

The British Dam Society

22nd Biennial Conference – Keele University

Conference Programme



Wednesday 11th September 2024

REGISTRATION AND WELCOME		
From 13:00	University Accommodation Check In	Reception, Chancellors Building (Map ref. 1, Ground Floor)
From 15:00	Hotel Accommodation Check In	Marriott Hotel Reception (Map ref. 45)
16:00 - 19:00	Conference Registration	Foyer, Chancellors Building (Map ref. 1, Ground Floor)
18:00 - 20:00	Evening Dinner	Kitchen Table, Chancellors Building (Map ref. 1, Ground Floor)
20:00 – 22:00	Exhibitor Reception	Open Space, Chancellors Building (Map ref. 1, Ground Floor)
20:00 – 22:00	Poster Presentation Exhibition	Open Space, Chancellors Building (Map ref. 1, Ground Floor)
OTHER ACTIVITIES		
20:00 - 21:00	YPG Meet and Greet	Chancellors Cafe, Chancellors Building (Map ref. 1, Ground Floor)
20:00 - 20:30	Meeting of Session Chairs Workshop Facilitators Meeting	Chancellors Building (Map ref. 1, Ground Floor, CBA.0.007 and CBA0.003)
19:00 - 23:00	Bar Open	Chancellors Cafe, Chancellors Building (Map ref. 1, Ground Floor)

Thursday 12th September 2024

MORNING - The morning session highlights will include the conference keynote speaker address, and opening speaker followed by two technical sessions in the Westminster Theatre, Chancellors Building	
07:00 - 08:45	Breakfast Kitchen Table, Chancellors Building (Map ref. 1, Ground Floor)
08:00 - 08:45	Late Registration, Foyer, Chancellors Building (Map ref. 1, Ground Floor)
09:00 - 09:20	Conference Opening Westminster Theatre - Chancellors Building (Map ref. 1) Welcome by Rachel Davies , Chair of BDS Opening welcome: Professor Mark Ormerod , Deputy Vice Chancellor Keele University
09:20 - 09:50	KEYNOTE SPEECH Speaker: Sally Sudworth , RedR UK, Trustee
09:50-10:00	SEPA Update - Huw Thomas
10:00 - 11:10	Session 1: Risk assessments – research, case studies and guidance
	A review of the applicability of the EA reservoir flood mapping specification for reservoir risk assessments (Laura Yuste Zaballo)
	Risk Informed Decision Making for Dinas Dam (Mason Guy)
	Improving the quality of flood modelling studies for reservoir safety assessment (Clare Waller)
	Developing a new hazard classification for Reservoir Safety in England and Wales (Darren Shaw)
	Risk-based approach for safety review of tailings dams (Sam (Meysam) Safavian)
	Q&A
11:10 - 11:40	Refreshments and exhibition viewing (Gallery and Open Space - Chancellors Building)
11:40 - 13:00	Session 2: Reducing Risks: Mitigations and Improvements
	Skavica Hydropower Project: Mitigation of seismicity and foundation conditions through dam geometry and cut-off design (Tom Webster)
	The Development of Reservoir Safety Management Plans (Alan Warren)
	Geomembranes in new pumped storage schemes (Allan Jackson)
	St Blazey Flood Storage Reservoir: A Case Study on the Importance of a Holistic Approach to Reservoir Risk Assessment (Rachel Ribeiro)
	Buckshole Reservoir: Use of Physical Modelling to Optimise a Risk-based Solution (Hermann Stehle)
	Q&A
13:00 - 14:00	Lunch (The Kitchen Table and Open Space - Chancellors Building) - Packed lunch for Site Visit Delegates

Thursday 12th September 2024 (continued...)

AFTERNOON - The afternoon provides a choice of <u>either</u> site visits or technical workshops					
SITE VISITS and WORKSHOP T1- leave at 13:00 (packed lunch provided) and return by 17:30					
Site Visit S1: Tittesworth Reservoir – Severn Trent Water			Site Visit S2: Forge Mill Reservoir - Environment Agency		
Workshop - T1 Supervising Engineer development site visit - Brookley Lake (JCB Factory)					
WORKSHOPS – Various Rooms Chancellors Building (Map ref. 1)					
14:00 - 15:30		T2 Considerations when using divers on reservoirs. Chancellors Building Lecture Room CBA1.081	T3 Escapable silt - identification and quantification Chancellors Building Lecture Room CBA.0.060	T4 RARS Workshop 1- Introduction to Risk Assessments for Reservoir Safety Chancellors Building Lecture Room CBA1.102	T5 Flood studies, from rapid to complex assessments. Chancellors Building Lecture Room CBA1.103
15:30 - 16:00	Refreshments and exhibition viewing (The Kitchen Table and Open Space- Chancellors Building)				
16:00 - 17:30		T6 Discontinuance of reservoirs Chancellors Building Lecture Room CBA.0.060	T8 RARS Workshop 2 - Risk Assessments for Reservoir Safety Practitioners Chancellors Building Lecture Room CBA1.076/077	T9 Retrofitting drawdown improvements Chancellors Building Lecture Room CBA1.102	T10 Emergency planning exercises Chancellors Building Lecture Room CBA1.080/081
EVENING – The Young Professionals Group will host the evening activities and is open to all delegates					
18:00 - 20:00	Evening Dinner			The Kitchen Table - Chancellors Building (Map ref. 1, Ground Floor)	
19:00 – 19:45	Pumped Hydro discussion forum (for ARPE involved in Pumped Hydro Schemes)– Overflow Provision (Anthea Peters / Tom Wanner)			TBC	
20:15 - 22.00	Quiz and Construction Challenge – Hosted by Young Professionals Group			The Kitchen Table - Chancellors Building (Map ref. 1, Ground Floor)	
20:00 – 00:00	Bar Available			Chancellors Cafe, Chancellors Building (Map ref. 1, Ground Floor)	

