

# Department of Primary Industries, Parks, Water & Environment

NATURAL VALUES CONSERVATION BRANCH

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## TASMANIAN VEGETATION MONITORING AND MAPPING PROGRAM

Specialist support and advice to Government through research, vegetation mapping, inventory, impact assessment and monitoring.

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## TASVEG 3.0 – METADATA STATEMENT

### Dataset

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**Unique ID:**

**Title:** TASVEG 3.0

**Custodian:** Department of Primary Industries, Parks, Water and Environment (DPIPWE)

**Jurisdiction:** Tasmania

**Citation:** Department of Primary Industries, Parks, Water and Environment. *TASVEG 3.0*, Released November 2013. Tasmanian Vegetation Monitoring and Mapping Program, Resource Management and Conservation Division.

### Description

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**Abstract:** TASVEG is a Tasmania-wide vegetation map produced by the Tasmanian Vegetation Monitoring and Mapping Program (TVMMP). TASVEG comprises 156 mapping units captured at a nominal scale of 1:25,000. The TASVEG mapping builds on and incorporates the Regional Forest Agreement (RFA) mapping of forest vegetation communities, originally mapped at 1:100,000 scale, as well as the World Heritage Area (WHA) mapping that was carried out at 1:25,000 scale. TASVEG is continually revised and updated via photographic and satellite image interpretation and is verified in the field where possible. This version (3.0) represents the third major release of the TASVEG layer since 2004.

**Search Words:** vegetation, flora, TASVEG, Tasmania

### Reference System

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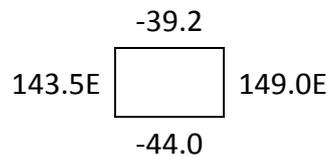
**Reference System:** EPSG:28355  
(GDA94 / MGA zone 55)

## Geographic Extent

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**Name:** Tasmania

**Bounding Box:**



## Dataset Currency

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**Beginning Date:** 1998-04-01

**Ending Date:** On next release (date to be advised)

## Dataset Status

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**Progress:** Complete for release version 3.0

**Maintenance and**

**Update:** Continual

## Dataset Access

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### Stored Data

**Format(s):** Digital – ESRI ArcSDE

### Available

**Format Type(s):** Digital – ESRI Shapefile  
Digital – MapInfo TAB file

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## Data Quality

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**Lineage:** The first version of TASVEG (TASVEG 1.0) was released in 2004. The initial TASVEG release incorporated existing information from the Regional Forest Agreement mapping program and from the World Heritage Area mapping program, with remaining areas of the state mapped by the TVMMP. Since TASVEG 1.0 there have been three minor versions released; 1.1 and 1.2 released in 2005 and 1.3 released in 2007. The last major release of TASVEG was version 2.0 released in 2009. Each new version of TASVEG has been accompanied by a statement indicating which new mapping data has been incorporated since the last release.

Photographic interpretation (PI) of DPIPWE's most current aerial photography is the primary method of data collection for TASVEG updates, with field verification of representative polygons undertaken where practicable. Some aerial photography is analysed stereoscopically where feasible, but the majority of imagery is analysed orthographically within a Geographic Information System. Imagery is interpreted by vegetation scientists within DPIPWE who directly edit a master version of the TASVEG layer. Ancillary information such as geology maps, species records from the Natural Values Atlas, elevation data, hydrographic information and ecology texts are consulted to assist in the accurate typing of vegetation during PI.

TASVEG also incorporates updated mapping supplied by external stakeholders where the veracity of such data can be confirmed.

**Positional Accuracy:**

The TASVEG data is captured at a nominal scale of 1:25,000. The aerial photography primarily used in the mapping process is orthorectified and registered to within 15m of linear control features (e.g. drainage lines and roads) supplied in the TASMAR digital 1:25,000 topographic maps.

**Attribute Accuracy:**

TASVEG uses 156 distinct mapping units. The forest vegetation mapping units (which primarily originate from the RFA forest vegetation communities mapping) are largely based on the dominant canopy layer, with one or more species consistently present. A smaller selection of forest vegetation communities are defined by the combination of dominant canopy species and known understory type. Some forest mapping units are also characterised by geology, topographic features, altitude or the height of the dominant trees. Non-forest vegetation community mapping units may be characterised by geology, environmental and topographic features and dominant species. Field verification of data is strategic, with priority given to rare or threatened communities, and communities where remote identification is less reliable. WHA mapping was largely derived from PI and verified in the field.

