

Abstract

The SeaBed NSW program provides data on the structure and composition of the seabed adjacent to our beaches. This program is funded through the NSW Coastal Reforms, combined with data from other sources. It improves our understanding of connectivity between coastal (beaches, estuaries) and marine environments, enabling improved approaches to managing and predicting the impacts of human activities, severe storms and climate change.

The program builds on the research expertise and specialist capabilities developed in 2005 as part of the HABMAP program mapping seabed habitats of our marine estate. The SeaBed NSW project maps large areas of the seafloor on the inner continental shelf using airborne laser mapping (LADS) in shallow water depths and vessel-based multi-beam sonar further offshore.

The program contributes to the goal of a continuous high-resolution digital elevation model (DEM) for the entire NSW coast. This new marine LiDAR data builds significantly on our existing database; provides a more accurate 3D surface for our wave modelling tools, enables us to answer questions about how sand moves around the coastal-marine environment and provide baseline information from which to measure change.

Seabed data is generated by collating and analysing bathymetric and marine sediment datasets, and seabed habitats defined from swath acoustic surveys and aerial photography. Data from approximately 120 kilometres of vessel-towed underwater video surveys is also used to allow field validation of swath acoustic data and a description of the visually dominant sessile biota over large areas of the seabed.

An understanding of what type of seabed there is, what it is made of and what is living there is critical so we can better manage coastal hazards and risk for NSW and ensure there are viable and healthy marine ecosystems for the future. The data are intended to inform coastal and marine management and should not be used for navigation without additional processing.

The Seabed NSW program has developed and issued the following datasets:

- [NSW Marine LiDAR Topo-Bathy 2018 Geotif](#)
- [NSW seabed landforms derived from marine lidar data 2022](#)
- [Shellharbour seabed landforms derived from multibeam echosounder data 2022](#)
- [Wollongong seabed landforms derived from multibeam echosounder data 2022](#)
- [HABMAP Multi-beam Survey Coverage Areas](#)
- [Single Beam Bathymetry & Coastal Topography Survey Coverage Areas - Coastal Marine Unit](#)
- [NSW Environment Multi Beam Echo Sounder Gridded Data](#)
- [NESP Biodiversity Hub Hunter Marine Park Multi Beam Echo Sounder Surveys](#)

Resource locator

[Show on SEED Web Map](#)

Name: Show on SEED Web Map

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

Description:

Display dataset on SEED's map

Function: download

[Data Quality Statement](#)

Name: Data Quality Statement

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

Description:

Data quality statement for Seabed NSW

Function: download

[Readme notes](#)

Name: Readme notes

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

Description:

Notes about access to the datasets.

Function: download

Unique resource identifier

Code 77e06ad6-336b-4279-b5a3-6e30abcd9d42

Presentation form Map digital

Edition 1

Dataset language English

Metadata standard

Name ISO 19115

Edition 2016

Dataset URI <https://datasets.seed.nsw.gov.au/dataset/77e06ad6-336b-4279-b5a3-6e30abcd9d42>

Purpose To support coastal and marine research, planning and management

Status Planned

Spatial representation type None

Spatial reference system

Code identifying the spatial reference system 4283

Topic category

Keyword set

keyword value
GEOSCIENCES-Geomorphology
MARINE-Coasts
MARINE-Geology-and-Geophysics
MARINE-Reefs
LAND-Topography
PHOTOGRAPHY-AND-IMAGERY-Remote-Sensing
WATER
ECOLOGY-Habitat
ECOLOGY-Landscape

Originating controlled vocabulary

Title ANZLIC Search Words

Reference date 2008-05-16

Geographic location

West bounding longitude	149.72168
East bounding longitude	153.852539
North bounding latitude	-37.715331
South bounding latitude	-28.145871
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	2022-09-05
End position	N/A
Dataset reference date	
Resource maintenance	
Maintenance and update frequency	Unknown
Contact info	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	data.broker@environment.nsw.gov.au
Web address	https://www.nsw.gov.au/departments-and-agencies/dcceew
Responsible party role	pointOfContact
Limitations on public access	
Responsible party	
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Metadata date 2025-03-30T20:59:05.701592

Metadata language