



Gallimaufry: News and events from the British Dam Society

In this edition we have two of the four papers that made the final of the BDS prize – see below. Also in this edition is a paper by Jon Howard explaining the installation of a geomembrane lining at Val De La Mare dam in Jersey to limit leakage and protect the concrete dam from alkali silica reaction.

BDS prize

There were some excellent submissions in the BDS prize – the technical paper competition for the under-35s. The four finalists presented their papers at a BDS meeting at the Institution of Civil Engineers (ICE) in London on 21 November. The four were

- Natalie Evans (Mott MacDonald) on safety modifications at Lower Laithe reservoir
- Rhiannon Morris (MWH) on upgrading of the bottom outlet facilities at Abberton reservoir
- Anneke Kellond Hallsworth (Mott MacDonald) on surveys and temporary works carried out to construct a reinforced concrete lined spillway at Windleden reservoir
- Junaid Patel (United Utilities) on application of Eurotop wave overtopping guidance on three reservoirs in the North West.

All gave confident presentations and answered well the awkward questions thrown at them from the floor of the meeting. Congratulations go to Natalie as the winner; Junaid secured the runner-up place with Anneke and Rhiannon taking third and fourth place respectively. Natalie takes home £800 in prize money, while second and third place take home £400 and £200, respectively. The papers by the four finalists will be published in *Dams and Reservoirs* over this and the next edition.

Update on reservoir safety legislation

The Flood and Water Management Bill became an act at the end of the last parliament in April 2010. The legislation applies to England and Wales but similar legislation will be introduced in Scotland. The need to implement the Act has been accepted by the current administration. A provisional timetable for implementation is beginning to emerge, although dates at this stage are provisional (and aspirational). It seems implementation is likely to be in two phases. The first phase would apply the new Act to large raised reservoirs already covered by the Reservoirs Act 1975. This phase would be essentially reducing the regulatory burden for reservoirs not deemed high risk, with October 2012 as a target date for implementation. The second phase would apply the legislation to reservoirs with a lower

volume threshold (provisionally 10 000 m³), and could be considered to be increased regulation (and hence more difficult to implement), with 2014 as a target date for implementation.

A key aspect of the legislation is the classification of some large raised reservoirs as 'high risk'. 'High risk' reservoirs will be those reservoirs where human life would be endangered if there was an uncontrolled release of water from the reservoir. Owners of 'high risk' reservoirs will need to comply with all the requirements of the Act. Owners of reservoirs that are not designated as 'high risk' will still need to register the reservoir, but will not need to comply with the inspection and supervision requirements of the Act.

The Environment Agency is currently carrying out public consultation to decide how to classify reservoirs as high risk and who should carry out the classification. This is an opportunity for us working in the profession to put our points of view forward on an issue that could affect how we go about our work and how we ensure that the high standards of dam safety we currently have are maintained. Consultation is online at <https://consult.environment-agency.gov.uk/portal/ho/flood/reservoir/risk> and is open until 23 February. Further consultation is also likely in 2012 on how the Act will be implemented.

Note that views and advice from the profession are also being provided to government by the Reservoir Safety Consultative Group (RSCG). The RSCG was set up in 2008 as an ICE committee of reservoir professionals representing owners, panel engineers, Defra, the Environment Agency and ICE. It reviewed the draft Floods and Water Management Bill and has now been reconvened to continue with

- participation in the consultation process on behalf of ICE
- review of the statutory instruments that will underpin the implementation of the legislation
- review of an updated Reservoirs Act Guide.

BDS news

A reminder that the 17th biennial BDS conference is in Leeds in 2012. The date for your diary is 12–15 September. See the BDS website for more details.

Dams in the news

An interesting time-lapse video of the removal of a 38 m high concrete dam in the USA using explosives can be found on the National Geographic website (<http://news.nationalgeographic.com/news/2011/10/111028-condit-dam-removal-video/>). The 98-year-old Condit dam was a 14 MW hydropower scheme but the

owners, PacifiCorp, chose to remove the dam at a cost of \$32 million rather than construct fish passage (at a cost of \$100 million) required under a new federal dam license.

ICOLD publications

The International Commission on Large Dams (ICOLD) published three bulletins in 2010/2011

- Bulletin 135 – geomembrane sealings systems for dams
- Bulletin 141 – concrete face rockfill dams – concepts for design and construction
- Bulletin 144 – cost savings in dams.

The bulletins remain authoritative guidance for dam practitioners worldwide and represent the combined wisdom of ICOLD technical committees, most with UK representation. Bulletins published over the last 10 years are listed below. Bulletins can be obtained from the ICOLD website (<http://www.icold-cigb.net/GB/Publications/bulletin.asp>).

BDS membership

Are you reading this journal and not a member of BDS? Have you thought about becoming a member but never got round to it? BDS membership stands at over 500 with a further 24

corporate members, but we are always keen to welcome new members. The society is open to anyone wanting to learn and share experience or knowledge on all aspects of dams and reservoirs. Benefits include reduced rates for some BDS events; free access to all papers and articles published by *Dams and Reservoirs* as well as free access to the proceedings of the BDS conferences. Just as importantly, it is a great way to meet others in the profession, to share experiences, understand how the industry is changing in terms of technical innovation, new products, management of risk and reservoir safety legislation. Involvement in the society can provide a valuable part of your continuing professional development, help in your career development and in appointment to the Reservoirs Act panels.

