

PRODUCT DESCRIPTION

VICMAP PLANNING



**Information Services Branch
Department of Sustainability and Environment**

**Document version 2
Using Data Model Version 1.3**

November 2012



**Department of
Sustainability and Environment**

CONTENTS

1. PRODUCT DESCRIPTION	5
CUSTODIAN.....	5
JURISDICTION	5
CONTACT INFORMATION	5
<i>Custodian</i>	5
<i>General information</i>	5
<i>Supply enquiries</i>	5
<i>E-mail enquiries</i>	5
<i>Internet site for information</i>	5
DESCRIPTION.....	6
<i>Geographic extent</i>	6
<i>Content</i>	6
<i>Structure</i>	8
<i>Features</i>	8
<i>Reference systems</i>	8
<i>Related data sets</i>	9
<i>Reference tables</i>	9
PRODUCTION AND/OR ACQUISITION METHODS.....	9
<i>Original construction of the datasets</i>	9
<i>Ongoing maintenance of datasets</i>	10
SOURCE OF INPUT INFORMATION.....	10
GENERALISATIONS WITHIN THE DATA	10
CURRENCY & STATUS	10
DATA CREATION DATES.....	10
MAINTENANCE AND UPDATE FREQUENCY	10
STANDARDS AND SPECIFICATIONS	10
LEGISLATIVE REQUIREMENTS.....	10
CURRENT DATA DEVELOPMENT / FUTURE PLANS.....	11
DATA SCHEMA	11
<i>Data structure</i>	11
<i>Spatial Data Integrity</i>	11
DATA MODEL	12
DATA DICTIONARY.....	13
BUSINESS REQUIREMENTS	13
<i>Usage and availability restrictions</i>	13
<i>Access constraints</i>	13
<i>Exclusion of Liability</i>	13
<i>Privacy Statement</i>	13
<i>Supply format</i>	13
<i>Media format</i>	14
<i>Projections</i>	14
AREAS OF APPLICATION.....	14
2. QUALITY OF VICMAP PLANNING	15
LINEAGE/HISTORY.....	15
DATA QUALITY STATEMENT	15
<i>Fitness for purpose</i>	15
<i>Current Quality Assurance Applications</i>	16
SPATIAL ACCURACY	16
FEATURE AND ATTRIBUTE ACCURACY	17
COMPLETENESS.....	17
LOGICAL CONSISTENCY	17
TEMPORAL ACCURACY.....	17
POST PRODUCTION VALIDATION	17
3. METADATA.....	18

4. PRICING	18
5. ACCESS	18
APPENDIX A	19
APPENDIX C	20
APPENDIX D	23
APPENDIX E	27
APPENDIX E	29
APPENDIX E	30

1. PRODUCT DESCRIPTION

CUSTODIAN

Information Services Branch
Department of Sustainability and Environment

JURISDICTION

State of Victoria

CONTACT INFORMATION

Custodian

Information Services Branch
Department of Sustainability and Environment
Level 13, 570 Bourke Street
MELBOURNE Victoria 3000
Australia

PO Box 500
East Melbourne 3002
Victoria Australia

General information

Information about Vicmap is listed at www.dse.vic.gov.au/vicmap
DSE Customer Service Centre Ph 136 186

Supply enquiries

Vicmap Products are available through:

- for purchase of small packets/areas of selected products online, go to www.dse.vic.gov.au/vicmapdata
- or
- for larger quantities of Vicmap, refer to one of our Data Service Providers, listed at www.dse.vic.gov.au/vicmapdsp

E-mail enquiries

vicmap.info@dse.vic.gov.au

Internet site for information

<http://www.dse.vic.gov.au/spatial>
<http://www.dse.vic.gov.au/vicmap>
<http://www.dse.vic.gov.au/maps-imagery-data>

DESCRIPTION

Vicmap Planning is the map data representing the land use zone and overlay controls for all Victorian planning schemes. A planning scheme sets out policies and requirements for the use, development and protection of land. Planning schemes cover the 79 local government areas and three other areas in Victoria. Planning schemes are regularly amended, and Vicmap Planning is continually updated to reflect the official planning scheme at any time.

Every planning scheme comprises both zone and overlay information. Zones indicate the type of land uses that may be appropriate in that zone, such as residential, industrial or rural. Overlay controls reflect specific characteristics of land in an area, such as areas of significant vegetation or heritage value.

Vicmap Planning also includes the Urban Growth Boundary (UGB), which is a boundary that indicates the long-term limits of urban development in metropolitan Melbourne, including the Mornington Peninsula. It appears on the maps forming part of planning schemes affected by Melbourne 2030. **As of October 2008 it affects 17 individual planning schemes.**

Geographic extent

Whole of State.

Content

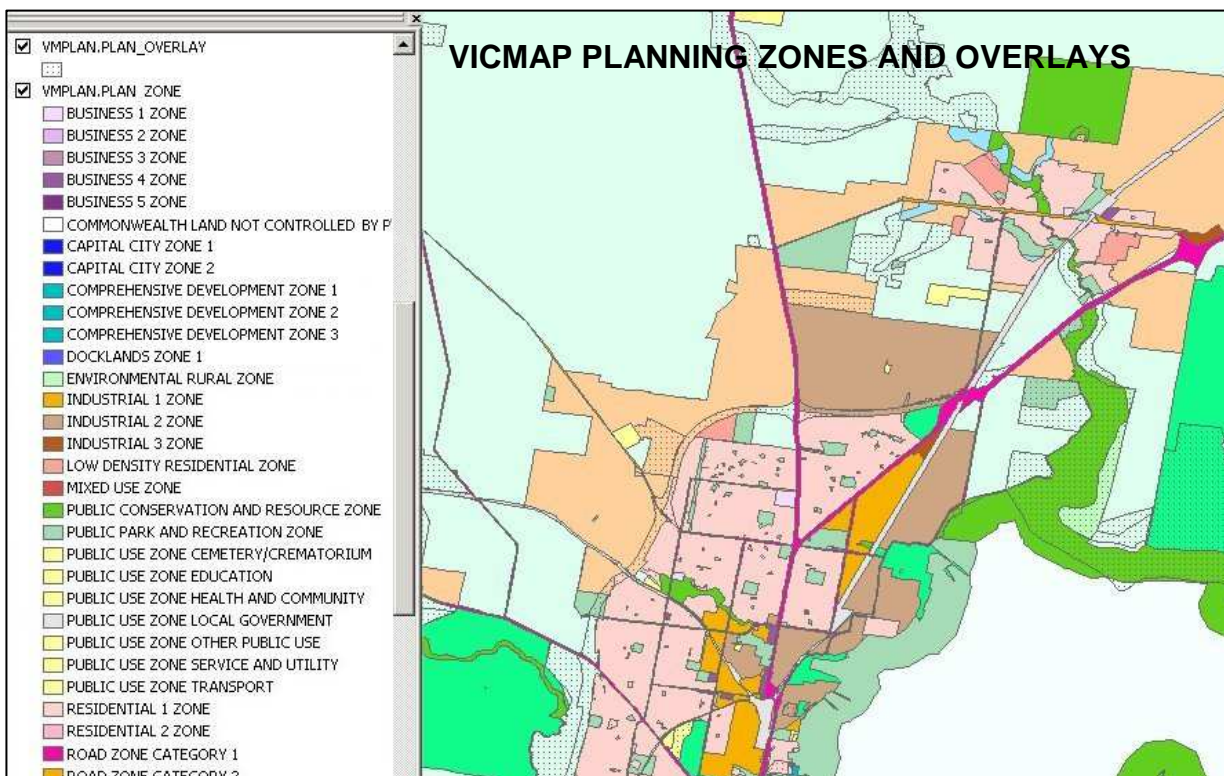


Diagram 1. Zone and overlay polygons

The Vicmap Planning product records land use zone and overlay boundaries for the gazetted (approved) data, and associated attributes. It includes:

