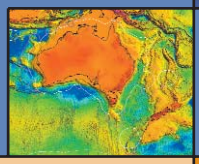
Geoscience Data DICTIONARY

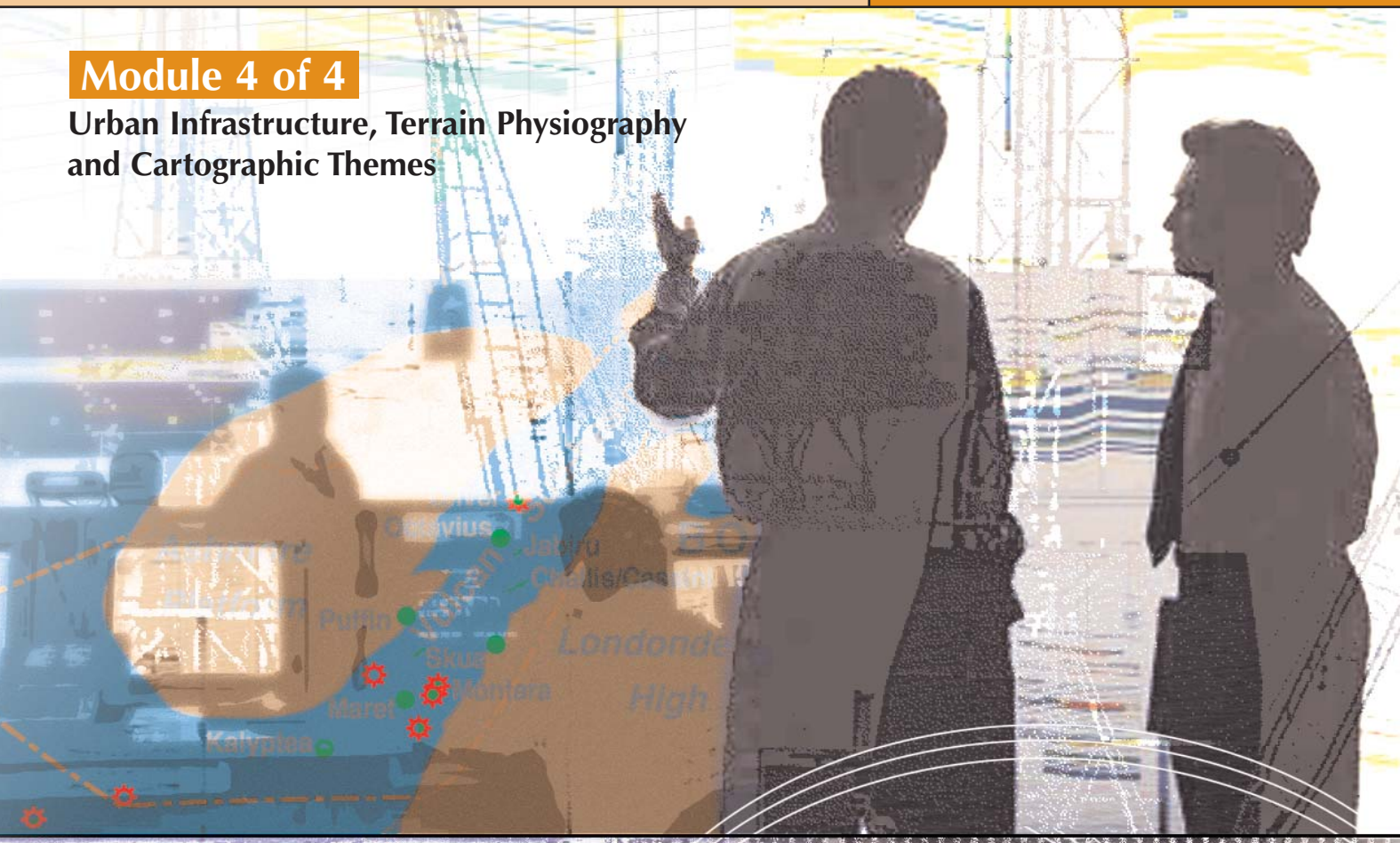
*Data Structure and Definitions for **Spatial Data***

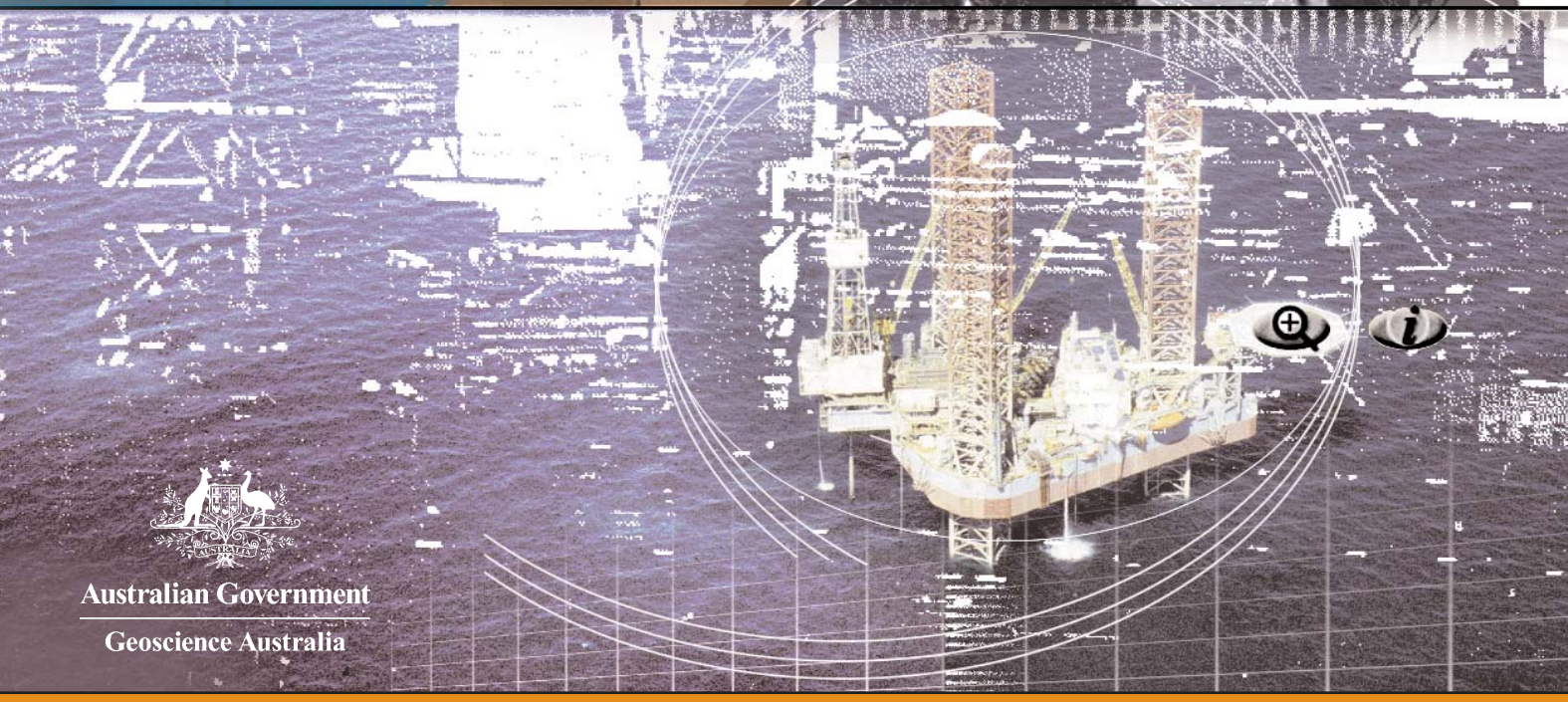


data

Module 4 of 4

Urban Infrastructure, Terrain Physiography and Cartographic Themes





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Module – 4 of 4

Urban Infrastructure, Terrain Physiography and Cartographic Themes

Geoscience Australia

Data Dictionary for Spatial Data

Version 2004.02

Australian Government

Geoscience Australia

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Introduction & Document Structure

A data dictionary is a description of fields for each feature type in a database. The Geoscience Australia Data Dictionary for Spatiial Data contains a description of all the themes currently created from GA's databases. A theme is a set of spatial objects. Some of the themes in this data dictionary have associated look-up tables. Look-up tables store an additional array of attributes that may be linked to the primary attribute table of a theme. Object type, feature definition, field type, attribute case, compulsion for data entry, a list of valid values and any rules or comments regarding the feature are also given in this data dictionary.

Data Dictionary Modules	
Module 1	Definitions, Rules and Terminology
Module 2	Geology and Geophysical Themes
Module 3	Minerals Deposits and Mineral Potential Assessment Themes
	Surveys and Field Observations Themes
Module 4	Urban Infrastructure Themes
	Terrain Physiography Themes
	Cartographic Themes

Maintenance

This document is subject to periodic updates. Requests to include new themes and/or attributes into the data dictionary should be submitted to the DMQ Team Leader **by e-mailing to *dataqc@ga.gov.au*** . Please consult the work instruction below before making requests.

Click here for "Instructions for updating the Data Dictionary"

How to read this Data Dictionary

Name *The verbal name of the theme*

Name *The name of the digital theme*
Description *A short description of the type of data in this theme*
Type *Whether the theme is a point, line, polygon, region, point/line or polygon/line theme*
Linked table *Any linked look-up tables for this theme are listed here*
Linked table *The name of any linked theme*

Note *Any special notes relating to the theme*

Object	Feature Class	Feature	Feature Definition	Attributes
Whether the feature class is polygon, arc (line), or point	*The name of the feature class*	*The attribute value for the feature field*	*The definition of the feature*	*The list of fields applying to the feature*

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Whetеher the field is applying to a polygon, arc (line) or point	*The name of the field*	*The type of field and its width*	*The case for char fields - upper, lower or mixed*	*Whether it is compulsory to have entries in this field*	*The list of valid attribute values*	*A description of the meaning of the field*	*Any rules applying to the use of this field, or any comments about the field*

Urban Infrastructure Themes

Buildings – BUILDNG Last_updated: xx/xx/xxxx

Name BUILDNG
Description Buildings
Type Point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Point	Building	BUILDING	A permanent fixture built for occupation in relation to specific activity	feature, ufi, industry, category, type, construct, anzluc, descript, lot_plan, name, address, suburb, state, postcode, owner, source, unique_id, elevation, slope, aspect, floor_hgt, storeys, basements, walls, roof, roof_shape, roof_pitch, windows, plan_reg, vert_reg, reg_year, bldg_year, units1, units2, units3, method, std50, std100, std500, std1000, std10000, fld50, fld100, fld500, fld1000, fld10000, v_zone, velocity, comments, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Point	feature	12,12,C	upper	Yes	BUILDING	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	industry	16,16,C	upper	Yes	See the supplementary feature attribute table	The major subdivision of the features based on the activity associated with the building	
	category	32,32,C	upper	Yes	See the supplementary feature attribute table	A category of the industry	
	type	32,32,C	upper	Yes	See the supplementary feature attribute table	The type of the building with respect to its usual function and/or usage	
	construct	16,16,C	upper	No	See the supplementary feature attribute table	The main type of the building construction	
	anzluc	4,4,I	n/a	Yes, except for the void	As specified in the AS/NZS 4584:1999 standard	Australian and New Zealand Land Use Code (ANZLUC) e.g. *4567*	
	descript	254,254,C	mixed	Yes, except for the void	As specified in the AS/NZS 4584:1999 standard	A description of an ANZLUC feature type e.g. *'Land used for the joint or combined headquarters for the command and control of emergency services.'*	
	Addressing information attributes						
	lot_plan	16,16,C	upper	No		The lot-on-plan description of the parcel of land on which the feature object is located. Derived by computer from the DCDB and/or council data	
	name	64,64,C	upper	No		The name of the feature, if known	
	address	40,40,C	upper	Yes		The physical location of the feature as defined by the addressing system e.g. a street and a	

