



Australian Government
**Department of Agriculture,
Water and the Environment**

Technical Specifications for the Collaborative Australian Protected Areas Database Terrestrial CAPAD 2020

The Collaborative Australian Protected Areas Database (CAPAD) 2020 provides both spatial and textual information about government, Indigenous and privately protected areas for Australia, in both the marine and terrestrial environments.

Data is current up to **30 June 2020** as supplied by contributing agencies. See [Appendix 3](#) for details.

This is the twelfth version of the terrestrial database, with previous versions released in 1997, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016 and 2018.

CAPAD provides a snapshot of protected areas that meet the IUCN definition of a protected area:

"A protected area is a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values."
(IUCN Definition 2008)

CAPAD information on protected areas is made available on the Department of the Environment & Energy's website as maps, in mapping applications, as summary area statistics (spreadsheets), and as spatial data and web map services that are openly available under CC-BY 4.0 licence.

A summary of the CAPAD data is published biennially at:
<http://www.environment.gov.au/land/nrs/science/capad>

All spatial data is available for download from the Find Environmental Data (FED) website:
<http://www.environment.gov.au/fed/>

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1. Data specifications

To enable effective integration, data should be supplied with the following specifications:

- Data Format** ArcGIS file geodatabase or shapefile format with table definitions as set out in point 2 of this document.
- Dataset projection** Supplied in the Geographic Coordinate System (unprojected) based on the GDA94 datum.
- Licence** Data available for distribution under the Creative Commons Attribution (CC-BY) licence model.

2. GIS dataset items specifications and corresponding definitions

See ArcGIS file geodatabase template supplied with data request.

ITEM NAME	WIDTH	TYPE	No. dec
PA_ID #	20	Text	0
PA_PID #	20	Text	0
NAME	255	Text	0
TYPE	60	Text	0
TYPE_ABBR	10	Text	0
IUCN	5	Text	0
NRS_PA	5	Text	0
GAZ_AREA	38	Number	2
GIS_AREA #	38	Number	6
GAZ_DATE	10	Date	0
LATEST_GAZ	10	Date	0
STATE	4	Text	0
AUTHORITY	15	Text	0
DATASOURCE	20	Text	0
GOVERNANCE	3	Text	0
COMMENTS	120	Text	0
ENVIRON	3	Text	0
OVERLAP #	3	Text	0
MGT_PLAN	3	Text	0
RES_NUMBER	15	Text	0
EPBC #	15	Text	0
LONGITUDE #	38	Number	6
LATITUDE #	38	Number	6

generated by Department of the Environment & Energy after supply

Item Name: PA_ID

Field Type: Alphanumeric (Upper – Lower case) (maximum 20 characters)

Definition: A unique code for the protected area that should persist between versions of CAPAD

Note: In some cases this number will be generated by the DAWE, and is generally based on the RES_NUMBER provided by the data custodian.

Item Name: PA_PID

Field Type: Alphanumeric (Upper – Lower case) (maximum 20 characters)

Definition: A unique code for a parcel or zone within a protected area that should persist between versions of CAPAD.

Note: For example, a protected area with two zones share the same PA_ID and are assigned PA_PID values of PA_ID_a and PA_ID_b. If a protected area does not have multiple parts/zones then the PA_PID is by default the same as the PA_ID.

Item Name: NAME

Field Type: Alphanumeric (Upper – Lower case) (maximum 255 characters)

Definition: The official (gazetted) name of a protected area. Not all gazetted protected areas have a name; in which case they are titled “Unnamed” with a reserve number e.g. Unnamed HA1207.

Note: Text is presented in proper text format (e.g. Bernier and Dorre Islands). The Protected Area name should not include the type name unless it does not reflect its legal status. E.g. ‘Stray Creek Conservation Area’ has TYPE = Natural Catchment Area.

Item Name: TYPE

Field Type: Alphanumeric (Upper-Lower Case) (maximum 60 characters)

Definition: The type of protected area according to the establishment mechanism. E.g. National Park, Nature Refuge, Indigenous Protected Area

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 NR, NA or NAS (see below).

Note: See [Appendix 1](#) for current protected area types and abbreviations for types.