- Zoning polygons (demonstrated in Diagram 1)
- Overlay polygons (demonstrated in Diagram 1)
- Urban Growth Boundaries (UGB) – (demonstrated in Diagram2)

These features are attributed with:

- Scheme code
- Zone number
- Zone status
- Zone code
- LGA name
- LGA code

Vicmap Planning also includes the Codelist “look up” table that links the area feature attribute “zone_num” with the full planning scheme descriptions. This table includes the RGB value for each zone and overlay, so that the user may colour the data appropriately (to be consistent with Planning Schemes OnLine and hard copy planning schemes). The codelist only lists the descriptions – it does not give a full definition of each zone and overlay type. To obtain this information, refer to the Victorian Planning Provisions website. <http://planningschemes.dpcd.vic.gov.au/>

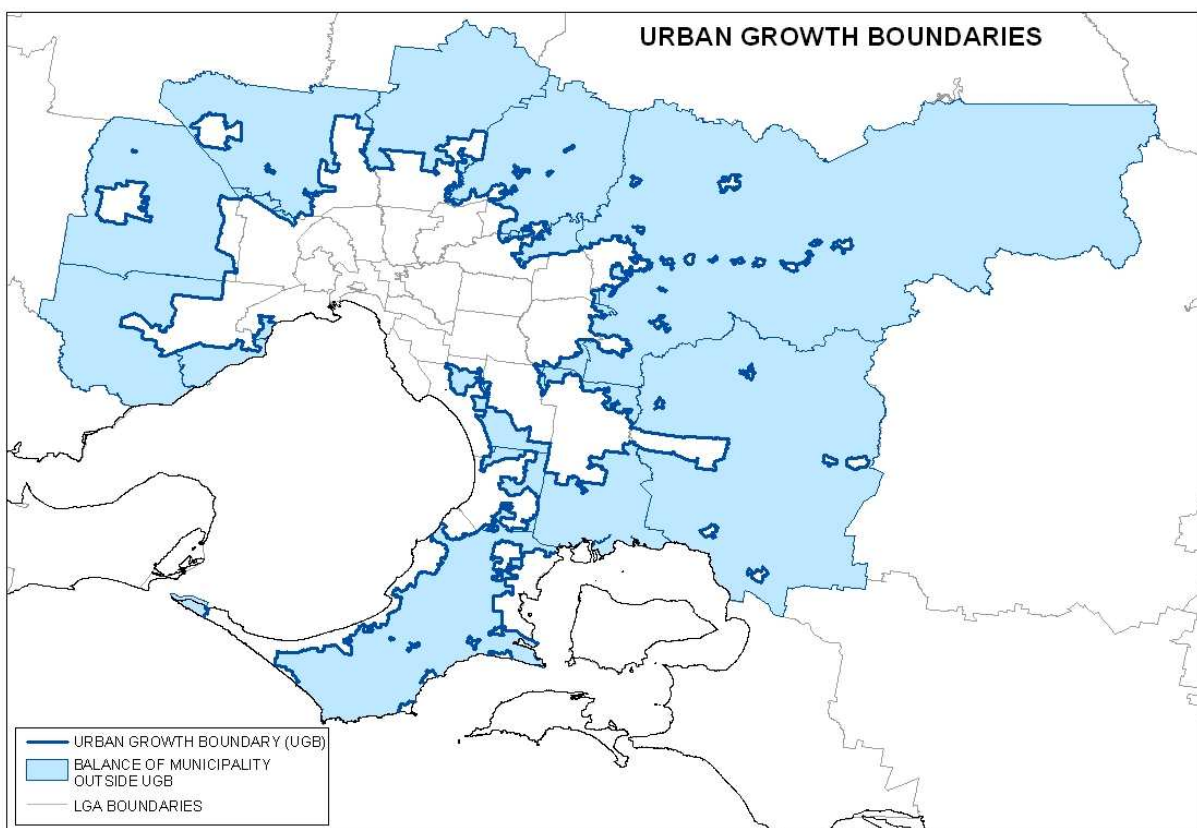


Diagram 2. Urban Growth Boundaries

Note that the following information is specifically excluded from Vicmap Planning:

- Hard copy statutory maps and map images and associated data used in map production
- Ordinance (written part of the planning scheme)
- Proposed or exhibited amendments to planning scheme
- Temporal attribute / information
- Amendment Files
- Zoning Definitions
- Historical Map Data.

Structure

The spatial dataset consists of several layers and contains only vector data. It includes the following separate layers:

- Zoning polygon area features
- Overlay polygon area features (4 groupings, 20+ themes)
- Urban Growth Boundaries (UGB), represented as line features
- Urban Growth Boundary regions (showing the balance of the municipality that is outside the UGB. Also contains areas *within* the existing UGB that have been included since 2005 and may be subject to a Growth Areas Infrastructure Contribution.

The zoning polygons comprise contiguous non-overlapping polygons representing planning scheme zones. Overlays, which are in a separate layer, do not form a contiguous layer within themselves (ie. not all areas are represented by overlays as they are with zones).

Urban Growth Boundaries (UGB) are depicted in both a line layer and a polygon layer (showing the balance of the municipality outside the UGB). Note that the Urban Growth data is available as a separate product if requested but this option is only available in its entirety (i.e., it cannot be cut up into LGA or locality areas).

The data is topologically structured and is made up of polygon and line features that are generally aligned to the property boundaries contained in Vicmap Property, or to natural features such as drainage lines, contours or vegetation boundaries.

The data is seamless across the State of Victoria.

Features

- Polygon data suitable as an accompaniment to Vicmap Transport and Vicmap Property
- Key attributes include zone code and description, and Local Government Area (code and name)
- Vicmap Planning product updated weekly
- Temporal Data Management (each record is version-controlled)
- Data is seamless across the state of Victoria.

Ideally, it is recommended that Vicmap Planning is to be used in conjunction with Vicmap Property, as zone boundaries generally align to property boundaries.

There is also a standard colour scheme that is applied to planning scheme map data (this is shown on the Planning Schemes Online website, as well as all hard copy maps of the planning scheme). This is reflected in the codelist, which records a RGB (red, green, blue) value for each zone and overlay. A colour value chart is also included in Appendix E. Currently zones and some overlays are represented by different colours, overlays represented as grey are progressively being replaced with the new colour overlays .

Reference systems

The datum used in the construction and maintenance of Vicmap data is the Geocentric Datum of Australia. Data is held in geographicals (latitude/longitude) computed in terms of the GDA at 01 January 1994 (GDA94).

