

Business rules for the creation of the Tasmanian Reserve Estate spatial layer

1. Introduction

Under Tasmania's Regional Forest Agreement (RFA) (1997) the Tasmanian and Australian Governments agreed to establish a comprehensive, adequate and representative (CAR) reserve system to ensure the long-term conservation and protection of Tasmania's biodiversity, oldgrowth and wilderness values.

The CAR reserve system established under the RFA built onto the existing extensive reserve network through the addition of new reserves on both public and private land¹. Since the RFA the reserve system has been extended considerably through programs and agreements such as the Tasmanian Community Forest Agreement (TCFA), the Crown Land Assessment and Classification (CLAC) Project, Marine Protected Area Strategy and various private land conservation programs. The reserve system extends over land, inland waters, estuaries and marine areas.

A Tasmanian Reserve Estate spatial layer has been created to provide the mapped extent of the reserve system in Tasmania. This document has been developed to formalise the business rules for compiling the Tasmanian Reserve Estate spatial layer to ensure the layer is kept up to date in a consistent manner and to provide a consistent basis for reporting on attributes of the reserve system.

2. Governance

The business rules are developed and maintained by Natural and Cultural Heritage (NCH) Division of Department of Primary Industries, Parks, Water and Environment (DPIPWE).

Amendments to the business rules are authorised by the Tasmanian Reserve Estate Steering Committee, comprising representatives from DPIPWE, Department of State Growth and Sustainable Timber Tasmania.

3. Purpose

The purpose of the Tasmanian Reserve Estate (TRE) spatial layer is:

To provide a spatial representation of Tasmania's Reserve Estate to be used as the authoritative source of information on the extent, type and distribution of the comprehensive, adequate and representative (CAR) reserve system in Tasmania.

The Tasmanian Reserve Estate spatial layer has been explicitly created to provide the basis of reporting reservation statistics for:

- a) the CAR reserve system developed under the RFA
- b) state and national State of the Environment and State of the Forest Reports
- c) The National Reserve System

¹ 'Land' includes –

- (a) land covered by the sea or other waters; and
- (b) the part of the sea or those waters covering that land; (*Nature Conservation Act 2002*)

- d) Marine Protected Areas reporting
- e) DPIPW annual and corporate plan reporting

The TRE spatial layer is also the authoritative source of reservation information to support natural resource management planning, prioritisation, reporting and decision-making.

4. Reserve classification

The Tasmanian Reserve Estate includes the following elements:

Public Land¹

Formal Reserves. Reserves equivalent to IUCN Protected Area Management Categories I, II, III, IV, or VI as defined by the IUCN Commission for National Parks and Protected Areas (1994). The status of Formal Reserves is secure, requiring action by the Tasmanian Parliament for revocation. Some Formal Reserves are also **Dedicated Reserves**, which, in Tasmania, comprise the following reserves: National Parks, State Reserves, Game Reserves, Nature Reserves, and Historic Sites (under the *Nature Conservation Act 2002*).²

Informal Reserves. Reserves on Permanent Timber Production Zone Land or other Forestry Tasmania managed land³, comprising an area identified as Protection Zone under the Management Decision Classification System, or other administrative reserves on public land, including some *Crown Lands Act 1976* reserves, and Future Potential Production Forest Land under the *Forestry (Rebuilding the Forest Industry) Act 2014*, which are managed to protect CAR values.

Private Land⁴

Private Reserves (Perpetual). Reserves on private freehold land that are perpetual under State legislation (*Nature Conservation Act 2002*), or Commonwealth legislation (*Environment Protection and Biodiversity Conservation Act 1999*) and require approval for revocation by the Minister and / or Parliament.

Private Reserves (Perpetual) are:

- Private Nature Reserve
- Private Sanctuary
- Perpetual Conservation Covenant (Nature Conservation Act)
- Private Land within the Tasmanian Wilderness World Heritage Area (WHA)⁵

Private Reserves (Variable Term). Reserves on private freehold land that are under contractual arrangements between the land owner and the Crown, or independently certified management systems, or other covenant arrangements that do not require approval from the Minister or Parliament for revocation.

¹ Public Land for the purpose of these rules includes Crown Land and Freehold land owned by the Crown.

² The descriptions for Formal and Dedicated Reserves are based on the definitions in the Tasmanian Regional Forest Agreement, November 1997.

³ On 1st July 2017, Forestry Tasmania became Sustainable Timber Tasmania. References to Forestry Tasmania that relate to the Tasmanian Reserve Estate spatial layer that are as-at 30th June 2017, will remain as Forestry Tasmania in these Business Rules. The change to Sustainable Timber Tasmania will take place in the as-at 30th June 2018 spatial layer.

⁴ Private Land for the purpose of these rules is any land that is not Public Land.

⁵ Private Land in the World Heritage Area is under the *Environment Protection and Biodiversity Conservation Act 1999*.

Private Reserves (Variable Term) are:

- Fixed-term Conservation Covenant (*Nature Conservation Act 2002*)
- Management Agreement (including Vegetation Management Agreements) (*Nature Conservation Act 2002*)
- Stewardship Agreement
- Part 5 Agreements (*Land Use Planning and Approvals Act 1993*) secured as offsets for the Meander Dam development
- Other Private Reserve (reserves under independently certified management systems)

Indigenous Protected Areas. An Indigenous Protected Area (IPA) is an area of freehold land over which the traditional indigenous owners have entered into a voluntary agreement with the Australian Government for the purposes of promoting biodiversity and cultural resource conservation. The IPA is declared in perpetuity by the indigenous land owners on behalf of their community members. An IPA declaration is not a legal process that affects land tenure.

