

## TUFLOW Workshops and User Group

Bill Syme, Phillip Ryan and Chris Nielsen of BMT WBM in Australia will be in the UK to talk about the latest developments in the TUFLOW software. Edenvale Young will be hosting a two day event in Bristol.

### TUFLOW UK Workshops

Day 1 will consist of a series of TUFLOW Workshops on specific subjects which are suitable for beginners to experts on a range of subjects which will run throughout the day (see below).

### TUFLOW UK User Group 2011

Day 2 will be the TUFLOW User Group which will include presentation and discussions on subjects relevant to user community including:-

- TUFLOW in 2012 new features and progress
- Using TUFLOW in the context of Surface Water Management Plans & Network analysis
- TUFLOW FV applications to coastal engineering
- The 2010 Queensland Floods and application of TUFLOW

This will be followed by presentations and a general forum to discuss the future. The objective of the user group is to present novel and interesting uses of the software and to stimulate debate about the future of the software.

## Who Should Attend?

- Flood Risk professionals with experience of hydraulic modelling using 2D techniques.
- Project managers in the Environment Agency Local Authorities and Consultants particularly those responsible for delivering flood risk assessments; flood risk and coastal erosion strategies and surface water management plans.

## Where, when and how much?

### Day 1 – TUFLOW UK Workshops

Where M Shed, Wapping Road, Princes Wharf, Bristol BS1 4RN

When 26 October 2011

Time 9.00am and 4.30pm

Cost £215 (inc VAT £258)

### Day 2 – TUFLOW UK User Group

Where Arup Auditorium, 63 St Thomas Street Bristol, BS1 6JZ

When 27 October 2011

Time 9.00am and 4.30pm

Cost £100 (inc VAT £120)

## TUFLOW UK User Group is sponsored by



## How to Book

If you would prefer to pay by cheque or BACS email [leanne.chesters@edenvaleyoun.com](mailto:leanne.chesters@edenvaleyoun.com) who will register your booking and prepare an invoice for the User Group and / or Workshops. If you would like to pay by credit card go to [www.tufLOW2011.eventbrite.com](http://www.tufLOW2011.eventbrite.com).



## **TUFLOW Bristol Workshop 2011**

### **Workshop 1**

Workshop 1 is for TUFLOW users wishing to expand their capabilities and will include presentations from Bill Syme, Phillip Ryan and Chris Nielsen of WBM. Presentations will cover **TUFLOW FV** and **Urban Modelling** during the morning session and enhancing output using **advanced GIS techniques** and **modelling events and scenarios** in the afternoon.

### **Workshop 2**

This year we will present a new workshop theme looking at TUFLOW **boundary conditions**, including reliable representation of the physical process at outflows. This will be held in conjunction with a discussion on **practical applications of fluvial and rainfall hydrology** within a TUFLOW model. Workshop 2 will also include an interactive presentations relating to the **representation of hydraulic structures** within TUFLOW.

The final session will be presented by Bill Syme and will encompass **new features in TUFLOW 2011**.

### **Workshop 3**

The **morning session** of workshop 3 will include workshops designed for TUFLOW **beginners and intermediate users**. The objective would be to introduce TUFLOW to new users so that they can understand the principles of TUFLOW and benefit from the rest of the day.

In the **afternoon** Workshop 3 will concentrate on building on people's existing experience so that they are able to address more complex issues such as **developing healthy models** and **1D-2D linking**.

### **Workshop 4**

**TUFLOW Clinic and Model Surgery** will be run throughout the afternoon and will be an informal session. Users are encouraged to bring along badly behaving ISIS-TUFLOW and TUFLOW models for assessment and possible fixing. These sessions will include working with experienced ISIS, ISIS-TUFLOW and TUFLOW professionals including Chris Whitlow of Edenvale Young.

