Statistics New Zealand ANZLIC Metadata Template

Identification

Title	Regional Councils 2012
Date	1 November 2010 (publication)
Language	eng
Character Set	Uft8
Abstract	This dataset is the definitive set of regional council boundaries for 2012 as defined by the Local Government Commission and/or the territorial authorities themselves but maintained by Statistics New Zealand (who are the custodian). The region is the top tier of local government in New Zealand. There are 16 regions of New Zealand (Part 1 of Schedule 2 of the Local
	Government Act 2002). Eleven are governed by an elected regional council, while five are governed by territorial authorities (the second tier of local government) who also perform the functions of a regional council and thus are known as unitary authorities. These unitary authorities are Auckland Council, Nelson City Council, Gisborne, Tasman, and Marlborough District Councils. The Chatham Islands Council also perform some of the functions of a regional council, but is not strictly a unitary authority. Unitary authorities act as regional councils for the purposes of a wide range of Acts and regulations. Regional council areas are based on water catchment areas. Regional councils are responsible for the administration of many environmental and public transport matters.
	Regional Councils were established in 1989 after the abolition of the 22 local government regions. The local government act 2002, requires the boundaries of regions to confirm as far as possible to one or more water catchments. When determining regional boundaries, the local Government commission gave consideration to regional communities of interest when selecting water catchments to included in a region. It also considered factors such as natural resource management, land use planning and environmental matters. Some regional boundaries are conterminous with territorial authority boundaries but there are many exceptions. An example is Taupo District, which is split between four regions, although most of its area falls within the Waikato Region. Where territorial local authorities straddle regional council boundaries,

Generally regional councils contain complete territorial authorities.

The unitary authority of the Auckland Council was formed in 2010, under the Local Government (Tamaki Makarau Reorganisation) Act 2009, replacing the Auckland Regional Council and seven territorial authorities.

The seaward boundary of any costal regional council is the twelve mile New Zealand territorial limit.

Regional councils are defined at meshblock and area unit level.

Regional Councils included in the 2012 digital pattern are:

Regional Council Code	Regional Council Name
01	Northland Region
02	Auckland Region
03	Waikato Region
04	Bay of Plenty Region
05	Gisborne Region
06	Hawke's Bay Region
07	Taranaki Region
08	Manawatu-Wanganui Region
09	Wellington Region
12	West Coast Region
13	Canterbury Region
14	Otago Region
15	Southland Region
16	Tasman Region
17	Nelson Region
18	Marlborough Region
99	Area Outside Region

As at 1st July 2007, Digital Boundary data became freely available.

Topic category	boundaries
Spatial representation	vector
type	

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 regional council polygons dissolved since 1990
Begin date	1991-01-01
End date	2012-01-01
Access Constraints	None. Data is freely downloadable from the Statistics NZ website.
Use constraints	These conditions of supply apply to all users of Statistics New Zealand digital boundaries effective 1 July 2007. Permitted uses Statistics New Zealand 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 used in compiling these boundary coordinates, Statistics New Zealand gives no warranty that the data supplied is free from error. Statistics New Zealand shall not be liable for any loss suffered through the use, directly or indirectly, of any information,
	product or service.
Use limitation	
Maintenance and update	The meshblock pattern and associated hierarchies is maintained on a
frequency	regular basis.
	An annual pattern is made available for each year up to 2012.
Date of next update	December 2012.
Update scope	Dataset

Point of Contact

Organisation name	Statistics New Zealand
Position name	GeoStatistical Analyst
Role	Point of Contact
Voice	03-964 8700

Facsimile	03 964 8379
Delivery point	Statistics House
	The Boulevard, Harbour Quays
City	Wellington
Administrative area	
Postal code	6140
Country	New Zealand
Electronic mail address	geography@stats.govt.nz
Linkage	http://www.stats.govt.nz/browse for stats/people and communities
	/geographic-areas/download-digital-boundaries.aspx

Distribution Info

Distribution format	ESRI Shape
	MapInfo Tab
Distribution version	1.0
Online resource linkage	http://www.stats.govt.nz/browse_for_stats/people_and_communities/geographic-areas/download-digital-boundaries.aspx
Online resource description	Web page for downloading the digital boundaries which the regional council boudaries is part of the bundle of boundaries/geographies StatsNZ 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 Regional Council Boundaries

Lineage

Statement

(general explanation of the data producer's knowledge about the lineage of a dataset) Regional council boundaries are based on the meshblock pattern. Non-alignment of meshblock and cadastral boundaries are 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 of Population and Dwellings enumeration processes easier.

Once all changes are prepared, Statistics NZ then passes the requests for changes to the meshblock pattern onto LINZ for the electronic changes to take place.

To Derive the area unit boundaries clipped to the coastline, meshblock polygons were dissolved to include or exclude land/water attributes attached to each meshblock.

