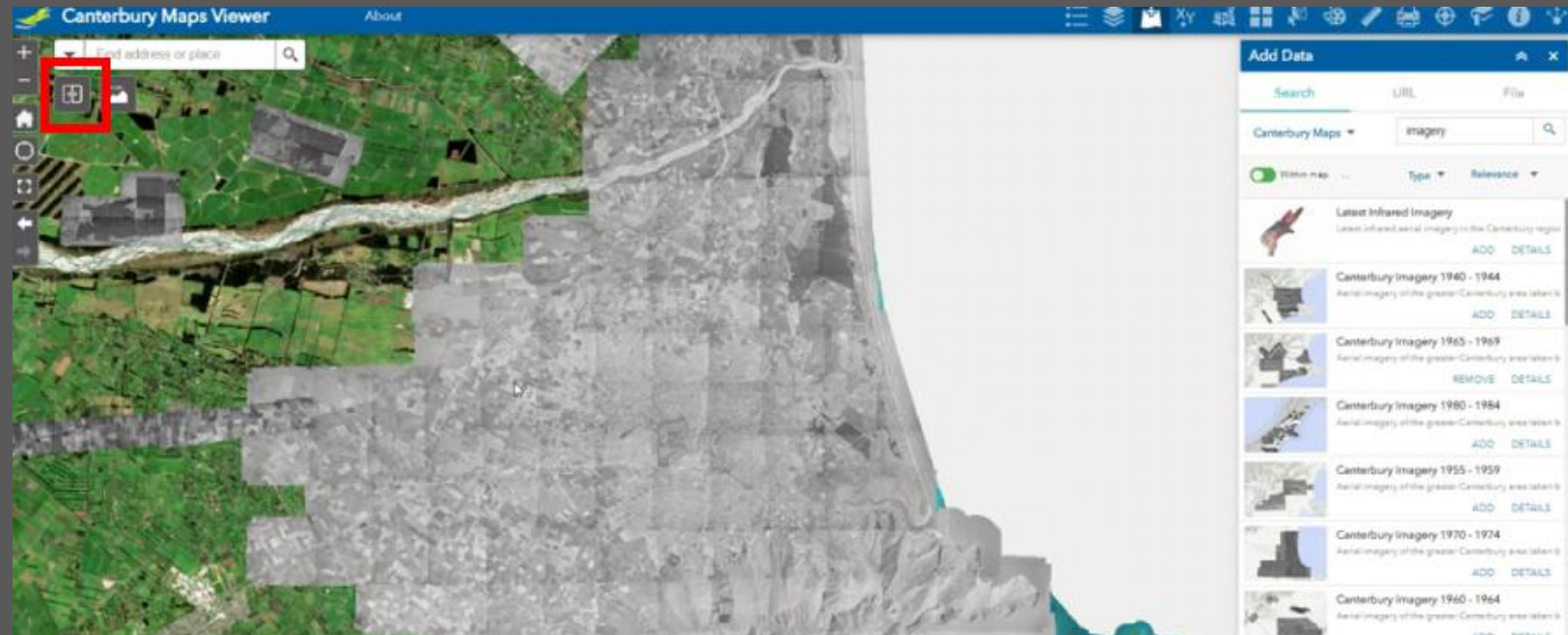
Canterbury Maps

- Access to cached services via our public servers
- Map Viewer
- Customised maps specifically for historic imagery



Services:

- [Imagery/Canterbury_Imagery_1925_1929](#) (MapServer)
- [Imagery/Canterbury_Imagery_1935_1939](#) (MapServer)
- [Imagery/Canterbury_Imagery_1940_1944](#) (MapServer)
- [Imagery/Canterbury_Imagery_1945_1949](#) (MapServer)
- [Imagery/Canterbury_Imagery_1950_1954](#) (MapServer)
- [Imagery/Canterbury_Imagery_1955_1959](#) (MapServer)
- [Imagery/Canterbury_Imagery_1960_1964](#) (MapServer)
- [Imagery/Canterbury_Imagery_1965_1969](#) (MapServer)
- [Imagery/Canterbury_Imagery_1970_1974](#) (MapServer)
- [Imagery/Canterbury_Imagery_1975_1979](#) (MapServer)
- [Imagery/Canterbury_Imagery_1980_1984](#) (MapServer)
- [Imagery/Canterbury_Imagery_1985_1989](#) (MapServer)
- [Imagery/Canterbury_Imagery_1990_1994](#) (MapServer)
- [Imagery/Canterbury_Imagery_1995_1999](#) (MapServer)
- [Imagery/Canterbury_Imagery_2000_2004](#) (MapServer)
- [Imagery/Canterbury_Imagery_2010_2015](#) (MapServer)

