Title Lake Macquarie Waterway - Flood Study 2012

Abstract

The key objective of this Flood Study is to develop a suitable hydrologic/hydraulic model that can project flood and permanent inundation water levels in Lake Macquarie from rainfall, sea level rise and storm surge. These results will be used by Lake Macquarie City Council, in consultation with the community of Lake Macquarie City, to manage flood and permanent inundation risks to low lying land around the Lake Macquarie waterway. The key stages in the process are: Undertaken a comprehensive review of the 1998 Lake Macquarie Flood Study (Part 1 - Reference 1) and develop suitable hydrologic/hydraulic models to define flood behaviour over the full range of design events for existing catchment conditions, Use the hydrologic/hydraulic models to assess various climate change scenarios, including application of the NSW Government's sea level rise benchmarks, Assess the potential increase in storm surge as a result of climate change and its impact on elevated ocean levels, Review the potential impact of climate change on the local wind/wave climate as this affects the extent of wave runup on the foreshore, Assess the hydraulic and hazard categories for existing and climate change conditions. This report details the results and findings of the above investigations. The key elements include: a summary of available historical flood related data, establishment of the hydrologic and hydraulic models, calibration of the hydrologic and hydraulic models, definition of the design flood behaviour for existing catchment conditions, sensitivity analysis of the design flood behaviour, assessment of the impacts of climate change on the still water and wave runup water levels re-definition of the flood extent and hydraulic and hazard categories mapping for existing and climate change conditions. A Flood Study is a technical document and not easily understood by the general public. A glossary of flood related terms is provided in Appendix A to assist. If more explanation of terms or a better understanding of the approach is required, type "NSW Government Floodplain Development Manual" into an internet search engine and you will be directed to the NSW Government web site which provides a copy of this manual and further explanation. Flood levels given in this report relate only to the water level with the lake itself. Design water levels in the creek systems entering the lake (Cockle Creek, Dora Creek etc.) will be higher than those shown for the lake.

Resource locator

<u>Lake</u> <u>Macquarie</u> <u>Waterway</u> -

Name: Lake Macquarie Waterway - Flood Study 2012

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

Flood Study 2012

Function: download

Unique resource identifier

Code b427a713-a09d-4ade-88de-c20486c6f26a

Presentation

form

Edition 15/09/2017

Dataset language

English

Metadata standard

Name ISO 19115

Edition 2016

Dataset URI https://datasets.seed.nsw.gov.au/dataset/b427a713-a09d-4ade-88de-c20486c6f26a

Purpose Land and Resource Management

Status On going

Spatial representation

Туре	vector		
Spatial refere	nce system		
Code identifying the spatial reference system	4283		
Topic categor	у		

Keyword set			
keyword value			
Originating controlled vocabulary			
Title	ANZLIC Search Words		
Reference date	2008-05-16		
Geographic location			
West bounding longitude	151.473999		
East bounding longitude	151.688232		
North bounding latitude	-33.192156		
South bounding latitude	-32.932047		
NSW Place Name	Lake Macquarie		
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			
End position	N/A		
Dataset reference date			
Resource maintenance			
Maintenance and update frequency	As needed		
Contact info			
Contact position	Data Broker		
Organisation name	Lake Macquarie City Council		
Telephone number	02 4921 0333		
Email address	council@lakemac.nsw.gov.au		
	pointOfContact		

Responsible party

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Metadata date 2024-03-25T07:35:27.624691

Metadata language