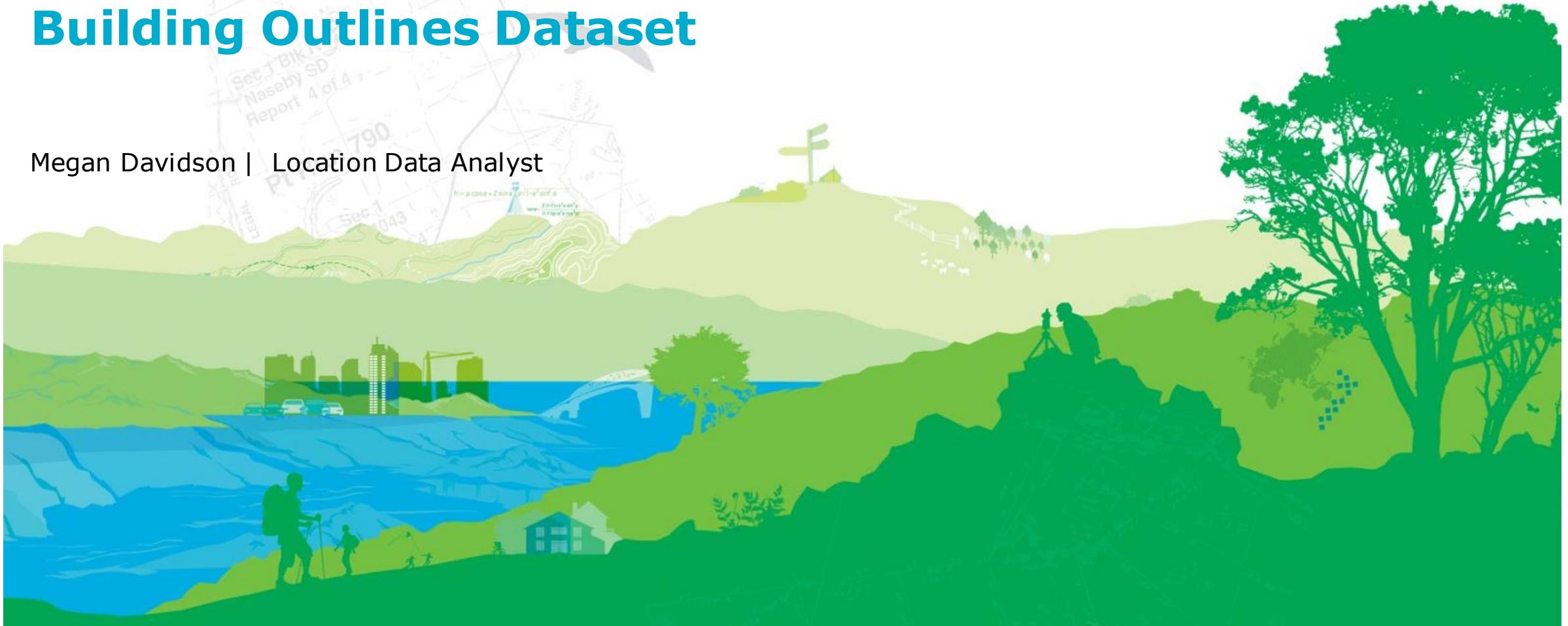