Related data sets

Vicmap Planning is part of the State of Victoria's framework information. VGIS framework information datasets have been delivered into the following Vicmap Products, identified below:

- Vicmap Address
- Vicmap Admin
- Vicmap API
- Vicmap Crown Land Tenure
- Vicmap Elevation
- Vicmap Features of Interest
- Vicmap Hydro
- Vicmap Imagery- Aerial Photography-2005-08
- Vicmap Imagery- Satellite
- Vicmap Index
- Vicmap Lite
- Vicmap Planning
- Vicmap Position
- Vicmap Property
- Vicmap Topographic
- Vicmap Transport
- Vicmap Vegetation.

Reference tables

The following reference/code table is used in the production and maintenance of this data set (refer Appendix A).

- Scheme codes - these codes denote whether a feature is a zone or an overlay, and in particular, the type of overlay. They have been derived from the original planning scheme map data, which is maintained as individual files for each Planning Scheme with a single zoning file and multiple overlay files.

Copies are available on DSE's web site <http://www.dse.vic.gov.au/vicmap>, select Vicmap Products, Reference Tables. They are held as 'Oracle' tables and are available in most database, spreadsheet and delimited formats. As many of the tables are dynamic, with changes incorporated, as new entries are determined, users should regularly check the web site.

PRODUCTION AND/OR ACQUISITION METHODS

Original construction of the datasets

Metropolitan planning scheme digital data capture began in the late 80's/early 90's and was captured by Ministry of Planning and Environment, (MPE), staff manually matching zone boundary nodes to Vicmap Property nodes. This was done in Eagle GIS. Where zone boundaries deviated from Vicmap Property, MPE used the Department's hard copy zone boundary definition information contained in 1:2500 cadastral plans or existing definition plans which had been produced at various times and various scales since 1955. All these plans contained dimension information that was used to align zone boundaries in relation to Vicmap Property.

The rural/regional planning scheme digital data was captured by external contractors manually matching zone boundary nodes to Vicmap Property nodes. Where zone boundaries deviated from Vicmap Property then the relevant local Government authority was consulted for zone boundary definition information.

For greater detail of the origins and processes of the planning scheme map data, see **2 - Quality of Vicmap Planning – Lineage.**

Ongoing maintenance of datasets

Planning scheme map data is maintained within **Planning Systems Service, Office of Planning, Heritage and Urban Design, Department of Planning and Community Development**. The original data is maintained as individual MapInfo files for each Planning scheme with a single zoning file and multiple overlay files for each scheme. The scheme name and type of data the map contains is built into the filename. The data is provided in geographicals (latitude/longitude) computed in the datum GDA94.

The digital data is provided to Information Services Branch on a weekly basis, where it is converted to ArcSDE format (in Oracle), and consolidated into two key layers, one containing zone and one containing overlay information, for all planning schemes (as well as two urban growth boundary layers). During this process, error checking takes place to inspect the data for topological and attribute errors, and are resolved where possible. It is at this point that the data is officially known as Vicmap Planning.

SOURCE OF INPUT INFORMATION

Primary data sources are the responsible Authorities for Vicmap Planning:

- Local Government – all amendments to the planning scheme
- Minister for Planning – also has the power to amend schemes without exhibition and this information is generally supplied through internal Departmental mechanisms.

GENERALISATIONS WITHIN THE DATA

Vicmap Planning has not been generalised.

CURRENCY & STATUS

The planning scheme map data is updated weekly by the Department in accordance with the approval of amendments to planning schemes. This updated data is used to produce statutory planning scheme maps and planning certificates. Consequently, Vicmap Planning is also updated weekly.

DATA CREATION DATES

Vicmap Planning is current, and layers that are changed are archived. Features are tagged with a Version number to indicate the date the data was received and processed (only Mapinfo files that have changed are re-processed each week).

MAINTENANCE AND UPDATE FREQUENCY

Gazetted changes to the planning scheme occur on a weekly basis, therefore the planning scheme map data is updated weekly. The data is provided to Information Services Branch at this frequency also and subsequently processed to create a new version of Vicmap Planning.

In some cases, a special gazette means that the data changes more than once a week, (this happens maybe 5-6 times a year), but some schemes may not change for years. For example Yarriambiack's current scheme has had four map amendments in the last 5 years in the same time Greater Geelong has had 55.

STANDARDS AND SPECIFICATIONS

Vicmap Planning has been created to align with Vicmap Property. Further information about this is given in the Data Quality section.

LEGISLATIVE REQUIREMENTS

Today, all municipalities in Victoria are covered by land use planning controls that are prepared and administered by State and local government authorities.

The legislation governing such controls is the **Planning and Environment Act 1987 Version No.085, as amended 26 September 2007**. The original planning scheme map data is the primary source of data used for the statutory Planning Scheme map production required under this legislation.

CURRENT DATA DEVELOPMENT / FUTURE PLANS

As part of Information Services Branch's spatial data framework strategy, work will continue to bring Vicmap Planning more closely into alignment with current versions of Vicmap Property, particularly in terms of vertical topology.

It is also anticipated that a new attribute be added to the data, being a unique feature identifier, or similar. This will enable features to be identified individually. A definite timeframe has not been put on this development.

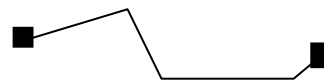
DATA SCHEMA

Data structure

Vicmap Planning represents zoning and overlay areas, as set out in the Planning Scheme. The object types below are the primitive component of data contained in Vicmap Planning.

LINE

Lines are used to define lineal features. A simple line segment is a direct line joining two points. It cannot have zero length. More complex line types may include vertices. No consecutive vertices may be coincident.

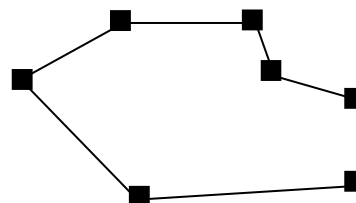


Vicmap Planning will utilise lines to represent urban growth boundaries.

POLYGON

A bounded, continuous region consisting of an interior area and an outer boundary defined by a set of lines.

Vicmap Planning utilises polygons to represent gazetted zone and overlay areas, and urban growth boundary polygons. There will be some complex polygons, eg, nested polygons, inner rings and 'donuts'.



The data is topologically structured and additional information about the features is conveyed by attributes, which are held in attribute tables.

- Attributes will only reflect selected characteristics of their feature.

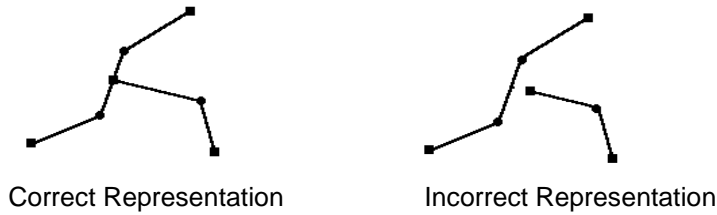
Spatial Data Integrity

Topology of Vicmap Planning will be fully and correctly established. All polygons will close. The spatial data is created and maintained to be free of:

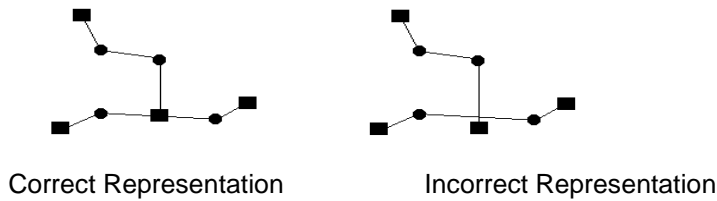
- extraneous and duplicate nodes
- overshoots or 'spikes'
- 'bow-tie' structures
- slivers and overlaps between neighbouring zoning polygons, and where appropriate the overlay polygons (except between different planning schemes, where slivers still do exist)
- duplicate data
- broken lines, or
- other artefacts of the data capture process.

