

# Canterbury LiDAR 1m DEM (2018-2019)

Title	Canterbury LiDAR 1m DEM (2018-2019)
Creator	Toitū Te Whenua Land Information New Zealand
Date	2018-03-14
Description	<p>This layer contains the DEM for LiDAR data in the Canterbury Region including Amuri Plain, Ashburton, Fairlie Foothills, Pegasus, Motunau, Selwyn North, Selwyn South and Waimate captured between 2018 and 2019. - The DSM is available as layer [Canterbury LiDAR 1m DSM (2018-2019)] (<a href="https://data.linz.govt.nz/layer/104936">https://data.linz.govt.nz/layer/104936</a>). - The index tiles are available as layer [Canterbury LiDAR 1m Index Tiles (2018-2019)] (<a href="https://data.linz.govt.nz/layer/104828">https://data.linz.govt.nz/layer/104828</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 Environment Canterbury Regional Council by Aerial Surveys between March 2018 and May 2019. These datasets were generated by Aerial Surveys and their subcontractors. Data management and distribution is by Toitū Te Whenua 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 pulses/square metre. Vertical datum is NZVD2016</p>
Source	<p>Data Acquisition: Airborne Laser Scanner (ALS) data was acquired from a fixed wing aircraft between 14th March 2018 and 1st May 2019, using Aerial Surveys Optech Orion H300 + Optech Prime Galaxy LiDAR systems. Please refer to survey reports for survey specifications. Please refer to survey reports for data processing. 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: 1 - Unclassified 2 - Ground 7 - Noise 9 - Water 12 - Overlap Above_Ground (14) points was reclassified by LINZ as Unassigned classification (1) before providing the classified point cloud data to Open Topography. 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	-44.9512550581 170.693663485 -42.6388714576 173.117108076
Identifier	<a href="https://data.linz.govt.nz/layer/104931-canterbury-lidar-1m-dem-2018-2019/">https://data.linz.govt.nz/layer/104931-canterbury-lidar-1m-dem-2018-2019/</a>
Type	grid
Language	eng
Subject	New Zealand

Subject  
elevation