# Statistics New Zealand ANZLIC metadata for territorial authorities, 2015

### Identification

Title	Territorial authorities 2015 (TA2015)		
Title	Territorial authorities 2013 (TA2013)		
Date	19 December 2014 (publication)		
Language	eng		
Character Set	Uft8		
Abstract	This dataset is the definitive set of territorial authority boundaries for 2015 as defined by the Local Government Commission and/or the territorial authorities themselves but maintained by Statistics New Zealand (the custodian). A territorial authority is defined under the Local Government Act 2002 as a city or a district council.  There are 67 territorial authorities in New Zealand. This total reflects		
	North Shore City, Waitakere City,	rritorial authorities (Rodney District, Auckland City, Manukau City, strict) into one Auckland Council in	
	Territorial authorities are the second Zealand, below regional councils. comprise 13 city councils including councils, and the Chatham Islands	g the Auckland council, 53 district	
	Some territorial authority boundaries are coterminous with regional council boundaries but there are several exceptions. An example is Taupo District, which is split between four regions, although most of its area falls within the Waikato Region. When defining the boundaries of territorial authorities, the Local Government Commission bases considerable weight on the 'community of interest'.		
	Territorial authorities are defined at meshblock and area unit level.		
	The 2015 digital pattern includes the following territorial authorities:		
	Territorial authority code	Territorial authority name	
	001	Far North District	
	002	Whangarei District	
	003	Kaipara District	
	011	Thames-Coromandel District	
	012	Hauraki District	

013	Waikato District
015	Matamata-Piako District
016	Hamilton City
017	Waipa District
018	Otorohanga District
019	South Waikato District
020	Waitomo District
021	Taupo District
022	Western Bay of Plenty District
023	Tauranga City
024	Rotorua District
025	Whakatane District
026	Kawerau District
027	Opotiki District
028	Gisborne District
029	Wairoa District
030	Hastings District
031	Napier City
032	Central Hawke's Bay District
033	New Plymouth District
034	Stratford District
035	South Taranaki District
036	Ruapehu District
037	Wanganui District
038	Rangitikei District
039	Manawatu District
040	Palmerston North City
041	Tararua District
042	Horowhenua District
043	Kapiti Coast District
044	Porirua City
045	Upper Hutt City
046	Lower Hutt City
047	Wellington City
048	Masterton District
049	Carterton District
050	South Wairarapa District
051	Tasman District
052	Nelson City
053	Marlborough District
054	Kaikoura District
055	Buller District
056	Grey District
057	Westland District
058	Hurunui District
059	Waimakariri District
060	Christchurch City
060	-
062	Selwyn District Ashburton District
064	Timaru District

065	Mackenzie District
066	Waimate District
067	Chatham Islands Territory
068	Waitaki District
069	Central Otago District
070	Queenstown-Lakes District
071	Dunedin City
072	Clutha District
073	Southland District
074	Gore District
075	Invercargill City
076	Auckland
099	Area Outside Territorial
	Authority

The following table describes significant changes to the territorial authority boundaries and functions:

Year	Changes
1989	New Zealand's local government structural
	arrangements were significantly reformed by the
	Local Government Commission in 1989. Prior to
	reformation there were 205 territorial local
	authorities: 28 cities, 78 boroughs, 67 counties,
	31 districts, and 1 town district, as well as a
	multitude of ad-hoc authorities such as pest
	control boards, drainage boards, catchment
	boards, and domain and reserve boards.
	These were replaced by 74 territorial local
	authorities, 15 of which were cities and 58
	districts. The exception was Chatham Islands
	County which retained its county status.
1990	Invercargill was proclaimed a city.
1992	Nelson-Marlborough Regional Council was
	abolished by a Local Government Amendment
	Act. Kaikoura District was transferred to the
	Canterbury Region. Nelson City, and Tasman and
	Marlborough districts became unitary authorities.
1995	The Chatham Islands County was dissolved and
	reconstituted by a specific Act of Parliament as
	the "Chatham Islands Territory", with powers
	similar to those of territorial authorities and
	some functions similar to those of a regional
	council. This included the addition of territorial
	sea, a coastal buffer extending to twelve nautical
	miles from the coastline.
1995	Tasman District boundary extended to align with
	the Tasman Region boundary at the 12-mile limit.
1998	Not Applicable category changed to Area Outside
	Territorial Authority

