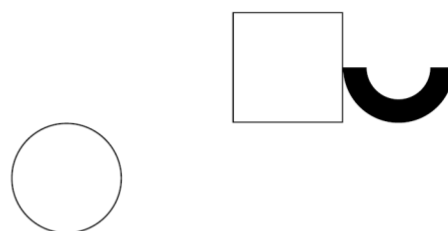
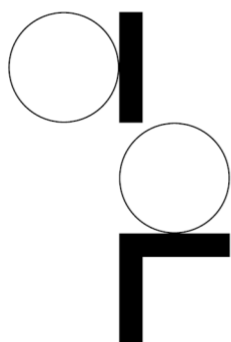
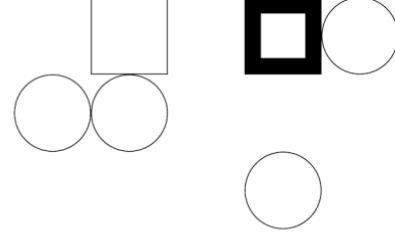


# Town Points

**Product Description**  
August 2021

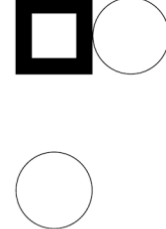
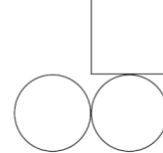




## **Disclaimer**

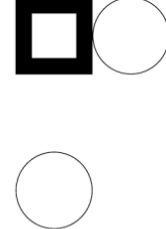
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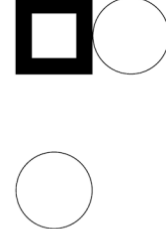
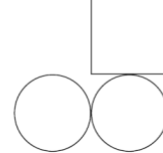


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# 1. Overview

## 1.1 Delivery Organisation - Geoscape Australia

Geoscape is the digital Australia – a comprehensive representation of our built environment. It is consistently formatted spatial data that describes the addresses, land, buildings and transport networks across Australia’s complex cities, regional centres and rural communities.

Geoscape Australia is the trading name of PSMA Australia Limited, a self-funded public company owned by the governments of Australia. The organisation’s first major initiative was to support the 1996 Census through the provision of Australia’s first national digital basemap at street-level.

We were incorporated in 2001 and tasked with collating, transforming and delivering national spatial datasets. Our establishment reflected the desire of Australian governments to work together to establish national, location information infrastructure to advance the emerging information economy. Geoscape Australia is now a trusted source of essential national location data, with a diverse ecosystem of data partners.

The value of Geoscape data is in its richness. It enables a range of innovations and applications. To support broad use of the data, it is available through online subscription services in business-ready formats, as well as customised enterprise plans. Geoscape Australia has a network of solution partners that integrate Geoscape data into other products and services. The partner network includes traditional geospatial specialists and data engineers, as well as software developers, marketing service providers, systems integrators and consultancies.

## 1.2 Data Product Specification Title

Town Points Product Description

## 1.3 Reference Date

August 2021

## 1.4 Responsible Party

PSMA Australia Limited trading as Geoscape Australia

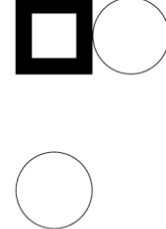
ABN: 23 089 912 710

Unit 6, 113 Canberra Avenue, GRIFFITH ACT 2603 Australia

T: +61 2 6260 9000

E: [info@geoscape.com.au](mailto:info@geoscape.com.au)

URL: [www.geoscape.com.au](http://www.geoscape.com.au)



## 1.5 Language

English

## 1.6 Topic Category

Points representing towns within Australia.

## 1.7 Informal Description of the Data Product

Town Points is a national digital dataset of Australia's towns represented as points based on the 2011 Australian Bureau of Statistics (ABS) Census. The Town Points and associated attributes are produced using 2011 ABS Census data. Cadastral parcels sourced from the State and Territory jurisdictions are used to assist with Town Point alignment where appropriate. This theme is not currently maintained and was last updated in 2013.