Membership fees for 2012 remain at

- standard membership, £35
- retired membership, £16
- members under 35 years of age, £15
- student membership, £5
- corporate membership, £375.

If you are interested in becoming a member then fill in and return the form overleaf with your subscription.

Number	Title
Rough 149	Role of dams on the development and management of rivers basins
Rough-146	Dams and resettlement – lessons learnt and recommendations
Rough-145	The physical properties of hardened conventional concrete in dams
144-2011	Cost savings in dams
Rough-143	Historical review on ancient dams
Rough-142	Report on safe passage of extreme floods
141-2011	Concrete rockfill dams – concepts for design and construction
Rough-140	Sediment transport and deposition in reservoirs
Rough-139	Tailings dams safety
138-2009	General approach to dam surveillance
Rough-137	Reservoirs and seismicity
136-2009	The specification and quality control of concrete dams
135-2010	Geomembrane sealings systems for dams
134-2008	Weak rocks and shales in dams
133-2008	Bulletin 133 – embankment dams on permafrost
132-2008	Bulletin 132 – shared rivers: principles and practices
131-2006	Role of dams in flood mitigation – a review
130-2005	Risk assessment in dam safety management. A reconnaissance of benefits. Methods and current applications
129-2005	Dam foundations. Geologic considerations. Investigation methods. Treatment. Monitoring
128-2004	Management of reservoir water quality – introduction and recommendations
127-2004	Remote sensing for reservoir water quality management – examples of initiatives
126-2003	Roller-compacted concrete dams – state of the art and case histories
125-2003	Dams and floods – guidelines and case histories
124-2002	Reservoir landslides: investigation and management – guidelines and case histories
123-2002	Seismic design and evaluation of structures appurtenant to dams
122-2001	Computational procedures for dam engineering – reliability and applicability
121-2001	Tailings dams risk of dangerous occurrences – lessons learnt from practical experiences
120-2001	Design features of dams to resist seismic ground motion



Individual Membership Application Form

Please complete this form in **BLOCK CAPITALS** and then return by post or fax to:

British Dam Society
Institution of Civil Engineers
One, Great George Street
Westminster
London SW1P 3AA

Fax No. +44 (0) 20 7799 1325

Surname / Family Name

Fore / First Name(s)

Please delete as appropriate:

Mr / Mrs / Ms / Miss / Dr / Prof

Sex (M / F)

Date of Birth:

Please complete at least one address box below and indicate (*by ticking the box*) which address should be used for mailing purposes:

Home Address	
Postcode:	
Tel:	
Fax:	
Email:	

Work Address	
Postcode:	
Tel:	
Fax:	
Email:	

Academic Qualifications

If you are already a member of the Institution of Civil Engineers, please quote your membership number here:

I would like to apply for the following grade of membership:

INDIVIDUAL MEMBER (35 AND UNDER)
INDIVIDUAL MEMBER (OVER 35)
RETIRED MEMBER

Signature: Date:



Methods of Payment

BDS has a policy of reducing administration costs whenever possible and encourages members to pay annual subscriptions by Direct Debit. New Direct Debit Mandates must be completed and returned with your application to the address **overleaf** well before 31st December in order for the payment to be collected in January of the following year. If the completed Direct Debit Mandate is being returned after the 1st January, payment (only for this initial subscription) should be made by cheque or credit card, and the Direct Debit will then be set up for the following year.

If you are paying by cheque, please make it payable to **The Institution of Civil Engineers**

If you are paying by Credit Card, please complete the details below

CREDIT CARD PAYMENT

I wish to pay my BDS Membership Fee by: **VISA / MASTERCARD / SWITCH**
(We are unable to accept American Express)

Credit Card number (up to 16 digits) or Switch Card Number (up to 19 digits):

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Start Date:
(Switch cards only)

Issue No:
(Switch cards only)

I authorise you to collect the amount of £.....
(See grades of membership for fee)

Expiry Date:
(ALL CARDS must complete)

Cardholder Name:.....

Cardholder Signature:

Cardholder address (if different from that on application form):

.....
.....

DIRECT DEBIT PAYMENT

Instruction to your Bank to pay DIRECT DEBITS

(Originators Identification No. 991192)

Name of account holder

Name & full postal address of your Bank or Building Society Branch:

The Manager:.....*Bank or Building Society*

Address:.....

.....*Postcode:*.....

Branch Sort Code

			-			-			
--	--	--	---	--	--	---	--	--	--

Account Number:

--	--	--	--	--	--	--	--	--	--

Originators Reference:

--	--	--	--	--	--	--	--	--	--

(Your membership number, where available)

Please pay The Institution of Civil Engineers Direct Debits from the account detailed on this instruction, subject to the safeguards assured by the Direct Debit Guarantee. Please cancel all previous Direct Debiting instructions in favour of The Institution of Civil Engineers under this reference number.

Authorised Signature: Date: