

# RIVERS & COASTS

Newsletter of CIWEM's Rivers and Coastal Group No. 42 – September 2008



## CHAIRMAN'S CHAT

Hello and welcome to our latest newsletter.

This is my first newsletter as Chairman of the Group since taking over from Jackie Banks at the AGM on 15 May and I'd like to take this opportunity to formally thank Jackie for her excellent work, not only as Chairman, but also as a very active Committee Member.

It is an honour to be Chairman of such a distinguished and long standing Group, especially during such an exciting time of change within the industry. Following last summers devastating floods, Sir Michael Pitt has made some very strong recommendations for improving the way we manage flood risk and respond to incidents. The public also now has much higher expectations. The Rivers and Coastal Group has an important role to play in helping CIWEM influence the Government to ensure all the Pitt recommendations are fully implemented.

Over recent years the Rivers and Coastal Group has gone from strength to strength and I am determined during my year as Chairman to ensure that this trend continues. My priorities are to:

- Further increase the group membership, especially from under represented parts of the industry such as Local Authorities, Contractors and those with an interest in coastal matters.
- Further strengthen the links between CIWEM Head Office, Branches and the Group
- Use the extensive expertise and experience of our Committee and wider membership to prepare consultation responses on behalf of CIWEM, so that we continue to be seen as the Institution's expert advisors on all river and coastal matters.
- Work with Terry Fuller, Senior Vice Chairman, to begin preparations for the Group's 60<sup>th</sup> Anniversary in May 2009.

Throughout the year the Committee will continue to deliver an exciting and varied programme of meetings and technical visits. Our autumn technical visit on 6/7 November promises to be particularly interesting as we visit Hull and the Humber Estuary. Please note the change of date and accept my apologies for any inconvenience this may cause.

I am very fortunate to have a very strong and enthusiastic Committee to support me and I'd like to formally welcome Kathryn Pygott, Graham Piper and Jamie Fielding onto the Committee. All Committee members give their time voluntarily and work very hard to ensure the smooth running of the Group. I'd also like to formally record our thanks to Sarah Budd who recently left the Committee having served the Group for the past 12 years and to Bob Wood who,

despite retiring from the Committee after his three year term, is still helping with the arrangements for the forthcoming Humber visit.

As part of CIWEM's commitment to widening public understanding of the challenges to our planet, a major new strategic programme on Arts and the Environment was launched in 2007. At the Group's Spring meeting we had a very stimulating and interesting presentation on Arts and the Environment. During the discussion that followed it was felt that there must be examples across the country of rivers and coastal schemes or projects that have incorporated art, for instance to make them more acceptable to the local community. Examples could range from subtle artistic influences of engineering structures to specific works of art. Have you been involved in any such schemes? If so, please could you let Jonathan Chapman have some brief details by email so that we can begin to compile some great examples for sharing with others.

As you will be aware, CIWEM has been looking at how best to streamline the existing governance arrangements for the Institution. If you have not already done so, please can I urge you to visit the CIWEM website and read the latest commentary from David Rooke and Alastair Moseley entitled "CIWEM Governance - A change for the better." For the future of the Institution I think it is important that we support the revised proposals and I urge you, if possible, to attend the AGM in London on 11 September 2008 at 1pm to take part in the debate and cast your vote.

I look forward to seeing as many of you as possible over the course of the year at the various Group events. As ever, the Group is only as strong as its members - so if you have any ideas for events, or you feel there are things you would like the committee to be doing on your behalf then please feel free to drop me a line.

Kind regards

Andrew Gilham

## CHAIRMAN'S PRIZE 2007/2008

Each year the Chairman of the Rivers and Coastal Group awards a prize to a person or team who have contributed outstanding work in reducing the risk of flooding or coastal erosion.

This year's prize went to the "on the ground" team whose bravery and hard work protected the electricity switching station at Walham, Gloucestershire from flooding in July 2007, an action that safeguarded the supply of electricity to half a million people across Gloucestershire and South Wales. Chairman of the Rivers and Coastal Group, Jackie Banks presented the prize at the Group's spring meeting in Birmingham on 15th May to Richard Evans, representing the

Environment Agency, and Chris Griffin, representing Gloucestershire Fire and Rescue.

Jackie Banks told the audience at the meeting that workers from the Environment Agency, emergency services and the military had worked throughout the night to erect temporary defences. They were surrounded by water and close to high voltage cables and switches. Due to the danger of electrocution they were told not to raise their hands above head height. The site was several hundred metres from dry land with water levels rising all around them. Without their actions some of the most vulnerable people in the villages, towns and cities served by the electricity station would have lost power - including those in hospitals, care homes and sheltered housing.



Accepting the award Chris Griffin thanked the group for recognising the importance of the work and praised the joint effort by all parties on the night. He stressed that the it could not have been achieved without the expertise of the Environment Agency staff in erecting their barriers and the manpower and skills of the emergency services and military. Richard Evans said that they quickly realised that it was a race against the clock but had no history or experience of having worked at this site. He added that "the lads" would be so pleased to receive such national recognition of their hard work.

## RCG THAMES TECHNICAL VISIT

On 26 June 2008, the CIWEM RCG arranged a repeat visit to the "Thames Barrier" in Woolwich, South East London. This trip was generously hosted by the Environment Agency's Thames Estuary 2100 Project and was arranged as a repeat of last summer's visit, which was heavily oversubscribed.

The day began with a tour around the Thames Barrier by representatives of the Environment Agency including Dick Kew (Asset Systems Management), Owen Tarrant (TE2100) and Rachael Hill (TE2100). It proved a particularly timely visit as the group was able to see the Thames Barrier in a number of operating positions. This included one of the 61metre span rising sector gates being in its upturned maintenance position with contractors cleaning debris from inside the gate. In addition one of the radial gates was in the

closed defence position which allowed the group to see the scale of these structures when shut, and also the foundations of the outermost 31metre span gates at the low tide during the visit.

On the tour each group was taken to Pier 5 of the structure, where we were able to see bearing maintenance of one of the hydraulic jacks used to raise and lower the gates. An explanation of the importance of maintaining duty and standby of equipment at all times was given. It was also stressed that planning is imperative to ensure that maintenance activities are scheduled not to coincide with times of potential high tides and flows. The key to both operation and maintenance of the structure was building in resilience and contingency in daily use as well as at the design stages.

At the end of the tour the group was brought together for a talk from Rachael Hill regarding the Thames Estuary TE2100 project and work that her team have been doing setting out succession planning for this asset. Rachael gave a resume of the importance of planning for the future and a summary of the ongoing work and timescales relevant to her team.

Thames Estuary 2100 (TE2100) is an Environment Agency project to develop a tidal flood risk management plan for the Thames estuary through to the end of the century. The final plan will recommend what flood risk management measures will be required in the estuary, where they will be needed, and when over the coming century. This will of course take account of the predicted effects of climate change and sea level rise that we face. Rachael explained how this plan is underpinned by offering a best value solution and that it may be a phased approach that is used to ensure that flood risk does not increase above a specific level. This may indeed mean that a suite of measures are implemented over the next 100 years in the Thames estuary which may includes such options as increasing flood storage at strategic points along the Thames; new barriers / barrages; changing operation of existing assets; raising and setting back development and defences where possible.



The afternoon saw the group embark on a river tour departing from the pier at the Thames Barrier. Rachael Hill had kindly offered to MC and amazed the group by just how much she knows of the waterside history and legislation relevant to the Thames; and for some reason most of the public houses along the Thames waterside from the Barrier to Westminster! The day concluded with the group being dropped off at Westminster Bridge adjacent to the Houses of Parliament, one of key assets that the Thames Tidal Defences protect.

Thanks go to all staff at the Environment Agency for hosting the tour and organising the boat trip.

James Addicott of the Environment Agency

## RCG STUDY WEEKEND 2008

The 2008 RCG Study Weekend took place at the impressive Royal Holloway University, Surrey on 28<sup>th</sup>-30<sup>th</sup> March. This was the largest study weekend yet, attended by 67 delegates from the Environment Agency, consultancy firms and a local authority from around the country. The weekend was organised by four volunteers from last year's weekend; Amara Barlow (Royal Haskoning), Jamie Fielding (Environment Agency), Lisa Hardwick (Black and Veatch) and Linda Speight (JBA Consulting).

Following the extensive flooding last summer many of the presentations discussed Planning for Sustainable Flood Risk Management in the context of recent examples that the delegates could relate to. Kim Ryley's (Hull CC) presentation on the human impact of the summer flooding in Hull provided an excellent example of the impact of such an event, providing a thought provoking backdrop to the weekend.



Friday night quiz winners

The weekend began on Friday night with a chance to socialise with fellow delegates. The pub quiz in the bar gave everyone a chance to show off their geography and general knowledge skills in exchange for bottles of wine for the winning team before the serious work began on Saturday morning.

The topic for the weekend was "Planning for Sustainable Flood Risk Management". Jackie Banks, Chairman of the Rivers and Coastal Group opened the weekend. Alison Baptiste (EA) then talked through 'Making Space for

Water', introducing members to the Government's high levels aims for sustainable flood risk management and how this could possibly be achieved. In the context of the Government's development aims, David Pettifer (JBA Consulting) highlighted some of the challenges and potential solutions for sustainable flood risk management given that much of the land available for development is within the flood plain, a topical issue in London given the high profile Thames Gateway development.

Phil McLoughlin (EA) hosted the finals of the RCG First Paper Competition. Based on "Raising Resilience" the competition fitted well with the theme of the weekend and enabled the competition finalists to share their own ideas. All of the presentations were to a very high standard. Andrew Twigg and Lee Thornley won the competition and were presented with their £500 prize by David Rooke, CIWEM President (see the competition write up for further details).



Delegates enjoying the rain at the Jubilee River

Despite the rain, after a morning of lectures everyone was keen to get outside to visit the Jubilee River, the largest flood alleviation scheme in the country, which provided an example of the engineering issues, ecological issues and social pressures that need to be addressed to achieve Sustainable Flood Risk Management. The Jubilee River has caused considerable controversy in the local area as it didn't perform quite as planned and local residents feel there has been limited benefit to the local area. When asked if he thought the scheme was a good use of public money, Owen Peat (EA) responded that it had cost a fraction of the cost of the Millennium Dome. A comment which bought home the issues of sustainability at a broader scale.

On Saturday night everyone headed down to Windsor for a buffet on a disco boat on the River Thames. Somewhat topically the river was high and the lock gates had had to be shut, restricting the boat to a short stretch of river and a lot of turning around. Luckily this didn't affect the supply of drinks at the bar or the delegate's enthusiasm for dancing!

On Sunday, Joe Pearce (EA) had the early morning slot but kept the delegates awake with an interesting presentation on the coastal defences between Pagham and East Head and trying to meet the varied needs of the community within financial, engineering and environmental constraints mixed in with pictures of his dog to catch those trying to sneak a quick nap! Alex Schofield (EA) continued with the coastal theme, with a discussion on how to provide coastal protection at Felixstowe while still maintaining the appearance and amenity value of the beach.



CIWEM RCG Study Weekend delegates at the Hogsmill River

Drainage (IUD) pilot studies, a topic which was also covered at last year's study weekend and illustrated how different organisations have different priorities for identifying what is a sustainable level of flood risk and the difficulties uncovered trying to balance these multiple aims and objectives. Mat Graham used the case study of the Hogsmill River, IUD pilot study incorporating the Environment Agency, the borough and county council and Thames Water.

Thankfully the sun was out on the Sunday as the delegates went to see the challenges of the highly urbanised Hogsmill catchment first hand; including a very narrow river corridor with buildings on either side, an emergency centre on the ground flood in the floodplain and foundations of an unfinished building obstructing the channel.

Owen Tarrant (EA) spoke on the local development issues concerning the need to provide new houses in the Thames area and how to do this sustainably, for example through incorporating resilience measures into the design. In the main the area is protected by the Thames barrier but if a breach was to occur flooding would be rapid and devastating creating unique management issues. Owen Tarrant used the recent film "Flood" to raise discussion about how the media has sensationalised flooding and how to educate the public through the media without scare mongering.

Following Owen Tarrant's overview the SFRA Workshop by Sarah Smith and Lydia Burgess-Gamble (EA) gave everyone a chance to see some of the decisions involved in development in the TE2100 area first hand. This exercise was particularly useful for delegates who had no experience of SFRA's and FRA's to see the process first hand and for

those who regularly carry out FRA's to see some particularly good and bad examples to draw on in their own work.

Finally Amy Parrot (EA) presented some alternative approaches to flood risk management based on land use change. She highlighted that although land use management such as contour ploughing and setting land aside for flood storage, can have significant effects at local scales there is limited evidence of the benefit to flood risk at the larger scale, although there are obvious environmental benefits.

The committee would like to thank the four organisers for all their hard work in putting together a very enjoyable and successful weekend. Planning has already started for next years event and more information will be available on this later this year.

## PITT REPORT

The independent Report on the 2007 Floods by Sir Michael Pitt was published in June 2008. CIWEM embraces Sir Michael's recommendations, highlighting the need for a robust, sustainable and joined-up approach to flood risk management, with local authorities and the Environment Agency playing an enhanced role. The report reinforces CIWEM's previous calls for action from the Government. However we are concerned that the message that there is a "negligible or low new burden of costs" associated with many recommendations may be off the mark - we are not convinced that this is an accurate overall analysis, and that their true cost and complexity may have been underestimated. CIWEM also underlines the risk that only the simpler recommendations in the Pitt Report might be implemented and the more challenging ones might be ignored. We will take a close look at the Government's Implementation Plan, due this autumn and will be vigilant on checking that it includes actions that will deliver the commitment to be better prepared in future. CIWEM is prepared to speak out to maintain the pressure to implement the Pitt Report in full.