Marine Protected Area (MPA)

An MPA is an area of land and/or sea especially dedicated to the protection and maintenance of marine biological diversity, and of natural and associated cultural resources, and managed through legal (*Nature Conservation Act 2002, Living Marine Resources Management Act 1995*), or other effective mechanisms. This excludes marine areas that are not specifically dedicated to these purposes, such as the portion of terrestrial reserves below the Mean High Water Mark (MHW).

Note that the CAR reserve system defined in the Tasmanian Regional Forest Agreement includes not only Formal, Informal and Private reserves, but also includes other areas on public land which have CAR values protected by prescription. Attachment 6 of the RFA describes “values managed by prescription” as those areas protected by management prescription under the Forest Practices Code or in Forest Management Plans. These business rules recognise that “values managed by prescription” are part of the CAR reserve system. However as these areas are not spatially defined they are not incorporated within the Tasmanian reserve estate spatial layer and hence not reported through the reporting processes listed under section 2.

5. General rules

The Tasmanian Reserve Estate spatial layer will be generated by application of the following general rules. The spatial layer will:

- contain both formal and informal reserves on public and private land;
- be generated from a range of source datasets as set-out in sections 3. to 6. below;
- be updated annually at the end of each financial year. As a result the Tasmanian Reserve Estate spatial layer will represent a snapshot in time and will not be stored as a “live” dataset. It will therefore be tagged with an “as at” date.
- represent the “authoritative” view of the reserve system in Tasmania, particularly for the purposes of reporting on the State of the Environment, the State of the Forests and other Government policies and programs; and include both terrestrial and marine reserves.

DPIPWE is the custodian of the Tasmanian Reserve Estate spatial layer and will make the dataset publicly available via the LIST, together with appropriate metadata to ensure that users understand the nature of each type of reserve, the basis on which its boundaries were compiled and maintained, and its currency. DPIPWE will publish these Business Rules and the layer’s metadata on the DPIPWE web page, along with a report summarising the area of reserve estate within each reserve class, and the changes in area from the previous year.

6. Layers used to produce the Tasmanian Reserve Estate spatial layer

For each input layer, only the reserves that were effective by the nominated “as-at” date should be selected.

Layer 1:

Select only the following categories from the LIST Public Land Classification layer

- Conservation Area
- Game Reserve
- Historic Site
- National Park
- Nature Recreation Area
- Nature Reserve
- Regional Reserve
- State Reserve

Layer 2:

LIST Wellington Park layer

Layer 3:

LIST Private Reserves. The following reserve classes are sourced from this layer:

- Private Nature Reserve
- Private Sanctuary
- Conservation Covenant
- Management Agreement
- Part 5 Agreement (Meander Dam Offset)

The private reserves layer has overlap between some Conservation Covenants & Private Nature Reserves or Private Sanctuaries. This overlap needs to be removed & the layer attributed with both values where appropriate eg: “Conservation Covenant (NCA) and Private Sanctuary”.

Similarly, there is overlap between reserves from the Public Land Classification layer and Conservation Covenants. This overlap needs to be removed and the relevant reserves labelled accordingly eg: “Conservation Area and Conservation Covenant”. This would occur only where the public land is not owned by the Crown, for example it may be owned by a local council. For these polygons, the reserve will continue to be regarded as being on public land.

The Tasmanian Reserve Estate layer should only have current reserves, and thus expired and discontinued reserves should be excluded by using the rule:

(Expiry <= the as-at date) AND (Status = 0)

Layer 4:

Future Potential Production Forest Land under the *Forestry (Rebuilding the Forest Industry) Act 2014*.

Layer 5:

Informal Reserves on Permanent Timber Production Zone Land and Forestry Tasmania managed land, comprising an area identified as Protection Zone under the Management Decision Classification System (from FT – to be provided to LIST under SLA)

Layer 6:

Informal Reserves on other public land

This layer will include the following:

- Areas identified as CAR Informal Reserves during the RFA, and aligned with the current cadastral data
- Areas purchased by the Crown for conservation but not yet gazetted.

In some cases, areas purchased for conservation are automatically classed as Conservation Areas, as allowed for in Section 14(1) of the *Nature Conservation Act 2002*, from the day the land is registered in the name of the Crown. These reserves should follow the attribute value rules as given for Conservation Areas.

Layer 7:

Public authority land within the World Heritage Area. (WHA)

This layer will be derived by LIST Parcels where:

CAD_TYPE1 = “Authority Land” AND CAD_TYPE2 does **NOT** equal “Aboriginal Land” AND the parcels are within the World Heritage Area boundary.

Layer 8:

Private land within WHA.

This layer will be derived by LIST Parcels where:

- CAD_TYPE1 = “Authority Land” AND CAD_TYPE2 = “Aboriginal Land” AND the parcels are within the World Heritage Area boundary.
- CAD_TYPE1 = “Private” AND the parcels are within the World Heritage Area boundary.

This will ensure that Aboriginal Land within WHA is referred to as part of the class under the generic title “Private land within WHA”, and cannot be specifically identified.

Layer 9:

Other private reserves.

This layer is derived from layers provided by private forestry organisations and contains private conservation reserves set aside within non-production zones, and recognised under independently certified management systems.

Layer 10:

Indigenous Protected Areas.

This layer will be derived from the LIST parcels layers where:

- CAD_TYPE = “Aboriginal Land”
- the subset of these parcels that are identified by the Australian Government Department of the Environment, Water, Heritage and the Arts as declared IPAs.

Layer 11:

Stewardship Agreements.

This layer can be obtained from the Tasmanian Land Conservancy.

Layer 12:

The LIST hydrography line layer

Extract the coastline defined by the MHW.

This is derived from the hydrography layer where:

HYDLNTY2 = “MHW” OR HYDLNTY2 = “MHW & MLW”

This is used to define the reserves and portions that are Other Marine. The terrestrial component of reserves includes land above MHW, offshore islands and inland waters, but excludes estuaries.