						number	
	suburb	60,60,C	upper	Yes		The name of the suburb, place or locality where the feature is situated.	
	state	3,3,C	upper	Yes, only if country is Australia	ACT, NSW, QLD, VIC, WA, SA, NT, TAS	The name of the State or the Territory where the feature is situated.	
	postcode	4,4,I	n/a	Yes, only if country is Australia	Valid Australian postcode numbers	The official postcode for the feature address	
	Identification attributes and link to the data provider						
	owner	32,32,C	mixed	No		An organisation or person(s) to whom the facility belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying an entity, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	Environmental attributes						
	elevation	7,7,N,2	n/a	Yes		Height of the ground above the Australian Height Datum (AHD) at the centre of the feature. Derived from a digital elevation model (DEM)	
	slope	2,2,I	n/a	Yes	3, 6, 12, 17, 30, 90	Average slope of the property derived from the DEM as slopes from 0 to 3 degrees (3), from 3 to 6 degrees (6), from 6 to 12 degrees (12), from 12 to 17 degrees (17), from 17 to 30 degrees (30) and from 30 to 90 degrees (90)	The values are derived from AS1170.2:1989 (Wind loads)
	aspect	2,2,C	upper	Yes	N, NE, E, SE, S, SW, W, NW, O	Direction to which the property faces, derived from a digital elevation model (DEM) as north (N), north-east (NE), east (E), south-east (SE), south (S), south-west (SW), west (W), north-west (NW), omnidirectional or flat (O)	
	Structural attributes						
	floor_hgt	3,3,N,1	n/a	Yes		Height of the floor above ground level estimated to the nearest 10 cm	A value of 0.3 indicates a slab construction. A default value of 0.3 is also used where field observed data are not available
	storeys	2,2,I	n/a	Yes	An integer number between 1 and 99	The number of storeys above ground	Number ‘1’ means a ground storey
	basements	1,1,I	n/a	Yes	An integer number between 1 and 9	The number of levels in the basement	
	walls	20,20,C	upper	Yes	BRICK, FIBRO, MASONRY, METAL, PRE-CAST CONCRETE, REINFORCED CONCRETE, STONE, TIMBER	Material from which the features walls are constructed. One of the following: brick (BRICK), fibro (FIBRO), masonry (MASONRY), metal (METAL), pre-cast concrete slab (PRE-CAST CONCRETE), reinforced concrete frame (REINFORCED CONCRETE), stone (STONE) or timber (TIMBER)	
	roof	8,8,C	upper	Yes	CONCRETE, FIBRO, METAL, TILE, TIMBER	Material from which the roof is constructed. One of the following: concrete (CONCRETE), fibro (FIBRO), metal (METAL), tiles (TILE) or timber (TIMBER)	
	roof_shape	5,5,C	upper	Yes	GABLE, HIP	Predominant roof shape as hip ended (HIP) or gable ended (GABLE)	Flat roofs are automatically gable ended
	roof_pitch	4,4,C	upper	Yes	HIGH, LOW, FLAT	Roof pitch. One of the following: high (HIGH), low (LOW) or flat (FLAT). The classification is based on the thresholds recommended by Greg	High is defined as more than 1:4 slope, while low is less than 1:4 slope. Tiled roofs are automatically high pitch.

						Reardon of the James Cook University Cyclone Testing Station to differentiate slopes that will have greater (low slope) or lesser (high slope) 'lift' from strong winds	
	windows	5,5,C	upper	Yes	LARGE, SMALL, NONE, OPEN	The relative size of individual windows. One of the following: large windows or glass doors (LARGE), small windows (SMALL), no windows (NONE) or open walls (OPEN)	The classification LARGE is used where more than 75% of wall height is occupied by glass in a given window or door
	plan_reg	9,9,C	upper	Yes	REGULAR, IRREGULAR, UNKNOWN	Plan regularity - an observation of the planimetric geometry of the building. One of the following: regular (REGULAR), irregular (IRREGULAR) or unknown (UNKNOWN)	Regular is defined as essentially square or rectangular. Irregular is for 'T', 'L', 'U' shaped or other irregular shaped buildings. The classification is based on Figure A1 of AS 1170.4:1993 (Earthquake loads). If collateral evidence exists of other forms of vertical irregularity (e.g. mass resistance eccentricity or discontinuity of diaphragm stiffness) then the appropriate value should be used with details placed in the COMMENTS field
	vert_reg	9,9,C	upper	Yes	REGULAR, IRREGULAR, UNKNOWN	Vertical regularity - an observation of the vertical geometry regularity and stiffness ration (e.g. 'soft storey' construction). One of the following: regular (REGULAR), irregular (IRREGULAR) or unknown (UNKNOWN)	The classification is based on Figure 2A of AS 1170.4:1993 (Earthquake loads). 'Queenslander' style houses or 'six pack' blocks of flats in which the main mass of the building is elevated on posts or piles and the open under-space occupied by garages etc. should be coded as irregular. If collateral evidence exists of other forms of vertical irregularity (e.g. in mass ratio irregularity caused by roof-top swimming pool) then the appropriate code should be used with details placed in the COMMENTS field
	reg_year	4,4,I	upper	Yes	1950, 1960, 1970, 1980, 1990, 2000	Estimated period of construction. One of the following: built before 1960 (1950), between 1960 and 1970 (1960), between 1970 and 1980 (1970), between 1980 and 1990 (1980), between 1990 and 2000 (1990) or after 2000 (2000)	In general terms these dates reflect significant changes in building regulations and/or practice (e.g. first wind loading code introduced in 1975, upgraded in 1984-85; earthquake loading code for domestic structures effective by 1995; brick veneer construction techniques became vogue after 1955)
	bldg_year	4,4,I	n/a	No	A positive integer number less than or equal to the current year	Year in which the building was completed	Used only where adequate council records are available or where there is other evidence such as a heritage plaque
	units1	2,2,I	n/a	Yes	An integer number between 0 and 99 inclusive	The number of separate occupiable dwelling units (discrete flats, apartments, town houses, motel/motel suites, etc.) with the lowest dwelling space (not including laundries, garages, etc.) located on the ground floor (level 1)	Estimated to be at least 95% accurate where recorded. Typically based on a count of letter boxes; some data for commercial accommodation taken from material provided by the operator of the feature or from accommodation guides
	units2	2,2,I	n/a	Yes	An integer number between 0 and 99 inclusive	The number of separate occupiable dwelling units with the lowest dwelling space located on the second level. Other parameters as for the UNITS1 field	As for the UNITS1 field
	units3	3,3,I	n/a	Yes	An integer number between 0 and 999 inclusive	The number of separate occupiable dwelling units with the lowest dwelling space located on the third or higher levels. Other parameters as for the UNITS1 field	As for the UNITS1 field. Units at the third or any higher level are added
	method	12,12,C	upper	Yes	OBSERVED, ESTIMATED,	An indication of the source of the detailed data.	