Some of these are illustrated below.

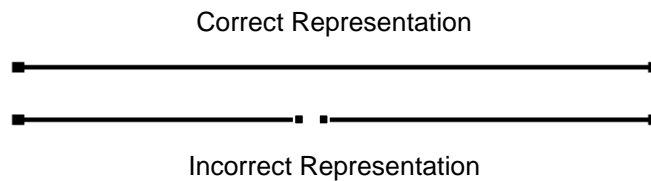
Undershoot in data.



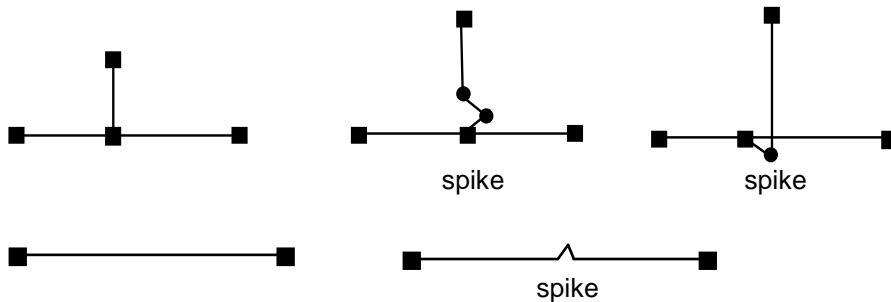
Overshoot in data.



Broken line in data.



Artefacts



In most cases, a sudden 'spike' in a lineal feature is likely to be an error in the data, an artefact resulting from digitising error or similar cause. However, there are frequent legitimate cases in *Vicmap* detail, where a lineal feature deliberately deviates from a straight linear position and appears to 'spike'. As it is not possible to investigate whether any/all existing occurrences in the dataset are the result of digitising errors or are legitimate cases, users are requested to report to Information Services Branch where they know that any such depiction is incorrect.

Coincident features

There will be no coincident polygons of the same feature class in the data (also frequently known as double digitising).

WARNING All new data capture is expected to comply with these rules. However due to the changing focus in the use of the data and its diversity of sources and capture methods, all data existing cannot be guaranteed to be error free.

DATA MODEL

The Data Model has been developed in S-Designer Modelling tool. The latest data model is located at DSE's web site <http://www.dse.vic.gov.au/vicmap>, select Vicmap, Vicmap Products, Vicmap Planning.

DATA DICTIONARY

A copy of the data dictionary applicable to Vicmap Planning is attached as Appendix C, and is also located on the Victorian Governments website <http://www.dse.vic.gov.au/spatial>

BUSINESS REQUIREMENTS

Usage and availability restrictions

Vicmap products will be provided under the terms and conditions of an annual licence.

Licence restrictions/conditions

Vicmap products are supplied under Licence. The Licensee may use the Data only for internal business use. There is no transfer of title or ownership in the Data, and the copyright and intellectual property in the Data remains the property of the State.

Vicmap products are protected by copyright under the *Copyright Act 1968 (Commonwealth)*. The dataset is appropriately labelled with copyright information and the removal or degradation of this labelling is an offence under the *Copyright Amendment (Digital Agenda) Act 2000 (Commonwealth)*.

Access constraints

All digital data issued to customers is subject to licence conditions. A copy of the terms and conditions of the Licence can be viewed at www.dse.vic.gov.au/vicmap under *Products* and then under *Licence for use of Vicmap*.

In general, the User Licence allows licensees to use the data within their own business but does not permit data to be provided to third parties. There is no transfer of intellectual property in the data to customers.

Exclusion of Liability

Information Services Branch (ISB) make every effort to provide and maintain accurate, complete, useable and timely digital land information. However, some product versions may be preliminary in nature and presented prior to final review and approval by Manager Spatial Services. The data and information are provided with the understanding that they are not guaranteed to be correct or complete. Users are cautioned to consider carefully the provisional nature of the data before using it for decisions that concern personal or public safety or the conduct of business that involves substantial monetary or operational consequences. Conclusions drawn from or actions undertaken on the basis of this data are the sole responsibility of the user.

Privacy Statement

Where any use of this Product is linked or related to other data causing the identification of an individual the user must comply with appropriate state or federal legislation.

Supply format

Supply format will be by negotiation with your supplier.

Examples may include :

- DXF File
- ESRI 'SHAPE' files
- DWG (AutoCAD)
- MapInfo TAB & MID/MIF
- ESRI ArcSDE Export
- Oracle data dump files

- Incremental Update (Refer to the Victorian Government website dse.vic.gov.au/spatial for details regarding the IUF Model and supporting documentation.)

Media format

- DVD
- Email (less than 10Mb)
- Portable hard drive.

Other formats and media available upon application.

Projections

- Native projection- Geocentric Datum of Australia – 1994 Adjustment (GDA94)
 - Degrees and decimals of a degree - GDA94 latitude/longitude
- Others on request

AREAS OF APPLICATION

- Town Planning/Strategic Planning
- Real Estate management
- Property Developers
- Infrastructure/facilities location and management
- Reference framework
- Research systems
- Valuations analysis.

Note: Optimal use of the Vicmap Planning data will be obtained by using it in conjunction with Vicmap Property.

Many applications will require the input of user specific data, eg. property polygons, planning polygons, land use information, sales and/or valuation figures, etc

2. QUALITY OF VICMAP PLANNING

LINEAGE/HISTORY

The Metropolitan scheme maintenance began in 1955 with the production of the 1954 Interim Development Order. It was maintained continuously within the Melbourne Metropolitan Board of Works, (MMBW), Planning Branch until 1985 when the MMBW Planning Branch became part of a new Planning and Environment Department and the maintenance has continued within State Government to the present. During this time the name/s of the data changed from the Melbourne Metropolitan Planning Scheme to the individual Municipal names (pre Local Government amalgamation), to the new (now current), Municipal names.

Metropolitan planning scheme digital data capture began in the late 80's/early 90's and was captured by Ministry of Planning and Environment (MPE) staff matching zone boundary nodes to Vicmap Property nodes. This was done in Eagle GIS. Where zone boundaries deviated from Vicmap Property, MPE used the Department's hard copy zone boundary definition information contained in 1:2500 cadastral plans or existing definition plans which had been produced at various times and various scales since 1955. All these plans contained dimension information that was used to align zone boundaries in relation to Vicmap Property.

The history of the rural/regional data is quite different and also not so centralised. Information is derived from 3 different sources.

- Planning schemes maintained by the Town and Country Planning Board;
- Planning schemes maintained by Local Government where they had the resources to perform this function;
- Some schemes were a mix of both because the minister had the power in those days to create schemes within Local Government areas. (An example of this was the Lake Eppalock Planning Scheme that bordered 3 municipalities.)