Layer 13:

The LIST Marine Nature Reserves

Some Marine Nature Reserves have a terrestrial portion. This layer is used to show the MPA part of Marine Nature Reserves. This layer also indicates which parts of the Marine Nature Reserves are excluded from the “no take” section of the *Living Marine Resources Management Act 1995*, and which areas are in a Restricted Take Zone, (ie. marine areas of marine nature reserves where fish are not fully protected) as well as areas that are completely “no take”.

7. Steps for creating a Tasmanian Reserve Estate spatial layer

1. Combine layers 1 + 2 + 3 + 4 + 7 + 8 + 9 + 10 + 11 = layer **14**

To ensure there is no overlap between any of these layers, the layer prioritisation is as follows: 1, 2, 3, 7, 4, 8, 10, 9 (highest priority to lowest priority).

2. Remove any areas from layer 6 that overlap the LIST Cadastre Parcels where:

CAD_TYPE1 = Private Parcel

This does not include any Authority land.

This new layer = layer **15**

3. Combine layers 5 + 14 + 15 = Tasmanian Reserve Estate spatial layer. To ensure there is no overlap between any of these layers, the layer prioritisation is as follows: 5, 15, 14 (lowest priority to highest priority).

4. Overlay the Tasmanian Reserve Estate spatial layer with Layer 12 (the mean high water mark layer), to determine which reserves are terrestrial, and which are marine. Some reserves may need to be split to show the portion that is marine, and the portion that is terrestrial.

5. Overlay the Tasmanian Reserve Estate spatial layer with Layer 13 (the Marine Nature Reserves) to determine which reserves are MPAs, or have a portion that is an MPA. Along with polygons where:

Res_name contains “Marine Conservation”
Update all such cases with Environ = “MPA”

6. Select the polygons where Comments = “No Take Zone”
Update all such polygons with Fishing = “No Take”

Select the polygons where Comments = “Restricted Take Zone”
Update all such polygons with Fishing = “Restricted Take”

Select the polygons where (Res_name contains “Marine Conservation”) or (Fishing = “”) (still blank) and Environ = “MPA”

Update all such polygons with Fishing = “Unzoned”

8. Fields in the Tasmanian Reserve Estate spatial layer

Field	Type	Description
CID	INT(32)	Cadastral Identifier – The unique database identifier for each cadastral polygon from LIST layers
FOREIGN_ID	INT(32)	Foreign ID for linking to other attributes, such as IUCN categories
UFI	CHAR (12)	Unique Feature Identifier – a unique identifier attached to every representation of a feature instance within The LIST
RES_CLASS	CHAR (70)	The description of the reservation classification
RES_STATUS	CHAR (30)	The description of an area’s reserve status
RES_NAME	CHAR (60)	The name of a reserve as proclaimed and recorded in the database of the Nomenclature Board.
NAME_SHORT	CHAR (60)	Name of the reserve, with the reserve type abbreviated
MANAGE	CHAR (30)	Identifies the land management
MINING	CHAR (100)	Identifies if reserve is available under the MRDA
ACT	CHAR (12)	The Act under which the reserve was established
CREATED	DATE	Date that the original reserve first became effective
EXPIRY	DATE	Date when a fixed-term reserve will expire
IUCN	CHAR (16)	The IUCN category of the reserve (see Appendix 2)
FOR_ID2	INT (32)	The Foreign ID of the secondary reserve where there are two current reserve types
CREATED2	DATE	The date that the secondary reserve became effective where there are two current reserve types
PROJECT	CHAR (20)	Major Project under which the reserve was created
AS_AT_DATE	DATE	Date at which the data was current
ENVIRON	CHAR (12)	Whether the portion of the reserve is Terrestrial, an MPA, or Other Marine.
FISHING	CHAR (20)	Identifies the level of fishing restrictions in an MPA, defined by the LMRMA 1995
TERM	CHAR (20)	The length of term of the Conservation Covenant or Agreement.
REG	CHAR (20)	Indicates Conservation Covenants or Agreements that resulted from a regulatory requirement, associated with development.
NRS	CHAR (20)	Indicates whether the protected area meets the requirements agreed by the NRS Task Group as being part

Field	Type	Description
		of the national reserve system, or is otherwise best considered part of complementary protection mechanisms.
MGT_PLAN	CHAR (30)	The status of the Management Plan for the protected area on the specified as-at date
DATA_SRC	CHAR (60)	Identifies who is the custodian of the source data
AUTHORITY	CHAR (50)	Identifies the authority which administers the Reserve

9. Acceptable values for proposed fields in the Tasmanian Reserve Estate spatial layer

CID

From CID field for all LIST layers.

FOREIGN_ID

Numeric - generated.

UFI

From UFI field for all LIST layers.

RES_CLASS

Acceptable values:

Conservation Area
Game Reserve
Historic Site
Indigenous Protected Area
National Park
Nature Recreation Area
Nature Reserve
Regional Reserve
State Reserve
Wellington Park
Informal Reserve on Permanent Timber Production Zone Land or Forestry Tas. managed land
Informal Reserve on other public land
Private land within WHA
Public authority land within WHA
Conservation Covenant (NCA)
Management Agreement
Stewardship Agreement
Private Nature Reserve
Private Sanctuary
Part 5 Agreement (Meander Dam Offset)
Other Private Reserve
Future Potential Production Forest

Additional values will be required to deal with the combination of various private reserves, eg. "Conservation Covenant (NCA) and Private Sanctuary" and to accommodate future reservation classes.