## 1.8 Distribution Format

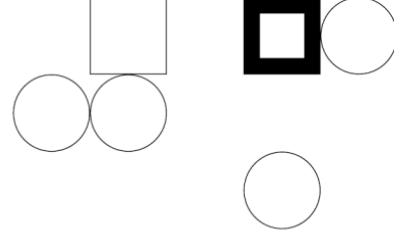
This document is available in PDF format. For other formats and use of this document, contact Geoscape Support ([support@geoscape.com.au](mailto:support@geoscape.com.au)).

## 1.9 Copyright and Disclaimer

Please see [geoscape.com.au/legal/data-copyright-and-disclaimer/](http://geoscape.com.au/legal/data-copyright-and-disclaimer/)

## 1.10 Privacy

Geoscape products and services should not contain any personal or business names or other sensitive information. Geoscape undertakes reasonable data cleansing steps as part of its production processes to ensure that is the case. If you think that personal information may have inadvertently been included in Geoscape products or services, please contact [support@geoscape.com.au](mailto:support@geoscape.com.au).



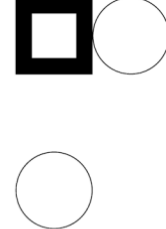
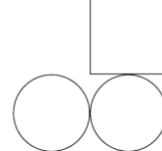
## 2. Specification Scope

### 2.1 Scope Identification

Town Points is a standalone data theme.

### 2.2 Extent

National spatial coverage of Australia's Town Points.



## 3. Data Product Identification

### 3.1 Title

Town Points

### 3.2 Alternate Titles

Geoscape Town Points

### 3.3 Abstract

Town Points is a digital representation of Australia's towns, represented as points. This dataset provides an optimised aggregated national view of Town Point geometry and attribution. The dataset is created from multiple sources including ABS and jurisdictional data.

### 3.4 Purpose

Town Points is designed to meet the needs of organisations that require a graphical representation of towns to integrate with other data in servicing their business needs.

### 3.5 Topic Category

Vector spatial data defined by coordinates (latitude and longitude) with associated textual (aspatial) metadata.

### 3.6 Geographic Description

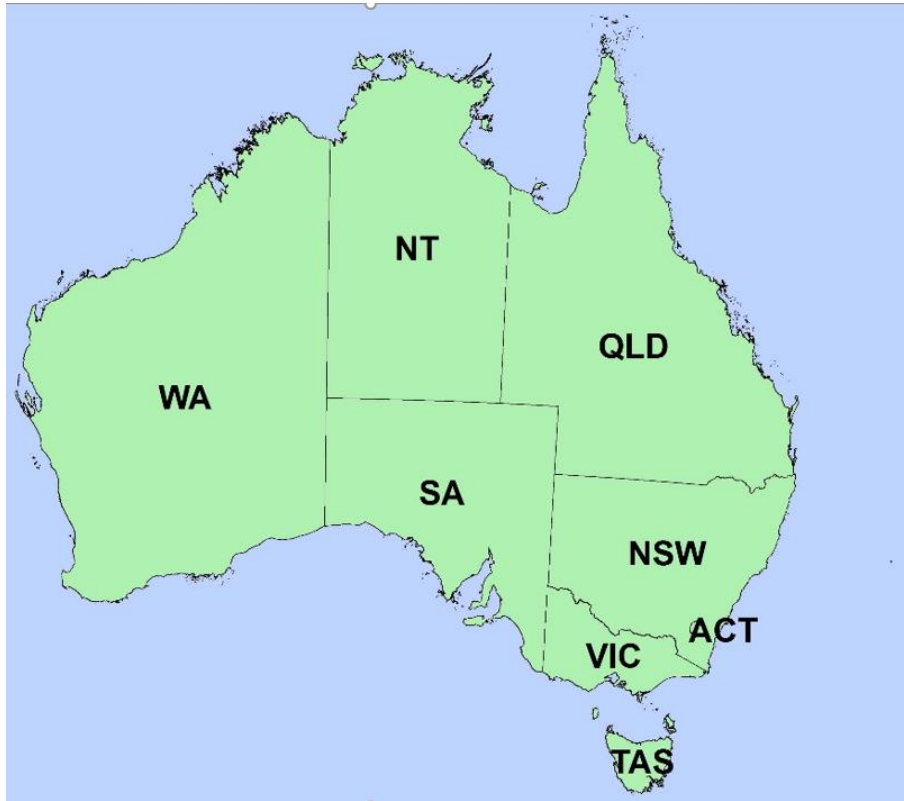
The spatial coverage of State Boundaries includes Australia's land mass. The Bounding Box for this data is as follows:

- North bounding latitude:  $-8^{\circ}$
- South bounding latitude:  $-45^{\circ}$
- East bounding longitude:  $160^{\circ}$
- West bounding longitude:  $112^{\circ}$

The area covers the land mass of Australia.

The spatial domain is described by the polygon:





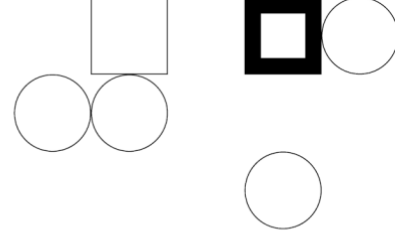
**Geographic extent name**

AUSTRALIA – AUS – Australia – Australia

The States and Territories within Australia are represented by the following:

State or Territory Name	Abbreviation	Character Code
New South Wales	NSW	1 (or 01)
Victoria	VIC	2 (or 02)
Queensland	QLD	3 (or 03)
South Australia	SA	4 (or 04)
West Australia	WA	5 (or 05)
Tasmania	TAS	6 (or 06)
Northern Territory	NT	7 (or 07)
Australian Capital Territory	ACT	8 (or 08)
Other Territories	OT	9 (or 09)

**Note: Geoscape has aligned Other Territories (OT) with the Australian Bureau of Statistics (ABS). It includes the Territory of Christmas Island, Territory of Cocos (Keeling) Islands, Jervis Bay Territory and more recently the inclusion of Norfolk Island. OT does not include any other external Territory.**



## 4. Data Content and Structure

The Town Points dataset is a feature-based product. A data model is included (Appendix A - Data Model Diagram) with an associated data dictionary (Appendix B - Data Dictionary).

### 4.1 Feature-Based Data

The feature type is a spatial point. The table below outlines the features and their integration into related datasets.

**Table 1: Feature descriptions and integration into related datasets**

Entity	Description	Integration
Town Point	A point location and associated attributes detailing towns from the 2011 ABS Census	A town point has 0 or 1 related locality polygon

### 4.2 Feature-Based Application Schema (Data Model)

The Town Points dataset Data Model Diagram is set out in Appendix A - Data Model Diagram.

### 4.3 Data Dictionary

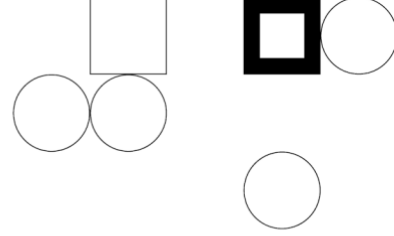
#### 4.3.1 Feature-Based Feature Catalogue

The feature catalogue in support of the application schema is provided in Appendix B - Data Dictionary. Spatial attributes are added to the feature catalogue in the same manner as other attributes for completeness and conformance to the application schema.

Table 2 refers to all tables in the Feature Catalogue.

