Title Stony Creek Flood Study

## **Abstract**

The objectives of the Flood Study are to: • Identify all the flood-related data by searching all relevant data sources. • Determine the likely extent and nature of flooding and identify potential hydraulic controls by carrying out detailed site visits of the study area. • Define existing catchment condition flood behaviour for mainstream flooding in the catchment with due consideration to the impact of Lake Macquarie levels on flooding characteristics. • Define design flood levels, velocities and flow distributions for the catchment. • Define the extent of flooding for the 200 year, 100 year, 20 year, 10 year and 5 year ARI floods and Probable Maximum Flood (PMF) for the catchment. • Define Provisional Flood Hazard for the flood-affected areas. • Define the Hydraulic Categories for the flood-affected areas. Two numerical modelling tools were developed: • A hydrologic model to convert rainfall on the catchment into runoff. The hydrologic model combines rainfall information with local catchment characteristics to estimate runoff hydrographs. • A hydraulic model to convert runoff hydrographs into water levels and velocities throughout the study area. The model simulates the hydraulic behaviour of the water within the study area by accounting for flow in the major channels as well as all the potential overland flowpaths, which develop when the capacity of the channels is exceeded. It relies on boundary conditions, which include the runoff hydrographs produced by the hydrologic model and the appropriate downstream boundary level from Lake Macquarie.

## Resource locator

Stony Creek -Flood Study December Name: Stony Creek - Flood Study December 2005

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

2005 Function: download

Unique resource identifier

Code d9e2d457-3d04-4065-acec-dbd3bd979b3d

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/d9e2d457-3d04-4065-acec-dbd3bd979b3d

Purpose Land and Resource Management

Status On going

Spatial representation

Type vector

Spatial reference system

Code identifying the

spatial 4283

reference system

eyword set	
eyword value	
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16
Geographic location	
West bounding longitude	151.483612
East bounding longitude	151.598969
North bounding latitude	-33.048719
South bounding latitude	-32.965801
NSW Place Name	Stony Creek Catchment
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	
egin position	
ind 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
Responsible party role	pointOfContact

Responsible party

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Metadata date 2024-03-25T07:36:00.500316

Metadata language