Apart from the presence or otherwise of field verification, attribute reliability can be inferred from the mapping source date and type, and from the source interpretability rating scale.

**Logical Consistency:**

TASVEG 3.0 has been quality assured for topological correctness including the omission of overlaps. Checking of attribute values has been performed to ensure all attributes comply with the valid values set out in the TASVEG editing business rules. Preliminary logical consistency checking has been performed on suspicious locations of tagged communities to correct gross errors in geographical distribution.

**Completeness:**

The TASVEG dataset covers the entire State including its larger islands and a number of smaller offshore islands. This dataset is complete for the purpose of the current TASVEG release (version 3.0). The data is suited for

use as a statewide and regional overview, for reporting purposes and for determining the probable location of vegetation communities. Tasks requiring more current or precise vegetation boundaries should seek alternate data sources or undertake field verification.

## Contact

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**Metadata date:** 18/11/2013  
**Additional Metadata:** <http://www.dpipwe.tas.gov.au/tasveg>

## **Mapping updates since version 2.0**

### **PLCP\_UPDATES-DPIPWE-XXXX**

Integration of mapping updates provided by DPIPWE's Private Land Conservation Program (various areas).

### **HSMIP\_PRIME\_SEAL-DPIPWE-2008**

Remapping of Prime Seal Island vegetation communities undertaken as part of the Hamish Saunders Memorial Island Program 2008. Includes alignment with the LIST coastline.

### **BELVOIR-DPIPWE-2009**

Updated mapping for the Vale of Belvoir area.

### **CFEV\_SALTMARSH-DPIPWE-2009**

Integration of saltmarsh polygons (various locations) generated as part of DPIPWE's Conservation of Freshwater Ecosystem Values project.

### **SURREY\_HILLS\_ESTATE-DPIPWE-2009**

Remapping of the Surrey Hills Estate area with particular emphasis on non-forest communities.

### **HUON\_VALLEY-HVC-2009**

Integration of mapping supplied by Huon Valley Council.

### **TASMAN\_PENINSULA-DPIPWE-2009**

Comprehensive re-mapping of the Tasman Peninsula, including alignment with the LIST coastline.

### **WOODVINE\_RESERVE-DPIPWE-2009**

The vegetation types WGL (*Eucalyptus globulus* wet forest) and DGL (*Eucalyptus globulus* dry forest and woodland) were updated in the Woodvine Reserve area (Forcett) using data from field mapping undertaken January to June 2009.

### **DERWENT\_ESTUARY\_SALTMARSH-DEP-2010**

Mapping of tidally influenced Derwent estuary wetlands, saltmarshes and adjacent freshwater wetlands; coordinated by the Derwent Estuary Program (DEP).

### **HSMIP\_INNER\_SISTER-DPIPWE-2010**

Remapping of Inner Sister Island vegetation communities undertaken as part of the Hamish Saunders Memorial Island Program 2010.

### **RUFUS\_LAGOON-DPIPWE-2010**

Rufus Lagoon area remapping near Longford. Updates using 2007 Quickbird imagery and field verification.

### **WETLANDS\_REVIEW-DPIPWE-2011**

Targeted project undertaken by TVMMP to review undifferentiated wetland communities where feasible.

### **B\_SERRATA\_REMAP-DPIPWE-2012**

Targeted mapping of *Banksia serrata* communities in the north west of Tasmania; including field verification.

### **FPL\_1011\_INTEGRATION-PFT-2012**

Integration of the forest plantation polygons as provided by Forestry Tasmania and Private Forests Tasmania. This project superseded any existing FPL (Plantations for silviculture) polygons. Existing FPL polygons that were no longer defined in this new layer were converted to FPU (Unverified plantations for silviculture) pending determination of new VEGCODEs.

### **LNGT\_REVIEW-DPIPWE-2012**

Various sources of DPIPWE mapping for the Lowland Native Grasslands of Tasmania (LNGT) integrated into TASVEG.

### **MT\_WILLIAM-ECOTAS-2012**

Remapping of vegetation communities within Mount William National Park.