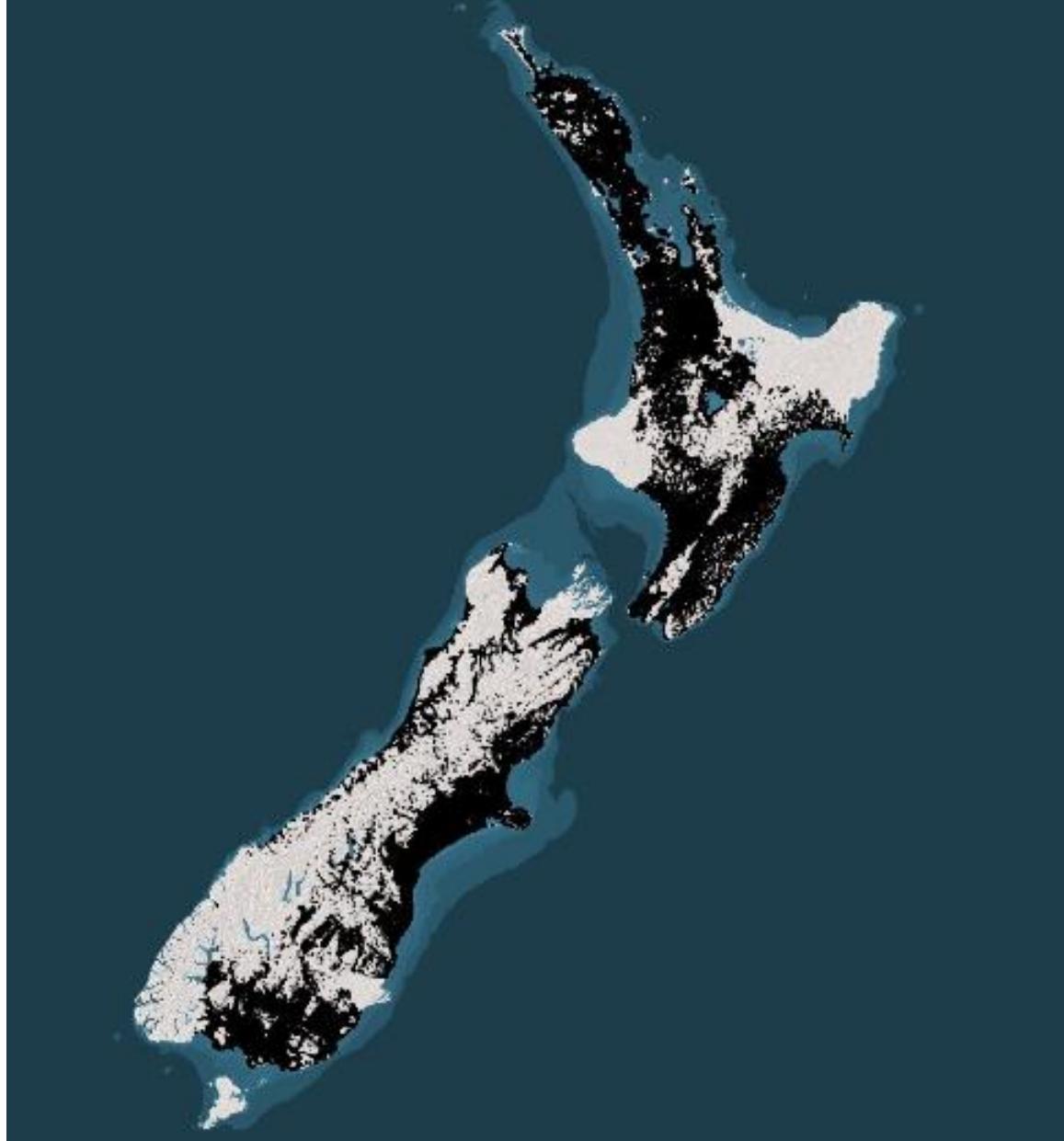


Laying the Foundations for a National Building Outlines Dataset

Megan Davidson | Location Data Analyst



New Zealand Building Outlines



Outlines Throughout Time



Outlines Throughout Time



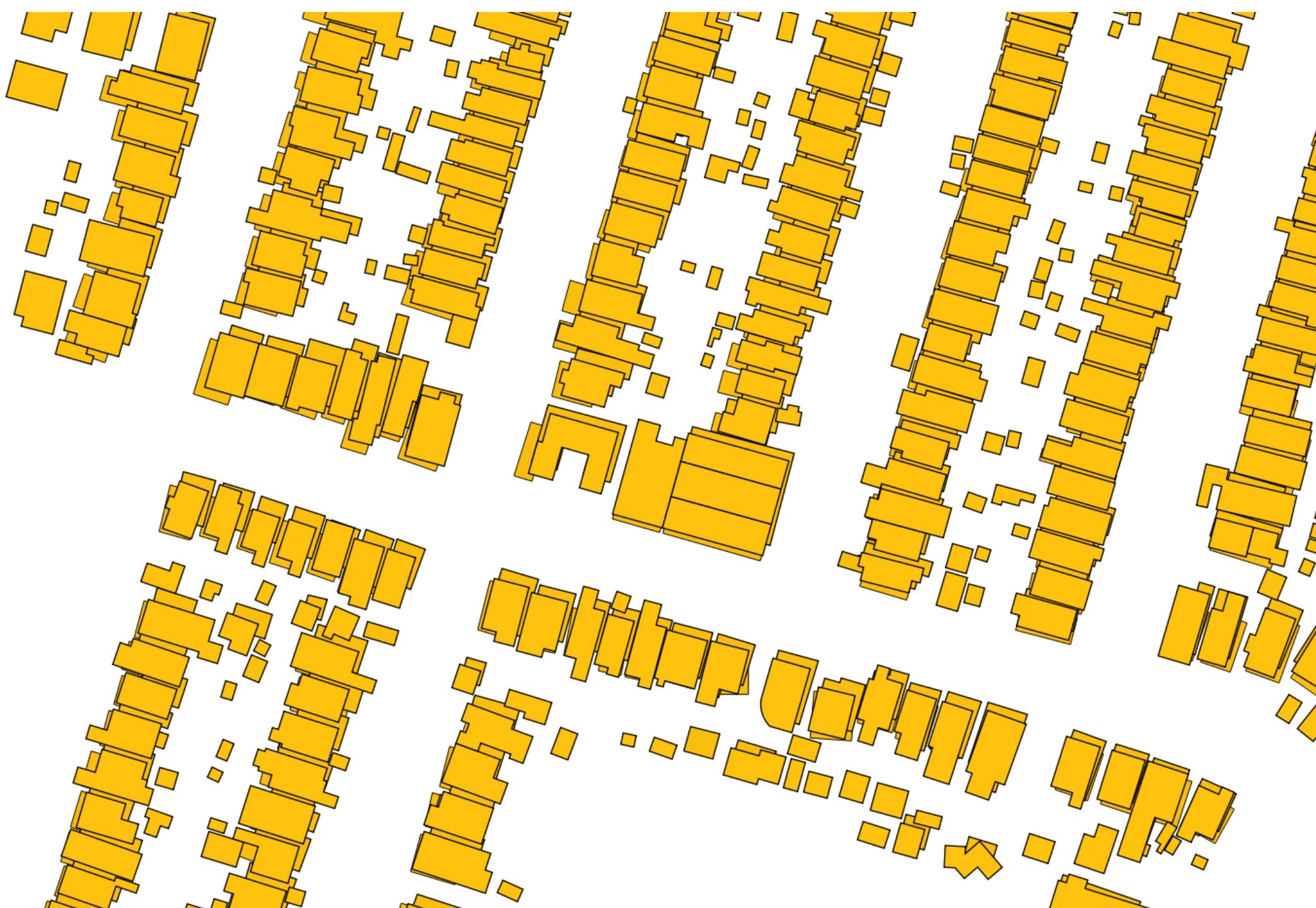
