

# Otago - Balclutha LiDAR 1m DEM (2020)

## Metadata

### File Identifier

D3C5DEF8-1563-409E-AD94-C9B774DB5AFD

### Language

eng

### Character Set

#### Character Set Code

utf8

### Hierarchy Level

#### Scope Code

dataset

### Hierarchy Level Name

dataset

## Contact

### Responsible Party

#### Organisation Name

LINZ - Land Information New Zealand

#### Position Name

Lidar Coordination Manager

### Contact Info

#### Contact

##### Phone

###### Telephone

###### Voice

04 4600110

##### Address

###### Address

###### Delivery Point

155 The Terrace

###### City

Wellington

###### Postal Code

6145

###### Country

New Zealand

###### Electronic Mail Address

info@linz.govt.nz

### Role

#### Role Code

pointOfContact

## Date Stamp

### Date

2020-07-16

## Metadata Standard Name

ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005, Geographic information - Metadata

## Metadata Standard Version

1.1

## Reference System Info

## Reference System

### Reference System Identifier

#### Identifier

##### Code

2193

## Identification Info

### Data Identification

#### Citation

##### Citation

##### Title

Otago - Balclutha LiDAR 1m DEM (2020)

##### Date

### Abstract

This layer contains the DEM for LiDAR data for Balclutha, Kaitangata and Kaka Point, as well as the surrounding Clutha Delta, Otago in 2020. - The DSM is available as layer [Otago - Balclutha LiDAR 1m DSM (2020)](<https://data.linz.govt.nz/layer/104764>). - The index tiles are available as layer [Otago - Balclutha LiDAR Index Tiles (2020)](<https://data.linz.govt.nz/layer/104765>). - The LAS point cloud and vendor project reports are available from [OpenTopography] (<http://opentopo.sdsc.edu/datasets>). LiDAR was captured for Otago Regional Council by Landpro from 16 to 18 January 2020. These datasets were generated by Landpro. Data management and distribution is by Land Information New Zealand. Data comprises: - DEM: tif or asc tiles in NZTM2000 projection, tiled into a 1:1,000 tile layout - DSM: tif or asc tiles in NZTM2000 projection, tiled into a 1:1,000 tile layout - Point cloud: las tiles in NZTM2000 projection, tiled into a 1:1,000 tile layout Pulse density specification is at a minimum of 2.03 pulses/square metre. Vertical Accuracy Specification is +/- 0.12m (95%) Horizontal Accuracy Specification is +/- 0.57m (95%) Vertical datum is NZVD2016

### Status

#### Progress Code

completed

### Point Of Contact

#### Responsible Party

##### Organisation Name

LINZ - Land Information New Zealand

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pointOfContact

## Resource Maintenance

Maintenance Information  
Maintenance And Update Frequency  
Maintenance Frequency Code  
notPlanned

Resource Format  
Format  
Name  
\*.xml  
Version  
Unknown

Descriptive Keywords  
Keywords  
Keyword  
New Zealand  
Type  
Keyword Type Code  
theme

Thesaurus Name  
Citation  
Title  
ANZLIC Jurisdictions  
Date  
Edition  
Version 2.1  
Edition Date  
Date  
2008-10-29  
Identifier  
Identifier  
Code  
<http://asdd.ga.gov.au/asdd/profileinfo/anzlic-jurisdic.xml#anzlic-jurisdic>  
Cited Responsible Party  
Responsible Party  
Organisation Name  
ANZLIC the Spatial Information Council  
Role  
Role Code  
custodian

Resource Constraints  
Security Constraints  
Classification  
Classification Code  
unclassified

Resource Constraints  
Legal Constraints  
Use Limitation  
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and-using-data/attributing-elevation-or-aerial-imagery-data

Use Constraints

Restriction Code

license

Spatial Representation Type Code

grid

Representative Fraction

Denominator

Integer

1000

Language

eng

Character Set

Character Set Code

utf8

Topic Category Code

elevation

Extent

EX \_ Extent

Geographic Element

EX \_ Geographic Description

Identifier

Authority

Citation

Title

ANZMet Lite Country codelist

Date

Edition

Version 1.0

Edition Date

Date

2009-03-31

Identifier

Identifier

Code

<http://asdd.ga.gov.au/asdd/profileinfo/anzlic-country.xml#Country>

Cited Responsible Party

Responsible Party

Organisation Name

ANZLIC the Spatial Information Council

Role

Role Code

custodian

Code

nzl

Data Quality Info

DQ \_ Data Quality

Scope

DQ \_ Scope

Level

Scope Code

dataset

Level Description

Scope Description

Other

dataset

## Lineage

### LI\_Lineage Statement

Data Acquisition: Airborne Laser Scanner (ALS) data was acquired from a fixed wing aircraft on between 16th and 18th January 2020 using Landpro's Leica ALS60 LiDAR system. Survey Specification: - Scanner: Leica ALS60 - Half Scan Angle:  $\pm 13$  degrees - Laser Pulse Rate: 131kHz - Laser Pulse Mode: Multipulse - Laser Return: 1st, 2nd, 3rd... 4th and last - File Format: GeoTIFF, LAS 1.4, ESRI Shapefile - Horizontal Datum: NZGD2000 - Vertical Datum: NZVD2016 - Map Projection: NZTM2000 - Vertical Accuracy Specification:  $\pm 0.12$ m (95% Confidence Interval) - Horizontal Accuracy Specification:  $\pm 0.57$ m (95% Confidence Interval)

Airborne Laser Scanner (ALS) data was acquired from a fixed wing aircraft on between 16th and 18th January 2020 using Landpro's Leica ALS60 LiDAR system. Classification of the point cloud followed the classification scheme below; 1 - Unclassified 2 - Ground 3 - Low Vegetation 4 - Medium Vegetation 5 - High Vegetation 6 - Building 9 - Water 17 - Bridge Rail (10) points were reclassified by LINZ as Bridges (17) per survey reference before providing the classified point cloud data to Open Topography. Data Processing: A "1st run" automatic classification was carried out on the raw LiDAR points using TerraSolid's TerraScan software to separate the LiDAR points into ground hits and non-ground hits. This results in a greater than 90% correct classification. After this, a manual classification was done over the required area to edit the points with gross classification errors that may have occurred in the automatic classification process. Ground class has been classified to ICSM Level 2. Data Validation: The check points of the lidar survey had been compared with the LiDAR ground surface for vertical accuracy resulting in 0.026m RMS. The positional accuracy of the LiDAR data has been checked by plotting the Landpro Ltd. check points and displaying the LiDAR by intensity. The LiDAR was in position. Please see survey report for more data validation details. Lakes and large rivers were hydroflattened in the Bare Earth Digital Elevation Model. The deliverables to LINZ were: 1m gridded bare earth digital elevation model (DEM) 1m gridded digital surface model (DSM) Classified point cloud

## Metadata Constraints

### Legal Constraints

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##### Restriction Code

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