# Title Assessment of Coastal Saltmarsh TEC on NSW Crown Forest Estate Alternative Coastal Saltmarsh on Floodplains: Classification and Mapping Completed for the NSW Environment Protection Authority

# **Abstract**

The operational map for Coastal Saltmarsh was constructed to resolve long-standing issues surrounding its identification, location and extent within the NSW State Forest estate covered by the eastern Regional Forest Agreements. The project's Threatened Ecological Community Reference Panel (the Panel) reviewed the determination for Coastal Saltmarsh and agreed upon a set of diagnostic parameters for its identification. We identified that any treeless saline and sub saline native vegetation found in the intertidal zone had the potential to be Coastal Saltmarsh. We estimated the extent of the intertidal zone by using a fine scale digital elevation model to determine the highest astronomical tideline (HAT). We then mapped potential Coastal Saltmarsh by analysing recent fine scale three dimensional aerial imagery to identify any native vegetation that comprised of low-growing treeless communities and was located within the HAT and on the landward side of mangroves. Mapping criteria used a tree cover tolerance of up to 30% to include areas that had a mixed cover of mangrove, paperbark or casuarina species with a saltmarsh understorey. Exposed mudflats and banks were also mapped when they were visible. Our mapping covered 1.4 million hectares of State Forest within the south, central and north coast regions of NSW. We identified a total of 111.9 hectares of Coastal Saltmarsh within 14 State Forests along the east coast. The most extensive areas are located in Bermagui and Mogo State Forests on the south coast and in Wallaroo State Forests on the north coast. We validated our map of coastal saltmarsh using an existing independent map of estuarine habitats (Creese et al 2009). Our mapping consistently identified almost twice as much coastal saltmarsh as Creese et al (2009), but this was attributable to differences in the mapping criteria rather than any error.

Operational TEC Mapping have been derived by API at a viewing scale between 1-4000 using ADS40 50 cm pixel imagery and 1 m derived LIDAR DEM grids for floodplain EECs.

#### Resource locator

Data Quality Statement Name: Data Quality Statement

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

NSW Government standards direct that data should be made available with a statement regarding its quality, a so-called "Data Quality statement (DQS)", to enable potential users to determine whether the data is suitable for their requirements.

Function: download

Assessment of Coastal Saltmarsh TEC on NSW Crown Forest Estate Name: Assessment of Coastal Saltmarsh TEC on NSW Crown Forest Estate

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Report on the Assessment of Coastal Saltmarsh TEC on NSW Crown Forest Estate

Function: download

Operational
Map for
Coastal
Saltmarsh on
Floodplains

Ecological

Community on NSW Crown

**Forest Estate** 

Name: Operational Map for Coastal Saltmarsh on Floodplains Threatened Ecological

Community on NSW Crown Forest Estate

Protocol: WWW: DOWNLOAD-1.0-http--download

Threatened Description:

Shapefile - Operational Map for the Assessment of Coastal Saltmarsh TEC on NSW Crown Forest Estate

Crown Forest Estate

Function: download

Operational
and Indicative
Maps for the
Assessment of

Name: Operational and Indicative Maps for the Assessment of Threatened Ecological

Communities on NSW Crown Forest Estate

Protocol: WWW:DOWNLOAD-1.0-http--download

<u>Threatened</u> Description: **Ecological** ESRI ArcGIS Layer File - Operational and Indicative Maps for the Assessment of Communities Threatened Ecological Communities on NSW Crown Forest Estate on NSW Crown Forest Estate Function: download Name: Native Forestry Map Viewer **Native Forestry** Map Viewer Protocol: WWW:DOWNLOAD-1.0-http--download Description: The EPA Native Forestry Map Viewer enables users to view our Koala and Threatened Ecological Community mapping without the need to access a GIS system. The map viewer allows users to perform searches to locate areas of interest and export resulting map views into various image file formats. Function: download Unique resource identifier Code 5839a155-3473-4e6e-a03d-3491c33862ca Presentation Map digital form Edition Version 1 Dataset **English** language Metadata standard Name ISO 19115 Edition 2016 **Dataset URI** https://datasets.seed.nsw.gov.au/dataset/5839a155-3473-4e6e-a03d-3491c33862ca Purpose Native Forestry Regulation on State Forests **Status** Completed Spatial representation Type vector

Geometric Object Type

curve

## Spatial reference system

Code

system

identifying the

spatial reference

4283

Equivalent scale

1:None

### **Topic category**

Keyword set	
keyword value	Threatened Ecological Community
	Endangered Ecological Community
	Vegetation
	State Forest
	Coastal Saltmarsh on Floodplains
	EEC
	TEC
	Environment Protection Authority  EPA
Originating controlled vocabulary	EPA
Title	ANZLIC Search Words
Reference date	2008-05-16
Geographic location	
West bounding longitude	149.85575
East bounding longitude	152.98535
North bounding latitude	-37.22486
South bounding latitude	-30.5063
Vertical extent information	
Minimum value	-100
Maximum value	2228
Coordinate reference system	
Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711
Temporal extent	
Begin position	2016-10-01
End position	N/A
Dataset reference date	
Resource maintenance	
Maintenance and update frequency	Irregular
Contact info	
Contact position	Data Broker
Organisation name	Environment Protection Authority (EPA)
Responsible party role	pointOfContact

# Lineage

Linework has been derived from manual interpretation of stereoscopic 3D ADS-40 imagery collected at a 50cm resolution. Date of photography varies across eastern NSW between 2009-2015. Interpretation has collected a range of floristic attributes including canopy species dominance, understorey attributes and assessment of landscape characteristics. Lines have been interpreted using a viewing scale between 1:2000- 1: 5000. Interpretation has been supported by field traverse (except bogs and saltmarsh), and existing field based observation data held by OEH. Final linework was assembled using combinations of aerial photo patterns, predictive TEC models, systematic plot data and where relevant fine scale topographic data derived from 1 metre resolution digital elevation model.

#### Limitations on public access

Scope dataset

**DQ Conceptual Consistency** 

Explanation Standard API mapping pathways have been established for mappers to apply consistent

interpretation of vegetation features including, size criteria and polygon attribution

**DQ Topological Consistency** 

Explanation Not assessed

DQ Absolute External Positional Accuracy

Explanation Positional accuracy for operational maps has been measured using independent

assessment of interpreted lines as a mean of 8.5 metres. Other influence on positional accuracy include the accuracy of field based GPS records currently tested at a mean of 9.2 metres. Some error with interpreted line from 2D to 3D environment can result in a

positional shift of up to 10 metres.

**DQ Non Quantitative Attribute Correctness** 

Explanation Attribution is consistent

Responsible party

Contact position Data Broker

Organisation name Environment Protection Authority (EPA)

Responsible party role pointOfContact

Metadata point of contact

Contact position Data Broker

Organisation name Environment Protection Authority (EPA)

Responsible party role pointOfContact

Metadata date 2024-02-26T13:07:32.104136

Metadata language