Spatial representation type	vector	
Topic category	Boundaries	
	2010 Digital bounda	City as a result of a Local Government Commission decision following a 2005 referendum.  Auckland Council established under the Local Government (Tamaki Makaurau Reorganisation) Act 2009. Rodney District, North Shore City, Waitakere City, Auckland City, Manukau City, Papakura District, and Franklin District territorial councils, and the Auckland Regional Council, were abolished to become a unitary authority known as the Auckland Council. The area now consists of one city council (with statutory provision for three Maori councillors), 13 wards, and 21 local boards.  ry data became freely available on 1 July 2007.
	2004	Banks Peninsula District merged into Christchurch
	2004	Tauranga District changed to Tauranga City.

### 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 Territorial Authority polygons dissolved from meshblocks since 1991.

Begin date	1991-01-01	
End date	2015-01-01	
Access Constraints	None. Data is freely downloadable from the Statistics NZ website.	
Use constraints	These conditions of supply apply to all users of Statistics NZ digital	
	boundaries effective 1 July 2007.	
	Permitted uses	
	You must acknowledge Statistics NZ as the source of the boundaries.	
	Uses not permitted	
	You must not change the accuracy of the boundaries and supply them	
	to another party.	
	Liability	
	While care has been taken to compile these boundary coordinates,	
	Statistics NZ gives no warranty that the data supplied is free from	
	error. Statistics NZ will not be liable for any loss suffered by the use,	
	directly or indirectly, of this information.	
Use limitation		
Maintenance and update	The meshblock pattern and associated hierarchies are maintained	
frequency	regularly.	
	An annual pattern is made available for each year up to 2015.	
Date of next update	December 2015	
Update scope	Dataset	

### **Point of Contact**

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# **Distribution Info**

Distribution format	ESRI Shapefile
	ESRI Geodatabase
	MapInfo Tab

Distribution version	1.0
Online resource linkage	http://www.stats.govt.nz/browse for stats/people and communities
	/Geographic-areas/digital-boundary-files.aspx
Online resource	Web page for downloading the digital geographic boundaries.
description	Territorial authorities are part of the bundle of boundaries Statistics NZ makes available.

# Reference system info

Title	New Zealand Transverse Mercator 2000 (NZTM2000)
Date	1 July 2001
Edition	
Code (page 128 of Guidelines)	19971

# Data quality info scope

Hierarchy level	Dataset
Description	New Zealand Territorial Authority Boundaries

# Lineage

Statement	Territorial authority boundaries are based on the meshblock pattern
(general explanation of the data	and comprise of whole area units. Non-alignment of meshblock and
producer's knowledge about the	cadastral boundaries are one of several reasons for meshblock
lineage of a dataset)	boundary adjustments. Other reasons include requests from local
	authorities, Local Government Commission, Electoral Representation
	Commission, and to make Census of Population and Dwellings
	enumeration processes easier.
	From the meshblock pattern, higher geographies, including the 2015
	territorial authority pattern, were created using the dissolve tool in the
	Arc GIS suite.
Description	Deriving output files
(detailed description of the level	
of the source data)	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 of Landonline.