RES_STATUS

Acceptable values:

Dedicated Formal Reserve
Other Formal Reserve
Informal Reserve
Private Reserve (Perpetual)
Private Reserve (Variable Term)
Indigenous Protected Area

RES_NAME

Acceptable values will be any of those reserves with names from the LIST Public Land Classification or LIST Private Reserves layers.

MANAGE

Acceptable values:

Publicly managed land
Privately managed land

MINING

Acceptable values:

Not available under the MRDA
Available under the MRDA
Available under the MRDA but not available under administrative arrangements
Unknown

ACT

Acceptable values:

Definitions:

EPBCA	Environment Protection and Biodiversity Conservation Act
FA	Forestry Act
LMRMA	Living Marine Resources Management Act
LUPAA	Land Use Planning and Approvals Act
NCA	Nature Conservation Act
WPA	Wellington Park Act
Other or nil	(for Informal Reserves on other public land, where it is difficult to determine which ones were established under an Act.)
Combinations of the above Acts are acceptable eg: "NCA and LMRMA"	

DATA_SRC

Acceptable values:

DPIPWE

STTAS
TLC
Other

IUCN (see Appendix 2 for explanation)

Acceptable values:

Ia
Ib
II
III
IV
V
VI
Not classified

PROJECT

Acceptable values:

Definitions:

NRS	National Reserve System
BHP	Biodiversity Hotspots Project
FCF	Forest Conservation Fund*
NFVP	Non-forest Vegetation Project
PAPL	Protected Areas on Private Land
PFRP	Private Forests Reserve Program
TCFA	Tasmanian Community Forest Agreement
CLAC	Crown Land Assessment and Classification Project
TFA	Tasmanian Forest Agreement
MCF	Midlands Conservation Fund
Transfer from FRs	Transfer from Forest Reserves
n/a	

* Note – the FCF category includes Mole Creek Karst Forest Program

ENVIRON

Acceptable values :

Definitions

Terrestrial	The land above the Mean High Water Mark, including inland waters, Macquarie Island, and the other off-shore islands. It excludes estuaries
Other Marine	The portions of reserves below the Mean High Water Mark including estuaries, that are not MPAs
MPA	An area of land and/or sea especially dedicated to the protection and maintenance of marine biological diversity, and of natural and associated cultural resources, and managed through legal (<i>Nature Conservation Act 2002, Living Marine Resources Management Act 1995</i>), or other effective mechanisms.

FISHING

Acceptable values :

Definitions

No take	A zone in which the taking of any fish is not permitted (fish defined by LMRMA 1995).
Restricted take	A zone that has been specified as 'Restricted take' by the LMRMA
Unzoned	An area that has been excluded from the 'No take' provisions of the LMRMA

Note - other legislation such as Fishing Rules over-ride the Unzoned areas of MPAs

TERM

Acceptable values:

Perpetual
A fixed length of time eg: "12 Years"

REG

Acceptable values:

Definitions:

Compensation	Arising from affected owner provisions from FP Act and NC Act
Offset	Regulatory requirement from land-use decision
n/a	

NRS

Acceptable values:

Definitions:

Yes	The protected area meets the requirements agreed by the NRS Task Group as being part of the national reserve system. That is, perpetual and on title.
No	The land does not meet the requirements agreed by the NRS Task Group as being part of the national reserve system but compliments the NRS with sympathetic management. That is, not perpetual and/or not on title.
Interim	The protected area meets the requirements agreed by the NRS Task Group as being part of the national reserve system but has not been formally established as a protected area but agreements are in place. For example, Areas purchased by the Crown for conservation but not yet gazetted.
Not determined	The land has not been assessed to determine if it meets the requirements agreed by the NRS Task Group as being part of the national reserve system but compliments the NRS with sympathetic management.

MGT_PLAN

Acceptable values:

Definitions:

PWS Equivalent:

In Preparation	Some form of management document was being prepared.	In Preparation
Draft	A draft management document was released for comment by the public, management board or equivalent.	Draft
Statutory	Enabling legislation establishes the management of a protected area and a separate management document is not required	(Not Applicable)
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.	GMP – Reserve Report
Management Plan	A formally adopted management plan that has been	Yes – Statutory or

	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.	Yes – WHA Statutory and Management Statement (non-statutory) or Management Strategy (non-statutory)
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.	
Unknown	No form of management document could be found.	No (Plan)

AUTHORITY

Acceptable values:

Definitions:

PWS	Parks and Wildlife Service Tasmania
DPIPWE	Department of Primary Industries, Parks, Water and Environment
(Council Name)	The name of the local council that administers the reserve
FT	Forestry Tasmania
Tas Water	
Hydro Tasmania	
PAHSMA	Port Arthur Historic Site Management Authority
WPMT	Wellington Park Management Trust
Private	A private organisation or individual
Various	There are multiple agencies administering the reserve
Unknown	

10. How values are determined for each of the input layers:

Layer 1: LIST Public Land Classification layer

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	from LIST PLC "CID" field
FOREIGN_ID	
UFI	from LIST PLC "UFI" field
RES_CLASS	from PLC "CATEGORY" field
RES_STATUS	= Dedicated Formal Reserve for reserves that are unavailable under the MRDA. Other Formal Reserve for reserves that are available under the MRDA.
RES_NAME	from PLC "NAME" field
MANAGE	= Publicly managed land
MINING	from NCH-maintained LUT based on FOREIGN_ID
ACT	NCA
DATA_SRC	= DPIPWE
CREATED	from NCH-maintained LUT based on FOREIGN_ID
EXPIRY	n/a – applies to private reserves
IUCN	from NCH-maintained LUT based on FOREIGN_ID
FOR_ID2	n/a – applies to private reserves
CREATED2	n/a – applies to private reserves
PROJECT	from NCH-maintained LUT based on FOREIGN_ID
ENVIRON	From overlay with mean high water mark, and Marine Nature Reserves as defined in Step 5 in Section 7.
FISHING	From overlay with Marine Nature Reserves as defined in Step 6 in Section 7.
AS_AT_DATE	Date of the PLC layer
TERM	n/a – applies to private reserves