Item Name: TYPE_ABBR

Field Type: Alphanumeric (AAAA) (UPPERCASE) (maximum 10 characters)

Definition: Abbreviation of TYPE (e.g. ‘P’ = ‘Park’).

Note: See [Appendix 1](#) for current type abbreviations.

Item Name: IUCN

Field Type: Alphanumeric (AAAA) (UPPERCASE) (maximum 3 characters)

Values: IA to VI, Not Reported, Not Applicable, Not Assigned

Definition: The IUCN protected area category ascribed by the managing authority. For more information refer to this publication: Dudley, N. (Editor) (2013). *Guidelines for Applying Protected Area Management Categories*. IUCN, Gland, Switzerland.

IUCN category	Definition	IUCN code
la	Strict Nature Reserve	la
lb	Wilderness Area	lb
II	National Park	II
III	Natural Monument or Feature	III
IV	Habitat/Species Management Area	IV
V	Protected Landscape/Seascape	V
VI	Protected area with sustainable use of natural resources	VI
Not Reported	For protected areas where an IUCN category is unknown and/or the data provider has not provided any related information.	NR
Not Applicable	Denotes an area that does not meet the NRS criteria or the IUCN definition of a protected area but has management complimentary to the NRS.	NA
Not Assigned	The protected area meets the standard definition of protected areas but the data provider has chosen not to use the IUCN Protected Area Management Categories.	NAS

Item Name: NRS_PA

Field Type: Text (AA) (UPPERCASE) (maximum 2 characters)

Definition: Indicates the status of the protected area in terms of meeting the standard for inclusion in the National Reserve System (NRS). For terrestrial reserves refer to the document "[Australia's Strategy for the National Reserve System 2009 – 2030](#)".

NRS status	Description	NRS_PA code
Yes	The protected area has been assessed as a protected area that meets the standard for inclusion in the NRS.	Y
No	The protected area been assessed not to meet the standard for inclusion in the NRS but is managed for nature conservation without meeting the NRS standard.	N
Interim	The protected area has been assessed to meet the standard for inclusion in the NRS but has not been formally established as a protected area although binding agreements are in place for formal protection to occur in the future.	I
Not determined	The protected area is probably managed for nature conservation that has not been assessed to determine if it meets the standard for inclusion in the NRS.	ND

Item Name: GAZ_AREA

Field Type: Number to 2 decimal places
 Definition: The area (to the nearest hectare) as described in the nomination document (e.g. parliamentary gazettal). Some protected areas do not have a specific area in the gazettal. Where a protected area has multiple internal zones the gazettal area can be reported as the total for the whole protected area.
 Units: hectares to 2 decimal places

Item Name: GIS_AREA

Field Type: Number to 6 decimal places
 Definition: The area of a protected area based on current spatial data calculated in the Albers Equal Area projection by DAWE using GIS software.
 Units: hectares to 6 decimal places
 Note: Both terrestrial and marine versions of CAPAD use this field when calculating area statistics for reporting purposes.

Item Name: GAZ_DATE

Field Type: Date format (DD/MM/YYYY)
 Definition: Gazettal date of the original proclamation that established any form of protected area.

Item Name: LATEST_GAZ

Field Type: Date format (DD/MM/YYYY)
 Definition: The date of the most recent gazettal or proclamation by the relevant authority to amend the protected area. It can be the same as the GAZ_DATE if there have been no changes or additions to the protected area.
 Note: Default is the GAZ_DATE.

Item Name: STATE

Field Type: Text (AAA) (UPPERCASE) (maximum 3 characters)
 Definition: The CODE for the State or Territory in which the Protected Area is located, regardless of governance.
 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 NT, and Booderee NP is listed within the Jervis Bay Territory.

State name	STATE code
Australian Capital Territory	ACT
External Territory	EXT
Jervis Bay Territory	JBT
New South Wales	NSW
Northern Territory	NT
Queensland	QLD
South Australia	SA
Tasmania	TAS
Victoria	VIC
Western Australia	WA

Item Name: AUTHORITY

Field Type: Text (UPPERCASE) (maximum 15 characters)
 Definition: The CODE for the authority that manages the Protected Area.
 Note: See [Appendix 2](#) for current AUTHORITY codes. New authority names can be added to this list.

Item Name: DATASOURCE

Field Type: Text (UPPERCASE) (maximum 20 characters)

Definition: The CODE for the agency that supplied the Protected Area data.