All of these rural/regional and metropolitan schemes were consolidated in the mid 80's into individual single municipal schemes with the exception of three schemes that are not Local Government boundary based - French Island, Alpine Resorts and Port of Melbourne Planning Schemes.

The rural/regional planning scheme digital data was captured by external contractors matching zone boundary nodes to Vicmap Property nodes. Where zone boundaries deviated from Vicmap Property then the relevant local Government authority was consulted for zone boundary definition information.

Through a machinery of government change in 1996, MPE was disbanded, and its planning responsibilities moved to the newly formed Department of Infrastructure (DOI).

Data was realigned to a more current version of Vicmap Property as part of DOI's change from Eagle GIS to MapInfo in 1999/2000. Updates to the local copy of Vicmap Property involve realignment of planning scheme data where new or altered cadastral boundaries coincide with zoning boundaries.

Subsequent governmental changes have seen the Planning Area within DOI, transferred to DSE and then to the Planning Systems Service, Office of Planning, Heritage and Urban Design, Department of Planning and Community Development. Planning Systems provide the planning schemes in Mapinfo format to Information Services Branch, where they are then converted into ArcSDE format (in Oracle). This process is explained further in the section **Ongoing Maintenance of Datasets**.

DATA QUALITY STATEMENT

Fitness for purpose

The data is primarily derived from mapping compiled at 1:2,500 (metropolitan Melbourne), 1:10,000 and 1:25,000 scales. Use of the data is therefore logically suited to applications at the same or smaller scale to that of the source. Any enlargement or extrapolation of the data will result in

proportionally increased visual displacement and/or errors of the same order of magnitude in any analytical outcomes.

Current Quality Assurance Applications

Inbuilt procedures to ensure data conformity

The following procedures are undertaken as normal update/maintenance routines, to ensure conformity of the data to Specification. These procedures are applied to the original data:

- Virus check software for digitally supplied input data
- Return of data to source authorities (Local Government) to confirm content
- Input check-list to prompt operator
- Automated data capture software that restricts attribute entry to allowable data
- Alignment checking routines that check for relative accuracy. (Relative to Vicmap Property)
- Automated quality routines, reflecting business rules for data population, to ensure data consistency.

SPATIAL ACCURACY

Planning scheme map data is maintained against a control version of Vicmap Property, although not necessarily aligned to the latest version. This can lead to inconsistencies where planning scheme map data is viewed against the current version of Vicmap Property. Therefore any references to Vicmap Property in the following section may refer to an older version that does not align completely with the current version.

The Planning scheme maps (from which Vicmap Planning is derived) are directly aligned against Vicmap Property 70%-75% of the time, therefore, the positional accuracy of this data is as accurate as Vicmap Property. The other 30%-25% of the planning scheme boundaries are not meant to align directly with the cadastre. These boundaries are derived from natural features such as waterways, vegetation patterns or land contours.

Where zone and overlay boundaries are meant to be aligned to Vicmap Property, they are generally aligned node-for-node to this cadastral data. In other words, the zone or overlay polygon node possesses the exact same coordinate values as the reference node to which it is aligned. The main reference data sets are Vicmap Property, road centrelines and LGA boundaries. Additionally, the zoning polygons (and where appropriate the overlay polygons) must be node-for-node aligned to neighbouring zoning polygons.

Thus, the accuracy of planning scheme data is directly related to the accuracy and currency of the cadastre data it is referenced against. As stated in the product description for Vicmap Property, this dataset "is classified as 'BB' accuracy, ie. 90% of well-defined features are within 1mm, at plot scale, of their true position, eg. 1:500 equates to +/- 0.5metre and 1:25,000 equates to +/- 25 metres. Anecdotal evidence suggests that the spatial accuracy of the major part of the data set, at all scales is frequently better than BB. Within the metropolitan area, 'Melbourne Water' requires subdivisions exceeding nine lots to be submitted in digital form. When input into the base, every effort is made to use this 'survey accurate' data to extend the accuracy of the immediately surrounding detail. No 'shift' of data as a means of 'cartographic enhancement' to facilitate presentation has been employed for any real world feature."

For those polygons in a data set that are required to abut neighbouring polygons in the same layer, the following features must exist:

- no gaps exist between polygons (ie. no slivers)
- a polygon does not overlap another polygon (no overlaps)
- whole polygons are not duplicated (no duplicates).

Vicmap Planning is a seamless data set covering the whole state. Slivers actually exist between the different planning schemes, due to the original digitising being done against different boundaries. For example, one planning scheme may have been digitised against the local government area (LGA) boundary aligned to transport, and an adjacent one may have been digitised against the LGA boundary aligned to property, leaving a small sliver between the two. This is only apparent in the final product, Vicmap Planning, as opposed to the original source data which is supplied as separate municipal planning schemes.

The other issue with Vicmap Planning is the fact that there are a small number of polygons missing from the final data set. When the data has been processed to convert it from the planning scheme map data to Vicmap Planning, some of the polygons have not formed properly due to topological problems. This number can vary although it is usually less than ten. The “unformed_polygon” layer displays these polygons as lines so users have an idea where the problems are occurring.

FEATURE AND ATTRIBUTE ACCURACY

The allowable error in attribute accuracy is consistent across the entire data set and would be as little as 1 to 2%. This is checked each time the data is posted back to production and involves checking for:

- a valid Zone Number
- a valid Zone Code
- a valid Zone Status
- a valid date
- correct colour.

If any attribute fails to match, it is sent back for correction.

COMPLETENESS

The digital data covers the whole state.

During the process to translate the data from Mapinfo files to ArcSDE, a small number of topological errors were highlighted, which prevented all of the data being translated into Mapinfo. These errors are represented in the layer “Unformed_polygon”.

LOGICAL CONSISTENCY

Planning scheme map data is required to conform to a defined level of consistency with respect to table structure and attributes. Planning scheme map data is currently stored on the basis of local government areas, (with the exception of Alpine Resorts, French Island and Port of Melbourne Planning Schemes), and the total Victoria-wide data set must be contained in a consistent map projection.

Before data is transferred to DSE production environment the data is quality assured according to a predefined set of rules for logical and attribute consistency. This involves checking for:

- the correct table structure
- occurrence of non-polygon objects
- records without graphical objects
- duplicate polygons
- polygons within the zoning tables do not overlap
- all polygon boundaries close
- the file name is consistent with naming conventions
- the correct coordinate system
- a valid combination of zone code and zone number
- no control/overlay data is in the zoning table
- no zoning data is in the control/overlay table.

Customer feedback and error reports are also encouraged to improve the quality of the data.

TEMPORAL ACCURACY

The data is current and each feature is stamped with a version number.

POST PRODUCTION VALIDATION

The following post-production validation exercises have been undertaken to ensure that no detail has been lost as a result of the capture process. These are carried out on the original data.

- Logical consistency and attribute checks are conducted on the data each time it is updated before it is posted back to production
- Periodic alignment checks are made and compared to existing benchmarks
- Feedback regarding data quality is provided from the Planning Certificates area of Land Registry who use the data extensively.