1941



1975



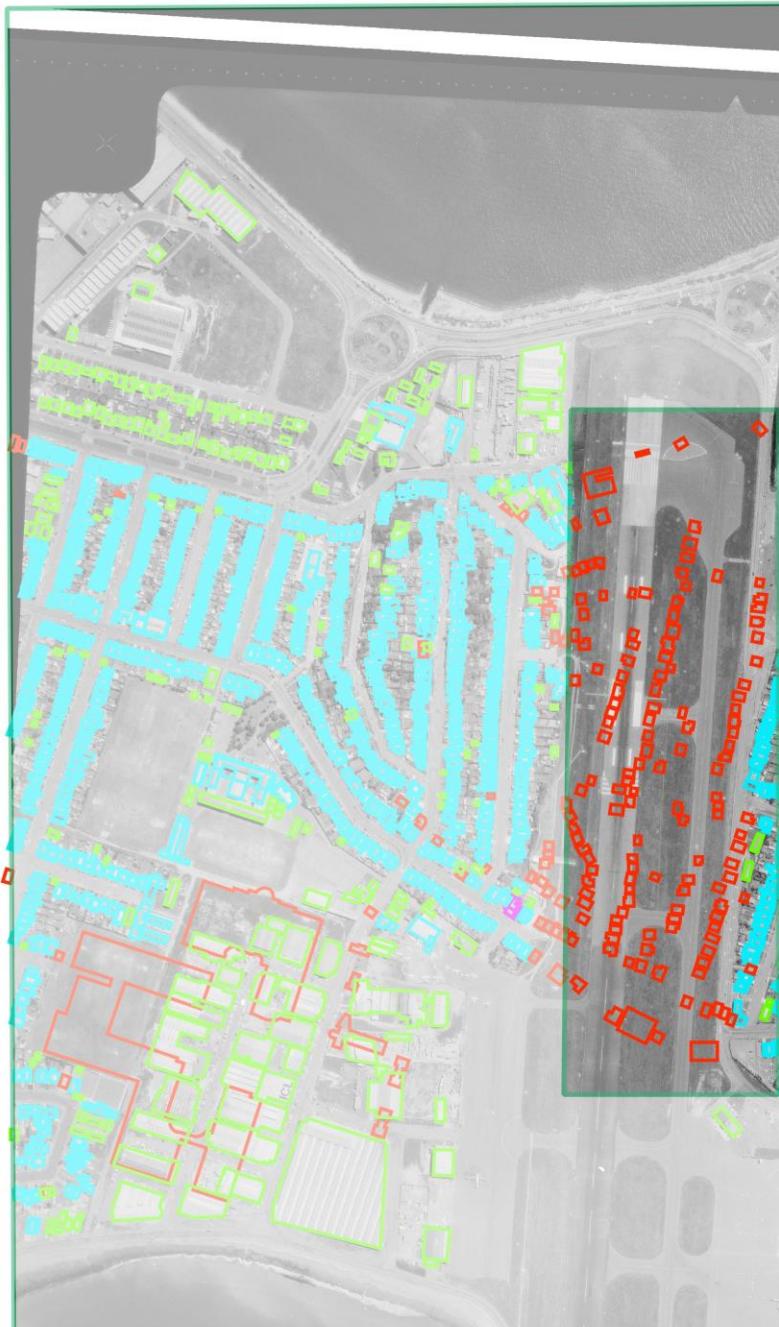
2016



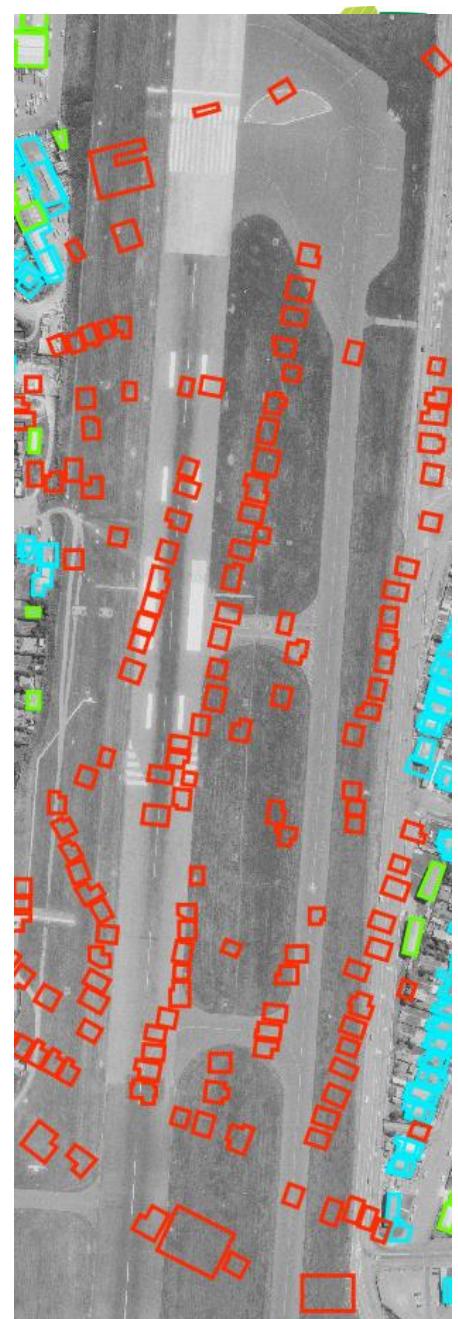
1941-1975



1941-1975



Removed



1941-1975



Added



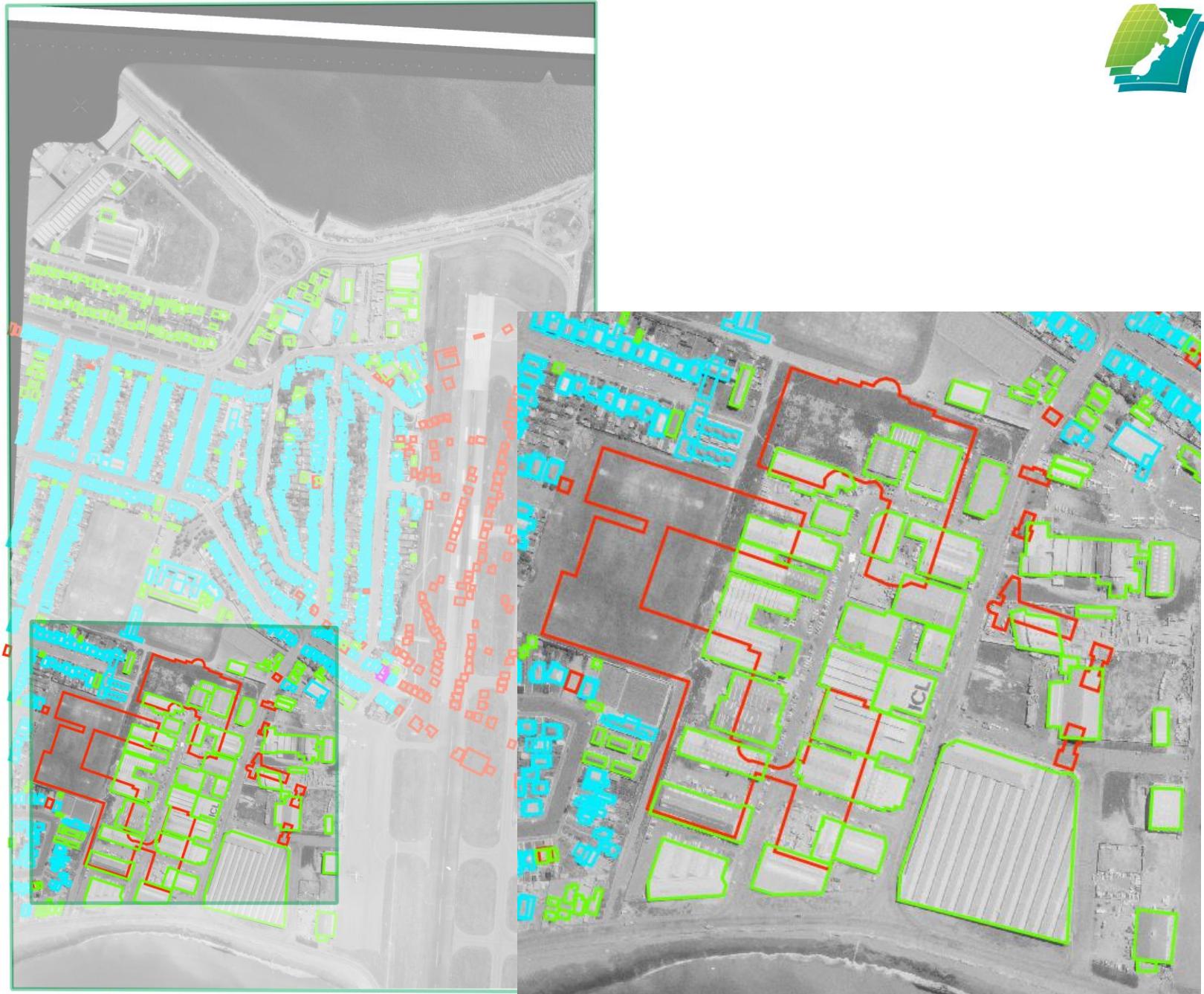
