Title	Griffith_Aerodrome Overland Flow Flood Study

Abstract

INTRODUCTION

In recent years, small duration heavy intensity rainfall events associated with thunder storms have shown that the Griffith Aerodrome and associated infrastructure are exposed to some potentially destructive, and certainly disruptive, flood risk. In order to quantify the flood risk and then to propose measures which may protect the aerodrome and associated facilities in the event of a flood, Griffith City Council (GCC) have appointed WMAwater to carry out a flood study. The Department of Environment, Climate Change and Water (DECCW) is providing financial assistance towards the flood study.

The main objective of this study is to:

- Define the overland flow flood behaviour within the aerodrome catchment (refer to Figure 1 for the location of the study area). The principle focus is on those buildings that adjoin the aerodrome facility, i.e. hangers and administrative buildings, as well as the runway itself, and
- Preliminary assessment of mitigation measures.

The study seeks to establish suitable hydrologic and hydraulic model tools, demonstrate their capacity to emulate local flood behaviour via calibration/validation (as data allows) and then apply these tools to establish the existing flood risk for a range of design flood event probabilities in conjunction with a range of event durations. Following design flood modelling for the existing conditions, a damages assessment for the aerodrome will be carried out. The above work will establish the flood liability of the aerodrome under exisiting conditions.

The model will then be utilised to test preliminary mitigation measures. Mitigation measures will seek to reduce the degree of inundation of the aerodrome and associated infrastructure and therefore reduce the flood damages associated with an extreme event. Mitigation options could potentially be quite varied however two that spring to mind in this case are detaining flood water upstream of the aerodrome or diverting it prior to its entry into the aerodrome area.

This report details the investigations, results and findings of the Flood Study. The key elements of which include: * a summary of available data; * model development; * calibration of the hydraulic model; * definition of the design flood behaviour for existing conditions through the analysis and interpretation of model results; and * testing limited mitigation options.

Resource locator

Griffith Aerodrome Overland Flow Flood Study	Name: Griffith Aerodrome Overland Flow Flood Study Protocol: WWW:DOWNLOAD-1.0-http--download Function: download
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Unique resource identifier

Code	ec7f2902-1660-4bd5-9a22-bb56fe005a59

Presentation form	
Edition	01/03/2018
Dataset language	English

Metadata standard

Name	ISO 19115
Edition	2016

Dataset URI	https://datasets.seed.nsw.gov.au/dataset/ec7f2902-1660-4bd5-9a22-bb56fe005a59
Purpose	Land and Resource Management
Status	On going

Spatial representation

Type	vector

Spatial reference system

Code identifying the spatial reference system	4283

Topic category

Keyword set

keyword value

Originating controlled vocabulary

Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	146.036797
East bounding longitude	146.079884
North bounding latitude	-34.270978
South bounding latitude	-34.239337
NSW Place Name	Griffith Aerodrome

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	Griffith City Council
Full postal address	admin@griffith.nsw.gov.au
Email address	admin@griffith.nsw.gov.au
Responsible party role	pointOfContact

Limitations on public access

Responsible party

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Metadata date

2024-03-25T07:17:44.488804

Metadata language