### **SALTMARSH\_FUTURES-NRMS-2012**

Integration of dedicated saltmarsh mapping for the Southern NRM region of Tasmania. This mapping was produced as part of the Southern Tasmanian Coastal Saltmarsh Futures Project.

### **GCC\_PRIORITY\_AREAS-NBES-2013**

Remapping of targeted vegetation communities within the Glenorchy City Council municipality. Targeted areas were those containing threatened vegetation communities, threatened flora species, threatened fauna species, within 30m of a waterway or containing vegetation communities which are significant to threatened fauna in the Derwent estuary.

### **RMU\_DIFFERENTIATION-DPIPWE-2013**

Differentiation of RMU (*Nothofagus* rainforest undifferentiated) into RMS (*Nothofagus-Phyllocladus* short rainforest) and RMT (*Nothofagus-Atherosperma* rainforest) based on previous TASVEG codes and Regional Forest Agreement mapping. There are still remaining RMU polygons that were not differentiated under this project; these polygons will gradually be remapped as part of ongoing TASVEG maintenance.

### **SCRUBS\_REVIEW-DPIPWE-2013**

A major revision of existing scrub, heathland and coastal complex communities was undertaken prior to the TASVEG 3.0 release. This review has resulted in significant changes a number of community definitions, including the deprecation of some communities, the amalgamation of some communities and the introduction of new communities. This project relates to the mapping work undertaken to reflect the new scrub, heathland and coastal complex community definitions within the TASVEG 3.0 release. Some VEGCODE conversions undertaken as part of

this project were performed via automated means (e.g. spatial overlays) whilst other conversions were the result of a dedicated remapping effort.

#### **TASVEG\_ADMIN\_EDITING-DPIPWE-*various dates***

The TASVEG administrator editing projects represent general maintenance and improvements carried out by TVMMP. These improvements are largely represented by the removal of legacy map sheet boundaries and by the mapping of new polygons not tied to a specific TVMMP project (edits of variable location and extent and largely resulting from ad hoc mapping opportunities).

#### **AMSA\_OIL\_SPILL\_RESPONSE\_ATLAS-DPIPWE-2013**

Eleven islands in the vicinity of Port Davey were remapped by DPIPWE for the Australian Maritime Safety Authority to provide information in the event of an oil spill. Many of the islands were visited in the field for this project.

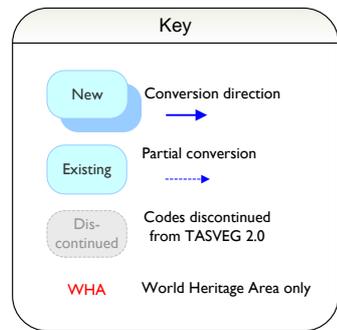
#### **WET\_FOREST\_DIFFERENTIATION-DPIPWE-2013**

Differentiation of existing undifferentiated wet forest communities (WNU, WOU and WDU) based on generalised understory information supplied by Forestry Tasmania. This was a large and complex project involving the intersection of two different spatial layers that did not always align well. Isolated patches of differentiated wet rainforest (including some remaining slivers) will gradually be remapped as part of ongoing TASVEG maintenance.

# TASVEG 3.0 Summary of changes to community codes



TVMMP (2013) TASVEG 3.0. Summary of changes to community codes. Tasmanian Vegetation Monitoring and Mapping Program, Resource Management and Conservation, Department of Primary Industries, Parks, Water and Environment. Diagram depicts the key changes made to the classification of mapping units from TASVEG 2.0 to TASVEG 3.0.



## TASVEG 3.0 Attribute Fields

### Attribute Changes

The TASVEG attribute fields have been substantially revised for version 3.0 following a review process conducted by TVMMP. The key changes to the TASVEG attributes have been the removal of condition and disturbance attributes, the simplification of the data source attributes, the addition of the new 'SOURCE\_IRS' attribute and changes to the way in which field checking is captured. Motivation for the new attribute structure was driven by the need to reduce redundancy and complexity when editing TASVEG and also due to the shift away from interpretation of film based aerial photography. A description of the current TASVEG attribute structure and tables of valid values are given below.