Removed

1941-1975



Added

**Added &
Removed**



1941-1975



Added



Matched



**Added &
Removed**

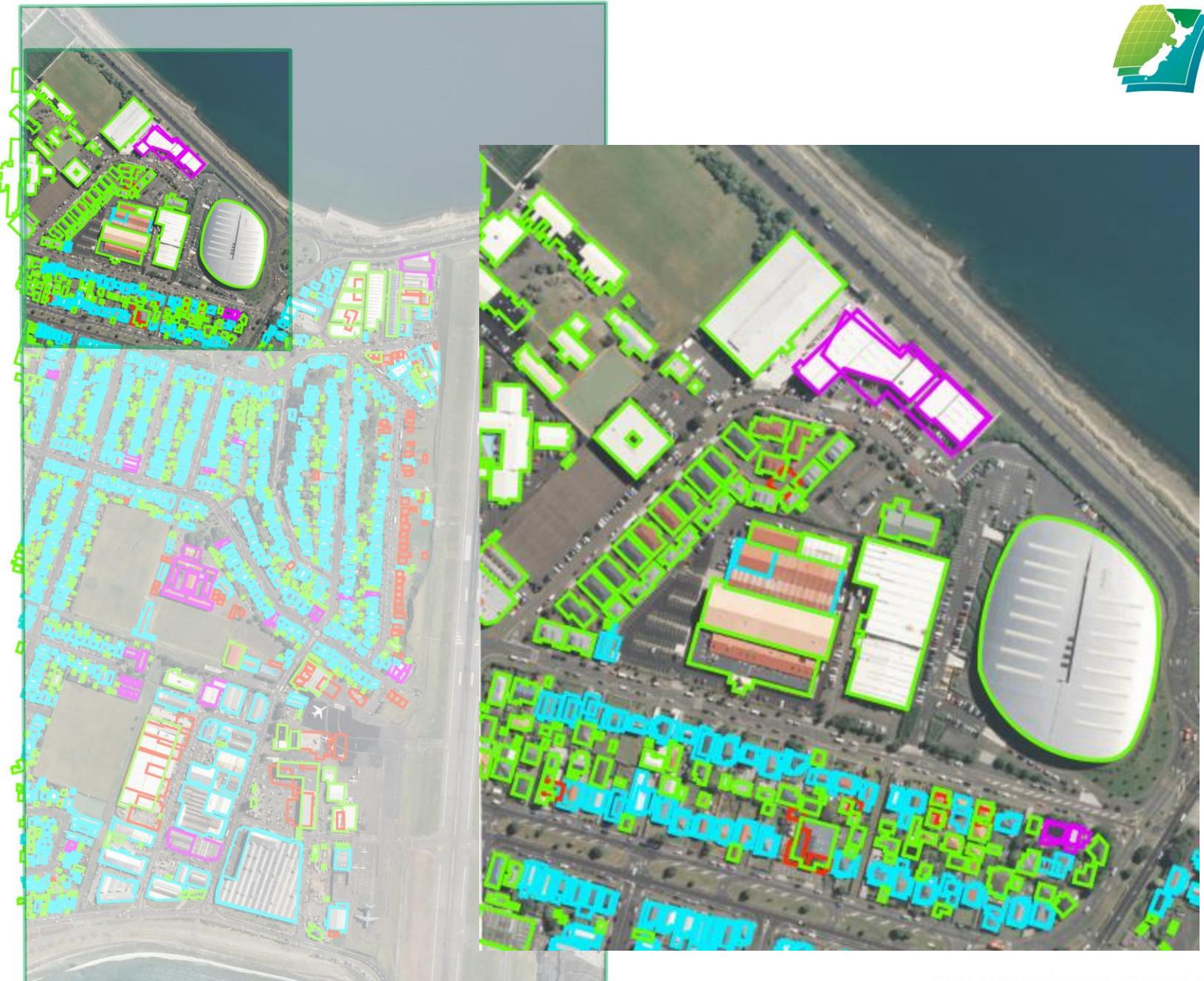
1975-2016



1975-2016



Added



1975-2016

Added