3. METADATA

Metadata at Page 0, and Page 1 levels has been created using a compliant metadata entry tool, and has been added to Datasearch Victoria. Datasearch Victoria entries may be viewed via Information Services Branch's website at www.dse.vic.gov.au/datasearch or via the Australian Spatial Data Directory site at <http://www.asdd.gov.au/net/asdd/>.

The metadata complies with the *Geospatial Information Metadata Guidelines for Victoria* – part of the Victorian Geospatial Information Strategy 2000-2003.

4. PRICING

Under the Government pricing policy, data is supplied to customers on an annual access right to use basis for an annual licence fee. The licence fee is aimed to recover the cost of maintenance and thus ensure product continuity. The pricing of the data is dependent on the volume of data required, measured by geographical area and intensity of use of the data, measured by the number of user-seats/terminals upon which the data may be simultaneously used/viewed. The Government pricing policy also contains provision for subsidies and credits.

- Credits may be granted on licence fees in recognition for substantive contributions to the data set by licensed users.
- Subsidies may be applied to meet community or social objectives determined by government or arising from agreed outcomes.

5. ACCESS

Land Channel website on <http://www.dse.vic.gov.au/vicmapdata>. Customers wishing to access larger areas or with special requirements should contact a Data Service Provider (DSP).

To facilitate more widespread and ready access, Vicmap Products are distributed by Data Service Providers, with Department of Sustainability and Environment (DSE) taking a wholesale role. The objective of this approach is to promote industry development, allowing DSE to focus on production and development while DSPs focus on marketing and sales. There is a small group of users who obtain Vicmap products directly from DSE, generally as a result of an existing contractual arrangement or agreement. Multiple DSPs have been engaged to provide a competitive market. DSP's are listed at ~~the Land Channel website on~~ <http://www.dse.vic.gov.au/vicmapdsp>

All digital data issued to customers is subject to licence conditions. A copy of the terms and conditions of the Licence can be viewed at <http://www.dse.vic.gov.au/vicmap>, select *Pricing and Licencing* under *About Vicmap*.

APPENDIX A

REFERENCE TABLES

Tables of valid instances in Vicmap Planning

Information Services Branch holds a series of reference tables, derived from unique, validated instances found in Vicmap products. The only reference table used in Vicmap Planning is Scheme Codes, which is listed below. Copies can be downloaded from the Land Channel web site or can be requested to be delivered as accompanying data in any Vicmap product delivery.

SCHEME CODES

SCHEME_CODE	SCHEME_NAME
AEO	AIRPORT ENVIRONS
CLPO	CITY LINK PROJECT
DCPO	DEVELOPMENT CONTRIBUTIONS PLAN
DDO	DESIGN AND DEVELOPMENT
DDOPT	DESIGN AND DEVELOPMENT PART
DPO	DEVELOPMENT PLAN
EAO	ENVIRONMENTAL AUDIT
EMO	EROSION MANAGEMENT
ESO	ENVIRONMENTAL SIGNIFICANCE
FO	FLOODWAY
HO	HERITAGE
IPO	INCORPORATED PLAN
LSIO	LAND SUBJECT TO INUNDATION
MAEO	MELBOURNE AIRPORT ENVIRONS
NCO	NEIGHBOURHOOD CHARACTER
PAO	PUBLIC ACQUISITION
PO	PARKING
RFO	RURAL FLOODWAY
RO	RESTRUCTURE
RXO	ROAD CLOSURE
SBO	SPECIAL BUILDING
SLO	SIGNIFICANT LANDSCAPE
SMO	SALINITY MANAGEMENT
SRO	STATE RESOURCE
UGA	URBAN GROWTH AREA
UGB	URBAN GROWTH BOUNDARY
VPO	VEGETATION PROTECTION
WMO	WILDFIRE MANAGEMENT
ZN	ZONE

Reference tables are dynamic. As new types and corresponding codes are defined, they will be added to their respective table. Information Services Branch retains these original tables in data base format. This information is available from DSE's web site <http://www.dse.vic.gov.au/vicmap>, select Vicmap Products, Reference Tables.

APPENDIX C

INDEX TO FIELDS (ATTRIBUTES)

PLAN_ZONE – planning scheme zones

PLAN_OVERLAY – planning scheme overlays

PLAN_UGA – planning scheme Urban Growth Boundary polygons (balance of LGA outside UGB)

PLAN_UGB – planning scheme Urban Growth Boundary (UGB) lines

PLAN_UNFORMED_POLYGON – unformed polygons (as a result of processing errors)

Attribute	VDA field name	Definition	Comments	Source	Field type & size	Example
Scheme code	<i>Scheme_Code</i>	Code denoting whether the feature is a zone or overlay (and what type of overlay).	Derived from original Mapinfo filename, eg, Alpine_**ho	ISB	Text(8)	HO
LGA code	<i>LGA_Code</i>	Number identifying Local Government Area that zone/overlay polygon falls within.	Unique number assigned to LGA Domain = 300 - 389	ISB	Long	327
LGA name	<i>LGA</i>	Name of Local Government Area that zone/overlay polygon falls within (not the Gazetted name).	Derived from original Mapinfo filename, eg, GreaterGeelong_zn	ISB	Text(35)	GREATER GEELONG
Zone number	<i>Zone_Num</i>	A unique number used by DSE for automatic issuing of planning certificates. Also used to link to the codelist.	Unique number Domain = 0 - 9999999	DPCD	Long	2105
Zone status	<i>Zone_Status</i>	A single character that represents the current status of the data.	Domain: • approved data (g) • exhibited data (p)	DPCD	Text(1)	g
Zone code	<i>Zone_Code</i>	A unique code that links map data to the written part of the Planning Scheme.		DPCD	Text(7)	RUZ
Supply version	<i>Supply_version</i>	A version number provided to the updated data that is processed, to indicate which data has been updated more recently.		ISB	Text(10)	2010

PLAN_CODELIST

Attribute	VMPlan field name	Definition	Comments	Source	Field type & size	Example
Zone number	<i>Zone_Num</i>	A unique number used by DSE for automatic issuing of planning certificates. Also used to link codelist to other layers of data.	Unique number Domain = 0 - 9999999	DPCD	Long	2105
Zone code	<i>Zone_Code</i>	A unique code that links map data to the written part of the Planning Scheme.		DPCD	Text(7)	R1Z
Description	<i>Description</i>	A short description of the Planning scheme Zone or Overlay with no more than 84 characters.	The characters "&" and "," are not permitted to be used in this field, since these would disrupt the certificates process.	DPCD	Text(83)	RESIDENTIAL 1 ZONE
Group1	<i>Group1</i>	Defines all entries into approximately forty different groups, used for legend headings and general grouping of the data.	It is possible for each entry to also have a related "Deleted" attribute, if there are instances of overlays being removed. These records are only on exhibition and therefore will not be shown in the data.	DPCD	Text(75)	RESIDENTIAL
Group2	<i>Group2</i>	Defines all entries into four different groups used for legend headings.	COMMONWEALTH LAND DELETION OVERLAYS ZONES	DPCD	Text(17)	ZONES
Group3	<i>Group3</i>	Defines all entries into eleven different groups used for legend headings.	BUSINESS COMMONWEALTH LAND DELETION INDUSTRIAL OVERLAYS PUBLIC LAND RESERVED LAND RESIDENTIAL RURAL SPECIAL PURPOSE ZONES	DPCD	Text(17)	RESIDENTIAL

