Stats NZ
Tatauranga Aotearoa

ANZLIC metadata for statistical area 1, 2018

New Zealand Government

Liability
While all care and diligence has been used in processing, analysing, and extracting data and information in this publication, Stats NZ gives no warranty it is error free and will not be liable for any loss or damage suffered by the use directly, or indirectly, of the information in this publication.

Citation

Stats NZ (2018). *ANZLIC metadata for statistical area 1, 2018*. Retrieved from www.stats.govt.nz.

ISSN 2538-0036 (online)

Published in December 2017 by
Stats NZ
Tatauranga Aotearoa
Wellington, New Zealand

Contact
Stats NZ Information Centre: info@stats.govt.nz
Phone toll-free 0508 525 525
Phone international +64 4 931 4600
www.stats.govt.nz

Contents

Identification

Title	Statistical Area 1 2018 (SA12018)
Date	7 December 2017 (publication)
Language	eng
Character set	UTF-8

Abstract	This dataset is the definitive set of statistical area 1 (SA1) boundaries for 2018 as defined by Stats NZ.
	
	Statistical area 1 (SA1) is a new output geography that allows the release of more detailed information about population characteristics than is available at the meshblock level. Built by joining meshblocks, SA1s have an ideal size range of 100–200 residents, and a maximum population of about 500. This is to minimise suppression of population data in multivariate statistics tables.
	
	The SA1 should:
	• form a contiguous cluster of one or more meshblocks
	• be either urban, rural, or water in character
	• be small enough to:
	  ○ allow flexibility for aggregation to other statistical geographies
	  ○ allow users to aggregate areas into their own defined communities of interest
	• form a nested hierarchy with statistical output geographies and administrative boundaries. It must:
	  ○ be built from meshblocks
	  ○ either define or aggregate to define SA2s, urban rural areas, territorial authorities, and regional councils.
	
	SA1s generally have a population of 100–200 residents, with some exceptions:
	
	• SA1s with nil or nominal resident populations are created to represent remote mainland areas, unpopulated islands, inland water, inlets, or oceanic areas
	• Some SA1s in remote rural areas and urban industrial or business areas have fewer than 100 residents
	• Some SA1s that contain apartment blocks, retirement villages, and large non-residential facilities have more than 500 residents.
	
	The SA1 classification is a flat classification and in 2018 contains 29,889 SA1s – 29,873 digitised and 16 non-digitised. SA1s are not named. SA1 codes have seven digits starting with a ‘7’ and numbered approximately north to south. As new SA1s are created, they are given the next available numeric code.
	
	Digital boundary data became freely available on 1 July 2007.

Topic category	boundaries
Spatial representation type	Vector

Extent

Description	Twelve-mile New Zealand territorial limit

Geographic box

West bound longitude	165.905646
East bound longitude	179.855610
North bound latitude	-33.826584
South bound latitude	-47.841491

Extent – temporal

Description	Data represents statistical area 1 polygons dissolved from meshblocks starting from 2018
Begin date	2018-01-01
End date	2018-01-01
Access constraints	None. Data is freely downloadable from the Stats NZ website.
Use constraints	These conditions of supply apply to all users of Stats NZ digital boundaries effective 1 July 2007. **Permitted uses** Stats NZ must be acknowledged as the source of the boundaries. **Uses not permitted** Users are not permitted to change the accuracy of the boundaries and supply them to another party. **Liability** While care has been taken to compile these boundary coordinates, Stats NZ gives no warranty that the data supplied is free from error. Stats NZ shall not be liable for any loss suffered through the use, directly or indirectly, of any information, product or service.
Maintenance and update frequency	The meshblock pattern and associated hierarchies are maintained on a regular basis. 2018 is the first annual pattern available.
Date of next update	December 2018
Update scope	Dataset

Point of contact

Organisation name	Stats NZ
Position name	Geospatial Analyst

Role	Point of Contact
Phone	04-931 4600
Delivery point	8 Gilmer Terrace, PO Box 2922
City	Wellington
Administrative area	
Postal code	6011
Country	New Zealand
Email address	geography@stats.govt.nz
URL	https://datafinder.stats.govt.nz

Distribution information

Distribution format	GIS ESRI Shapefile GeoPackage / SQLite ESRI Geodatabase MapInfo TAB CAD (.dwg) Google Earth (KML) CSV PDF
Distribution version	1.0
Online resource linkage	https://datafinder.stats.govt.nz
Online resource description	Online data service providing the geographic boundaries. Can be used to search, browse, and download digital geographic boundaries. Download is available in a range of spatial and non-spatial formats. This online data service is provided by Stats NZ's technology partner Koordinates. SA1s are part of the bundle of boundaries Stats NZ makes available.