					INTERPRETED, UNKNOWN	One of the following: observed - field collected (OBSERVED), estimated - based on sample or cursory observation (ESTIMATED), interpreted from aerial photos and satellite imagery (INTERPRETED) and unknown – yet to be collected (UNKNOWN)	
	Risk assessment attributes						
	std50	1,1,C	upper	Yes	A, B, C	Exposure of building to a 2% Annual Exceedence Probability (AEP) storm tide as more than 1 m over floor level (A), water over floor level but less than 1 m (B) and water on property but not over floor level (C)	
	std100	1,1,C	upper	Yes	A, B, C	Exposure of building to 1% AEP storm tide with coding as for the item ARI50	
	std500	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.2% AEP storm tide with coding as for the item ARI50	
	std1000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.1% AEP storm tide with coding as for the item ARI50	
	std10000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.01% AEP storm tide with coding as for the item ARI50	
	fld50	1,1,C	upper	Yes	A, B, C	Exposure of building to a 2% Annual Exceedence Probability (AEP) flood as more than 1 m over floor level (A), water over floor level but less than 1 m (B) and water on property but not over floor level (C)	
	fld100	1,1,C	upper	Yes	A, B, C	Exposure of building to 1% AEP flood with coding as for the item FLD50	
	fld500	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.2% AEP flood with coding as for the item FLD50	
	fld1000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.1% AEP flood with coding as for the item FLD50	
	fld10000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.01% AEP flood with coding as for the item FLD50	
	v_zone	5,5,N,2	n/a	Yes		Discounting value applied to sea wave height on top of surge height and wave setup to estimate increased inundation level. The values were derived from data provided in Smith, D.I. and Greenway, M.A. (1994) Tropical Storm Surge, Damage Assessment and Emergency Planning: A Pilot Study for Mackay, Queensland, Resource and Environment Studies No. 8, Centre for Resource and Environmental Studies, Australian National University, Canberra, Australia	Values used are 0.8 m in the first 150 metres of land inland from the coast, 0.4 in the second 150 metres and 0.2 in the third 150 m inland from the coast.
	velocity	4,4,I	n/a	Yes	0, 750, 1500	Distance from the coast. One of the following: within 750 m of the coast (0), 750 to 1,500 m from the coast (750) and greater than 1,500 m from the coast (1500)	These are more or less arbitrary values except that the 750 m threshold is, according to Smith and Greenway (1994), the distance by which sea wave velocity is largely dissipated
	Other attributes						
	comments	254,254,C	mixed	No		Additional comments or information about the feature	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Allowable Instances

Feature Class	Feature	Industry	Category	Type	Construction
Building	BUILDING	ACCOMMODATION	DOMICILE, LODGING	HOTEL, MOTEL, RESORT, HOSTEL, CARAVAN PARK, HOUSE, UNIT	SINGLE, ATTACHED, MULTIPLE, DUPLEX
		BUSINESS	FOOD, BEVERAGE, WHITEGOODS, AUTOMOTIVE, ELECTRONICS, CLOTHING, FOOTWEAR, HARDWARE, FURNITURE, MACHINERY, BUILDING	OFFICE, SHOP, MALL, MARKET, SUPERMARKET, SERVICE STATION	
		COMMUNITY	ART, SPORT, RELIGION, HISTORY, SCIENCE, NEWS, ENTERTAINMENT, GENERAL	GALLERY, HALL, LIBRARY, MONUMENT, MUSEUM, TOILET, WORSHIP PLACE, CLUB, GRANDSTAND, STADIUM, AQUATIC CENTRE, BROADCAST STATION, CENTRE	
		EDUCATION	UNIVERSITY, COLLEGE, CONVENT, SCHOOL, PRE-SCHOOL, CHILDCARE	OFFICE, THEATRE, CLASSROOM, HALL, LIBRARY, CAMPUS, CENTRE	
		GOVERNMENT	LOCAL, STATE, FEDERAL	OFFICE, SHOP	
		MANUFACTURING	FOOD, BEVERAGE, WHITEGOODS, AUTOMOTIVE, ELECTRONICS, TEXTILE, CLOTHING, FOOTWEAR, LEATHER, TIMBER, PAPER, METAL, HARDWARE, FURNITURE, MACHINERY, BUILDING, PRINTING, PETROCHEMICALS, CHEMICALS	FACTORY, PLANT, MILL, BARN	
		MEDICAL	DENTIST, DOCTOR, SPECIALIST, NURSE, VET	HOSPITAL, SURGERY, CENTRE, HOME, CLINIC, HOSPICE	
		SAFETY	AMBULANCE, DEFENCE, FIRE, POLICE, SES	STATION, HEAD QUARTERS, BARRACKS	
		STORAGE	FOOD, FUEL, CHEMICALS	DEPOT, WAREHOUSE	
		TRANSPORT	BUS, RAIL, SHIP, AIR	STATION, TERMINAL	
		UTILITY	ELECTRICITY, GAS, SEWERAGE, TELECOMMUNICATIONS, WATER	STATION, TOWER, EXCHANGE, RESERVOIR, PLANT	

Urban areas - URBAN Last_updated: xx/xx/xxxx

Name URBAN
Description Urban areas
Type Polygon coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Urban area	URBAN	Urban area e.g. town or city where limits are properly mapped	feature, ufi, feat_code, descript, name, plotrank
Arc	Urban boundary	URBAN_BDY	Urban area boundary	feature, ufi, feat_code, descript, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	URBAN	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of a urban area e.g. *BROKEN HILL*	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Arc	feature	12,12,C	upper	Yes	URBAN_BDY, FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	class	2,2,I	n/a	Yes	FEATCODE authority table	A measure of the status of a feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Roads - ROAD Last_updated: xx/xx/xxxx

Name ROAD
Description Roads and associated infrastructure
Type Line coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Road	ROAD	A line or transport link normally used by vehicles	feature, ufi, name, type, dual, lanes, oneway, std50, std100, std500, std1000, std10000, fld50, fld100, fld500, fld1000, fld10000