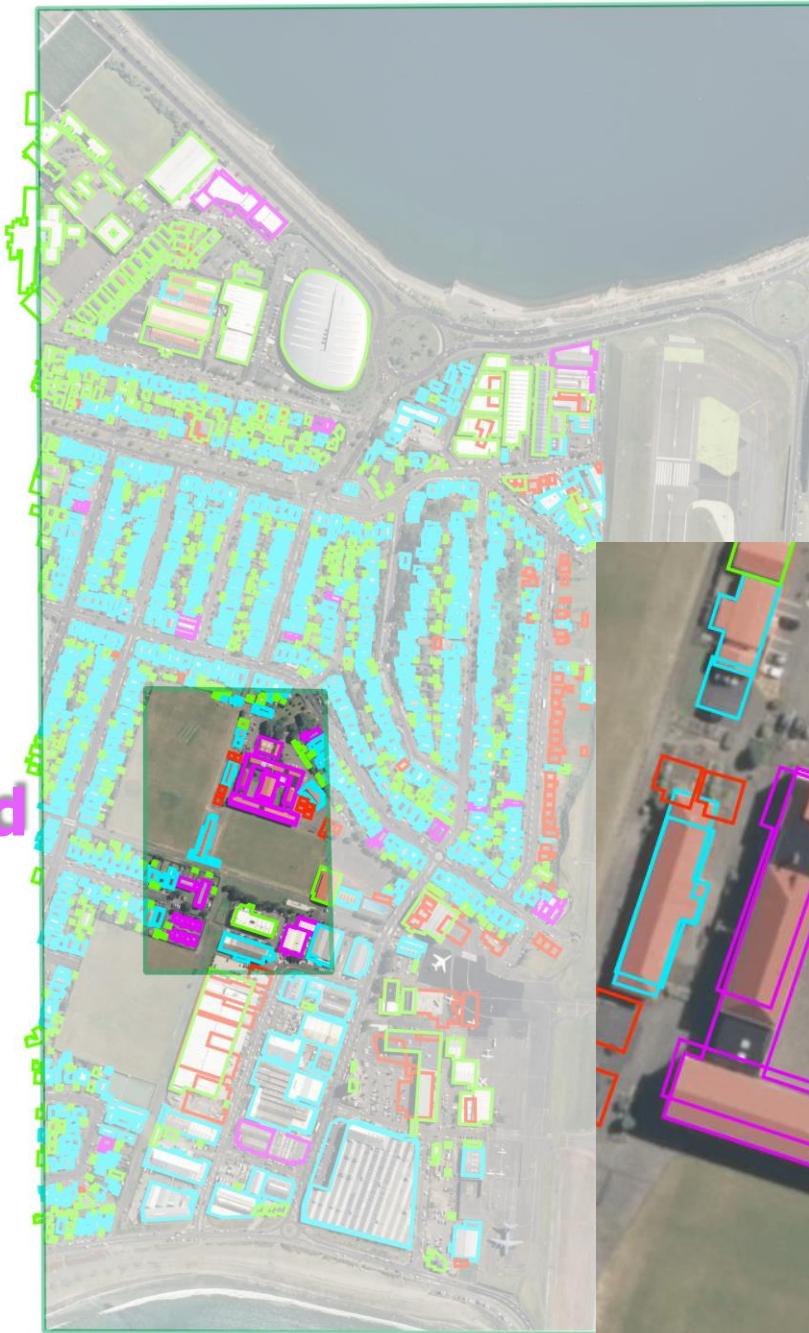
Removed



1975-2016



Added



Related



1975-2016



Added

Matched

Related



What You See



1941



1975



2016

What We See



1941



1941-1975



1975-2016

How We Did It...