### TASVEG 3.0 attributes and their meaning

Attribute Name	Full Name	Description	Type
VEG_GROUP	Vegetation Group Code	The broad vegetation community group to which the polygon belongs. This field can be used for rapid categorisation of polygons for display.	text(50)
VEGCODE	Vegcode	Three letter code that defines the dominant TASVEG vegetation community present within the polygon.	text(3)
VEGCODE_D	Vegcode Description	The full name of the community described by the VEGCODE attribute.	text(80)
EMERG_TREE	Emergent Tree	Two letter code that defines the dominant tree species (if any) forming a scattered emergence over non-forest vegetation polygons.	text(2)
FOREST_STR	Forest Structure	Indicates the forest structure where captured. <i>This field has been deprecated and will no longer be actively populated.</i>	text(8)
FIELD_CHEC	Field Check	A valid date for this attribute indicates field verification was performed on that date. If this attribute is missing, it is implied that no field checking was performed.	date
SOURCE_DAT	Source Date	The capture date of the data source listed in the 'SOURCE_TYPE' field.	date
SOURCE_TYP	Source Type	The data type that was used as the primary source for defining the vegetation community boundary.	text(15)

SOURCE_IRS	Source Interpretability Rating Scale	Source Interpretability Rating Scale (SIRS) indicates what type of features were discernable on the source imagery (if imagery was source) ranging from 0-9.	float
PROJECT	Project Code	A three part project identification code used to record the project responsible for mapping the polygon.	text(50)
SHAPE_AREA	Shape Area	The area of the polygon (square metres)	double

## Acceptable values for TASVEG attribute fields:

### VEG\_GROUP

Acceptable values:

Agricultural, urban and exotic vegetation
Dry eucalypt forest and woodland
Highland treeless vegetation
Moorland, sedgeland, rushland and peatland
Native grassland
Non-eucalypt forest and woodland
Other natural environments
Rainforest and related scrub
Saltmarsh and wetland
Scrub, heathland and coastal complexes
Wet eucalypt forest and woodland

### VEGCODE (Acceptable values) and VEGCODE\_D (Definitions)

Detailed descriptions of TASVEG vegetation communities can be found on the [TVMMP website](#) and in the TASVEG technical manual – [From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation Edition 2](#)

#### Agricultural, urban and exotic vegetation

Acceptable values:      Definitions:

FAG	Agricultural land
FUM	Extra-urban miscellaneous

FMG	Marram grassland
FPE	Permanent easements
FPL	Plantations for silviculture
FPF	<i>Pteridium esculentum</i> fernland
FRG	Regenerating cleared land
FSM	<i>Spartina</i> marshland
FPU	Unverified plantations for silviculture
FUR	Urban areas
FWU	Weed infestation

### Dry eucalypt forest and woodland

Acceptable values:    Definitions:

DAC	<i>Eucalyptus amygdalina</i> coastal forest and woodland
DAD	<i>Eucalyptus amygdalina</i> forest and woodland on dolerite
DAS	<i>Eucalyptus amygdalina</i> forest and woodland on sandstone
DAM	<i>Eucalyptus amygdalina</i> forest on mudstone
DAZ	<i>Eucalyptus amygdalina</i> inland forest and woodland on Cainozoic deposits
DSC	<i>Eucalyptus amygdalina</i> - <i>Eucalyptus obliqua</i> damp sclerophyll forest
DBA	<i>Eucalyptus barberi</i> forest and woodland
DCO	<i>Eucalyptus coccifera</i> forest and woodland
DCR	<i>Eucalyptus cordata</i> forest
DDP	<i>Eucalyptus dalrympleana</i> - <i>Eucalyptus pauciflora</i> forest and woodland
DDE	<i>Eucalyptus delegatensis</i> dry forest and woodland
DGL	<i>Eucalyptus globulus</i> dry forest and woodland
DGW	<i>Eucalyptus gunnii</i> woodland
DMO	<i>Eucalyptus morrisbyi</i> forest and woodland