Note: See [Appendix 3](#) for current DATASOURCE codes. New data source names can be added to this list.

Item Name: GOVERNANCE

Field Type: Text (A) (UPPERCASE) (maximum 1 character)

Definition: The CODE for the type of governance which has management and decision making responsibility.

Governance type	Description	GOVERNANCE code
Community	Community conserved areas where indigenous peoples or local communities (settled or mobile) hold decision-making authority, responsibility and accountability.	C
Government	Protected areas with decision-making authority, responsibility and accountability in the hands of national, state or local government	G
Joint	Jointly managed protected areas where several social actors from different governance types share decision-making authority, responsibility and accountability. Joint management arrangements are recognised by a management board, agreement (e.g. ILUA) or other formal arrangement.	J
Private	Private protected areas where land and resource owners hold decision-making authority, responsibility and accountability.	P

Item Name: COMMENTS

Field Type: Alphanumeric (Upper – Lower case) (maximum 120 characters)

Definition: Extra information jurisdictions elect to supply.

Item Name: ENVIRON

Field Type: Text (A) (UPPERCASE) (maximum 1 character)

Definition: The code denotes the environment type conserved in the protected area as described by the data provider.

Note: If a protected area is coded as ‘B’ by the data provider, DAWE calculates the proportional representation of marine and terrestrial areas within the protected area (all component polygons combined). If less than 70% of protected area is marine then the whole protected area is included in the terrestrial CAPAD dataset. If 70% or more of the protected area is marine then the whole protected area is included in the marine CAPAD dataset.

Environment type	Description	ENVIRON code
Terrestrial	Generally includes land and or water above high water mark including aquatic ecosystems.	T
Both	Includes land and water both above and below the high water mark.	B

Item Name: OVERLAP

Field Type: Numeric (maximum 3 characters)

Definition: Identifies if the protected area (or part of the protected area) is located within or over another protected area.

Note: Derived by DAWE. Included in terrestrial CAPAD only to deal with the ‘stacked’ nature of some terrestrial protected areas so that overlaps can be ‘flattened’ for the purposes of calculating the protected area coverage of Australia.

Terrestrial protected areas with NO overlaps will be allocated a value of “1”. As a general rule, where two protected areas overlap, the area with the higher ranking (based on 'IUCN' category and 'TYPE') will be allocated a value of “1” for the overlap field with the lower ranking area allocated a value of “2”. For example, where a National Park (IUCN II) overlaps with a Nature Refuge (IUCN VI) the National Park will be allocated the value of “1” and the Nature Refuge will be allocated the value of “2”.

For consistency with national scale products like IBRA and IMCRA (and area calculations for PA’s across state borders) DAWE applies a ‘clip’ to the state borders component of the Geoscience Australia [COAST 100K](#) dataset – and not the coastline. Each jurisdiction use their own, generally higher resolution, coastline dataset.

Marine CAPAD does not contain the OVERLAP field. To calculate the total area any features that overlap are dissolved using the field of interest, for example: for IUCN calculations the IUCN field only is dissolved, for TYPE the TYPE field only is dissolved. One area which has a significant overlap is Queensland. The Great Barrier Reef Coast Marine Park (QLD) significantly overlaps with the Great Barrier Reef Marine Park (Commonwealth).

For the purpose of area calculations please be aware of this attribute. Users may wish to use the following SQL statement: Select * from CAPAD2020 where OVERLAP = '1' AND NRS_PA IN ('Y', 'I').

Item Name: MGT_PLAN

Field Type: Text (A) (UPPERCASE) (maximum 2 characters)

Definition: The CODE for the status of the management plan for the protected area as of 30 June 2020.

Management plan status	Description	MGT_PLAN code
In Preparation	Some form of management document was being prepared.	P
Draft	A draft management document was released for comment by the public, management board or equivalent.	D
Statutory	Enabling legislation establishes the management of a protected area and a separate management document is not required	S
Management Intent	A formal statement of management intent has been prepared that clearly sets out the management objectives for the protected area but includes little else.	I
Management Plan	A formally adopted management plan that has been through consultation and contains strategies and actions for implementation for this protected area. A management plan may be for a group of protected areas with specific actions for each protected area in the plan.	M
Regional Plan	A formally adopted management plan has been through consultation and contains general strategies and actions for implementation over a group of protected areas.	R
Unknown	No form of management document could be found.	N
Under Review	The management plan is under review.	UR

Item Name: RES_NUMBER

Field Type: Alphanumeric (Upper – Lower case) (maximum 15 characters)
 Definition: The reserve number (if declared) as used by the controlling authority.
 Note: IPA Reserve numbers are allocated by DAWE.