Free and Open Source



PostgreSQL

PostGIS



SPHINX

Free for Open Source



Read the Docs



Travis CI

QGIS Plugin



Building Maintenance

Buildings

Capture Sources

Bulk Load

Edit Outlines

Settings

Add Capture Source

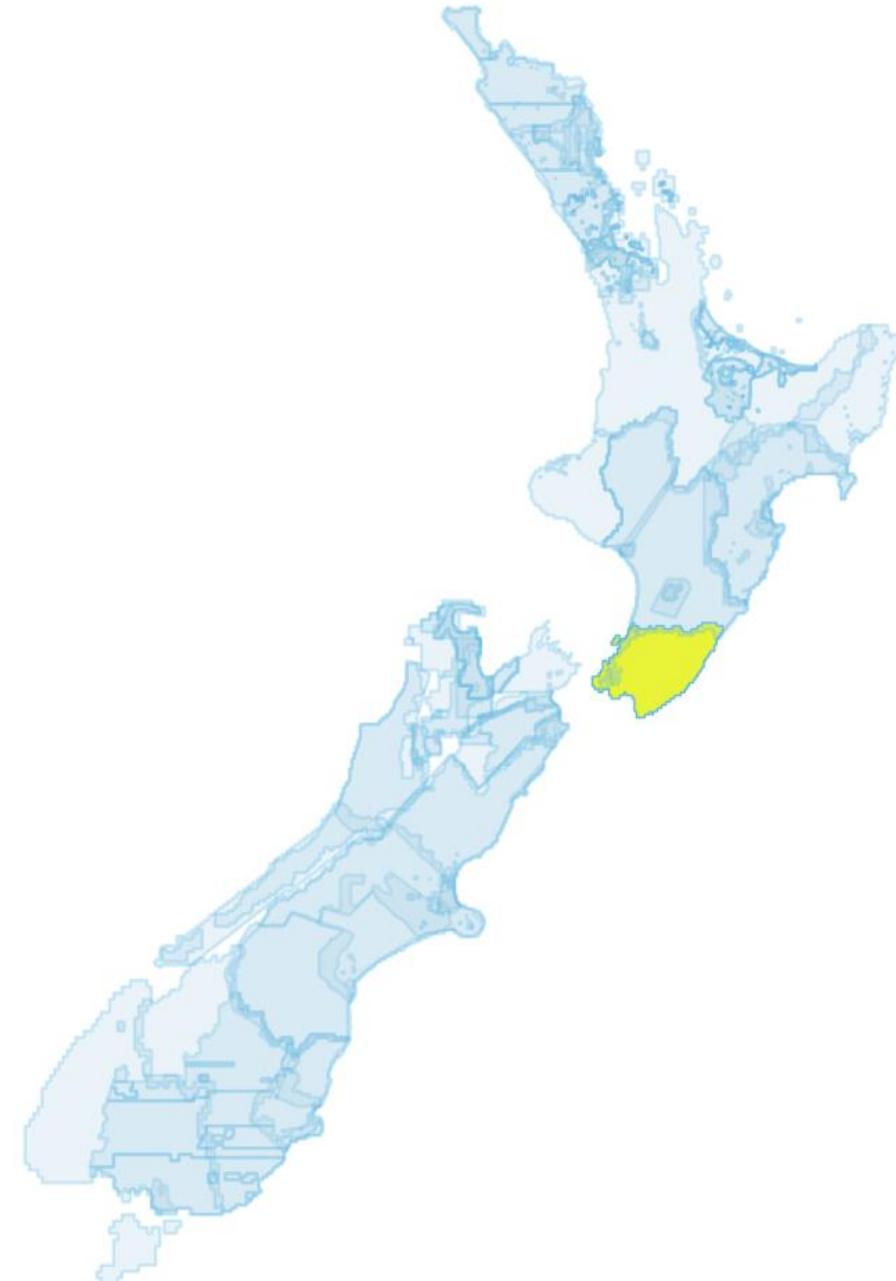
Capture Source Group: NZ Aerial Imagery- external_source_id will link to

External Source ID: 1094

Save Exit

ID	Area Title
1081	CHRISTCHURCH POST-EARTHQUAKE 0.1m Urban Aerial Photos (2014)
1082	Northland 0.75m Rural Aerial Photos (2004) -
1083	Nelson 0.4m Rural Aerial Photos (2014)
1084	Hamilton 0.1m Urban Aerial Photos (2015)
1085	Northland 0.75m Rural Aerial Photos (2004)
1086	Waimakariri 0.075m Urban Aerial Photos (2015)
1087	Wairoa 0.1m Urban Aerial Photos (2014-2015)
1088	Bay of Plenty 0.125m Urban Aerial Photos (2015)
1089	Porirua 0.075m Urban Aerial Photos (2016)
1090	Whanganui 0.1m Urban Aerial Photos (2015-2016)
1091	Tasman 0.3m Rural Aerial Photos (2016-2017)
1092	Whanganui 0.1m Urban Aerial Photos (2013)
1093	Gisborne 0.125m Urban Aerial Photos (2012)
1094	Wellington 0.3m Rural Aerial Photos (2012-2013)

Layers Panel Building Maintenance



QGIS Plugin



Building Maintenance

Buildings

Capture Sources

Bulk Load

Edit Outlines

Settings

Current Dataset ID: None

Bulk Load

Layer: outlines buildings_19

External Id Field: 123 fid

Capture Source Group: NZ Aerial Imagery- exter

External Source Id : 1094

1941 Outlines

Capture Method: Trace Orthophotograph

Organisation: LINZ

Save **Reset**

Imagery One

Compare Outlines

Alter Relationships

Publish

Exit

Layers Panel Building Maintenance



QGIS Plugin



Building Maintenance

Buildings

Capture Sources

Bulk Load

Edit Outlines

Settings

Current Dataset ID: 5

Bulk Load

Layer: bulk_load_outlines

External Id Field: External Id Field

Capture Source Group: NZ Aerial Imagery- exter

External Source Id: 1094

Capture Method: Building Outlines 1941

Organisation: Ecopia

Wellington 0.3m Rural Aerial Photos (2016-2017)

Compare Outlines

Edit Outlines

Edit Outline

Status: Reason for Deletion

Capture Method:

Capture Source:

Territorial Authority:

Suburb:

Town/City:

Alter Relationships

Publish

Exit

Layers Panel Building Maintenance



QGIS Plugin



Building Maintenance

Edit Production

Add Outline Edit Outline

Capture Method:

Capture Source:

Lifecycle Stage:

Territorial Authority:

Suburb Locality:

Town City:

Buttons: Save | Reset | Exit Editing | **Exit**

Layer Styli... Layers Pa... Browser Pa... Building Maintena...

