

# Waikato - Huntly LiDAR 1m DEM (2015-2019)

Title	Waikato - Huntly LiDAR 1m DEM (2015-2019)
Creator	LINZ - Land Information New Zealand
Date	2015-02-08
Description	<p>This layer contains the DEM for LiDAR data in the Waikato Region surrounding Huntly, Port Waikato and other small areas captured between 2015 and 2019. - The DSM is available as layer [Waikato - Huntly LiDAR 1m DSM (2015-2019)](<a href="https://data.linz.govt.nz/layer/104495">https://data.linz.govt.nz/layer/104495</a>). - The index tiles are available as layer [Waikato - Huntly LiDAR Index Tiles (2016)](<a href="https://data.linz.govt.nz/layer/104496">https://data.linz.govt.nz/layer/104496</a>). - The LAS point cloud and vendor project reports are available from [OpenTopography] (<a href="https://portal.opentopography.org/datasets?loc=New%20Zealand">https://portal.opentopography.org/datasets?loc=New%20Zealand</a>). LiDAR was captured for Waikato Regional Council by Aerial Surveys from 8 February 2015 to 24 January 2019. These datasets were generated by Aerial Surveys and their subcontractors. 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 &gt;4 pulses/square metre. Vertical datum is NZVD2016.</p>
Source	<p>Data Acquisition: Airborne Laser Scanner (ALS) data was acquired from a fixed wing aircraft from 8 February 2015 to 24 January 2019, using Aerial Surveys Optech Orion H300 LiDAR system. Please refer to survey reports for survey specifications. Data Processing: The LiDAR sensor positioning and orientation (POS) was determined using the collected GPS/IMU datasets and Applanix POSpac software. Please refer to survey reports for benchmark and base station information. The POS data was combined with the LiDAR range files and used to generate LIDAR point clouds in NZTM and ellipsoidal heights. This process was undertaken using Optech LMS LiDAR processing software. The data was checked for completeness of coverage. The relative fit of data in the overlap between strips was also checked. Please refer to survey reports for height accuracy summary statistics. The positional accuracy of the LiDAR data has been checked by overlaying Sounds Surveying Ltd surveyed data over the LiDAR data displayed coded by intensity. The data was found to fit well in position. The point cloud data was then classified with TerraSolid LiDAR processing software into ground and above ground returns using automated routines tailored to the project landcover and terrain. All product deliverables supplied in terms of NZTM map projection and NZVD2016 vertical datum. Classification of the point cloud followed the classification scheme below: 2 - Ground 14 - Above Ground Above_Ground (14) points was reclassified by LINZ as Unassigned classification (1) before providing the classified point cloud data to Open Topography. LINZ also removed spikes from the Bare Earth Digital Elevation Model, found at tiles DEM_BC33_2015_1000_4227 DEM_BC33_2015_1000_4228 DEM_BC33_2015_1000_4326 DEM_BC33_2015_1000_4327 DEM_BC33_2015_1000_4328. 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</p>
Coverage	-37.59203298285533 174.67980612785976 -37.19709948808805 175.64950616170356
Identifier	<a href="https://data.linz.govt.nz/layer/104494-waikato-huntly-lidar-1m-dem-2015-2019/">https://data.linz.govt.nz/layer/104494-waikato-huntly-lidar-1m-dem-2015-2019/</a>
Type	grid
Language	eng

Subject

New Zealand

Subject

elevation