### **Where, when and how much?**

#### **Day 1 – TUFLOW UK Workshops**

Where M Shed, Wapping Road, Princes Wharf, Bristol BS1 4RN

When 26 October 2011

Time 9.00am and 4.30pm

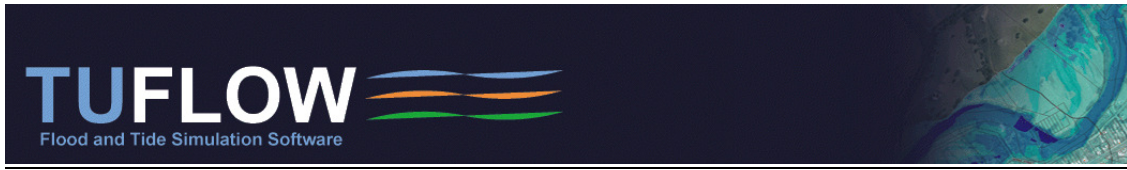
Cost £215 (inc VAT £258)

#### **How to Book?**

[www.edenvaleyoun.com/news.php](http://www.edenvaleyoun.com/news.php)

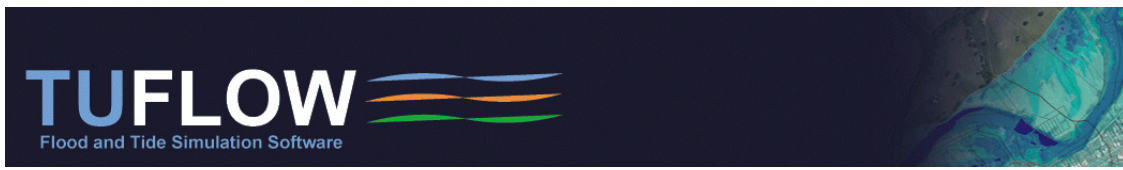
#### **For More Information**

Contact [leanne.chesters@edenvaleyoun.com](mailto:leanne.chesters@edenvaleyoun.com)



**Preliminary Schedule (To be Confirmed)**

	Workshop 1	Workshop 2	Workshop 3	Workshop 4
9.00	Registration and coffee			
10.00 - 11.00	TUFLOW FV – Brief Overview 2D and 3D Flexible Mesh Modelling	Boundary Conditions Inflows & outflows	TUFLOW for beginners	
11.15 - 12.15	Urban Modelling and ISIS-TUFLOW-PIPE – Modelling of urban pipe networks and linking TUFLOW 1D (ESTRY) to ISIS	Hydraulic Structures	Developing skills in TUFLOW	
12.15 – 13.15	Lunch			
13.15 – 14.15	Enhancing TUFLOW Output – X MDF files, advanced GIS techniques, making 2D and 3D animations in SMS and GIS	Boundary Conditions Inflows & outflows	ISIS-TUFLOW Healthy models and debugging	TUFLOW Afternoon Model Surgery  Bring and Fix Clinic
14.30 – 15.30	TUFLOW Events and Scenarios – Run all your simulations using just one .tcf file!	TUFLOW 2011 – New Features	ISIS -TUFLOW Linking	
15.30 – 16.30	Feedback			



## WORKSHOP 1

### **TUFLOW FV – Brief Overview 2D and 3D Flexible Mesh Modelling**

TUFLOW FV is a 2D/3D flexible mesh, finite volume numerical model that simulates hydrodynamic, sediment transport and water quality processes in oceans, coastal waters, estuaries and rivers. The overview will introduce the concepts of flexible mesh modelling – how it differs from finite difference / fixed grid models (like TUFLOW), the advantages and disadvantages and when to use.

### **Urban Pipework Network Modelling**

Tips and tricks for modelling urban areas and pipe networks. Manhole energy losses explained and efficient ways of managing and setting up large pipe networks demonstrated. Different approaches for modelling overland areas including buildings and fences in 2D are also presented.

### **Enhancing TUFLOW Output – XMDF files, advanced GIS techniques, making 2D and 3D animations in SMS and GIS**

How to make your TUFLOW model output much better! This workshop will give you GIS techniques for producing high quality flood maps, using the new XMDF files, and how to produce impressive 2D and 3D animations using SMS and ArcGIS.