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	ROAD	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	name	64,64,C	upper	Yes		The name of the feature e.g. *FEDERAL HIGHWAY*	
	type	16,16,C	upper	No	HIGHWAY, ROAD, TRACK, TRAIL	A classification based on a designated size, traffic volume capacity and the nominal rate of flow of traffic	
	dual	1,1,C	upper	No	Y, N	Indicates whether the feature type is a dual (Y) or single (N) carriage way	
	lanes	1,1,I	n/a	No	A positive integer between 1 and 4	The number of lanes (on one carriage way) for the feature	
	oneway	1,1,C	upper	No	Y, N	Indicates whether traffic is allowed in only one direction	Must be 'Y' if the dual carriage way attribute is 'N'
	std50	1,1,C	upper	Yes	A, B, C	Exposure of building to a 2% Annual Exceedence Probability (AEP) storm tide as more than 1 m over floor level (A), water over floor level but less than 1 m (B) and water on property but not over floor level (C)	
	std100	1,1,C	upper	Yes	A, B, C	Exposure of building to 1% AEP storm tide with coding as for the item ARI50	
	std500	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.2% AEP storm tide with coding as for the item ARI50	
	std1000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.1% AEP storm tide with coding as for the item ARI50	
	std10000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.01% AEP storm tide with coding as for the item ARI50	
	fld50	1,1,C	upper	Yes	A, B, C	Exposure of building to a 2% Annual Exceedence Probability (AEP) flood as more than 1 m over floor level (A), water over floor level but less than 1 m (B) and water on property but not over floor level (C)	
	fld100	1,1,C	upper	Yes	A, B, C	Exposure of building to 1% AEP flood with coding as for the item FLD50	
	fld500	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.2% AEP flood with coding as for the item FLD50	
	fld1000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.1% AEP flood with	

						coding as for the item FLD50	
	fld10000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.01% AEP flood with coding as for the item FLD50	

Railways - RAIL Last_updated: xx/xx/xxxx

Name RAIL
Description Railways and associated infrastructure
Type Line coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Railway	RAILWAY	A line or transport link normally used by trains	feature, ufi, name, type, dual

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	RAILWAY	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	name	64,64,C	upper	No		The name of the feature e.g. *SYDNEY - NEWCASTLE*	From the largest (most populated) to the smallest destination
	type	16,16,C	upper	No	BROAD, STANDARD, NARROW, OTHER	A classification based on the railway gauge	
	dual	1,1,C	upper	No	Y, N	Indicates whether the feature type is a dual (Y) or single (N) carriage way	

Assessment of the exposure to flood at a spot height – SPOTFLD Last_updated: xx/xx/xxxx

Name SPOTFLD
Description Spot heights associated with the urban features, such as roads and railways, and used for assessment of the exposure of the features to flooding
Type Point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Point	Spot height	SPOTHGT	A spot height (known elevation)	feature, ufi, location, elevation, std50, std100, std500, std1000, std10000, fld50, fld100, fld500, fld1000, fld10000

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Point	feature	12,12,C	upper	Yes	SPOTHGT	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	location	12,12,C	upper	Yes, if on a road or railway features	ROAD, RAILWAY	A location of the spot height for which flood assessment is made	
	elevation	7,7,N,2	n/a	Yes		Height of the ground above the Australian Height Datum (AHD) at the feature. Derived from a digital elevation model (DEM)	
	std50	1,1,C	upper	Yes	A, B, C	Exposure of building to a 2% Annual Exceedence Probability (AEP) storm tide as more than 1 m over floor level (A), water over floor level but less than 1 m (B) and water on property but not over floor level (C)	
	std100	1,1,C	upper	Yes	A, B, C	Exposure of building to 1% AEP storm tide with coding as for the item ARI50	
	std500	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.2% AEP storm tide with coding as for the item ARI50	
	std1000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.1% AEP storm tide with coding as for the item ARI50	
	std10000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.01% AEP storm tide with coding as for the item ARI50	
	fld50	1,1,C	upper	Yes	A, B, C	Exposure of building to a 2% Annual Exceedence Probability (AEP) flood as more than 1 m over floor level (A), water over floor level but less than 1 m (B) and water on property but not over floor level (C)	
	fld100	1,1,C	upper	Yes	A, B, C	Exposure of building to 1% AEP flood with coding as for the item FLD50	
	fld500	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.2% AEP flood with coding as for the item FLD50	
	fld1000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.1% AEP flood with coding as for the item FLD50	
	fld10000	1,1,C	upper	Yes	A, B, C	Exposure of building to 0.01% AEP flood with coding as for the item FLD50	

Electrical power grid – POWER Last_updated: xx/xx/xxxx

Name POWER
Description Electrical power grid
Type Line and point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Cable	CABLE	An assembly of electrical wires within or without a composite sheath	feature, ufi, util_type, rating, circuit, undergrnd, owner, source, unique_id, plotrank
Point	Pole	POLE	A vertical structure with attachments for cable support	feature, ufi, util_type, rating, material, type, circuit, owner, source, unique_id, plotrank
	Tower	TOWER	A vertical lattice structure with attachments for cable support	feature, ufi, util_type, rating, material, type, circuit, owner, source, unique_id, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	CABLE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	util_type	16,16,C	upper	Yes	ELECTRICITY	Primary service or product of the feature	
	rating	5,5,I	n/a	No		Voltage under nominal or normal operating condition	Units in kilovolts (kV)
	circuit	8,8,C	upper	No	SINGLE, DOUBLE	Indicates whether the feature represents a single (3 cables) or double (6 cables) circuit	
	undergrnd	1,1,C	upper	No	Y, N	Indicates whether the feature is underground (Y) or above ground (N)	
	owner	32,32,C	mixed	Yes		An organisation or person(s) to whom the feature belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying the feature, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and schematic representation (3) features	
Point	feature	12,12,C	upper	Yes	POLE, TOWER	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	util_type	16,16,C	upper	Yes	ELECTRICITY	Primary service or product of the feature	
	rating	5,5,I	n/a	No		Voltage associated with the cables supported by the feature	Units in kilovolts (kV)
	material	20,20,C	upper	No	CONCRETE, METAL, TIMBER	The substance or substances of which the feature is made	
	type	16,16,C	upper	No	I, A, H, NARROW, BROAD, CATS HEAD, PORTAL	The type of the feature	For poles only: I, A, H, PORTAL For towers only: NARROW, BROAD, CATS HEAD, PORTAL
	circuit	8,8,C	upper	No	SINGLE, DOUBLE	Indicates whether the feature supports a single (3 cables) or double (6 cables) circuit cable configuration	
	owner	32,32,C	mixed	Yes		An organisation or person(s) to whom the feature belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying the feature, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and schematic representation (3) features	

