
Statistics New Zealand ANZLIC Metadata Template

Identification

Title	Urban Areas 2012
Date	1 November 2010 (publication)
Language	eng
Character Set	Uft8
Abstract	<p>This dataset is the definitive set of urban area boundaries for 2012 as defined by Statistics New Zealand.</p> <p>Urban areas are statistically defined areas with no administrative or legal basis. Urban area populations are defined internationally as towns with 1000 people or more. The urban area classification is designed to identify concentrated urban or semi-urban settlements without the distortions of administrative boundaries. Urban areas are made up of complete meshblocks and area units.</p> <p>Prior to 1992 only the main and secondary urban areas had unique 2 digit codes. In the 1992 pattern the structure of the urban areas was changed to 3 digits, with unique codes for Minor Urban Areas as well as Main and Secondary Urban Areas</p> <p>There is a three part hierarchical sub-division of urban areas into:</p> <ul style="list-style-type: none">-Main Urban Areas-Secondary Urban Areas-Minor Urban Areas <p>Main urban areas are very large urban areas centred on a city or major urban centre. Main urban areas have a minimum population of 30,000 and are identified by codes between 001 and 100 such as 020, Wellington. In the 2012 dataset, there are 25 main urban areas.</p> <p>Secondary urban areas were established at the 1981 Census of Population and Dwellings. They have a population between 10,000 and 29,999 and are centred on the large regional centres. Codes for secondary urban areas range between 101 and 200 such as 110, Blenheim. In the 2012 Dataset, there are 15 secondary urban areas.</p> <p>The remainder of the statistically defined urbanised population of New Zealand are in minor urban areas. Minor urban areas are urbanised</p>

	<p>settlements (outside main and secondary urban areas), centred around smaller towns with a population between 1,000 and 9,999. Codes for minor urban areas range between 201 and 500.</p> <p>Rural centres are also defined in the urban area field. Rural centres were established during the 1989 Review of Geostatistical Boundaries. Rural centres have no administrative or legal status, but are statistical units defined by complete area units. They have a population between 300 and 999. These are not termed urban under the standard international definition but identifying these settlements enables users to distinguish between rural dwellers living in true rural areas and those living in rural settlements or townships. The code for rural centres is 501.</p> <p>There is a major review of urban areas approximately every 20 years. Minor alterations can also occur as a result of requests from territorial authorities, general public, government organisations and statistics New Zealand output needs.</p> <p>As at 1st July 2007, Digital Boundary data became freely available.</p>
Topic category	boundaries
Spatial representation type	vector

Extent

Description	Twelve mile New Zealand territorial limit
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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 area unit polygons dissolved since 1991
Begin date	1991-01-01

End date	Now (Year of 2012)
Access Constraints	None. Data is freely downloadable from the Statistics NZ website.
Use constraints	<p>These conditions of supply apply to all users of Statistics New Zealand digital boundaries effective 1 July 2007.</p> <p>Permitted uses Statistics New Zealand must be acknowledged as the source of the boundaries.</p> <p>Uses not permitted Users are not permitted to change the accuracy of the boundaries and supply them to another party.</p> <p>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.</p>
Use limitation	
Maintenance and update frequency	<p>The meshblock pattern and associated hierarchies are maintained on a regular basis.</p> <p>An annual pattern is made available for each year up to 2012.</p>
Date of next update	December 2012
Update scope	Dataset

Point of Contact

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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 area units is part of the bundle of boundaries/geographies StatsNZ makes available

Reference system info

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

Data quality info scope

Hierarchy level	Dataset
Description	New Zealand Area Unit Boundaries

Lineage

Statement (general explanation of the data producer's knowledge about the lineage of a dataset)	<p>There is a major review of Urban areas every 20 years, with alterations can also occur as a result of requests from territorial authorities, general public, government organisations and statistics New Zealand output needs. Once approved, requests for changes to an Urban area are passed onto LINZ for the electronic changes to take place.</p> <p>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.</p>
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	<p>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.</p> <p>From the meshblock pattern, higher geographies, including the 2011 Urban Areas were dissolved using the dissolve tool in the Arc GIS suite to create multiple output datasets.</p>
<p>Description (detailed description of the level of the source data)</p>	<p>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.</p> <p>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.</p> <ol style="list-style-type: none"> 1. Import data from the supply format of ESRI Shapefiles to an ESRI Geodatabase. 2. 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. <p>Level 1 is exactly as exists in Landonline i.e. no points are removed and co-ordinates are retained at 1mm accuracy.</p> <p>The following quality checks were applied to the meshblock pattern:</p> <p>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.</p> <p>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:</p> <p>11- Island – Included</p>

	<p> 12-Mainland – Included 21- Inland Water – Included 22- Inlet – Excluded 23- Oceanic – Excluded 31- Other – Included. </p> <p>The clip was completed using ArcGIS 10 and FME.</p> <p><i>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.</i></p> <p>Topology Checks</p> <p>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.</p> <p>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.</p> <p>Must Not Overlap</p> <p>This process checks for any areas that overlap another feature from the same layer and produces an error where an overlap is found.</p> <p>Must Not have Gaps</p> <p>This process checks for any voids between or within features in the same layer and produces an error if found.</p> <p>Topology Checks Results:</p> <p>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.</p> <p>Scripted Process - Spatial overlay correct</p> <p>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.</p> <p>Export to MapInfo Format</p> <p>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.</p> <p>QA of Delivery Files</p> <p>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.</p> <p>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</p>
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	<p>quality of the underlying survey information.</p> <p>Dissolve meshblocks to higher levels</p> <p>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.</p>
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Metadata

File identifier	
Language	eng
Character set	Utf8
Hierarchy level	dataset
Hierarchy level name	Dataset – meshblocks -2012
Date stamp	2012-01-01
Metadata standard name	ANZLIC Metadata Profile
Metadata standard version	1.1

Metadata author

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