DNI	<i>Eucalyptus nitida</i> dry forest and woodland
DNF	<i>Eucalyptus nitida</i> Furneaux forest
DOB	<i>Eucalyptus obliqua</i> dry forest
DOV	<i>Eucalyptus ovata</i> forest and woodland
DOW	<i>Eucalyptus ovata</i> heathy woodland
DPO	<i>Eucalyptus pauciflora</i> forest and woodland not on dolerite
DPD	<i>Eucalyptus pauciflora</i> forest and woodland on dolerite
DPE	<i>Eucalyptus perriniana</i> forest and woodland
DPU	<i>Eucalyptus pulchella</i> forest and woodland
DRI	<i>Eucalyptus risdonii</i> forest and woodland
DRO	<i>Eucalyptus rodwayi</i> forest and woodland
DSO	<i>Eucalyptus sieberi</i> forest and woodland not on granite
DSG	<i>Eucalyptus sieberi</i> forest and woodland on granite
DTD	<i>Eucalyptus tenuiramis</i> forest and woodland on dolerite
DTG	<i>Eucalyptus tenuiramis</i> forest and woodland on granite
DTO	<i>Eucalyptus tenuiramis</i> forest and woodland on sediments
DVF	<i>Eucalyptus viminalis</i> Furneaux forest and woodland
DVG	<i>Eucalyptus viminalis</i> grassy forest and woodland
DVC	<i>Eucalyptus viminalis</i> - <i>Eucalyptus globulus</i> coastal forest and woodland
DKW	King Island eucalypt woodland
DMW	Midlands woodland complex

### Highland treeless vegetation

Acceptable values:      Definitions:

HCH	Alpine coniferous heathland
HCM	Cushion moorland
HHE	Eastern alpine heathland

HSE	Eastern alpine sedgeland
HUE	Eastern alpine vegetation (undifferentiated)
HHW	Western alpine heathland
HSW	Western alpine sedgeland/herbland

### **Moorland, sedgeland, rushland and peatland**

Acceptable values:    Definitions:

MAP	Alkaline pans
MBU	Buttongrass moorland (undifferentiated)
MBS	Buttongrass moorland with emergent shrubs
MBE	Eastern buttongrass moorland
MGH	Highland grassy sedgeland
MBP	Pure buttongrass moorland
MRR	Restionaceae rushland
MBR	Sparse buttongrass moorland on slopes
MSP	Sphagnum peatland
MDS	Subalpine <i>Diplarrena latifolia</i> rushland
MBW	Western buttongrass moorland
MSW	Western lowland sedgeland

### **Native grassland**

Acceptable values:    Definitions:

GHC	Coastal grass and herbfield
GPH	Highland <i>Poa</i> grassland
GCL	Lowland grassland complex
GSL	Lowland grassy sedgeland
GPL	Lowland <i>Poa labillardierei</i> grassland
GTL	Lowland <i>Themeda triandra</i> grassland

GRP	Rockplate grassland
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### Non-eucalypt forest and woodland

Acceptable values:    Definitions:

NAD	<i>Acacia dealbata</i> forest
NAR	<i>Acacia melanoxylon</i> forest on rises
NAF	<i>Acacia melanoxylon</i> swamp forest
NAL	<i>Allocasuarina littoralis</i> forest
NAV	<i>Allocasuarina verticillata</i> forest
NBS	<i>Banksia serrata</i> woodland
NBA	<i>Bursaria</i> - <i>Acacia</i> woodland and scrub
NCR	<i>Callitris rhomboidea</i> forest
NLE	<i>Leptospermum</i> forest
NLM	<i>Leptospermum lanigerum</i> - <i>Melaleuca squarrosa</i> swamp forest
NLA	<i>Leptospermum scoparium</i> - <i>Acacia mucronata</i> forest
NME	<i>Melaleuca ericifolia</i> swamp forest
NLN	Subalpine <i>Leptospermum nitidum</i> woodland

### Other natural environments

Acceptable values:    Definitions:

ORO	Lichen lithosere
OSM	Sand, mud
OAQ	Water, sea

### Rainforest and related scrub

Acceptable values:    Definitions:

RPF	<i>Athrotaxis cupressoides</i> - <i>Nothofagus gunnii</i> short rainforest
RPW	<i>Athrotaxis cupressoides</i> open woodland

RPP	<i>Athrotaxis cupressoides</i> rainforest
RKF	<i>Athrotaxis selaginoides</i> - <i>Nothofagus gunnii</i> short rainforest
RKP	<i>Athrotaxis selaginoides</i> rainforest
RKS	<i>Athrotaxis selaginoides</i> subalpine scrub
RCO	Coastal rainforest
RSH	Highland low rainforest and scrub
RKX	Highland rainforest scrub with dead <i>Athrotaxis selaginoides</i>
RHP	<i>Lagarostrobos franklinii</i> rainforest and scrub
RMT	<i>Nothofagus</i> - <i>Atherosperma</i> rainforest
RML	<i>Nothofagus</i> - <i>Leptospermum</i> short rainforest
RMS	<i>Nothofagus</i> - <i>Phyllocladus</i> short rainforest
RFS	<i>Nothofagus gunnii</i> rainforest and scrub
RMU	<i>Nothofagus</i> rainforest (undifferentiated)
RFE	Rainforest fernland