Item Name: EPBC

Field Type: Text (Upper – Lower case) (maximum 15 characters)
 Definition: This identifies if the reserve can be considered under the Commonwealth [Environment Protection and Biodiversity Conservation Act 1999](#) (EPBC Act).

Description	Code
Commonwealth reserve (either a Commonwealth National Park, Commonwealth Botanic Garden or Antarctic protected/managed reserve) – as outlined in Section 342 of the Act.	Commonwealth
Privately managed reserve – identified by GOVERNANCE = 'P'	Private
State managed reserve – as supplied by State/Territory authority	State

Item Name: LONGITUDE

Field Type: Number (999.999999) to six decimal places
 Definition: Longitude coordinate of polygon centroid in decimal degrees, derived by DAWE from Geographics projected dataset. Centroid position is forced to sit within the feature.

Item Name: LATITUDE

Field Type: Number (-99.999999) to six decimal places
 Definition: Latitude coordinate of polygon centroid in decimal degrees, derived by DAWE from Geographics projected dataset. Centroid position is forced to sit within the feature.

3. Appendices

Appendix 1 - Current protected area types and abbreviations

Type Abbreviation	Type
AA	Aboriginal Area
ACCP	Conservation Covenant [Approved Conservation Covenant Program]
ASMA	Antarctic Specially Managed Areas
ASPA	Antarctic Specially Protected Areas
BG	Botanic Gardens
BG_COM	Botanic Gardens (Commonwealth)
CA	Conservation Area
CCA	Coordinated Conservation Area
CCAZ1	CCA Zone 1 National Park
CCAZ3	CCA Zone 3 State Conservation Area
COR	Coastal Reserve
CP	Conservation Park
CR	Conservation Reserve
FLR	Flora Reserve
FR	Forest Reserve
GR	Game Reserve
HA	Heritage Agreement
HIR	Historical Reserve
HR	Heritage River
HS	Historic Site
HTR	Hunting Reserve
IPA	Indigenous Protected Area
KCR	Karst Conservation Reserve
MA	Management Area
MAA	Management Agreement Area
NAP	Nature Park
NCA	Natural Catchment Area
NCR	Nature Conservation Reserve
NFR	Natural Features Reserve
NP	National Park

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Type Abbreviation	Type
NPA	National Park Aboriginal
NPC	National Park (Commonwealth)
NPS4	National Parks Act Schedule 4 park or reserve
NR	Nature Reserve
NRA	Nature Recreation Area
NREF	Nature Refuge
NRS	NRS Addition - Gazettal in Progress
NS	National Park (Scientific)
OCA	Other Conservation Area
OCA_NAP	Other Conservation Area or Nature Park
OP	Other
PA	Protected Area
PNPA	Proposed National Parks Act park or park addition
PNR	Private Nature Reserve
PPP	Permanent Park Preserve
PS	Private Sanctuary
RA	Reference Area
RCP	Recreation Park
REP	Regional Park
RNA	Remote and Natural Area - not scheduled under National Parks Act
RNAS6	Remote and Natural Area - Schedule 6, National Parks Act
RR	Regional Reserve
RSR	Resources Reserve
S5G	5(1)(g) Reserve
S5H	5(1)(h) Reserve
SCA	State Conservation Area
SP	State Park
SR	State Reserve
WP	Wilderness Park
WPA	Wilderness Protection Area
WZ	Wilderness Zone - Schedule 5, National Parks Act

