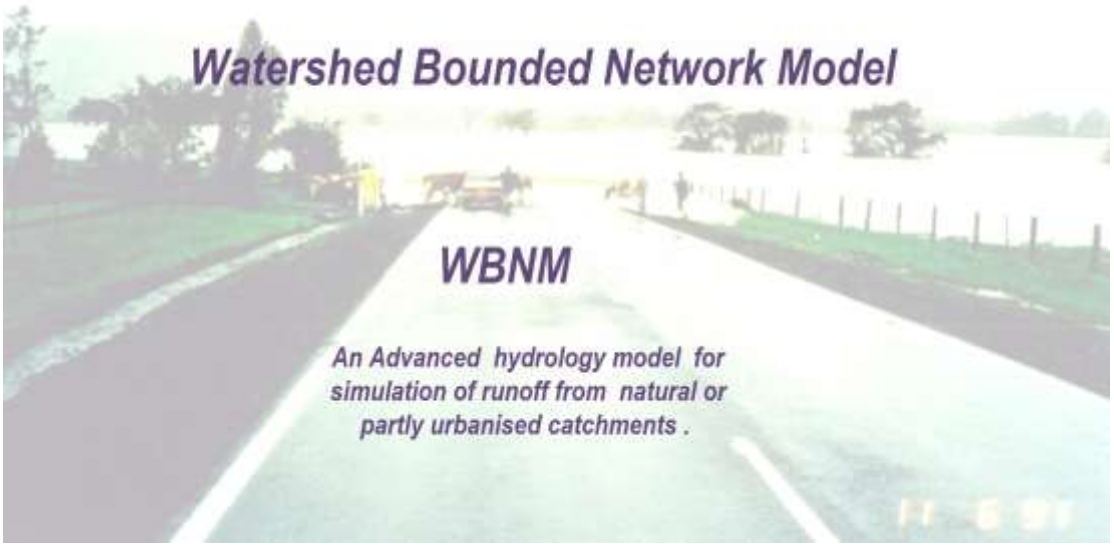

HISTORY

For all other details See:

WBNM_Validation.pdf
WBNM_References.pdf
WBNM_Runfile.pdf
WBNM_Theory.pdf
WBNM_Tutorial.pdf
WBNM_UserGuide.pdf

HISTORY of RELEASES

See WBNM_Readme.txt for details of changes in each version,

Previous versions :

1.00 1979 Michael Boyd, David Pilgrim and Ian Cordery
1.10 1987 Michael Boyd, Bryson Bates, David Pilgrim and Ian Cordery
2.10 1994 Michael Boyd, Ted Rigby and Rudy VanDrie

Wbnm2000 :	1.06 Initial beta release	September 1999
	1.07 Revision	September 1999
	1.08 Revision	November 1999
	1.09 Revision	January 2000
	2.01 Revision	April 2000
	3.00 Revision	November 2000
Versions of Wbnm2001 :	1.00beta	March 2001
	1.00	June 2001
Versions of Wbnm2002 :	1.00	January 2002
	1.01	June 2002

Versions of Wbnm2003 :	1.00	March 2003
	1.01	August 2003
	1.02	December 2003
	1.03	June 2005
Versions of WBNM2007 :	1.04	January 2007
Versions of WBNM2007_VLA	1.00	June 2007(Limited Release)
Versions of WBNM2009	1.00	Nov 2009Limited Release)
Versions of WBNM2010	1.00	Feb 2010 (Limited Release)
Versions of WBNM2012 :	1.00	June 2012 (Final Release)
Versions of WBNM2017 :	000 (Beta)	July 2017
Versions of WBNM2017 :	001(Beta)	November 2017
Versions of WBNM2017 :	001	May 2018

The **W**atershed **B**ounded **N**etwork **M**odel WBNM arose out of a Master of Engineering Science project by Michael Boyd, supervised by David Pilgrim in 1973. This was further developed into a PhD project, under the supervision of David Pilgrim and Ian Cordery. The original study was concerned with correct allocation of lag times to the various subareas of a larger catchment, using established relations between catchment geomorphology and hydrology. This resulted in a simple yet realistic model of the flood rainfall-runoff process, and one which required a minimum of model parameters. This has remained the emphasis, but with continuing interchange of ideas with users leading to the addition of significant enhancements, to produce a very flexible yet easy to use tool for engineering flood studies.

The original investigations were reported in University of New South Wales Water Research Laboratory Report 154 (1979). It is interesting to note that the original computer program consisted of just 145 lines of Fortran code ! WBNM now has more than 40,000 lines of code.

Further developments were carried out in 1987, by Michael Boyd, Bryson Bates, David Pilgrim and Ian Cordery, adding storage reservoir routing and urbanisation (University of New South Wales Water Research Laboratory Report 170 (1987)).

In 1994, Michael Boyd, Ted Rigby and Rudy VanDrie, with assistance from Mike Sharpin, moved WBNM from what was essentially a model for calculating flood hydrographs, to one in which the emphasis was on a useful tool for engineering flood studies. This included built-in design storms and culvert/weir hydraulics, diversions, graphics, and saving of results for QA purposes.

From the release of WBNM2002 up to the release of WBNM2012, development has been by Michael Boyd, Ted Rigby, Rudy VanDrie and Irene Schymitzek.

iWBNM, a more sophisticated pre and post processor model than the original fixed dimension wbnmGUI was included in the 2007 release, permitting easier runfile creation and calling of the WBNM components. It was developed by Andrew Wiersma and Steve Roso.

This present version of WBNM2017 has been developed, as an extension of prior versions by Ted Rigby to specifically address the new requirements of Australian Rainfall and Runoff 2016. In undertaking this work an opportunity was taken to also update and optimise the core

simulation code and to add some features to the existing AR&R 1987 design flood estimation code. This work was undertaken with the support of a committee comprising Steve Roso (Chair) Julia Roso, Anthony Barthelmess, Andrew Weirsma, Glen Mealey, Rudi Van Drie and Bronson Mcpherson. WBNM2017 was publicly released in beta form in November 2017 and is planned as a full release in May 2018.

A stripped down and optimised WBNM_ENG for simulating runoff from input hyetographs was released as FOS in July 2017 to facilitate incorporation of advanced hydrologic simulation into third party applications.