Fields for Reserve Estate layer	Values for Reserve Estate layer
REG	n/a – applies to private reserves
NRS	= Yes
MGT_PLAN	from NCH-maintained LUT based on FOREIGN_ID
AUTHORITY	= DPIPWE

Layer 2: LIST Wellington Park

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	from LIST Wellington Park “CID” field
FOREIGN_ID	
UFI	from LIST PLC “UFI” field
RES_CLASS	= Wellington Park
RES_STATUS	= Dedicated Formal Reserve
RES_NAME	= Wellington Park
MANAGE	= Publicly managed land
MINING	= Not Available under the MRDA
ACT	WPA
DATA_SRC	= DPIPWE
CREATED	1/11/1993
EXPIRY	n/a – applies to private reserves
IUCN	II
FOR_ID2	n/a – applies to private reserves
CREATED2	n/a – applies to private reserves
PROJECT	n/a
ENVIRON	From overlay with mean high water mark, and Marine Nature Reserves as defined in Step 5 in Section 7.
FISHING	n/a – applies to MPAs
AS_AT_DATE	Date of the Wellington Park layer
TERM	n/a – applies to private reserves
REG	n/a – applies to private reserves
NRS	= Yes
MGT_PLAN	= Management Plan
AUTHORITY	WPMT

Layer 3: LIST Private Reserves

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	from LIST Private reserves “CID” field
FOREIGN_ID	
UFI	from LIST PLC “UFI” field
RES_CLASS	After overlap in layer has been dealt with this field is attributed from LIST Private reserves with the updated “CATEGORY” field and/or “Conservation Covenant (NCA)”
RES_STATUS	= from NCH-maintained LUT based on FOREIGN_ID
RES_NAME	from LIST Private Reserves “NAME” field
MANAGE	= Privately managed land
MINING	from NCH-maintained LUT based on FOREIGN_ID
ACT	from NCH-maintained LUT based on FOREIGN_ID
DATA_SRC	= DPIPWE
CREATED	from NCH-maintained LUT based on FOREIGN_ID
EXPIRY	from NCH-maintained LUT based on FOREIGN_ID
IUCN	from NCH-maintained LUT based on FOREIGN_ID; NB: Fixed-term covenants and Management Agreements must have a value of “Not Classified”

Fields for Reserve Estate layer	Values for Reserve Estate layer
FOR_ID2	from NCH-maintained LUT based on FOREIGN_ID
CREATED2	from NCH-maintained LUT based on FOREIGN_ID
PROJECT	from NCH-maintained LUT based on FOREIGN_ID
ENVIRON	From overlay with mean high water mark, and Marine Nature Reserves as defined in Step 5 in Section 7.
FISHING	n/a – applies to MPAs
AS_AT_DATE	“Created” date of the most recently added reserve
TERM	from NCH-maintained LUT based on FOREIGN_ID
REG	from NCH-maintained LUT based on FOREIGN_ID
NRS	from NCH-maintained LUT based on FOREIGN_ID
MGT_PLAN	from NCH-maintained LUT based on FOREIGN_ID
AUTHORITY	Private

Layer 4: Future Potential Production Forest Land under the *Forestry (Rebuilding the Forest Industry) Act 2014*

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	n/a
FOREIGN_ID	
UFI	n/a
RES_CLASS	= Future Potential Production Forest
RES_STATUS	= Informal Reserve
RES_NAME	n/a
MANAGE	= Publicly managed land
MINING	Available for mining under the MRDA
ACT	nil
DATA_SRC	= DPIPWE
CREATED	20141022
EXPIRY	n/a – applies to private reserves
IUCN	= Not classified
FOR_ID2	n/a – applies to private reserves
CREATED2	n/a – applies to private reserves
PROJECT	
ENVIRON	From overlay with mean high water mark, and Marine Nature Reserves as defined in Step 5 in Section 7.
FISHING	n/a – applies to MPAs
AS_AT_DATE	20160630
TERM	n/a – applies to private reserves
REG	n/a – applies to private reserves
NRS	= No
MGT_PLAN	= No
AUTHORITY	DPIPWE

Layer 5: Informal Reserves on Permanent Timber Production Zone Land and Forestry Tasmania managed land

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	n/a
FOREIGN_ID	
UFI	n/a
RES_CLASS	= Informal Reserve on Permanent Timber Production Zone Land or Forestry Tas. managed land
RES_STATUS	= Informal Reserve
RES_NAME	n/a
MANAGE	= Publicly managed land

Fields for Reserve Estate layer	Values for Reserve Estate layer
MINING	Available for mining under the MRDA
ACT	nil
DATA_SRC	= FT
CREATED	from FT
EXPIRY	n/a – applies to private reserves
IUCN	= Not classified
FOR_ID2	n/a – applies to private reserves
CREATED2	n/a – applies to private reserves
PROJECT	from FT
ENVIRON	From overlay with mean high water mark, and Marine Nature Reserves as defined in Step 5 in Section 7.
FISHING	n/a – applies to MPAs
AS_AT_DATE	20160630
TERM	n/a – applies to private reserves
REG	n/a – applies to private reserves
NRS	= No
MGT_PLAN	= Regional Plan
AUTHORITY	FT

