

Institute for Sustainable Water Resources

RORB-6 Workshops

1st and 2nd December 2008

**Department of Civil Engineering
Monash University, Clayton, Victoria**

ABOUT THE WORKSHOPS

The RORB program has been used for flood estimation in Australia for over 25 years, and is endorsed for this purpose in 'Australian Rainfall and Runoff'. This workshop will cover RORB Version 6 that includes a graphics editor (GE) for data entry and editing. Further details on the program are available at <http://civil.eng.monash.edu.au/expertise/water/rorb>.

These two workshops are intended for those who require an introduction to RORB and/or need to know more about the enhanced capabilities of this new version. Each workshop is shared about equally between lecture/discussion sessions and hands-on practice sessions dealing with case studies.

WORKSHOP 1- Introduction to RORB Version 6 Monday 1st December 2008

The INTRODUCTION workshop targets people wanting a basic understanding of runoff-routing methods and the use of the RORB model and GE.

Objective – After Day 1, participants will:

- understand the concepts and assumptions made in runoff-routing methods
- be able to subdivide a catchment and construct a RORB data file using the GE
- be able to use RORB for parameter determination for gauged catchments (fitting & testing)
- know how to estimate RORB parameters for ungauged catchments
- be familiar with use of the program for hydrologic design (flood estimation for spillway sizing and modelling urban systems)

PROGRAM for Workshop 1	
8.30 am	Registration
9.00 am	Welcome & Introduction
9.10 am	Introduction to runoff-routing and the RORB program
10.10 am	Coffee Break
10.35 am	Representation of runoff events and formulation of the catchment/stream model [Use of the new datafile GE]
11.25 am	Exercise – formulation of catchment/stream model using GE
12.30 pm	Lunch
1.30 pm	Catchment flood estimation using RORB, including parameter estimation for ungauged catchments
2.20 pm	Introduction to the RORB6 software
2.50 pm	Coffee break
3.00 pm	Case studies – spillway design and retarding basin design
5.00 pm	Discussion
5:30 pm	Close

WORKSHOP 2 – Advanced modelling with RORB

Tuesday 2nd December 2008

The ADVANCED workshop is intended for people with moderate experience with RORB who want to know more about enhanced modelling capabilities of the program and the datafile GE. The workshop has been designed to equip attendees with practical skills in the latest RORB techniques.

Objective – After Day 2, participants will:

- understand the range of capabilities provided in the current version, i.e.:
 - provision to vary parameters over sub-catchments
 - dynamic updating of graphics while fitting model parameters
 - generation of design rainfalls (within Australia)
 - processing of multiple design runs for range of ARI and/or duration
 - numerical and graphical summaries of multiple design runs
 - automatic identification of critical duration
 - inclusion of a range of prediction equations for ungauged catchments
 - generation of flood frequency curves for multiple sites or durations
 - Monte Carlo simulation of temporal patterns and losses
 - facility for extraction of Monte-Carlo temporal patterns from standard pluviograph data
- understand the versatility of RORB in modelling simple and complex systems
- be competent in using the new GE for datafile creation/editing
- be aware of latest developments to link RORB to MapInfo

Case studies will be used to illustrate several of these capabilities.

Program for Workshop 2	
08.30 am	Registration
09.00 am	Welcome & Introduction
09.10 am	Outline of the capabilities of the RORB program
10.15 am	Coffee Break
10.40 am	Modelling of complex systems (eg branches and looped channels, overland flow), special storages (eg floodplain storage, offline retarding basins) and sewer inflow/infiltration. Demonstration of new capability to link RORB and MapInfo
11.15 am	Monte Carlo analysis capabilities
12.10 pm	Introduction to case studies
12.30 pm	Lunch
1.30 pm	Case studies – modelling flood breakout from channels, design of retarding basins, and determining flows of specified probability [includes use of new GE]
5.00 pm	Discussion
5.30 pm	Close

PRESENTERS

The workshop will be presented by **Russell Mein** (Workshops 1 and 2) and **Rory Nathan** (Workshop 2), the co-developers of the current program, who have applied RORB models in a broad variety of situations. **Tony Ladson** will also be a presenter.

COST AND REGISTRATION

Workshop registration can be either for one workshop (\$520 inc GST) or for both workshops (\$990 inc GST). The registration fee covers a hard copy of the RORB6 manual and a set of the Workshop Notes for the selected workshop(s) plus lunch, morning and afternoon teas.

To register for the workshop please complete the form included with this flyer and return it by fax to Irene Sgouras given below by close of business on **14 November 2008**. *Only a limited number of workshop places are available, and persons interested in attending the workshops are therefore advised to register as soon as possible.*

Please note: the receipt of your registration form confirms your intention to attend the workshop, and the workshop cost is not refundable (unless places are unavailable).

CONTACTS

Ms Irene Sgouras, Institute for Sustainable Water Resources, Monash University VIC 3800. Tel: 9905 4971, Fax: 03 9905 4944, Email: irene.sgouras@eng.monash.edu.au

For any technical information on the workshop, please contact: Tony Ladson. Tel: 0437 720 793 or 03 9248 3292, Fax: 03 9248 3400, Email: arladson@skm.com.au

VENUE

The venue will be the foyer and lecture theatre S1 in building 25 at the Clayton Campus of Monash University (see attached map). Follow the signs to the venue.

PARKING

Parking is available for free in any of the blue car parking spaces. The closest parking is in the multi-storey car park off North Ring Road. Enter Monash University via Bayview Ave (Melway 70E9). Proceed straight ahead at the roundabout and take the second turn on the right into the multi-storey car park (see attached map). Walk to the south-east corner of the car park and there will be signs to guide you to the workshop registration. Note that restrictions apply in other areas and are policed.