Water network – WATER Last_updated: xx/xx/xxxx

Name WATER
Description Potable water distribution network
Type Line and point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Pipe	PIPE	Hollow structure for conveying water, usually potable	feature, ufi, util_type, rating, size, material, undergrnd, owner, source, unique_id, plotrank
Point	Hydrant	HYDRANT	An external connection point for accessing the water	feature, ufi, util_type, rating, owner, source, unique_id, plotrank
	Pump	PUMP	A device that increases pressure or flow of the water	feature, ufi, util_type, rating, owner, source, unique_id, plotrank
	Valve	VALVE	A device for controlling flow of the water	feature, ufi, util_type, rating, owner, source, unique_id, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	PIPE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	util_type	16,16,C	upper	Yes	WATER	Primary service or product of the feature	
	rating	5,5,I	n/a	No		Volume of flow under nominal or normal operating condition	Units in cubic metres per second (m^3/s)
	size	4,4,I	n/a	No		Diameter of the feature	Units in millimetres (mm)
	material	20,20,C	upper	No	CONCRETE, METAL, PLASTIC	The substance or substances of which the feature is made	
	undergrnd	1,1,C	upper	No	Y, N	Indicates whether the feature is underground (Y) or above ground (N)	
	owner	32,32,C	mixed	Yes		An organisation or person(s) to whom the feature belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying the feature, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and schematic representation (3) features	
Point	feature	12,12,C	upper	Yes	HYDRANT, PUMP, VALVE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	util_type	16,16,C	upper	Yes	WATER	Primary service or product of the feature	
	rating	5,5,I	n/a	No		Water pressure under nominal or normal operating condition	Units in kilo-Pascal (kP)
	owner	32,32,C	mixed	Yes		An organisation or person(s) to whom the feature belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying the feature, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and schematic representation (3) features	

Sewerage network – SEWER Last_updated: xx/xx/xxxx

Name SEWER
Description Sewerage network
Type Line and point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Channel	CHANNEL	Open structure for conveying sewerage or untreated water	feature, ufi, util_type, rating, size, owner, source, unique_id, plotrank
	Pipe	PIPE	Hollow structure for conveying the sewerage	feature, ufi, util_type, rating, size, material, undergrnd, owner, source, unique_id, plotrank
Point	Pump	PUMP	A device that increases pressure or flow of the sewerage	feature, ufi, util_type, rating, owner, source, unique_id, plotrank
	Valve	VALVE	A device for controlling flow of the sewerage	feature, ufi, util_type, rating, owner, source, unique_id, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	CHANNEL, PIPE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	util_type	16,16,C	upper	Yes	SEWER	Primary service or product of the feature	
	rating	5,5,I	n/a	No		Volume of flow under nominal or normal operating condition	Units in cubic metres per second (m^3/s)
	size	4,4,I	n/a	No		Dimensions of the feature, such as diameter of a pipe or width of a channel	Units in millimetres (mm)
	material	20,20,C	upper	No	CONCRETE, METAL, PLASTIC, STONE	The substance or substances of which the feature is made	
	undergrnd	1,1,C	upper	No	Y, N	Indicates whether the feature is underground (Y) or above ground (N)	
	owner	32,32,C	mixed	Yes		An organisation or person(s) to whom the feature belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying an entity, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and schematic representation (3) features	
Point	feature	12,12,C	upper	Yes	PUMP, VALVE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	util_type	16,16,C	upper	Yes	SEWER	Primary service or product of the feature	
	rating	5,5,I	n/a	No		Sewerage pressure under nominal or normal operating condition	Units in kilo-Pascal (kP)
	owner	32,32,C	mixed	Yes		An organisation or person(s) to whom the feature belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying the feature, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and schematic representation (3) features	

Natural gas distribution network – GAS Last_updated: xx/xx/xxxx

Name GAS
Description Natural gas distribution network
Type Line and point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Pipe	PIPE	Hollow structure for conveying natural gas	feature, ufi, util_type, rating, size, material, undergrnd, owner, source, unique_id, plotrank
Point	Regulator	REGULATOR	A device that controls pressure of natural gas	feature, ufi, util_type, rating, owner, source, unique_id, plotrank
	Valve	VALVE	A device for controlling flow of natural gas	feature, ufi, util_type, rating, owner, source, unique_id, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	PIPE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	util_type	16,16,C	upper	Yes	GAS	Primary service or product of the feature	
	rating	5,5,I	n/a	No		Volume of flow under nominal or normal operating condition	Units in cubic metres per second (m^3/s)
	size	4,4,I	n/a	No		Diameter of the feature	Units in millimetres (mm)
	material	20,20,C	upper	No	METAL, PLASTIC	The substance or substances of which the feature is made	
	undergrnd	1,1,C	upper	No	Y, N	Indicates whether the feature is underground (Y) or above ground (N)	
	owner	32,32,C	mixed	Yes		An organisation or person(s) to whom the feature belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying the feature, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and schematic representation (3) features	
Point	feature	12,12,C	upper	Yes	REGULATOR, VALVE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	util_type	16,16,C	upper	Yes	GAS	Primary service or product of the feature	
	rating	5,5,I	n/a	No		Pressure under nominal or normal operating condition	Units in kilo-Pascal (kP)
	owner	32,32,C	mixed	Yes		An organisation or person(s) to whom the feature belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying the feature, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and schematic representation (3) features	

Pipelines – PIPELINE Last_updated: xx/xx/xxxx

Name PIPELINE
Description Oil and gas pipelines
Type Line coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Pipe	PIPELINE	A facility for transport of oil or gas	feature, ufi, name, type, status, operator

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	PIPELINE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	name	40,40,C	upper	No		Name of the pipeline	
	type	8,8,C	upper	Yes	OIL, GAS	A resource transported by the pipeline	
	status	16,16,C	mixed	Yes	Operational, Construction, Planned, Abandoned	Status of the feature in terms of provision of service	
	operator	40,40,C	mixed	Yes		The pipeline operator	Use 'Unknown' if not known

Oil and gas fields – OILFLDS Last_updated: xx/xx/xxxx

Name OILFLDS
Description Oil and gas production fields
Type Polygon coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Oil or gas field	FIELD	An area where oil or gas are exploited	feature, ufi, name, type, status, operator
Arc	Oil or gas field boundary	FIELD_BDY	Boundary of the oil or gas field	feature, ufi
	Frame	FRAME	The edge of the study area	feature, ufi