X

Advanced Digitizing Panel

d

a

x 1751170.941690

y 5423383.825924



QGIS Plugin



Building Maintenance

Buildings

Capture Sources

Bulk Load

Edit Outlines

Settings

Current Dataset ID: 5

Bulk Load

Layer: bulk_load_outlines

External Id Field: External Id Field

Capture Source Group: NZ Aerial Imagery- exter

External Source Id: 1094

Capture Method: Building Outlines 1941

Organisation: Ecopia

Wellington 0.3m Rural Aerial Photos (2016-2017)

Compare Outlines

Edit Outlines

Add Outline Edit Outline

Status: Reason for Deletion

Capture Method:

Capture Source:

Territorial Authority:

Suburb:

Town/City:

Save Reset Exit Editing

Alter Relationships

Publish

Exit

Layers Panel Building Maintenance



QGIS Plugin

Building Maintenance

Building Relationships

Removed Outlines

Existing Outlines	QA Status
1000002	Not Checked
1000003	Not Checked
1000007	Not Checked
1000016	Not Checked
1000017	Not Checked
1000018	Not Checked
1000019	Not Checked

Not Checked Refer Pending Okay

Bulk Load Outlines Layer Existing Subset Extracts Layer

Edit Relationships

Existing Outlines Bulk Load Outlines

Auto-save

Layer Styli... Layers Pa... Browser Pa... Building Maintena...



<https://github.com/linz/nz-building-outlines>

NZ Building Outlines

License [BSD 3-Clause](#) build [passing](#) docs [passing](#)

Provides schemas and functions for the NZ Building Outlines system.

Installation

First install the project into the OS data share directory:

```
sudo make install
```

Then you can load the schema into a target database:

```
nz-buildings-load $DB_NAME
```

NOTE: the loader script will expect to find SQL scripts under /usr/share/nz-building-outlines/sql, if you want them found in a different directory you can set the BUILDINGSCHEMA_SQLDIR environment variable.

Read the Docs & Sphinx- Documentation

<https://nz-building-outlines.readthedocs.io/en/latest/index.html>

 NZ Buildings Data Dictionary



latest

Search docs

1. Introduction

- 1.1. Purpose
- 1.2. Background
- 1.3. Description
- 1.4. Source Imagery
- 1.5. Coverage Maps
- 1.6. Accuracy Specification
- 1.7. Valid Geometry
- 1.8. Formats
- 1.9. Definitions

2. Published Data

3. Internal Data

3.3. Schema: buildings_common

Description: Schema that holds tables referenced in more than one other schema.

3.3.1. Table: capture_method

Description: Lookup table that holds all of the methods by which the geometry was captured.

Column Name	Data Type	Length	Precision	Scale	Allows Nulls	Description
capture_method_id	integer	32			No	Unique identifier for the capture method.
value	varchar	40			No	The method by which the geometry was captured.

3.3.2. Table: capture_source_group

Description: Lookup table that holds all of the capture source groups. Capture source groups are categories of data sources, e.g. NZ Aerial Imagery

Column Name	Data Type	Length	Precision	Scale	Allows Nulls	Description
capture_source_group_id	integer	32			No	Unique identifier for the capture source group.
value	varchar	80			No	The name of the capture source group e.g. NZ Aerial Imagery.
description	varchar	400			No	The description of the capture source group e.g. external_source_id for this group links to the primary key of the NZ Imagery Surveys layer available on LINZ Data Service at: https://data.linz.govt.nz/layer/nnnnn .

Testing

The screenshot shows a GIS application window titled "Testing". On the left, there is a "Browser Panel" containing a tree view of various service types and their sub-options. The tree includes categories like Home, Favourites, DB2, MSSQL, PostGIS, SpatialLite, ArcGisFeatureServer, ArcGisMapServer, OWS, Tile Server (XYZ), WCS, WFS, and WMS. Below the tree, there are several small icons representing different data layers or tools. At the bottom of the panel, there are tabs for "Layer Styling", "Layers Panel", and "Browser Panel", with "Browser Panel" being the active tab. The main area of the window is a large, empty white space representing a map canvas. At the very bottom of the interface, there is a toolbar with various controls: Coordinate (-0.829,0.908), Scale (1:958,624), Magnifier (100%), Rotation (0.0), Render (checkbox checked), and EPSG:4326.

Browser Panel

- Home
- Favourites
- /
- DB2
- MSSQL
- PostGIS
- SpatialLite
- ArcGisFeatureServer
- ArcGisMapServer
- OWS
- Tile Server (XYZ)
- WCS
- WFS
- WMS

Coordinate -0.829,0.908 Scale 1:958,624 Magnifier 100% Rotation 0.0 Render EPSG:4326

Final Datasets



Questions?