### Saltmarsh and wetland

Acceptable values:    Definitions:

AHF	Freshwater aquatic herbland
ASF	Freshwater aquatic sedgeland and rushland
AHL	Lacustrine herbland
AHS	Saline aquatic herbland
ARS	Saline sedgeland/rushland
AUS	Saltmarsh (undifferentiated)
ASS	Succulent saline herbland
AWU	Wetland (undifferentiated)

## Scrub, heathland and coastal complexes

Acceptable values: Definitions:

SAL	<i>Acacia longifolia</i> coastal scrub
SBM	<i>Banksia marginata</i> wet scrub
SBR	Broad-leaf scrub
SCH	Coastal heathland
SSC	Coastal scrub
SCA	Coastal scrub on alkaline sands
SRE	Eastern riparian scrub
SED	Eastern scrub on dolerite
SCL	Heathland on calcareous substrates
SKA	<i>Kunzea ambigua</i> regrowth scrub
SLG	<i>Leptospermum glaucescens</i> heathland and scrub
SLL	<i>Leptospermum lanigerum</i> scrub
SLS	<i>Leptospermum scoparium</i> heathland and scrub
SLW	<i>Leptospermum</i> scrub
SRF	<i>Leptospermum</i> with rainforest scrub
SMP	<i>Melaleuca pustulata</i> scrub
SMM	<i>Melaleuca squamea</i> heathland
SMR	<i>Melaleuca squarrosa</i> scrub
SRH	Rookery halophytic herbland
SSK	Scrub complex on King Island
SSZ	Spray zone coastal complex
SHS	Subalpine heathland
SWR	Western regrowth complex
SSW	Western subalpine scrub
SWW	Western wet scrub
SHW	Wet heathland

## Wet eucalypt forest and woodland

Acceptable values:      Definitions:

WBR	<i>Eucalyptus brookeriana</i> wet forest
WDA	<i>Eucalyptus dalrympleana</i> forest
WDL	<i>Eucalyptus delegatensis</i> forest over <i>Leptospermum</i>
WDR	<i>Eucalyptus delegatensis</i> forest over rainforest
WDB	<i>Eucalyptus delegatensis</i> forest with broad-leaf shrubs
WDU	<i>Eucalyptus delegatensis</i> wet forest (undifferentiated)
WGK	<i>Eucalyptus globulus</i> King Island forest
WGL	<i>Eucalyptus globulus</i> wet forest
WNL	<i>Eucalyptus nitida</i> forest over <i>Leptospermum</i>
WNR	<i>Eucalyptus nitida</i> forest over rainforest
WNU	<i>Eucalyptus nitida</i> wet forest (undifferentiated)
WOL	<i>Eucalyptus obliqua</i> forest over <i>Leptospermum</i>
WOR	<i>Eucalyptus obliqua</i> forest over rainforest
WOB	<i>Eucalyptus obliqua</i> forest with broad-leaf shrubs
WOU	<i>Eucalyptus obliqua</i> wet forest (undifferentiated)
WRE	<i>Eucalyptus regnans</i> forest
WSU	<i>Eucalyptus subcrenulata</i> forest and woodland
WVI	<i>Eucalyptus viminalis</i> wet forest

## FOREST\_STR

This attribute has been deprecated and is no longer actively populated. This attribute is retained for legacy purposes only.

