

Manawatu-Whanganui - Whanganui Urban LiDAR Index Tiles (2020-2021)

Title	Manawatu-Whanganui - Whanganui Urban LiDAR Index Tiles (2020-2021)
Creator	Toitū Te Whenua Land Information New Zealand
Date	2020-09-08
Description	<p>This layer contains the Index Tiles for LiDAR data in the Manawatu-Whanganui Region surrounding Whanganui and other small areas captured between 2020 and 2021. - The DEM is available as layer [Manawatu-Whanganui - Whanganui Urban LiDAR 1m DEM (2020-2021)] (https://data.linz.govt.nz/layer/105693). - The DSM is available as layer [Manawatu-Whanganui - Whanganui Urban LiDAR 1m DSM (2020-2021)](https://data.linz.govt.nz/layer/105694). - The LAS point cloud and vendor project reports are available from [OpenTopography] (https://portal.opentopography.org/datasets?loc=New%20Zealand). LiDAR was captured for Whanganui District Council by Aerial Surveys from 8 September 2020 to 3 February 2021. 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 >4 pulses/square metre. Vertical accuracy specification is +/- 0.2 m (95%). Horizontal accuracy specification is +/- 1.0 m (95%). Vertical datum is NZVD2016.</p>
Source	<p>Data Acquisition: Airborne Laser Scanner (ALS) data was acquired from a fixed wing aircraft from 8 September 2020 to 3 February 2021, using Aerial Surveys Optech Orion Galaxy PRIME 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: 1 - Unclassified 2 - Ground 3 - Low Vegetation 4 - Medium Vegetation 5 - High Vegetation 6 - Buildings 7 - Low Noise 9 - Water 18 - High Noise LINZ removed spikes from the Bare Earth Digital Elevation Model, found at tiles: DEM_BL32_2020_1000_0337 DEM_BL32_2020_1000_0838 DEM_BL33_2020_1000_1825 Lakes and large rivers were hydroflattened in the Bare Earth Digital Elevation Model and LINZ fixed the hydroflattening of a pond in tile BL32_2020_1000_0441. The deliverables to LINZ were: 1m gridded bare earth digital elevation model (DEM) 1m gridded digital surface model (DSM) Classified point cloud</p>
Coverage	-40.04526406781268 174.88588356550557 -39.81287015411419 175.37294716235826
Identifier	https://data.linz.govt.nz/layer/105695-manawatu-whanganui-whanganui-urban-lidar-index-tiles-2020-2021/

Type

vector

Language

eng

Subject

New Zealand

Subject

elevation