

Technical Specifications for the Collaborative Australian Protected Areas Database CAPAD

CAPAD is a database of all Protected Areas (PA) in Australia. That is, areas that are classified with an IUCN category.

CAPAD contact: David Osborn
Environmental Resources Information Section
Department of the Environment and Heritage
GPO Box 787 CANBERRA ACT 2601
Phone: (02) 6274 1365 Fax: (02) 6274 1333
Email: davidg.osborn@deh.gov.au

1. Data specifications

To enable effective data interchange between the States and Territories and the Commonwealth, data may be supplied in three ways:

- ArcGIS personal geodatabase with table definitions as set out in point 2 of this document (Preferable), or
- ArcInfo or ArcView shapefile format with table definitions as set out in point 2 of this document, or
- Two datasets;
 1. the GIS spatial dataset with a unique key associated with each Protected Area. Each polygon within a PA would share the unique key for that PA.
 2. the attribute data to accompany the spatial dataset in either CSV format or Microsoft Excel format. If using CSV please use double quotes around text fields. The first field would be the unique key as used in the spatial dataset and the other fields would be those specified in point 3 below. It is important that the fields are provided in the same order as outlined in point 3.

2. General GIS specifications

Source Resolution:	1:250,000 (minimum requirement)
Minimum parcel size:	6.25 ha (based on 1mm ² at 1:250,000 scale)
Areas <6.25 ha:	Point dataset (ie centroid Lat, Long) with the same attributes as those listed below.
Plotting resolution:	at 1:5 million scale, polygons ≥ 2,500 ha only (ie. 1 x 1 mm) for State scale representation (A3 format); other scales as required.
Data Format:	ArcGIS personal geodatabase or similar ESRI proprietary format identified in the data specifications listed above.
Dataset projection:	Supplied by States/Territories as Geographics (WGS84)

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Stored by Department of Environment and Heritage (DEH) as Geographics (GDA - WGS84) and distributed to approved agencies under license agreement in Geographics (GDA-WGS84)

Plotted in Albers Equal Area for continental data: Standard Parallels 18 and 36 degrees South; Central Meridian 132 degrees East; WGS84 spheroid and datum.

Dataset metadata: Supplied by State/Territories compliant to ANZLIC metadata standards.

3. GIS dataset items specifications and corresponding definitions *

ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC
NAME	60	60	C	0
TYPE	60	60	C	0
TYPE_ABBR	5	5	C	0
IUCN	5	5	C	0
GAZ_AREA	4	10	B	0
GIS_AREA #	8	18	F	2
RES_NO	8	8	C	0
GAZ_DATE	8	10	D	0
LATEST_GAZ	8	10	D	0
STATE	4	4	C	0
AUTHORITY	15	15	C	0
COMMENTS	120	120	C	0
ENVIRON	3	3	C	0
X-COORD #	8	18	F	5
Y-COORD #	8	18	F	5

Generated by the GIS (by Department of the Environment and Heritage)

Attribute: **NAME**
 Field Type: alphanumeric (maximum 60 characters) (Upper – Lower case)
 Definition: The official (gazetted) name of a protected area or its unofficial name if one exists. Not all gazetted protected areas have a name, in which case they are titled “Unnamed”. Note text is presented in PROPER text format (eg. Bernier and Dorre Islands)

Attribute: **TYPE**
 Field Type: alphanumeric (maximum 60 characters) (Upper-Lower Case)
 Definition: The official gazetted designation of the protected area. eg. National Park
 Note: Some State agencies for their own reasons may provide a TYPE category for an area that is not allocated an IUCN category (that is, it is not an area gazetted for biodiversity conservation). In such cases, the IUCN category will be listed as Void. Similarly, a named unprotected area (without a type definition and IUCN category) may need to be included in the spatial data for boundary definition; this area will be allocated a TYPE category of Void.

Attribute: **TYPE_ABBR**

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Field Type: alphanumeric (AAAA) (UPPERCASE)
 Definition: Abbreviation of **TYPE**, up to four upper-case characters (eg. 'P' = 'Park').

TYPE_ABBR	TYPE designation	TYPE_ABBR	TYPE designation
5GR	Section 5(G) Reserve	NAP	Nature Park
AQR	Aquatic Reserve	NCR	Nature Conservation Reserve
BA	Botanic Garden	NFR	Natural Features Reserve
CA	Conservation Area	NRA	Nature Recreation Area
CP	Conservation Park	NP	National Park
CR	Conservation Reserve	NP (A)	National Park Aboriginal
CRR	Crown Reserve	NP (S)	National Park Scientific
CUA	Community Use Area	NR	Nature Reserve
FHAA	Fish Habitat Area A	OCA	Other Conservation Area
FHAB	Fish Habitat Area B	OP	Other Park
FISH	Fish Sanctuary	PA	Protected Area
FR	Forest Reserve	PS	Private Sanctuary
FPA	Feature Protection Area	RA	Reference Area
GR	Game Reserve	RES	Reserve
HR	Historical Reserve	RIV	River Reserve
HS	Historical Site	RP	Recreation Park
HTR	Hunting Reserve	RR	Regional Reserve
IPA	Indigenous Protected Area	RSR	Resources Reserve
KCR	Karst Conservation Reserve	SA	Scientific Area
LAK	Lakeside Reserve	SP	State Park
MAA	Management Agreement Area	SR	State Reserve
MAR	Marine Reserve	SRA	State Recreation Area
MNNR	National Nature Reserve*	WA	Wilderness Protection Area
MNR	Marine Nature Reserve	WP	Wilderness Park
MP	Marine Park	WZ	Wilderness Zone
MR	Miscellaneous Reserve		* Can be Terrestrial or Marine

This list is only an example of the 130 reserve types incorporated into CAPAD 2002.