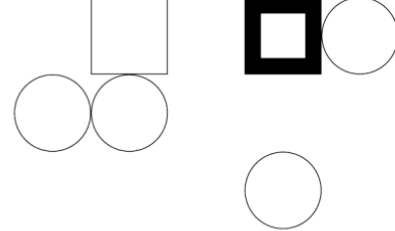
**Table 2: Feature Catalogue**

Column	Description
<b>Name</b>	The name of the column in the Integrated Database.
<b>Data Type</b>	The data type of the column based on the types defined in ISO 19103:2015. Parentheses capture Scale, Precision and Maximum Length, where applicable.
<b>Description</b>	A description of the column and what the expected contents are.
<b>Primary Key</b>	If 'Y' then this column must always have a unique value. (Has # entry in the data model tables).
<b>Mandatory Field</b>	Y = mandatory. If 'Y' (mandatory), this column is populated with data.
<b>Foreign Key Table</b>	Represents a table that this column is referred to.
<b>Foreign Key Column</b>	Represents a column in the 'Foreign Key Table' that this column is referred to by another table. (has * entry in the data model tables)
<b>10 Character Alias</b>	An alias for this column name - up to 10 characters maximum. Used to define the name of the column when in ESRI Shapefile format.



### **4.3.2 Feature-Based Content Scope**

All geometry and metadata for polygons within the Town Points dataset.



# 5. Reference System

## 5.1 Spatial Reference System

### **GDA94**

Horizontal Datum: The Geocentric Datum of Australia 1994 (GDA94) is the target horizontal datum.

Coordinate System: Geographic Coordinate System Geocentric Datum of Australia 1994 (GDA94).

### **GDA2020**

Horizontal Datum: The Geocentric Datum of Australia 2020 (GDA2020) is the target horizontal datum.

Coordinate System: Geographic Coordinate System Geocentric Datum of Australia 2020 (GDA2020).

## 5.2 Temporal Reference System

Gregorian calendar

## 5.3 Reference System Scope

The spatial objects and temporal attribution for the Town Points dataset.

## 6. Data Quality

### 6.1 Positional Accuracy

Positional accuracy is an assessment of the closeness of the location of the spatial objects in relation to their true positions on the earth's surface.

The positional accuracy includes:

- a horizontal accuracy assessment
- a vertical accuracy assessment

The horizontal and vertical positional accuracy are the assessed accuracy after all transformations have been carried out.

Relative spatial accuracy of Town Points reflects that of the ABS source data.

### 6.2 Coordinates Referencing the GDA2020 Datum

Spatial features referencing the GDA2020 datum are produced using a coordinate transformation from the GDA94 datum using the following parameters.

```
shift_x = 0.06155,  
shift_y = -0.01087,  
shift_z = -0.04019,  
rotate_x = -0.0394924,  
rotate_y = -0.0327221,  
rotate_z = -0.0328979,  
scale_adjust = -0.009994
```

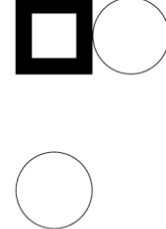
### 6.3 Attribute accuracy

Attribute accuracy is an assessment of the reliability of values assigned to features in the dataset in relation to their true 'real world' values.

Key attributes (name and the unique identifier) have a high degree of accuracy in the order of 99.09%. Other attributes derived from the processing of supplied data may have a lower degree of accuracy but less than previously released data. All attribute accuracies are dependent on the data accuracy supplied to Geoscape Australia.

For this product, feature and attribute accuracy is a measure of the degree to which the features and attribute values of spatial objects agree with the information on the source material. The allowable error in attribute accuracy was previously up to 5%.

A precise attribute accuracy assessment may not always be possible. In these cases an intuitive estimate of the expected attribute accuracy or the likely maximum error based on previous experience is acceptable.



## 6.4 Logical consistency

Logical consistency is a measure of the degree to which data complies with the technical specification. The allowable error in logical consistency previously ranged from 3% to 5%. The test procedures are a mixture of software scripts and onscreen, visual checks.

The data structure has been tested for conformance with the data model. The following have been tested and confirmed to conform:

- File names
- Attribute names
- Attribute lengths
- Attribute types
- Attribute domains
- Attribute order in file
- Object type
- Compulsory attributes populated

## 6.5 Topological consistency

Topological consistency is the measure of how features spatially relate to other features within and across themes. Topological inconsistencies are identified using a combination of automated rules and visual analysis. Where topological inconsistencies are identified they are notified back to the supplier organisation for remediation at the source. Some minor topological inconsistencies are corrected during product processing using automated rules. The level of topological consistency is dependent on the data supplied to Geoscape.

Town Points has been processed to assure all points are stored as single part features to improve compatibility with a range of software applications.

## 6.6 Completeness

Completeness is an assessment of the extent and range of the dataset in regard to completeness of coverage, completeness of classification and completeness of verification.

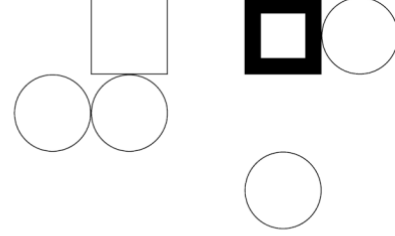
### **Attribute completeness**

All attributes for each object are populated according to the data model, noting that some attributes are not mandatory.

Temporal accuracy for each layer is applicable to its most current release.

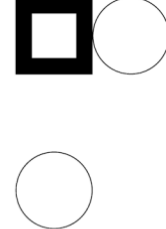
### **Quality scope**

Point geometry accuracy and attribute accuracy for all included areas.



## 7. Data Capture

The digital Town Points have been produced using ABS Census data.



## 8. Data Updates and Maintenance

### 8.1 Update frequency

Geoscape Australia releases updates to datasets on either a monthly, quarterly, or as required frequency. Town Points is no longer updated but is delivered in the months of February, May, August and November.

### 8.2 Maintenance scope

Geoscape Australia's data maintenance occurs for existing objects with changed geometry and/or attributes, as well as data for new objects within the release period.





# 9. Delivery Format

## 9.1 Components

Town Points is a vector data product and is made available for each state or territory in the formats listed below. The Australian Government releases Town Points on data.gov.au in ESRI Shape and MapInfo TAB formats.

### **MapInfo**

#### *Format Name*

TAB – MapInfo Professional

#### *Specification*

The MapInfo TAB format is a popular geospatial vector data format for geographic information systems software. It is developed and regulated by MapInfo as a proprietary format. This format includes files with the following extensions: \*.tab, \*.dat, \*.id, \*.map  
TAB files support geospatial standards such as Open GIS, the OGC, ISO, W3C and others.

#### *Language*

English

### **Shape**

#### *Format Name*

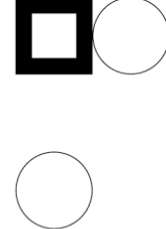
Shape – ESRI

#### *Specification*

This format includes files with the following extensions: \*.shp, \*.shx, \*.dbf  
ESRI Shapefile Technical Description, an ESRI White Paper, July 1998  
Follow this link: [www.esri.com/library/whitepapers/pdfs/shapefile.pdf](http://www.esri.com/library/whitepapers/pdfs/shapefile.pdf)....

#### *Language*

English



## 10. Geoscape Partner Network

The value of Geoscape's products is in the richness of the partner networks who have specialist skills and knowledge to provide business-ready solutions. Our network includes traditional geospatial specialists, data engineers, software developers, marketing service providers, system integrators, independent software vendors, research organisations and consultancies.

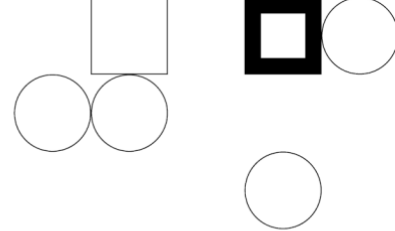
### **Geoscape Australia Limited**

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T: 02 6260 9000

E: [support@geoscape.com.au](mailto:support@geoscape.com.au)

W: <http://geoscape.com.au/>



## 11. Contact Geoscape

Contact us to provide feedback on the Stown Points product or for further information on accessing Geoscape Data:

**Geoscape Australia Limited**

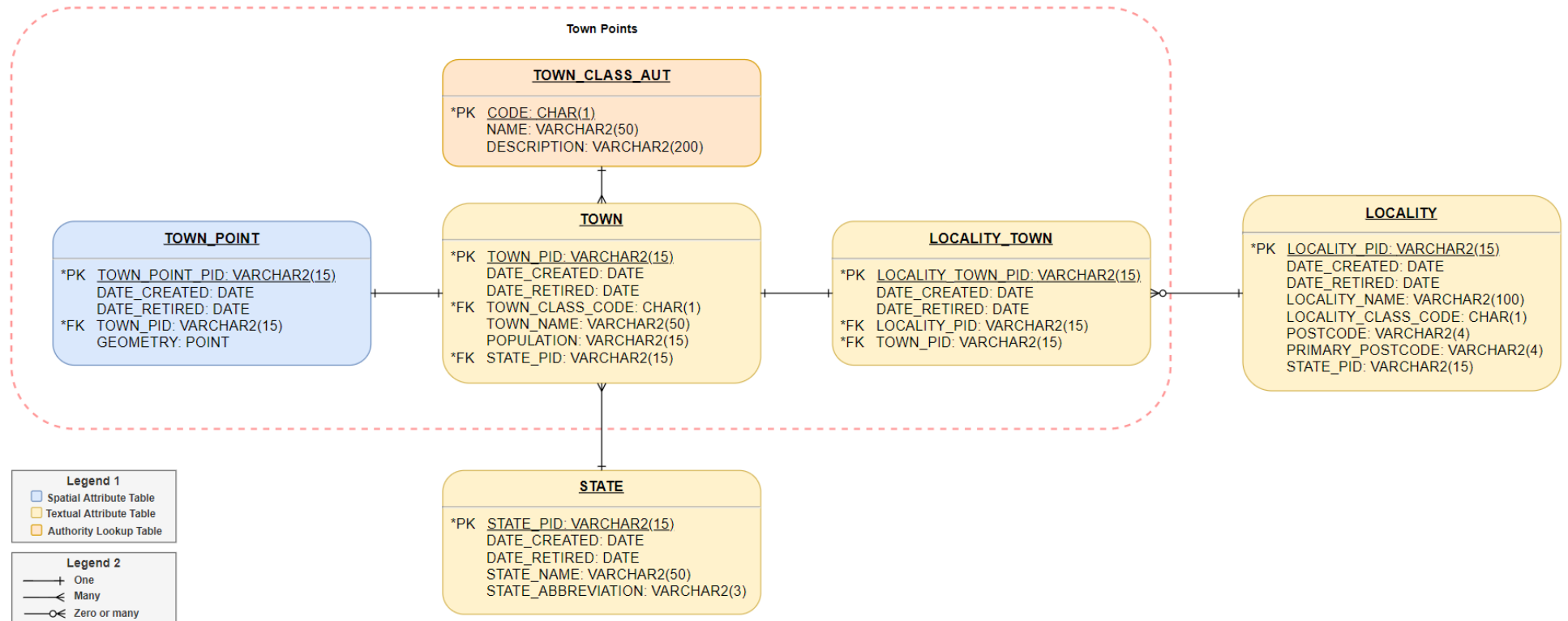
Unit 6, 113 Canberra Avenue, Griffith ACT 2603

T: 02 6260 9000

E: [support@geoscape.com.au](mailto:support@geoscape.com.au)

W: <http://geoscape.com.au/>

# Appendix A - Data Model Diagram



# Appendix B - Data Dictionary

## TOWN POINTS (TP)

The Town Points theme contains the location, name, population and classification of towns from the 2011 ABS Census. State Capitals have been aggregated into a single point. Towns with a population of less than 200 from the 2011 Census have not been included in the Town Points theme.