PLAN_CODELIST (continued)

Group4	<i>Group4</i>	Defines all entries into thirteen different groups used for legend headings.	BUSINESS COMMONWEALTH LAND DELETION EXCLUDED INDUSTRIAL OVERLAYS PUBLIC LAND RESERVED LAND RESIDENTIAL RURAL SPECIAL PURPOSE SPECIAL USE ZONES	DPCD	Text(17)	RESIDENTIAL
Scheme Type	<i>Scheme_Type</i>	Either the zone/overlay exists in an OLD or REFORM Planning Scheme. Reference to relevance of zone, since the old or existing scheme entries, can be removed when all the reform schemes have been implemented.	Domain: OLD or REFORM	DPCD	Text(6)	REFORM
Colour value (red)	<i>Red</i>	Hard copy planning scheme maps and Planning Schemes On-line have set colours for each zone. Colours are usually referred to by a RGB value (which represents the relative concentration of each component – red, green and blue).	Domain: 0-255	ISB	Number(3)	255
Colour value (green)	<i>Green</i>	As above	Domain: 0-255	ISB	Number(3)	209
Colour value (blue)	<i>Blue</i>	As above	Domain: 0-255	ISB	Number(3)	204
Supply version	<i>Supply_version</i>	A version number provided to the updated data that is processed, to indicate which data has been updated more recently.		ISB	Text(10)	2010

Abbreviations:

DPCD – Planning Systems Service, Office of Planning, Heritage and Urban Design, Department of Planning and Community Development

ISB – Information Services Branch, DSE

APPENDIX D

GLOSSARY

Approved (Planning Scheme Data)

This data is the current and legal planning scheme data. (Gazetted has the same definition)

ArcSDE (Spatial Data Engine)

An ESRI product. Software used by Information Services Branch to manage the spatial component of its Unified Data Store, which includes copies of the whole of the Vicmap Digital product suite.

Attribute

A particular characteristic or property of an entity. Attributes can be spatial (or locational) and aspatial (or non-locational).

Attribute Value

The value assigned to an attribute for a specific feature instance.

Data

The base level of information stored in electronic databases. Generally, “raw” data has not been value-added.

DOI

Department of Infrastructure. The Planning Scheme was maintained by the former Planning Section within this Department. Due to a restructure, this section is now part of the Department of Sustainability and Environment, and is known as the Built Environment section.

Exhibited (Planning Scheme Data)

This data exists where proposed amendments to the existing zones or overlays are on public exhibition. It shows the areas that are proposed to be rezoned or amended and what they are proposed to become, (Proposed has the same definition). Note that this information is not part of the VicPLAN data set.

Gazetted (Planning Scheme Data)

This data is the current and legal planning scheme data (Approved has the same definition)

GDA94

The Geocentric Datum of Australia (GDA) is the latest Australian coordinate system, replacing the [Australian Geodetic Datum \(AGD\)](#).

The GDA is a part of a global coordinate reference frame and is directly compatible with the [Global Navigation Satellite Systems \(GNSS\)](#).

It is the result of more than a decade of anticipation and work by the [Intergovernmental Committee on Surveying and Mapping \(ICSM\)](#) and its predecessor, the National Mapping Council (NMC).

When the NMC adopted the [Australian Geodetic Datum](#) (AGD84) coordinate set in 1984, it recognised the need for Australia to eventually adopt a geocentric datum. This was further recognised in 1988 when the ICSM recommended the adoption of an appropriate geocentric datum by 1 January 2000. This resulted in the adoption of the GDA94.

IUF : “Incremental Update Format”

A system whereby maintenance updates are provided as change only, add/modify/delete incremental update files, between nominated dates/times.

LGA

Local Government Area

MapInfo

Desktop mapping software that is utilised by Online Initiatives to create and edit planning scheme map data. The data is stored in individual Mapinfo files.

Oracle

Relational Data Base Management System used by both Information Services Branch and LogicaCMG to store and manage Vicmap Digital data.

Overlays or Controls (Planning Scheme Data)

An overlay is also a planning provision, but one which is in addition to the zone provision.

Overlays ensure that important aspects of the land are recognised (such as areas of significant vegetation or special heritage significance). Overlays indicate the type of development and/or protection which may be appropriate in that area.

Parcel

The smallest area of land capable of sale without further approval to subdivide. It may consist of more than one piece.

Definition from Draft AS4271.Y 'Geographic Information – Data Dictionary Part Y: Cadastre'

The smallest unit of land able to be transferred within Victoria's cadastral system – usually has one proprietor or owner – is described by its parcel description (either lot/plan or allotment/section/parish). Parcel description are not unique, ie. two parcels can have the same parcel descriptions.

Planning Scheme

A Planning Scheme is a legal instrument, that sets out the provisions for land use, development, and protection.

The function of a Planning Scheme is to facilitate fair, orderly, economic and sustainable use of land - by providing for the individual needs of an area.

Victoria has 81 Planning Schemes, one for each of the 78 Victorian municipalities, and one for each of the 3 Victorian special planning areas (Alpine Resorts, Port of Melbourne, and French Island).

Property

Land, usually contiguous, under one ownership, and of a common class and tenure. (Where "contiguous" sometimes ignores intervening roads and reserves).

Definition from Draft AS4271.Y 'Geographic Information – Data Dictionary Part Y: Cadastre'

The description applied to land under common occupation particularly for the purpose of rating, billing or habitation. Properties are typically described by street address or a 'rate assessment number' allocated by an authority, eg. local government or utility. A property can consist of one parcel (eg. a suburban house block); many parcels (eg. a farm); or part of a parcel (eg. a shop in a development). Council's view of property is usually seen as being definitive and is described by a Council Property Number (CPN).

Proposed (Planning Scheme Data)

This data exists where proposed amendments to the existing zones or overlays are on public exhibition. It shows the areas that are proposed to be rezoned or amended and what they are proposed to become, (Exhibited has the same definition). Note that this information is not part of the VicPLAN data set.

Road

A corridor of land set aside for access purposes.

Definition from Draft AS4271.Y 'Geographic Information – Data Dictionary Part Y: Cadastre'

Information Services Branch

A body within DSE responsible for geospatial policy for the State and for providing and maintaining statewide geospatial infrastructure, including the 8 framework datasets; Geodetic, Property, Address, Admin, Transport, Hydro, Elevation and Image, marketed under the Vicmap label.

Urban Growth Boundary (Planning Scheme Data)

The urban growth boundary defines a boundary for urban development around Melbourne and is defined as a line. This data is also required as an area object for interrogation for certificates purposes.

Vicmap Digital

Core data sets in Victoria's spatial data framework. Vicmap Digital comprises Geodetic, Property, Address, Admin, Transport, Hydro, Elevation and Image.

VSIS 2011-14

In 2008, the Victorian Spatial Council's [Victorian Spatial Information Strategy 2008-10](#)¹ introduced the strategic goal of creating a 'spatially enabled Victoria'.

The role of the Strategy is to create the frameworks that enable all sectors of the spatial information community² to be highly engaged and their efforts integrated towards delivering a spatially enabled Victoria.