Layer 6: Informal Reserves on other public land

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	n/a
FOREIGN_ID	
UFI	
RES_CLASS	= Informal Reserves on other public land
RES_STATUS	= Informal Reserve
RES_NAME	n/a
MANAGE	= Publicly managed land
MINING	from NCH-maintained LUT based on FOREIGN_ID
ACT	Other or nil
DATA_SRC	= DPIPWE
CREATED	from NCH-maintained LUT based on FOREIGN_ID
EXPIRY	n/a – applies to private reserves
IUCN	= Not classified
FOR_ID2	n/a – applies to private reserves
CREATED2	n/a – applies to private reserves
PROJECT	from NCH-maintained LUT based on FOREIGN_ID
ENVIRON	From overlay with mean high water mark, and Marine Nature Reserves as defined in Step 5 in Section 7.
FISHING	n/a – applies to MPAs
AS_AT_DATE	Date of the oldest input data layer
TERM	n/a – applies to private reserves
REG	n/a – applies to private reserves
NRS	= from NCH-maintained LUT based on FOREIGN_ID
MGT_PLAN	= Unknown
AUTHORITY	DPIPWE

Layer 7: Public authority land within WHA

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	from LIST Parcels “CID” field
FOREIGN_ID	
UFI	from LIST PLC “UFI” field

RES_CLASS	Authority land within WHA
RES_STATUS	Dedicated Formal Reserve for reserves that are unavailable under the MRDA. Other Formal Reserve for reserves that are available under the MRDA.
RES_NAME	n/a
MANAGE	= Publicly managed land
MINING	from NCH-maintained LUT based on FOREIGN_ID
ACT	EPBCA
DATA_SRC	= DPIPWE
CREATED	from NCH-maintained LUT based on FOREIGN_ID
EXPIRY	n/a – applies to private reserves
IUCN	Not classified
FOR_ID2	n/a – applies to private reserves
CREATED2	n/a – applies to private reserves
PROJECT	from NCH-maintained LUT based on FOREIGN_ID
ENVIRON	From overlay with mean high water mark, and Marine Nature Reserves as defined in Step 5 in Section 7.
FISHING	n/a – applies to MPAs
AS_AT_DATE	Date of the input parcel layer
TERM	n/a – applies to private reserves
REG	n/a – applies to private reserves
NRS	= Yes
MGT_PLAN	= Management Plan
AUTHORITY	from NCH-maintained LUT based on FOREIGN_ID

Layer 8: Private land within WHA

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	from LIST Parcels "CID" field
FOREIGN_ID	
UFI	from LIST PLC "UFI" field
RES_CLASS	Private land within WHA
RES_STATUS	= Private Reserve (Perpetual)
RES_NAME	n/a
MANAGE	= Privately managed land
MINING	Unknown
ACT	EPBCA
DATA_SRC	= DPIPWE
CREATED	from NCH-maintained LUT based on FOREIGN_ID
EXPIRY	n/a
IUCN	Not classified
FOR_ID2	n/a
CREATED2	n/a
PROJECT	from NCH-maintained LUT based on FOREIGN_ID
ENVIRON	From overlay with mean high water mark, and Marine Nature Reserves as defined in Step 5 in Section 7.
FISHING	n/a – applies to MPAs
AS_AT_DATE	Date of the input parcel layer
TERM	n/a
REG	n/a
NRS	= Yes
MGT_PLAN	= Management Plan
AUTHORITY	Private

Layer 9: Other private reserves

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	n/a
FOREIGN_ID	n/a
UFI	n/a
RES_CLASS	=Other Private Reserve
RES_STATUS	= Private Reserve (Variable Term)
RES_NAME	n/a
MANAGE	= Privately managed land
MINING	= Available for mining under the MRDA
ACT	nil
DATA_SRC	= Other
CREATED	n/a
EXPIRY	n/a
IUCN	= Not classified
FOR_ID2	n/a
CREATED2	n/a
PROJECT	
ENVIRON	From overlay with mean high water mark, and Marine Nature Reserves as defined in Step 5 in Section 7.
FISHING	n/a – applies to MPAs
AS_AT_DATE	Date of the input layer
TERM	n/a
REG	n/a
NRS	= No
MGT_PLAN	= Unknown
AUTHORITY	Private

Layer 10: Indigenous Protected Areas

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	n/a
FOREIGN_ID	from NCH-maintained LUT
UFI	n/a
RES_CLASS	= Indigenous Protected Area
RES_STATUS	= Indigenous Protected Area
RES_NAME	From IPA layer 'name' field
MANAGE	= Privately managed land
MINING	= Available under the MRDA but not available under administrative arrangements
ACT	nil
DATA_SRC	= DPIPWE
CREATED	from NCH-maintained LUT based on FOREIGN_ID
EXPIRY	n/a
IUCN	from NCH-maintained LUT based on FOREIGN_ID
FOR_ID2	n/a
CREATED2	n/a
PROJECT	n/a
ENVIRON	From overlay with mean high water mark, and Marine Nature Reserves as defined in Step 5 in Section 7.
FISHING	n/a – applies to MPAs
AS_AT_DATE	Date of the input layer
TERM	n/a
REG	n/a
NRS	= Yes

Fields for Reserve Estate layer	Values for Reserve Estate layer
MGT_PLAN	= Management Plan
AUTHORITY	Private

Layer II: Stewardship Agreements

Fields for Reserve Estate layer	Values for Reserve Estate layer
CID	n/a
FOREIGN_ID	from NCH-maintained LUT
UFI	n/a
RES_CLASS	= Stewardship Agreement
RES_STATUS	= Private Reserve (Variable Term)
RES_NAME	
MANAGE	= Privately managed land
MINING	= Available under the MRDA
ACT	nil
DATA_SRC	= TLC
CREATED	n/a
EXPIRY	n/a
IUCN	Not classified
FOR_ID2	n/a
CREATED2	n/a
PROJECT	n/a
ENVIRON	Terrestrial
FISHING	n/a – applies to MPAs
AS_AT_DATE	Date of the input layer
TERM	n/a
REG	n/a
NRS	= No
MGT_PLAN	= Management Plan
AUTHORITY	Private

NAME_SHORT. This should be determined from the RES_NAME attribute, substituting the abbreviated reserve type for the reserve type.