Acceptable values: Definitions:

Forest	Vegetation with trees taller than 5m and greater than 20% solid crown cover
Woodland	Vegetation with trees taller than 5m and a solid crown cover between 5 – 20%
Other	Vegetation that does not fit into the categories above

## EMERG\_TREE

Acceptable values: Definitions:

AC	<i>Athrotaxis cupressoides</i>
AV	<i>Allocasuarina</i> spp. (AV-)
BM	<i>Banksia marginata</i>
EA	<i>Eucalyptus amygdalina</i> (Ea-)
EB	<i>E. brookeriana</i> (Eb-)
EC	<i>E. coccifera</i> (Ec-)
ED	<i>E. delegatensis</i> (Ed-)
EG	<i>E. globulus</i> (Eg-)
EI	<i>E. gunnii</i> (Ei-)
EL	<i>E. obliqua</i> (El-)
EM	<i>E. pulchella</i> (Em-)
EN	<i>E. nitida</i> (En-)
EO	<i>E. ovata</i> (Eo-)
EP	<i>E. pauciflora</i> (Ep-)
EQ	<i>E. perriniana</i> (Eq-)
ER	<i>E. rodwayi</i> (Er-)
ES	<i>E. sieberi</i> (Es-)
ET	<i>E. tenuiramis</i> (Et-)
EU	<i>E. dalrympleana</i> (Eu-)
EV	<i>E. viminalis</i> (Ev-)
EX	<i>E. regnans</i> (Ex-)
EY	<i>E. dalrympleana</i> and / or <i>E. pauciflora</i> (Ey-)
MY	<i>Nothofagus cunninghamii</i> (My-)



## SOURCE\_TYP

Acceptable values: Definitions:

ADS	An Airborne Digital Sensor image was used to capture and interpret the feature.
Field-sketch	This source is used when the community boundary was mostly sketched from observation in the field (with or without some guidance from GPS points), but the actual boundary was not readily identifiable on the source imagery.
GEarth-XXX...  - LCC - SKM - DG - SPT - GE - UNK	Imagery from Google Earth was used for capture and/or interpretation. "XXX..." indicates the credited source of the imagery in the Google Earth browser.  Launceston City Council Sinclair Knight Merz Digital Globe corporation SPOT corporation GeoEye corporation Unknown (but was from Google Earth)
GNSS	A Global Navigation Satellite System (GNSS) receiver (e.g. GPS receiver) was used to capture the extent of the community. This may or may not involve augmentation methods (e.g. differential GPS) to improve positional accuracy. Image interpretation was not generally used.
Other	Another source not covered within this table was used for capture and interpretation.
Photo	An aerial photograph (either soft or hard copy) was used to capture and interpret the feature.
SAT-XXX...  - RE - SPT - DG - UNK	Imagery acquired by satellite was used for capture and/or interpretation. "XXX..." indicates the sensor (or satellite) that captured the imagery.  RapidEye SPOT (can be SPOT:1, SPOT:2, etc if known) DigitalGlobe Unknown platform (but was extraterrestrial)
UNK	The source of the capture and interpretation is unknown.



## SOURCE\_IRS

Source Interpretability Rating Scale (SIRS) has been implemented due to the shortcomings of physical image quality measures, such as ground sample distance and signal-to-noise ratio, to adequately convey the interpretability potential of image sources used when editing TASVEG polygons. SIRS has also been chosen due to the inability to assign traditional scale values to digitally acquired imagery. SIRS takes into account the varying quality of aerial photography arising from variables such as film type, atmospheric conditions and scanning resolution/compression (if converted to digital format). SIRS is a unitless scale that can also be applied to any imagery source thus enabling an index of quality to be assigned against sources such as Google Earth, satellite imagery and hand-held photographs.

The SIRS is used to quantify the interpretability or usefulness of imagery and is based on the concept of the National Imagery Interpretability Rating Scale (NIIRS) outlined in Irvine (1997). SIRS defines the level of image interpretability based on the tasks an analyst can perform with imagery of a given rating level and consists of 10 graduated levels (0 - 9) with several interpretation tasks or *criteria* forming each level. SIRS values are assigned by examining the source imagery and determining which of the criteria listed below could be accomplished on the image if the objects or features were present. The analyst determines the highest level on the scale at which the criteria and all lower rated criteria could be satisfied. Decimal SIRS values are allowed and can be used where the analyst judges that a source image falls somewhere between SIRS levels e.g. 3.7 if an image is significantly better than 3 but not quite 4.

### Rating Level 0

Interpretability of the imagery is precluded by obscuration, degradation, or very poor resolution (e.g. cloud cover).

### Rating Level 1

Distinguish between major land use classes (e.g. urban, agricultural, forest, water, barren).

Delineate coastal shoreline.

Detect major lines of transportation (e.g. Midlands Highway).

Distinguish between runways and taxiways at a large airfield (e.g. Launceston Airport, Hobart Airport).