Reference system information

Title	New Zealand Transverse Mercator 2000 (NZTM2000)
Date	1 July 2001
Edition	
Code	19971

Data quality information scope

Hierarchy level	Dataset
Description	New Zealand Statistical Area 1 Boundaries

Lineage

Statement (general explanation of the data producer's knowledge about the lineage of a dataset)	SA1s are based on the meshblock pattern. Non-alignment of meshblock to cadastral boundaries is one of a number of reasons for meshblock boundary adjustments. Other reasons include requests from local authorities, Local Government Commission, Electoral Representation Commission, and to make census enumeration processes easier. From the meshblock pattern, higher geographies, including the 2018 SA1 pattern, were dissolved using the dissolve tool in the Arc GIS suite. To derive the SA1 boundaries clipped to the coastline, meshblock polygons were dissolved to exclude meshblocks with a land/water attribute of Inlet or Oceanic.
Description (detailed description of the level of the source data)	**Deriving output files** The original vertices delineating the meshblock boundary pattern were digitised in 1991 from 1:5,000 scale urban maps and 1:50,000 scale rural maps. The magnitude of error of the original digital points would have been in the range of +/- 10 metres in urban areas and +/- 25 metres in rural areas. Where meshblock boundaries coincide with cadastral boundaries the magnitude of error will be within the range of 1–5 metres in urban areas and 5–20 metres in rural areas, this being the estimated magnitude of error in Landonline. The creation of high definition and generalised meshblock boundaries for the 2018 digital pattern and the dissolving of these meshblocks into other geographies/boundaries were completed at Stats NZ using ESRI's ArcGIS desktop suite with the following process: 1. Align the meshblock boundary pattern to the current LINZ cadastre. 2. Run geometry checks and repairs. 3. Run topology checks on all data (Must Not Have Gaps, Must Not Overlap, Area Boundary Must Be Covered By Boundary Of [Meshblock]). 4. Generalise the meshblock layers to a 1-metre tolerance to create generalised dataset. 5. Clip the meshblock layers to the coastline, detailed below. 6. Dissolve meshblock datasets (clipped and unclipped) to higher geographies to create the following output data layers: Statistical Area 1, Statistical Area 2, Territorial Authority, Regional Council, Urban Rural, Community Board, Territorial Authority Subdivision, Ward, Constituency or General Constituency, Māori Constituency. 7. Complete a frequency analysis to determine that each code only has a single record. 8. Quality assurance of files. **Clipping of layers to coastline**

	The feature class was clipped to the coastline. The coastline was defined as features within the supplied LANDWATER indicator with codes and descriptions as follows: **11**- Island – included **12**- Mainland – included **21**- Inland water – included **22**- Inlet – excluded **23**- Oceanic – excluded **31**- Other – included. Non-digitised meshblocks were excluded from this process. Features were clipped using ArcGIS.

Metadata

File identifier	2538-0036-2018
Language	eng
Character set	UTF-8
Hierarchy level	dataset
Hierarchy level name	Dataset - Statistical Area 1 - 2018
Date stamp	2017-12-07
Metadata standard name	ANZLIC Metadata Profile
Metadata standard version	1.1

Metadata author

Individual name	Geospatial Team
Organisation name	Stats NZ
Position name	Geospatial analyst
Role	Point of contact
Phone	04-931 4600
Delivery Point	8 Gilmer Terrace, PO Box 2922
City	Wellington
Administrative area	
Postal code	6011
Country	New Zealand

Email address	geography@stats.govt.nz
URL	https://datafinder.stats.govt.nz