Attribute: **GAZ_AREA**
 Field Type: integer (range 0 - 999,999,999)
 Definition: The declared area of a reserve, as opposed to a machine calculated area. It is recorded to the nearest hectare.
 Attribute Units: hectares

Attribute: **GIS_AREA**
 Field Type: floating point to 2 decimal places (range 0.00 - 999,999,999.00)
 Definition: The spatial area of a reserve calculated by GIS software, derived from Albers Equal Area projection.
 Attribute Units: hectares

Attribute: **IUCN**
 Field Type: alphanumeric (AAAA) (UPPERCASE)

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Values: IA to VI
 Definition*: The IUCN protected area category ascribed by the Managing authority, as outlined in the publication: CNPPA/WCMC "Guidelines for Protected Area management categories". Gland: IUCN, 1994. (ISBN: 2-8317-0201-1)

IUCN category	Definition *
IA	Strict Nature Reserve: protected area managed mainly for science
IB	Wilderness Area: protected area managed mainly for wilderness protection
II	National Park: protected area managed mainly for ecosystem protection
III	Natural Monument: protected area managed mainly for conservation of specific natural features
IV	Habitat / Species Management Area: protected area managed mainly for conservation through management intervention
V	Protected Landscape / Seascape: protected area managed mainly for landscape/seascape conservation and recreation
VI	Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems
VOID	Denotes an area in the spatial data which is not a "protected area", but is maintained in the spatial data to ensure the area boundary integrity.

Attribute: **STATE**
 Field Type: alphanumeric (AAAA) (UPPERCASE)
 Definition: The CODE for the State or Territory in which the Protected Area is located.
 Note: Terrestrial Commonwealth managed land is attributed with the name of the State / Territory in which it is physically located. Thus Kakadu NP is listed within the State of the NT, and Booderee NP is listed within NSW

Code Set Values:

ACT	Australian Capital Territory	SA	South Australia
EXT	External Territory	TAS	Tasmania
NSW	New South Wales	VIC	Victoria
NT	Northern Territory	WA	Western Australia
QLD	Queensland		

Attribute: **AUTHORITY**
 Field Type: alphanumeric (maximum 15 characters) (UPPERCASE)
 Definition: The CODE for the authority which administers the Protected Area.

AUTHORITY code

Authority

ACT_DUS	ACT Department of Urban Services
DEH	Department of the Environment and Heritage
GBRMPA	Great Barrier Reef Marine Park Authority
LORD HOWE Is. BOARD	Lord Howe Island Board
NSW_NPWS	NSW National Parks and Wildlife Service
PWCNT	Parks and Wildlife Commission of the Northern Territory
QLD_DPIF	Queensland Department of Primary Industries (Fisheries Group)
QLD_DNR	Queensland Department of Natural Resources
QLD_DOE	Queensland Department of Environment
SA_DEH	SA Department of Environment and Heritage

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SA_FRST	Forestry SA
TAS_FRST	Forestry Tasmania
TAS_PWS	Tasmanian Parks and Wildlife Service
VIC_DNRE	Victoria Department of Natural Resources and Environment
WA_CALM	WA Department of Conservation and Land Management
N/A	Not applicable (Not a protected area)
(STATE NAME)-MAA	Relevant State Government agency – Management Agreement Area. Used to identify joint management arrangements for the Indigenous Protected Areas (IPA's).
UNDETERMINED	No management authority allocated

Attribute: **RES_NUMBER**
 Field Type: character (AAAAAAAA), for combining Reserve numbers and pre-fixed text denoting State / Territory (eg. NSW0850) (UPPERCASE)
 Definition: The reserve number (if declared) as used by the controlling authority. IPA Reserve Numbers will be allocated by DEH for CAPAD.

Attribute: **GAZ_DATE**
 Field Type: Date format
 Definition: Gazettal date of the original proclamation , in YYYYMMDD format. Default to 1900/01/01 for undated and unlabelled polygons.

Attribute: **LATEST_GAZ**
 Field Type: Date format
 Definition: Date of the latest gazettal. The date of the most recent gazetted amendment or verification by the relevant State authority.
 Attrib. Units: date (YYYYMMDD)

Attribute: **ENVIRON**
 Field Type: character format
 Definition: to delineate the components of CAPAD; Terrestrial (T), Marine (M) or Both (B)

Attribute: **X-COORD**
 Field Type: floating point (999.99999) to five decimal places
 Definition: longitude coordinate of polygon centroid in decimal degrees, derived by DEH from Geographics projected dataset.

Attribute: **Y-COORD**
 Field Type: floating point (-99.99999) to five decimal places
 Definition: latitude coordinate of polygon centroid in decimal degrees, derived by DEH from Geographics projected datasets.