Identify large area drainage patterns by type (e.g. dendritic, trellis, radial).

Detect large area (40 ha) timber clearcutting.

### Rating Level 2

Identify large (i.e. greater than 40 ha) centre-pivot irrigated fields during the growing season.

Detect windbreaks (i.e. rows of trees) between paddocks.

Detect large buildings (e.g. hospitals, factories).

Detect the location of a large golf course (e.g. Royal Hobart Golf Club).

Detect intermediate (e.g. 800m) horse training/trotting tack with gravel/sand surface.

Delineate the extent of woody vegetation where canopy closure is greater than 20%.

Detect clearings through forested land for utility easements (e.g. high tension power lines, water pipelines).

Detect two lane improved roads (e.g. Channel Highway, Meander Valley Highway).

### **Rating Level 3**

Detect two lane unimproved roads.

Distinguish between natural forest stands and orchards.

Detect forest/fire roads through native forest.

Delineate areas of mature plantation within native forest.

Identify general vegetation cover type (e.g. grass, scrub, wetland, agricultural crop) in non-forested areas.

Distinguish among residential, commercial and industrial areas within an urban area.

Detect large (100m<sup>2</sup>) town water storage tanks.

Detect individual fairways within a golf course.

Detect individual houses in residential neighbourhood.

### **Rating Level 4**

Identify farm buildings as sheds, silos, or residences.

Detect basketball court, tennis court, volleyball court in urban areas.

Distinguish between individual rows in a mature vineyard or orchard.

Detect large farm equipment (tractors, combines) in open fields.

Detect vehicle tracks through grassland.

Distinguish boundaries between structurally different TASVEG communities (e.g. dry eucalypt forest and scrub).

Detect fallen trees in inland waterways.

Identify boom for centre pivot irrigated fields.

Detect selective timber harvest operations.

### **Rating Level 5**

Identify tents (larger than 2 person) at established recreational camping areas.

Detect small (less than 1m wide) irrigation drainage ditches.

Detect large domesticated animals (e.g. horses, cattle) in grazing pastures.

Identify individual bales of hay (i.e. large rolls) in open fields.

Distinguish individual trees in a closed canopy native forest.

Identify road markings on paved roads (e.g. turn arrows, give way line, stop line)

Delineate building footprints for residential dwellings.

### **Rating Level 6**

Detect a closed gate across a single lane road.

Distinguish between row (e.g. corn, soybean, poppy) crops and small grain (e.g. wheat, oats) crops.

Identify automobiles as sedans or station wagons.

Count individual 'stags' (mature standing deadwood) in a mature native forest.

Identify utility poles in a residential neighbourhood (e.g. telephone/electricity pole).

Count small medium domesticated animals in a flock (e.g. sheep, goats).

Distinguish between sand and pebble/rock beaches.

Detect foot tracks through grasslands.

### **Rating Level 7**

Identify individual railroad sleepers.

Identify above ground utility lines in residential areas (e.g. telephone, electricity).

Detect individual steps on a stairway.

Detect stumps and rocks in forest clearings and meadows.

Identify individual steel fence posts (e.g. star picket).

Detect large raptor (e.g. eagle, osprey) nests.

Identify floating objects as plastic garbage bags.

Detect outside rear-view mirrors on passenger cars.

### **Rating Level 8**

Identify small hand tools (e.g. hammer, carpenters saw, pipe wrench).

Determine the occupancy of large raptor (e.g. eagles, osprey) nests.

Identify grill detailing and/or the license plate on a passenger/truck type vehicle.

Identify a survey benchmark set in a paved surface.

Identify tree leaf size and shape.

Identify individual pine seedlings.

Identify individual water lilies on a pond.

Identify windshield wipers on a vehicle.

### **Rating Level 9**

Identify individual barbs on a barbed wire fence.

Detect individual spikes/clips in railroad sleepers.

Identify individual bunches of pine needles.

Identify individual grain heads on small grain (e.g. wheat, oats, barley).

Identify individual bunches of Eucalyptus fruit.

## **References**

Irvine, J.M. (1997) National Imagery Interpretability Rating Scales (NIIRS): Overview and Methodology *Proceedings of the International Society for Optical Engineering (SPIE)*, 29-30 July, 1997, Volume 3128, pp.93-103.