CIWEM R&C Group contributed to the All Party Parliamentary Water Committee meeting with Sir Michael on 16 July. There was a lively question and answer session and several MPs demonstrated a clear understanding of flooding issues - something that has been lacking in former years. Elliot Morley MP asked Sir Michael to say which of his many recommendations he considered the most vital. Sir Michael cited two, the need to protect infrastructure particularly securing utilities, and changes to Reservoir legislation, in particular the sharing of information on flood risk - "we should have a "need to share" culture not a "need to know" culture, he said.

Another key message highlighted by Sir Michael is the pressing need to encourage more skilled people into the business to carry out the actions recommended in his

report. This is of great interest to CIWEM as a professional institution which supports and encourages new entrants to the Flood Defence and Coastal Erosion Risk Engineering sector. This critical need for dedicated engineers and scientists is of National importance, when we are already experiencing a severe engineering skills shortage. It comes at a time when flooding and coastal erosion has never before had such a high profile and is set to become one of the most exciting and challenging engineering fields. CIWEM must play its part in attracting our best graduates to the sector.

Nick Reeves, CIWEM's Chief Executive says, "CIWEM fully supports the recommendations of the Pitt Report and is committed to working with Government and all relevant bodies and stakeholders for their implementation *in full!*"

To see the latest press releases and letters about Pitt from CIWEM Head Office click on the links below

[http://www.timesonline.co.uk/tol/life\\_and\\_style/career\\_and\\_jobs/public\\_sector/article4367497.ece](http://www.timesonline.co.uk/tol/life_and_style/career_and_jobs/public_sector/article4367497.ece)

<http://www.ciwem.org/press/>

## FIRST PAPER COMPETITION

This year the First Paper Competition was on "Raising Resilience to Flood Risk". Entrants were invited to come up with a strategy for raising resilience. There was a great response with entries from staff at the Environment Agency, JBA Consulting, Royal Haskoning, Faber Maunsell and Entec. The entries were all of a very high standard with a good background on flood resilience and some novel and original ideas on how flood resilience measures could be used to manage flood risk. There were a variety of formats including papers, leaflets and a website.

A panel of judges consisting of Jackie Banks (Environment Agency), Phil McLoughlin (Faber Maunsell) and Hannah O'Callaghan (JBA Consulting) had the hard job of choosing 3 of the 10 entries to go forward to the final stage of competition, which involved a presentation of the strategy at the Rivers and Coastal Group Study Weekend. On the day the competition was judged by David Rooke (current president of CIWEM and Head of Flood Risk Management at the Environment Agency) and Phil McLoughlin and Hannah O'Callaghan from the RCG committee. There was also a collective audience vote from the attendees of the weekend. The presentations were all of a very high standard. First place was awarded to Andrew Twigg and Lee Thornley (Environment Agency), who used the innovative term "bounce-back ability" to refer to resilience. Second place was awarded to Francesca Hurt (JBA Consulting) and third place to Anneka Lewis (JBA Consulting).

David Rooke with the winners Andrew Twigg and Lee Thornley from the Environment Agency.



Second place was awarded to Francesca Hurt from JBA Consulting and third place was awarded to Anneka Lewis from JBA Consulting.

## DATES FOR YOUR DIARY

For more information on these events is available on the website [www.ciwem.org.uk](http://www.ciwem.org.uk). As well as RCG events we have included other CIWEM events that may be of interest to you.

### 2008

#### Humber Estuary - Technical Visit

\*\*\* PLEASE NOTE NEW DATE \*\*\*

Date: 6<sup>th</sup> - 7<sup>th</sup> November 2008

Contact: Kathryn Bell ([Kathryn.bell@arup.com](mailto:Kathryn.bell@arup.com))

### 2009

#### Joint CIWEM National and RCG Winter Meeting: Water Bill

Date: 22<sup>nd</sup> January

Location: SOAS, London

Contact Terry Fuller ([terry.fuller@jacobs.com](mailto:terry.fuller@jacobs.com))

#### RCG Study Weekend 2009

Date: 3<sup>rd</sup> to 5<sup>th</sup> April 2009

Location: Southampton University

Contact: Hannah O'Callaghan

([hannah.ocallaghan@jbaconsulting.co.uk](mailto:hannah.ocallaghan@jbaconsulting.co.uk))

**THANKS TO ALL WHO CONTRIBUTED TO THIS NEWSLETTER.**