### **TUFLOW Events and Scenarios – Run all your simulations using just one .tcf file!**

The TUFLOW event and scenario features introduced in the 2011-12 release offers the user a very powerful tool to the point where all simulations can be initiated using the one .tcf file. Examples of the different ways to optimise your modelling for simulating multiple events and scenarios will be workshopped.



## [WORKSHOP 2](#)

### **Boundary Conditions Inflows and Outflows**

This workshop will comprise a presentation on TUFLOW hydraulic controls and reliable representation of the physical process at outflow boundaries. This will be held in conjunction with a discussion on practical applications of fluvial and rainfall hydrology within a TUFLOW model.

### **Hydraulic Structures**

This workshop will be about methods for the modelling of buildings, fences and other hydraulic structures which have no explicit representation in TUFLOW. A variety of different techniques for representing buildings and fences in a two-dimensional domain will be presented, along with some of the pros and cons of each. Discussion in the workshop will then focus on the attendees' experiences of this aspect of urban modelling, how some of the methods can be implemented using commonly available data sources and which of the methods might be appropriate for any particular problems that the attendees might have.

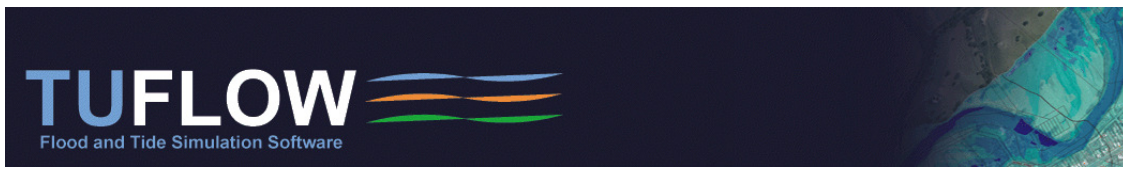
### **TUFLOW 2011 – New Features**

Bill Syme will give a brief overview of new features in TUFLOW for 2011. These include full .shp and .xmdf file support, ISIS-TUFLOW-PIPE (ISIS-ESTRY link), flexible output options, TUFLOW Wiki, new SA options, new infiltration options, new 1D structures, updated utilities, and more.

## [Held in WORKSHOP 3](#)

### **TUFLOW for Beginners**

The objective would be to introduce TUFLOW to new users so that they can understand the principles of TUFLOW and benefit from the rest of the day. This will cover the basics of setting-up a TUFLOW model and a discussion of TUFLOW file structures.



### **Developing skills in TUFLOW**

For more experienced users the objective would be to build on people's existing experience so that they are able to address more complex issues including as simulation times, TUFLOW hot-start/restarts, schematisation of boundary conditions, multiple domains and 1D linking to ESTRY

### **ISIS-TUFLOW Healthy Models and Debugging**

This workshop will concentrate on the production of healthy models including checking for terrain problems; tracking the causes of instability using TUFLOW diagnostics files and basic advice on building a healthy model such as:

- 2D linking across embankments
- Boundary positioning
- Modifying time steps (when and when not to reduce)
- LiDAR patching and z shape merging
- Representation of ditches
- Parallel rivers
- General good practice

### **ISIS-TUFLOW Linking**

An interactive presentation relating to ISIS-TUFLOW linking and will cover the following subject areas: model preparation; data transfer between ISIS and TUFLOW; HX verses SX boundaries and fixing model instabilities at the interface of ISIS and TUFLOW. This will be supported by the use of worked examples.

### **[Held in WORKSHOP 4](#)**

### **Afternoon TUFLOW Model Surgery: Bring and Fix Clinic**

TUFLOW Clinic and Model Surgery will be run throughout the afternoon and will be an informal session. Users are encouraged to bring along badly behaving ISIS-TUFLOW and TUFLOW models for assessment and possible fixing. These sessions will include working with experienced ISIS, ISIS-TUFLOW and TUFLOW professionals.