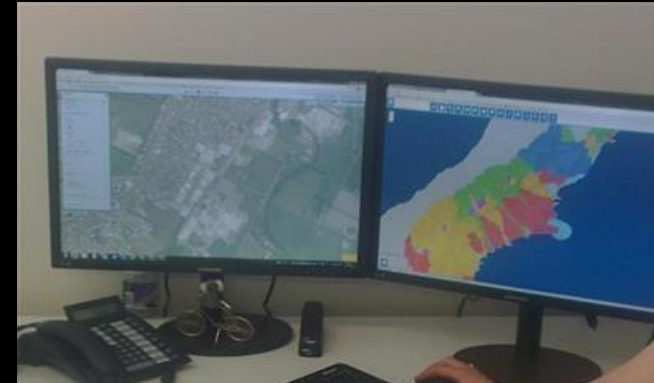
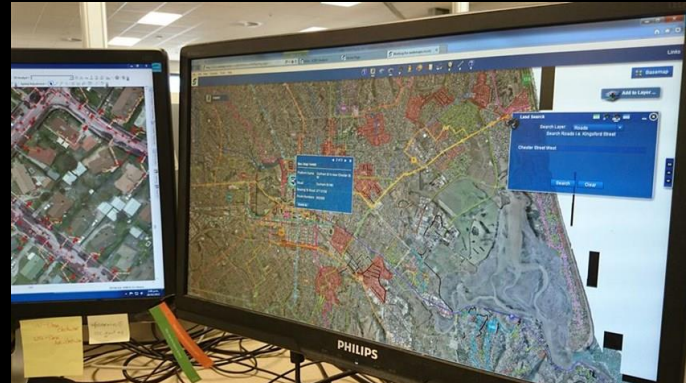
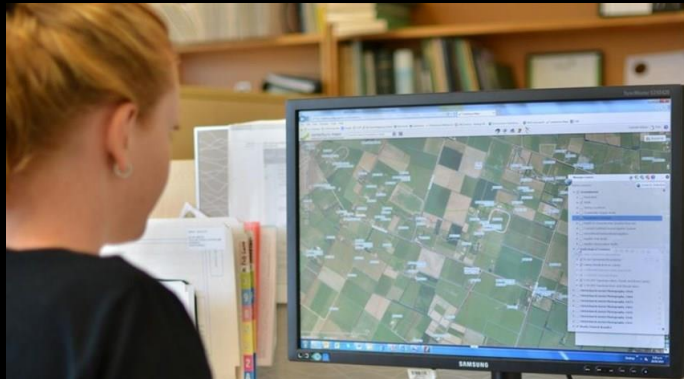


Canterbury Maps – User Stories

Aurecon – “We also make use of the **historical aerial photography** web service to show site usage through time, which is particularly useful for our land development team and geotechnical engineers, as well as our clients when assessing the suitability of a site for future development.”

Eliot Sinclair – “**Historical aerial photographs** shown on the GIS are also used to determine site history which is useful for our civil and geotechnical engineers, and for the environmental engineers when assessing any risk of contamination.”

Davis Ogilvie – “The Structural team uses the Canterbury Maps website to look at the historical use of a site, when it was first developed and when alterations were made to the property.”



The Future

- Full coverage of Canterbury
- Other regions build upon this so we can get national coverage
- 3D Imagery
- Historic building footprints?
- Machine learning?



An aerial photograph of a braided river system. The water is a vibrant turquoise color, flowing through a complex network of channels and bars of greyish-brown sediment. The landscape is rugged and appears to be a high-altitude or glacial environment. The text "Any Questions?" is overlaid in the center in a white, serif font.

Any Questions?