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Region	feature	12,12,C	upper	Yes	FIELD	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	name	40,40,C	upper	Yes		Name of the field	
	type	8,8,C	upper	Yes	OIL, GAS	Indicates whether it is an oil or gas field (or both)	If the feature is both oil and gas field then list both values in the most significant order, separated by a comma
	status	16,16,C	mixed	Yes	Production, Planned	Development status of the field	
	operator	40,40,C	mixed	Yes		The operator of the field	Use 'Unknown' if not known
Arc	feature	12,12,C	upper	Yes	FIELD_BDY, FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete

Telecommunications infrastructure – TELECOM Last_updated: xx/xx/xxxx

Name TELECOM
Description Telecommunications infrastructure
Type Line and point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Cable	CABLE	An assembly of wires or optical fibres within a composite sheath	feature, ufi, util_type, rating, material, undergrnd, owner, source, unique_id, plotrank
Point	Pole	POLE	A vertical structure with attachments for cable support	feature, ufi, util_type, rating, material, type, owner, source, unique_id, plotrank
	Tower	TOWER	A vertical lattice structure with attachments for cable support	feature, ufi, util_type, rating, material, type, owner, source, unique_id, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	CABLE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	util_type	16,16,C	upper	Yes	TELECOMMUNICATIONS	Primary service or product of the feature	
	rating	5,5,I	n/a	No		Nominal data flow	Units in megabits per second (Mb/s)
	material	20,20,C	upper	No	FIBEROPTIC, COPPER	The substance or substances of which the feature is made	
	undergrnd	1,1,C	upper	No	Y, N	Indicates whether the feature is underground (Y) or above ground (N)	
	owner	32,32,C	mixed	Yes		An organisation or person(s) to whom the feature belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying the feature, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and schematic representation (3) features	
Point	feature	12,12,C	upper	Yes	POLE, TOWER	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	util_type	16,16,C	upper	Yes	TELECOMMUNICATIONS	Primary service or product of the feature	
	rating	5,5,I	n/a	No		Value of nominal or normal operating condition, such as data flow, associated with the cables supported by the object	Units in megabits per second (Mb/s)
	material	20,20,C	upper	No	CONCRETE, METAL, TIMBER	The substance or substances of which the feature is made	
	type	16,16,C	upper	No		The type of the feature	
	owner	32,32,C	mixed	Yes		An organisation or person(s) to whom the feature belongs	
	source	32,32,C	mixed	Yes		An organisation or person(s) who provided the data	
	unique_id	16,16,C	mixed	Yes, if provided by the source		Alphanumeric or other text for identifying the feature, and assigned once only	The unique_id refers to the identification system of the data provider specified as the source and must not be changed
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and schematic representation (3) features	

Culture – CULT Last_updated: xx/xx/xxxx

Name CULT
Description Culture
Type Line and point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Road	ROAD	Highway, secondary road, minor road, vehicle track	feature, ufi, feat_code, descript, name, plotrank
	Traverse	TRAVERSE	Traverse line e.g. seismic traverse	feature, ufi, feat_code, descript, name, plotrank
	Railway	RAILWAY	Railway line in use or abandoned	feature, ufi, feat_code, descript, name, plotrank
	Fence	FENCE	Fence line	feature, ufi, feat_code, descript, plotrank
	Air field	AIRFIELD	Landing ground	feature, ufi, feat_code, descript, name, plotrank
	Boundary	BOUNDARY	Administrative boundary including state or territory boundaries	feature, ufi, feat_code, descript, name, plotrank
Point	Populated place	POP_PL	City, town or village represented as point features	feature, ufi, feat_code, descript, name, plotrank
	Aerodrome	AERODROME	Aerodrome represented as point feature	feature, ufi, feat_code, descript, name, plotrank
	Building	BUILDING	Building, homestead or outstation	feature, ufi, feat_code, descript, name, plotrank
	Yard	YARD	Yard	feature, ufi, feat_code, descript, name, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	ROAD, TRAVERSE, RAILWAY, FENCE, AIRFIELD, BORDER	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of the feature e.g. *FEDERAL HIGHWAY*	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Point	feature	12,12,C	upper	Yes	POP_PL, AERODROME, BUILDING, YARD	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of a homestead or building e.g. *EL PASO*	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Land use (ANZLUC) – LANDUSE Last_updated: xx/xx/xxxx

Name LANDUSE
Description Land use classification
Type Polygon coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Land use unit	LANDUSE_AREA	An area where land usage is known and classified	feature, ufi, anzluc, type, descript, desc2, desc3, desc4, desc5, plotrank
	Land use void	LANDUSE_VOID	An area where land usage is undefined	feature, ufi
Arc	Land use boundary	LANDUSE_BDY	A boundary of the classified land	feature, ufi, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	LANDUSE_AREA, LANDUSE_VOID	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	anzluc	4,4,I	n/a	Yes, except for the void	As specified in the AS/NZS 4584:1999 standard	Australian and New Zealand Land Use Code (ANZLUC) e.g. *4567*	
	type	80,80,C	mixed	Yes, except for the void	As specified in the AS/NZS 4584:1999 standard	A feature type associated with the ANZLUC e.g. *'Emergency Control and Communications Centre'*	
	descript	254,254,C	mixed	Yes, except for the void	As specified in the AS/NZS 4584:1999 standard	A description of an ANZLUC feature type e.g. *'Land used for the joint or combined headquarters for the command and control of emergency services.'*	
	desc2	254,254,C	mixed	No	As specified in the AS/NZS 4584:1999 standard	An additional field for long descriptions of an ANZLUC feature type	
	desc3	254,254,C	mixed	No	As specified in the AS/NZS 4584:1999 standard	An additional field for long descriptions of an ANZLUC feature type	
	desc4	254,254,C	mixed	No	As specified in the AS/NZS 4584:1999 standard	An additional field for long descriptions of an ANZLUC feature type	
	desc5	254,254,C	mixed	No	As specified in the AS/NZS 4584:1999 standard	An additional field for long descriptions of an ANZLUC feature type	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Arc	feature	12,12,C	upper	Yes	LANDUSE_BDY, FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Terrain Physiography Themes

Drainage – DRAIN Last_updated: xx/xx/xxxx

Name DRAIN
Description Surface drainage and artificial water-retention features
Type Line and point coverage