The creation of high definition and generalised meshblock boundaries for the 2015 digital pattern and the dissolving of these meshblocks into other geographies/boundaries were completed within Statistics New Zealand using ESRI's ArcGIS desktop suite and the Data Interoperability extension with the following process:

- Import data and all attribute fields into an ESRI File Geodatabase from LINZ.
- 2. Run geometry checks and repairs.
- 3. Run Topology Checks on all data (Must Not Have Gaps, Must Not Overlap), detailed below.
- 4. Generalise the meshblock layers to a 1m tolerance to create generalised dataset.
- Clip the high definition and generalised meshblock layers to the coastline using land water codes (excluding non-digitised meshblocks).
- 6. Dissolve all four meshblock datasets (clipped and unclipped, for both generalised and high definition versions) to higher geographies to create the following output data layers: Area Unit, Territorial Authority, Regional Council, Urban Area, Community Board, Territorial Authority Subdivision, Wards, Constituency, Māori Constituency, General Electoral District, and Māori Electoral District for the four datasets.
- 7. Complete a frequency analysis to determine that each code only has a single record.
- 8. Re-run topology checks for overlaps and gaps.
- 9. Export all created datasets into MapInfo and Shapefile format using the Data Interoperability extension to create four output formats for each file.
- 10. Quality Assurance and rechecking of delivery files.

The high definition version is similar to how the layer exists in Landonline, with a couple of changes to fix topology errors identified in topology checking.

The following quality checks and steps were applied to the meshblock pattern:

#### Translation of ESRI Shapefiles to ESRI geodatabase dataset

The meshblock dataset was imported into the ESRI File Geodatabase format, required to run the ESRI topology checks. Topology rules were set for each of the layers.

#### **Topology Checks**

A tolerance of 0.001 metre was applied to the data, which meant that the topology engine validating the data saw any vertex closer than this distance as the same location. A default topology rule of "Must Be Larger than Cluster Tolerance" is applied to all data – this would highlight where any features with a width less than 0.001m exist. No errors were found for this rule.

Three additional topology rules were applied specifically within each of the layers in the ESRI geodatabase – namely "Must Not Overlap", "Must Not Have Gaps" and "Area Boundary Must Be Covered By Boundary Of (Meshblock)". These check that a layer forms a continuous coverage over a surface, that any given point on that surface is only assigned to a single category, and that the dissolved boundaries are identical to the parent meshblock boundaries.

#### **Topology Checks Results:**

There were no errors in either the gap or overlap checks.

#### Generalising

To create the generalised Meshblock layer the "Simplify Polygon" geoprocessing tool was used in ArcGIS, with the following parameters:

Simplification Algorithm: POINT\_REMOVE Maximum Allowable Offset: 1 metre Minimum Area: 1 square metre

Handling Topological Errors: RESOLVE\_ERRORS

**Clipping of Layers to Coastline** 

The processed feature class was then 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 the ArcGIS attribute filter tool. The attribute filter was used on both the generalised and high definition meshblock datasets creating four meshblock layers. Each meshblock dataset also contained all higher geographies and land-water data as attributes. Note: Meshblock 0017001, which is classified as island, was excluded from the clipped meshblock layers as most of this meshblock is oceanic.

#### Dissolve meshblocks to higher geographies

Statistics New Zealand then dissolved the ESRI meshblock feature classes to the higher geographies, for both the full and clipped datasets, generalised and high definition datasets. To dissolve the higher geographies, a model was built using the dissolver, aggregator and sorter tools, with each output set to include geography code and names within the Data Interoperability extension.

#### **Export to MapInfo Format and Shapefiles**

The data was exported to MapInfo and Shapefile format using ESRI's Data Interoperability extension Translation tool.

#### Quality Assurance and rechecking of delivery files

The feature counts of all files were checked to ensure all layers had the correct number of features. This included checking that all multipart features had translated correctly in the new file.

#### Metadata

File identifier	
Language	eng
Character set	Utf8
Hierarchy level	dataset
Hierarchy level name	Dataset – Territorial Authorities -2015
Date stamp	2014-12-19

Metadata standard name	ANZLIC Metadata Profile
Metadata standard	1.1
version	

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