II. Reporting

The composite nature of the Reserves layer, and the spatial resolution at which its linework is maintained, mean that users should not infer undue precision to it. Accordingly, when reporting on the area of reserves, area figures should be rounded according to the following protocol:

Reserve areas reported at a Statewide scale should be reported to the nearest 1000 hectares or to the:

- Nearest 100 if the figure is < 1000
- Nearest 10 if the figure is < 100
- Nearest whole number if the figure is < 10

Reserve areas reported at a regional scale, (eg: Bioregion, NRM region, municipality) or areas of other attributes within reserves (eg vegetation communities) should be reported to the nearest 100 hectares or to the:

- Nearest 10 if the figure is < 100
- Nearest whole number if the figure is < 10

These rules should also be applied to column totals.

When reporting requires a reference to the terrestrial area of Tasmania, such as the percentage of Tasmania that is covered by reserves, the area used should be 6,810,000 hectares. This figure is derived using the Mean High Water Mark, and includes inland waters, Macquarie Island, and the other off-shore islands, and excludes estuaries.

When reporting requires reference to the area of Tasmanian State Waters, an area of 2,356,000 hectares should be used. When reporting on the Tasmanian Integrated Marine and Coastal Regionalisation of Australia (IMCRA) Meso-scale bioregions, attention should be given to the question being asked, to determine whether the Macquarie Island Province, and therefore the Macquarie Island MPA (74,700ha) is to be included. When reporting on the area of Tasmania's MPAs, the Macquarie Island MPA is usually included; however there will be instances where the Macquarie Island MPA and waters surrounding Macquarie Island are to be excluded, in which case an area of 2,274,500 hectares should be used.

Reports should always quote the "as at" date for the constituent datasets from which the Tasmanian Reserve Estate spatial layer was compiled.

See Also Appendix I – Matrix for Reporting.

Appendix I – Matrix for Reporting

Figure I is a matrix that shows all reserve classes in the Tasmanian Reserve Estate layer, along with the category under which each class is placed, for CAPAD (NRS) reporting, and State of the Forests reporting. Note that when reporting on the NRS, the reserve classes labelled ‘Complementary’ are excluded.

Figure I - Matrix of reserve classes used in reporting

	Class	CAPAD	Reserve Class SOF Report	Tenure Class SOF Report
Public Land	Game Reserve	GR	Dedicated Formal Reserve	Conservation & Public & Reserves (AKA Nature Conservation Reserve in Aust SOF)
	Historic Site	HS	Dedicated Formal Reserve	
	National Park	NP	Dedicated Formal Reserve	
	Nature Reserve	NR	Dedicated Formal Reserve	
	State Reserve	SR	Dedicated Formal Reserve	
	Wellington Park	OCA	Dedicated Formal Reserve	
	Conservation Area	CA	Other Formal Reserve	
	Nature Recreation Area	NRA	Other Formal Reserve	
	Regional Reserve	RR	Other Formal Reserve	
	Public authority land within WHA	Complementary	Other Formal Reserve	
	Public Reserves identified as CAR reserves¹	Complementary	Informal Reserve	
	<i>Public Reserves excluding those identified as CAR reserves</i>		Other Public Land	
	Informal Reserve on Permanent Timber Production Zone Land or Forestry Tas. managed land	Complementary	Informal Reserve	Other PTPZ (AKA Multiple Use Forests in Aust SOF)
	<i>PTPZ (excl Informal Reserves on PTPZ)</i>		Other Public Land	
	Future Potential Production Forest	Interim	Informal Reserve	
	Informal reserve on other public land (excluding Public Reserves¹)	Complementary	Informal Reserve	Other Publicly Managed Land (AKA Other Crown Land in Aust SOF)
	Informal reserve on other public land (purchases awaiting gazettal)	Interim	Informal Reserve	
	<i>Commonwealth of Australia and Dept Defence Land (excl CAR Reserves)</i>		Other Public Land	
	<i>Other Local Government Authority Land (excl CAR Reserves)</i>		Other Public Land	
	<i>All other Public Authority Land</i>		Other Public Land	

	Class	CAPAD	Reserve Class SOF Report	Tenure Class SOF Report
	Conservation Covenant (NCA) (Perpetual)	ACCP	Private Reserves	Private freehold land (AKA Private Land in Aust SOF)
	Conservation Covenant (NCA) (Variable Term)	Complementary	Private Reserves	
Private Land	Indigenous Protected Area	IPA	Private Reserves	
	Stewardship Agreement	Complementary	Private Reserves	
	Management Agreement	Complementary	Private Reserves	
	Private Nature Reserve	PNR	Private Reserves	
	Private Sanctuary	PS	Private Reserves	
	Private land within WHA	Complementary	Private Reserves	
	Part 5 Agreement (Meander Dam Offset)	Complementary	Private Reserves	
	Other Private Reserve	Complementary	Private Reserves	
	<i>Land for Wildlife (where not covered by a Conservation Covenant)</i>		Other Private Land	
	<i>Management Plan</i>		Other Private Land	
<i>Unreserved Private Land (Balance)</i>		Other Private Land		

- 1 *Public Reserves identified as CAR reserves have been separated out for SOF reporting, but fall within the "Informal reserve on other public land" class.*
- 2 *The classes in small grey font are tenure classes and non-binding agreements, and do not appear in the Tasmanian Reserve Estate spatial layer.*
- 3 *Text in italic font is additional to the name of the class in the Tasmanian Reserve Estate spatial layer.*
- 4 *"Reserve Class SOF Report" refers to the class in the tables in the State of the Forests Report that give a breakdown by reserve type.*
- 5 *"Tenure Class SOF Report" refers to the class in the tables in the State of the Forests Report that give a breakdown by tenure type.*

Use ALL TRE categories for:

- * % land protected (Tas) either by legislation or contract
- * Area of RFA old growth forest protected in reserves and covenants
- * Reservation shortfall in relation to RFA targeted communities (use Public/Private split)
- * Area of non-forest vegetation protected in the CAR Reserve system

Appendix 2 – Glossary

IUCN - The International Union for the Conservation of Nature and Natural Resources (the World Conservation Union)

The IUCN categories are as follows: (IUCN, 1994)

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 conservation and recreation.