TAXIS

Ask the taxi to take you to the Clayton Campus of Monash University (Melway 70E9). Ask to be dropped at the south-east corner of the multi-storey car park which is off Bayview Ave (see attached map). Follow the signs to the venue.

IF YOU GET LOST

Monash is a large and confusing place if you are not familiar with the campus layout. If you need assistance, call Tony Ladson 0437 720 793.

ACCOMMODATION

Accommodation is available within walking distance from the University but arrangements should be made directly with the organisation concerned. Accommodation options include:

Clayton-Monash Motor Inn, 1790 Dandenong Road, Clayton, Tel: 03 9544 0911

Gateway on Monash Boutique Hotel 630 Blackburn Road, Notting Hill, Tel: 03 9561 4455

PLEASE BRING

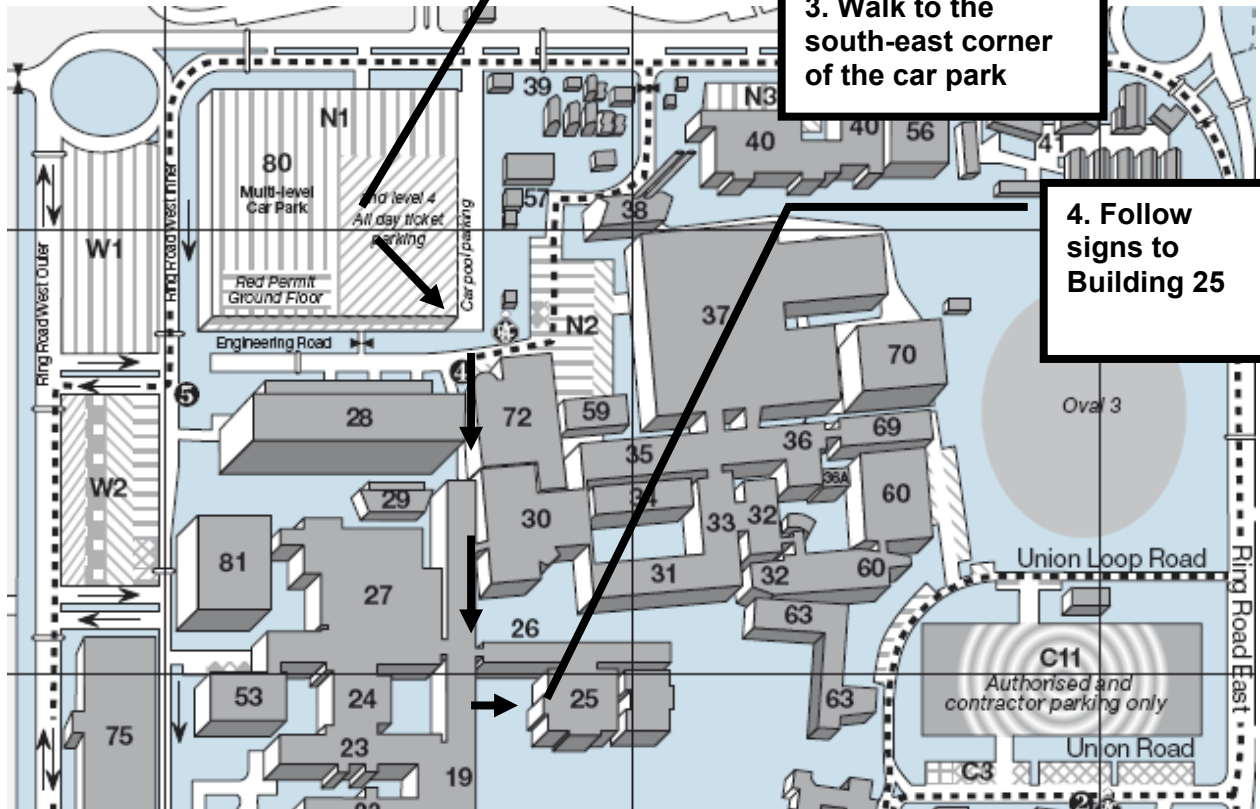
A calculator and a something to back up your computer files e.g. blank CD or memory stick.

1. Enter campus via Bayview Ave (see Melway 70E9)

2. Park in a blue space in the multi-storey car park.

3. Walk to the south-east corner of the car park

4. Follow signs to Building 25





RORB Workshops – 1st & 2nd December 2008

Registration Details	Name: _____
Please complete this form and mail or fax to: Irene Sgouras Department of Civil Engineering Building 60 Monash University VIC 3800 Tel: (03) 9905 4971 Fax: (03) 9905 4944	Position: _____
	Section: _____
	Organisation: _____
	Postal Address: _____
	Suburb/Town: _____
	State: _____ Postcode: _____
	Tel: _____ Fax: _____
	Email: _____
	Please note any dietary requirements: _____

Registration: Workshop 1 (Introduction) Workshop 2 (Advanced)

Payment Options: *(tick as appropriate)*

Please debit: <input type="checkbox"/> \$520.00 (1 Workshop) <input type="checkbox"/> \$990.00 (Both Workshops) (inc. GST)
To the following credit card account:
VISA <input type="checkbox"/> MASTERCARD <input type="checkbox"/>
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Card held in the name of: _____
Expiry Date: _____ / _____ Signature: _____
(A GST complying tax invoice/receipt will be forwarded to you on receipt of payment)
Email address for receipt: _____