**Table 1: TOWN**

Name	Data Type	Description	Prim Key	Man	F K T	F K Col	10 Char Alias
TOWN_PID	varchar2(15)	The Persistent Identifier is unique to the real world feature this record represents.	Y	Y	-	-	TOWN_PID
DATE_CREATED	date	Date this record was created.	N	Y	-	-	DATE_CREAT
DATE_RETIRED	date	Date this record was retired.	N	N	-	-	DATE_RETIR
TOWN_CLASS_CODE	char(1)	Describes the class of town this is (e.g. Urban, Rural, Remote). Lookup to town_class.	N	Y	TOWN_CLASS_AUT	CODE	TOWN_CLASS
TOWN_NAME	varchar2(50)	The name of the town.	N	Y	-	-	TOWN_NAME
POPULATION	varchar2(15)	The population of the town.	N	N	-	-	POPULATION
STATE_PID	varchar2(15)	State Persistent Identifier.	N	Y	STATE	STATE_PID	STATE_PID

**Table 2: TOWN\_CLASS\_AUT**

Name	Data Type	Description	Prim Key	Man	F K T	F K Col	10 Char Alias
CODE	char(1)	Town class code. This is the persistent Identifier of the record.	Y	Y	-	-	CODE
NAME	varchar2(50)	Name of the town class code.	N	Y	-	-	NAME
DESCRIPTION	varchar2(200)	Description of what this town class represents.	N	N	-	-	DESCRIPTIO

**Table 3: Codes for the TOWN\_CLASS\_AUT table**

Code	Description	NAME
1	Locations that are classified as Major Cities of Australia.	Major Cities of Australia
2	Locations that are classified as Inner Regional Australia.	Inner Regional Australia
3	Locations that are classified as Outer Regional Australia.	Outer Regional Australia
4	Locations that are classified as Remote Australia.	Remote Australia
5	Locations that are classified as Very Remote Australia.	Very Remote Australia

**Table 4: TOWN\_POINT**

Name	Data Type	Description	Prim Key	Man	F K T	F K Col	10 Char Alias
TOWN_POINT_PID	varchar2(15)	The Persistent Identifier is unique to the real world feature this record represents.	Y	Y	-	-	TOWN_POINT
DATE_CREATED	date	Date this record was created.	N	Y	-	-	DATE_CREAT
DATE_RETIRED	date	Date this record was retired.	N	N	-	-	DATE_RETIR



Name	Data Type	Description	Prim Key	Man	F K T	F K Col	10 Char Alias
<b>TOWN_PID</b>	varchar2(15)	The Persistent Identifier of the town that this point belongs to.	N	Y	TOWN	TOWN_PID	TOWN_PID
<b>GEOMETRY</b>	point	Point Geometry.	N	Y	-	-	GEOMETRY

**Table 5: LOCALITY\_TOWN**

Name	Data Type	Description	Prim Key	Man	F K T	F K Col	10 Char Alias
<b>LOCALITY_TOWN_PID</b>	varchar2(15)	The Persistent Identifier is unique to the real world feature this record represents.	Y	Y	-	-	LOCALITY_T
<b>DATE_CREATED</b>	date	Date this record was created.	N	Y	-	-	DATE_CREAT
<b>DATE_RETIRED</b>	date	Date this record was retired.	N	N	-	-	DATE_RETIR
<b>LOCALITY_PID</b>	varchar2(15)	The locality Persistent Identifier.	N	Y	LOCALITY	LOCALITY_PID	LOCALITY_P
<b>TOWN_PID</b>	varchar2(15)	The town Persistent Identifier.	N	Y	TOWN	TOWN_PID	TOWN_PID