Development of this 2011-14 Strategy has allowed the Council to review the landscape it painted in 2008 and set out the requirements for continuing to respond to the challenges associated with meeting this goal.

VSIS 2011-2014 incorporates four integrated strategic directions:

- Creating a framework in which the use of spatial information can flourish.
- Adopting an inclusive approach to the management of spatial information
- Developing the spatial information community through collaboration and partnerships
- Maintaining the foundations for spatial information management.

Further information <http://victorianspatialcouncil.org/>

Zoning or Zones (Planning Scheme Data)

A zone is a planning provision.

Zones reflect the primary character of land (such as residential, industrial or rural) and indicate the type of use and development which may be appropriate in that zone.

APPENDIX E

ZONE COLOUR VALUES

CODE	ZONE DESCRIPTION	MapInfo RGB Value
R1Z	Residential 1 Zone	255 , 209 , 204
R2Z	Residential 2 Zone	255 , 181 , 207
R3Z	Residential 3 Zone	255 , 153 , 204
LDRZ	Low Density Residential Zone	255 , 166 , 153
MUZ	Mixed Use Zone	217 , 77 , 77
TZ	Township Zone	255 , 102 , 153
B1Z	Business 1 Zone	240 , 217 , 250
B2Z	Business 2 Zone	224 , 181 , 242
B3Z	Business 3 Zone	194 , 140 , 178
B4Z	Business 4 Zone	153 , 89 , 166
B5Z	Business 5 Zone	128 , 51 , 140
IN1Z	Industrial 1 Zone	240 , 176 , 130
IN2Z	Industrial 2 Zone	204 , 166 , 128
IN3Z	Industrial 3 Zone	191 , 89 , 26
RLZ	Rural Living Zone	255 , 204 , 153
GWZ	Green Wedge Zone	204 , 204 , 153
GWZA	Green Wedge A Zone	204 , 224 , 153
RCZ	Rural Conservation Zone	204 , 204 , 0
RAZ	Rural Activity Zone	0 , 204 , 153
FZ	Farming Zone	222 , 255 , 237
UFZ	Urban Floodway Zone	153 , 227 , 255
SUZ	Special Use Zone * (plus No.)	222 , 250 , 138
CDZ	Comprehensive Development Zone* (plus no.)	5 , 189 , 194
CCZ	Capital City Zone* (plus no.)	25 , 255 , 235
DZ	Docklands Zone* (plus no.)	89 , 89 , 252
PDZ	Priority Development Zone* (plus no.)	255 , 153 , 255
UGZ	Urban Growth Zone* (plus no.)	238 , 180 , 180
ACZ	Activity Centre Zone* (plus no.)	153 , 204 , 204
PUZ1	Public use Zone - Service and Utility	255 , 255 , 153
PUZ2	Public use Zone - Education	255 , 255 , 153
PUZ3	Public use Zone – Health and Community	255 , 255 , 153
PUZ4	Public use Zone - Transport	227 , 227 , 227
PUZ5	Public use Zone – Cemetery/Crematorium	255 , 255 , 153
PUZ6	Public use Zone – Local Government	255 , 255 , 153
PUZ7	Public use Zone – Other Public Use	255 , 255 , 153
PPRZ	Public Park and Recreation Zone	161 , 219 , 178
PCRZ	Public Conservation and Resource Zone	97 , 204 , 38
RDZ1	Road Zone – Category 1	240 , 10 , 176
RDZ2	Road Zone – Category 2	255 , 176 , 0

CA	Commonwealth Land (not in scheme)	255	,	255	,	255
----	-----------------------------------	-----	---	-----	---	-----

SEE NEXT PAGE FOR OVERLAY VALUES

APPENDIX E

OVERLAY COLOUR VALUES (as shown on statutory maps)

Note that overlay colour values shown below describe the colours used in planning scheme statutory maps and planning maps online. Vicmap Planning overlay data, (as supplied), is coloured grey R227, G227, R227.

CODE	OVERLAY DESCRIPTION	MapInfo RGB Value		
		R	G	B
ENVIRONMENTAL & LANDSCAPE OVERLAYS				
ESO	Environmental Significance	204	255	153
VPO	Vegetation Protection	102	153	153
SLO	Significant Landscape	153	204	153
HERITAGE & BUILT FORM OVERLAYS				
HO	Heritage	204	153	153
HO	Heritage (Precincts)	255	204	204
DDO	Design and Development (see table on next page)			
IPO	Incorporated Plan	204	204	255
DPO	Development Plan	204	153	204
NCO	Neighborhood Character	255	204	255
LAND MANAGEMENT OVERLAYS				
EMO	Erosion Management	204	153	102
SMO	Salinity Management	204	102	102
FO	Floodway	102	204	255
LSIO	Land Subject to Inundation	204	255	255
SBO	Special Building	153	153	204
WMO	Wildfire Management	255	153	153
SRO	State Resource	153	102	51
OTHER OVERLAYS				
PAO	Public Acquisition	255	255	102
AEO	Airport Environs	153	153	255
MAEO1	Melbourne Airport Environs 1	153	153	255
MAEO2	Melbourne Airport Environs 2	153	204	204
EAO	Environmental Audit	255	204	153
RXO	Road Closure	204	0	153
RO	Restructure	204	204	102
DCPO	Development Contribution Plan	102	204	153
CLPO	City Link Project	255	204	102
PO	Parking	224	238	224

SEE NEXT PAGE FOR DDO OVERLAY VALUES

APPENDIX E

DDO OVERLAY COLOUR VALUES

CODE	DDO OVERLAY DESCRIPTION	MapInfo RGB Value		
		R	G	B
DDO1	Design and Development Overlay (Schedule 1)	190	204	255
DDO2	Design and Development Overlay (Schedule 2)	204	180	255
DDO3	Design and Development Overlay (Schedule 3)	204	153	255
DDO4	Design and Development Overlay (Schedule 4)	255	153	255
DDO5	Design and Development Overlay (Schedule 5)	255	180	255
DDO6	Design and Development Overlay (Schedule 6)	204	180	204
DDO7	Design and Development Overlay (Schedule 7)	160	160	255
DDO8	Design and Development Overlay (Schedule 8)	204	102	204
DDO9	Design and Development Overlay (Schedule 9)	255	225	255
DDO10	Design and Development Overlay (Schedule 10)	235	204	235
DDO11	Design and Development Overlay (Schedule 11)	144	144	255
DDO12	Design and Development Overlay (Schedule 12)	175	175	225
DDO13	Design and Development Overlay (Schedule 13)	236	102	236
DDO14	Design and Development Overlay (Schedule 14)	255	208	255
DDO15	Design and Development Overlay (Schedule 15)	255	176	255
DDO16	Design and Development Overlay (Schedule 16)	190	190	255
DDO17	Design and Development Overlay (Schedule 17)	172	153	172
DDO18	Design and Development Overlay (Schedule 18)	180	204	236
DDO19	Design and Development Overlay (Schedule 19)	200	180	220
DDO20	Design and Development Overlay (Schedule 20)	200	200	220

Repeat colour sequence for DDO21-DDO40, DDO41-DDO60, DDO61-DDO80, etc