Note If required, flow (vector) direction should be maintained. Nodes should be on all vector intersections.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Water course	STREAM	Any body of running water that moves under gravity to progresivelly lower levels, in a relatively narrow but clearly defined channel on the surface of the ground	feature, ufi, feat_code, descript, name, plotrank
Point	Waterhole	WATERHOLE	A natural hole, hollow, or small depression that contain water i.e. feat_codes 2125 and 2127	feature, ufi, feat_code, descript, name, plotrank
	Rockhole	ROCKHOLE	A natural hole, hollow, or small depression that does not contain water i.e. feat_code 2128	feature, ufi, feat_code, descript, name, plotrank
	Spring	SPRING	A place where ground water flows naturally from a rock or the soil onto the land surface or into a body of surface water i.e. feat_code 2121	feature, ufi, feat_code, descript, name, plotrank
	Bore	BORE	Water bore i.e. feat_codes 2142 to 2146	feature, ufi, feat_code, descript, name, plotrank
	Well	WELL	Well i.e. feat_code 2147	feature, ufi, feat_code, descript, name, plotrank
	Windpump	WINDPUMP	Wind pump i.e. feat_code 2141	feature, ufi, feat_code, descript, name, plotrank
	Tank	TANK	Water tank i.e. feat_codes 2151 to 2153	feature, ufi, feat_code, descript, name, plotrank
	Dam	DAM	Water dam i.e. feat_code 2154	feature, ufi, feat_code, descript, name, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	STREAM	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of a section e.g. *RED RIVER*	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Point	feature	12,12,C	upper	Yes	WATERHOLE, ROCKHOLE, SPRING, BORE, WELL, WINDPUMP, TANK, DAM	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of a waterhole, bore or tank e.g. *9 MILE BORE*	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Water bodies – WTRBDY Last_updated: xx/xx/xxxx

Name WTRBDY
Description Water bodies
Type Polygon coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Water body	SEA	Sea	feature, ufi, feat_code, descript, name, plotrank
		WATERBODY	In-land body of water e.g. lake, lagoon or waterhole	feature, ufi, feat_code, descript, name, plotrank
		SWAMP	An area of wet spongy ground	feature, ufi, feat_code, descript, name, plotrank
		MANGROVES	An area of mud covered with dense shrub	feature, ufi, feat_code, descript, name, plotrank
Arc	Water boundary	WATER_BDY	Water boundary	feature, ufi, feat_code, descript, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	SEA, WATERBODY, SWAMP, MANGROVES	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of a water body e.g. *LAKE GEORGE*	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Arc	feature	12,12,C	upper	Yes	FRAME, WATER_BDY	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Relief – RELIEF, HYPSO Last_updated: xx/xx/xxxx

Name RELIEF
Description Relief contours
Type Line and point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Relief contour	CONTOUR	A line that connects points of equal value for elevation of the land surface above or below datum plane	feature, ufi, feat_code, descript, height, plotrank
Point	Spot height	SPOT_HGT	A point whose elevation above a given datum has been correctly measured on the ground	feature, ufi, feat_code, descript, height, plotrank
	Station	STATION	Trigonometrical or astronomical station	feature, ufi, feat_code, descript, height, name, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	CONTOUR	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	height	5,5,I	n/a	Yes		Elevation in metres	Minus denotes elevation below mean sea level e.g. *-155*
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Point	feature	12,12,C	upper	Yes	SPOT_HGT, STATION	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	height	5,5,I	n/a	Yes		Elevation in metres	Minus denotes elevation below mean sea level e.g. *-155*
	name	64,64,C	upper	No		The name of a trigonometrical or astronomical station	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Name HYPSO
Description Relief represented as contours/polygons. Includes bathymetry.
Type Polygon coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Basement depth	HYPSO_AREA	An area where relief height is defined	feature, ufi, relheight
	Basement void	HYPSO_VOID	An area where relief height is undefined	feature, ufi
Arc	Basement depth contour	HYPSO_CONT	Contour line where relief height is defined	feature, ufi, relheight, method
	Basement contour void	VOID_BDY	Where arcs form edge of a relief height void polygon	feature, ufi
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	HYPSO_AREA, HYPSO_VOID	Feature type	Relief height void is used where relief height is not known
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	relheight	6,6,I	n/a	Yes		Relief height in metres	Relief height as value of the lowest hypso contour making up the polygon
Arc	feature	12,12,C	upper	Yes	HYPSO_CONT, VOID_BDY, FRAME	Feature type	Relief height void is used where relief height is not known
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	relheight	6,6,I	n/a	Yes		Relief height in metres	
	method	32,32,C	upper	No		Method used to determine relief height	

Bathymetry – BATHY Last_updated: xx/xx/xxxx

Name BATHY
Description Ocean depth contours
Type Line coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Contour	CONTOUR	A line that connects points of equal depth on the sub-marine terrain surface	feature, ufi, feat_code, descript, depth, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	CONTOUR	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	depth	5,5,I	n/a	Yes		Depth in metres, always negative, generally below mean sea level	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Cartographic Themes

Frame – FRAME Last_updated: xx/xx/xxxx

Name FRAME
Description Frame for the map face
Type Polygon coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Frame	TILE	Frame for the map face	feature, ufi
Arc	Frame	FRAME	Frame for the map face	feature, ufi

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	TILE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
Arc	feature	12,12,C	upper	Yes	FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete

Map grid, graticule and border – MAPGRID Last_updated: xx/xx/xxxx

Name MAPGRID Last_updated: xx/xx/xxxx
Description Grid and graticule for the map face. Optional border.
Type Line and annotation coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Map grid	MAPGRID	Grid for the map face	feature, ufi
	Map graticule	MAPGRAT	Graticule for the map face	feature, ufi
	Border	MAPBORD	Border for the map face	feature, ufi

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	MAPGRID, MAPGRAT, MAPBORD	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete

Cross-section line – XLINE Last_updated: xx/xx/xxxx

Name XLINE
Description Cross-section line
Type Line and annotation coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Cross-section line	XLINE	Cross-section line	feature, ufi, name, plotrank

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	XLINE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	name	64,64,C	upper	No		The name of the section e.g. *MT ISA SEISMIC SECTION*	
	xsect	8,8,C	upper	Yes		Cross-section identifier e.g. *AB*	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Australian Government

Geoscience Australia

Module 4

Urban Infrastructure, Terrain Physiography and Cartographic Themes

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