III - Natural Monument: Protected Area managed 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 Areas managed mainly for landscape/seascape conservation and recreation.

VI - Managed Resource Protected Areas: Protected Area managed mainly for the sustainable use of natural ecosystems.

Tasmanian Reserve Estate METADATA

Dataset Tasmanian Reserve Estate

Unique ID:
Title: Tasmanian Reserve Estate
Custodian: Department of Primary Industries, Parks, Water and Environment (DPIPWE)
Jurisdiction: Tasmania

Description

Abstract: The Tasmanian Reserve Estate dataset is a digital map of the Reserve System for Tasmania. It represents land reserved to be managed for biodiversity conservation under Tasmania's Regional Forest Agreement (RFA) and other instruments.

The layer combines data from several sources:


- LIST Public Land Classification [ANZTA0005000047]
- Wellington Park
- LIST Private Reserves [ANZTA0005000004]
- Protection Zones from Forestry Tasmania's 1:25 000 Management Decision Classification (MDC) series
- Land purchased by the Private Land Conservation Program (PLCP) for conservation of CAR values not yet proclaimed
- Indigenous Protected Areas
- Informal Reserves on public land identified during the Regional Forestry Agreement (RFA)
- Other private reserves that have been set aside under independently certified forest management systems
- Future Potential Production Forest

Search Words: CAR, Comprehensive, Adequate, Representative, Reserves, Reserve System, RFA, Regional Forest Agreement, Biodiversity, Conservation, Tasmania.

Geographic Extent

Name: Tasmania

Bounding Box:

	-39.2	
143.5E		149.0E
	-44.0	

Dataset Currency

Beginning Date: April 1908
Ending Date: 30th June 2017

Dataset Status

Progress: Complete as at 30th June 2017
Maintenance & Update: Annual or more frequently if required

Dataset Access

Stored Data

Format(s): Digital - ASCII text file

Available Format

Types: Digital - ESRI Shapefiles
Digital - MapInfo TAB files

Access Constraints: All graphical and digital data produced by Land Tasmania, DPIPWE is covered by Crown Copyright. Access and usage of the Digital Tasmanian Reserve Estate layer are limited to those set out in the Conditions of Use document. The data may be distributed under a Digital Data Licence Agreement (DDLA), or a Service Level Agreement (SLA) in the case of Tasmanian State Government Agencies. These agreements define the terms and conditions under which the data may be used.

Data Quality

Lineage:

The Tasmanian Reserve Estate dataset is made up of data from the various data sources through the application of business rules, which are available in a more detailed document.

Only reserves that were effective as at the nominated date (30th June, 2017) are included.

Because the constituent data layers are of different spatial accuracy, they were combined in such a way that layers sourced from the LIST were given priority. That is, where overlaps occurred, the attributes from the LIST layers were used.

The resulting reserves layer was overlaid with the mean high water mark, to determine which reserves are terrestrial, and which are marine. Some reserves were split to show the portion that is marine, and the portion that is terrestrial. The terrestrial portion of reserves includes offshore islands and inland waters but excludes estuaries.

Positional Accuracy:

The positional accuracy of the Tasmanian Reserve Estate varies depending on the source of the data. Refer to the positional accuracy for those layers where metadata is available already: LIST Public Land Classification, LIST Private Reserves.

The positional accuracy of the Protection Zones from Forestry Tasmania's 1:25 000 Management Decision Classification (MDC) series is known to differ from the underlying LIST Cadastral Parcels layer for the same features. The differences in accuracy and location of boundaries have resulted in a large number of small gaps and slivers in the layer. The layer currently has many slivers resulting from the slight mismatch between Future Potential Production Forest and other input layers. These will be resolved over time as boundaries and land classifications change.

The positional accuracy of the boundaries of the final Tasmanian Reserve Estate dataset should not be inferred as being better than +/- 50 metres. The dataset is broadly suitable for depiction at a mapping scale of 1:50,000. Thus the layer should be used for its main purpose of reporting, not for defining the tenure of a specific location on the ground.

Attribute Accuracy:

Attributes have been assigned through the use of the business rules and from what has been provided with the source data and extracted from other text databases.

A lookup table was developed to populate many of the attributes. Where the value of an attribute is unknown, it is left blank, or has a value of "Unknown". At times the specific reserve to which a value was to be attributed was difficult to identify, particularly for those reserves with unproclaimed names, such as covenants.

Logical Consistency:

Data has been quality assured by the Natural and Cultural Heritage Division of DPIPW, Land Tasmania, and Sustainable Timber Tasmania. The data has been checked against component datasets and has no overlaps.

Completeness:

The data covers all known Formal, Informal and Private Tasmanian Reserve Estate in Tasmania. Values managed by prescription are not spatially recorded and have not been included. The date of currency of each input layer is identified in the "As_at_date" field.

The data is suited for use as a statewide overview, for reporting purposes and for determining reservation status. Tasks requiring a more current layer, or precise boundaries should use the live datasets that are available on the LIST.

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A more detailed document: *Business rules for the creation of a Tasmanian Reserve Estate spatial layer* is available.