Appendix 2 - Authority Code

Authority code	Authority name
AAD	Australian Antarctic Division
ACT_TCCS	ACT Transport Canberra and City Services
AWC	Australian Wildlife Conservancy
AWC_BA	Australian Wildlife Conservancy and Birdlife Australia
AWC_DAM	Australian Wildlife Conservancy and Dambimangari People
AWC_DD	Australian Wildlife Conservancy and Department of Defence
AWC_TLLFW	Australian Wildlife Conservancy and Tony and Lisette Lewis Foundation WildlifeLink
AWC_YC	Australian Wildlife Conservancy and Yulmbu Community
BHA	Bush Heritage Australia
BHA_NTWA	Bush Heritage Australia and National Trust of Western Australia
BRC_TAS	Burnie Council - Tasmania
CCC_TAS	Clarence City Council - Tasmania
DCC_TAS	Devonport City Council - Tasmania
DAWE	Australian Government, Department of Agriculture, Water and the Environment
DRC_TAS	Dorset Council - Tasmania
EAC_QLD	Ewamian Aboriginal Corporation
EL_NSW	Enduring Landscapes Inc
FC_NSW	Forestry Corporation of NSW
FUA	Federation University Australia (was Uni Ballarat)
GCC_NSW	Gosford City Council – New South Wales
GCC_TAS	Glenorchy City Council - Tasmania
HCR_CMA	Hunter Central Rivers Catchment Management Authority
ILC	Indigenous Land Corporation
IMG	Indigenous Management Group
KNC_TAS	Kingborough Council - Tasmania
KRGC_NSW	Ku-ring-gai Council – New South Wales
LCC_TAS	Launceston City Council - Tasmania
LILC	Local Indigenous Land Council
MINCA_QLD	Magnetic Island Nature Care Association
NF_SA	Nature Foundation South Australia Inc
NMC_TAS	Northern Midlands Council - Tasmania
NSC_QLD	Noosa Shire Council - Queensland
NSW_OEH	NSW Office of Environment and Heritage
NT_PWCNT	Parks and Wildlife Commission of the NT
NTWA	National Trust of Western Australia
QLD_DES	Queensland Department of Environment and Science
SA_DEW	South Australian Department for Environment and Water
SA_FRST	Forestry South Australia
SET	South Endeavour Trust
SHFT	Sydney Harbour Federation Trust
SMC_TAS	Southern Midlands Council - Tasmania

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Authority code	Authority name
TAS_DPIPWE	Tasmanian Department of Primary Industries, Parks, Water and Environment
TAS_HYDRO	Hydro Tasmania
TAS_PAHSMA	Port Arthur Historic Site Management Authority - Tasmania
TAS_PRIV	Private (miscellaneous) - Tasmania
TAS_VAR	Various managing authorities - Tasmania
TAS_WATER	TasWater
TAS_WPMT	Wellington Park Management Trust - Tasmania
TFN_QLD	Queensland Trust for Nature
TFN_VIC	Trust for Nature Victoria
TLC	Tasmanian Land Conservancy Inc
TSRA	Torres Strait Regional Authority
VIC_DELWP	Victorian Department of Environment, Land, Water and Planning
WAC	Winangakirri Aboriginal Corporation
WA_DBCA	Western Australian Department of Biodiversity, Conservation and Attractions

Appendix 3 - Datasource Code

Datasource code	Datasource name
AAD	Australian Antarctic Division
ACT_TCCS	ACT Transport Canberra and City Services
AWC	Australian Wildlife Conservancy
BHA	Bush Heritage Australia
BHA_NTWA	Bush Heritage Australia and National Trust of Western Australia
DAWE	Australian Government, Department of Agriculture, Water and the Environment
DAWE_NRSP	Australian Government, Department of Agriculture, Water and the Environment - National Reserve System Program
FC_NSW	Forestry Corporation of NSW
LHI_Board	Lord Howe Island Board
NF_SA	Nature Foundation SA Inc
NSW_OEH	NSW Office of Environment and Heritage
NT_PWCNT	Parks and Wildlife Commission of the NT
NTWA	National Trust of Western Australia
QLD_DES	Queensland Department of Environment and Science
SA_DEW	South Australian Department for Environment and Water
SA_FRST	Forestry South Australia
TAS_DPIPWE	Tasmanian Department of Primary Industries, Parks, Water and Environment
TFN_QLD	Queensland Trust for Nature
TFN_VIC	Trust for Nature Victoria
TSRA	Torres Strait Regional Authority
VIC_DELWP	Victorian Department of Environment, Land, Water and Planning
WA_DBCA	Western Australian Department of Biodiversity, Conservation and Attractions