From the meshblock pattern, higher geographies, including the 2011 Regional council pattern were dissolved using the dissolve tool in the Arc GIS suite to create multiple output datasets.

Description

(detailed description of the level of the source data)

The original points representing 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 level 1 meshblock boundaries for 2012 digital pattern and the dissolving into other geographies/boundaries were outsourced to Sinclair Knight Merz (SKM) and were created by the following processes using ESRI software.

- 1. Import data from the supply format of ESRI Shapefiles to an ESRI Geodatabase.
- Clip layers for the Area Unit, Territorial Authorities, Regional Council, Urban Areas, Wards and meshblock regions, creating two output datasets ("High definition boundaries", and "High definition boundaries –clipped to the coastline")
- 3. Run Topology Checks on all data
- 4. Run attribute checks
- 5. Export supplied and created data to MapInfo format
- 6. Quality Assurance of delivery files
- 7. Dissolve the meshblocks layer into layers for area unit, territorial authority, regional council, urban area, ward and community board.

Level 1 is exactly as exists in Landonline i.e. no points are removed and co-ordinates are retained at 1mm accuracy.

The following quality checks were applied to the meshblock pattern:

Translation of ESRI Shapefiles to ESRI geodatabase dataset

The meshblock dataset was imported into the ESRI Geodatabase structure that is required to run the ESRI topology checks. Topology rules were set for each of the layers.

Clipping of Layers to Coastline

The supplied shapefiles were then clipped to the coastline. The coastline was defined as features within the supplied

land water12 region with codes and descriptions as follows:

- 11- Island Included
- **12**-Mainland *Included*
- 21- Inland Water Included
- **22-** Inlet Excluded
- 23- Oceanic Excluded
- 33- Other Included.

The clip was completed using ArcGIS 10 and FME.

Note- for the Chatham Islands, 22-Inlet was included as this gives a full clip of the data for the main island. An inlet feature covers much of the main island in the group.

Topology Checks

A tolerance of 0.1 cm 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. This is the smallest tolerance possible in this software and for this projection. A default topology rule of "Must Be Larger than Cluster Tolerance" is applied to all data – this would highlight where any tiny features with a width less than 0.1cm exist. No errors were found for this rule.

Two topology rules were applied specifically within each of the layers in the ESRI geodatabase – namely "Must Not Overlap", "Must Not Have Gaps". These both check a layer upon itself.

Must Not Overlap

This process checks for any areas that overlap another feature from the same layer and produces an error where an overlap is found.

Must Not have Gaps

This process checks for any voids between or within features in the same layer and produces an error if found.

Topology Checks Results:

There were no real errors in either the gap or overlap checks for the mb11_region layer supplied, and none for any of the created datasets. For the gaps test, the most outer polygons are always reported as an error, and this was the only error reported for all cases.

Scripted Process - Spatial overlay correct

A script was created going through the following process: each of the dissolved layers was cycled through, taking each polygon feature and checking that the meshblock features with the same code have the exact same overall spatial boundary. No errors were found.

Export to MapInfo Format

The data was supplied to SKM in ESRI Shapefile – these were exported to MapInfo format using FME for delivery to Stats NZ. The original data was supplied in NZTM coordinates, and so no projection of data was required.

QA of Delivery Files

The ESRI delivery files were viewed in both delivery formats (ESRI and MapInfo) and had spot checks on data consistency and attributes performed. All data was then written to DVD and checked for readability.

Statistics NZ is progressively realigning meshblock boundaries to cadastral boundaries and therefore the quality of the meshblock pattern has improved since 1991 when originally digitised. However, the accuracy of the digital meshblock pattern is dependent on the quality of the underlying survey information.

Dissolve meshblocks to higher levels

Statistics New Zealand then dissolved the ESRI meshblock shapefile to the higher levels, for both the full and clipped dataset. The dissolve tool was used to generate these datasets from the full meshblock dataset and the clipped to the coastline meshblock dataset.

Metadata

File identifier	
Language	eng
Character set	Utf8
Hierarchy level	dataset
Hierarchy level name	Dataset – meshblocks -2012
Date stamp	2012-11-28
Metadata standard name	ANZLIC Metadata Profile
Metadata standard version	1.1

Metadata author

Individual name	Sarah Cowell
Organisation name	Statistics New Zealand

Position name	GeoStatistical Analyst
Role	Point of Contact
Voice	03-964 8700
Facsimile	03 964 8379
Delivery Point	Statistics House
	The Boulevard, Harbour Quays
City	Wellington
Administrative area	
Postal code	6140
Country	New Zealand
Electronic mail address	geography@stats.govt.nz
Linkage	http://www.stats.govt.nz/browse for stats/people and communities/geographic-areas/download-digital-boundaries.aspx