Friday 13th September 2024

MORNING - The morning session highlights will include two technical sessions in the Westminster Theatre, Chancellors Building	
07:00 - 08:45	Breakfast Kitchen Table, Chancellors Building (Map ref. 1, Ground Floor)
09:00- 09:05	Announcements - Westminster Theatre - Chancellors Building (Map ref. 1)
09:05- 09:15	NRW Update – Phillip Morgan
09:15- 11:10	Session 3: Reducing Risks: Investigation and Monitoring
	Risk Assessments for Reservoir Safety – The Value of a Risk-Based Approach (Jon Holland)
	Ground Investigation through London’s raised reservoirs with a summary of ground investigation risks and recommendations (Hollie Fisher)
	Different Approaches to Assessing and Improving Stability of Dam Structures (Simon Golds/Ricardo Teixeira)
	Novel geophysical ground imaging technology for the automated long-term monitoring of reservoir dams (Siobhan Butler and Olivia Spinola Richards)
	Q&A
	Upper Carno: A case study of multidisciplinary remedial works of an embankment dam (Jen Swetman)
	Looking into reservoir geophysics – emerging technologies (Jo Hamlyn)
	Lessons for dam safety in the UK from the landslide-generated waves incident in the Apporo dam reservoir, Japan (Mohammad Heidarzadeh)
	Megget Reservoir: Investigation of possible internal erosion in an asphaltic concrete core rockfill dam (Shervin Shahriari and Matthew Booth)
	Q&A
11:10 - 11:40	Refreshments and exhibition viewing (Gallery and Open Space - Chancellors Building)
11:30 - 13:00	Session 4: Risks and impacts associated with small raised reservoirs and Flood storage reservoirs
	Understanding the flood risk benefit of small reservoirs and recommendations for maintenance (Patrick West)
	Lessons Learnt from the first inspections of Reservoirs (with capacities of 10,000m ³ – 25,000m ³) in Wales. (Jenna Nicolle-Gaughan)
	Bruton Flood Storage Reservoir – Adopting a risk-based approach to assessing spillway adequacy (Andy Courtnadge)
	A Pragmatic Approach for Mitigating Siltation Clearing in Confined Spaces and Culverts in Flood Storage Reservoirs (Shaun Yeoh)
	Design and Construction of an Open Stone Asphalt Spillway for Wychall Reservoir (James Penman)
	Q&A
13:00 - 14:00	Lunch (The Kitchen Table and Open Space- Chancellors Building)- Packed lunch for Site Visit Delegates

Friday 13th September 2024 (continued...)

AFTERNOON - The afternoon provides a choice of <u>either</u> site visits or technical workshops						
SITE VISITS and WORKSHOP F1 - leave at 13:00 (packed lunch provided) and return by 17:00						
Site Visit S3: Macclesfield Reservoir Chain - United Utilities			Site Visit S4: Rudyard Reservoir - Canal Rivers Trust			
Workshop - F1 Reservoir surveying methods from simple levelling to point cloud						
WORKSHOPS – Various Rooms Chancellors Building (Map ref. 1)						
14:00 - 15:30		F2 Panel Engineer Development (SE) – experience and application for panel Chancellors Building Lecture Room CBA1.077	F3 Incident reporting Chancellors Building Lecture Room CBA1.080	F4 Reservoir safety asset management - could we do better? Chancellors Building Lecture Room CBA0.060	F5 Risk assessment techniques for M&E equipment Chancellors Building Lecture Room CBA1.081	F6 Field monitoring for predictive maintenance of Dams and Reservoirs Chancellors Building Lecture Room CBA1.102
15:30 - 16:00	Refreshments and exhibition viewing (The Kitchen Table and Open Space- Chancellors Building)					
16:00 - 17:30		F7 Computational Fluid Dynamic (CFD) modelling for reservoir and dam safety Chancellors Building Lecture Room CBA1.102	F8 What might reservoir safety management systems look like? Chancellors Building Lecture Room CBA1.103	F9 Good practice in preparing a S12 statement. Chancellors Building Lecture Room CBA0.060		
EVENING – The Main Event! The BDS Conference Dinner including the Geoffrey Binnie Lecture and presentation of the Bateman Award 2024 and photography competition award.						
18:00 – 18.30	Pre-dinner Drinks Reception			The Kitchen Table and Open Space- (Chancellors Building Map ref.1)		
18:45- 19:45	The Geoffrey Binnie Lecture by Alan Brown			Westminster Theatre (Chancellors Building (Map ref. 1)		
20:00 – Midnight	Conference Dinner Bateman Award, Photography Competition Award			Keele Hall (Map ref. 12)		

Saturday 14th September 2024

MORNING - The Saturday session highlights will include two technical sessions in the Westminster Theatre , Chancellors Building and before the conference is closed.	
07:00 - 08:45	Breakfast Kitchen Table, Chancellors Building (Map ref. 1, Ground Floor)
09:00-09:05	Announcements Westminster Theatre - Chancellors Building (Map ref. 1)
09:05 -09:15	EA Update - Lee Meaden
09:15 - 11:05	Session 5: Risks and impacts associated with pipework and structures
	Draycote Reservoir – Drawdown Enhancement (Alasdair Walker)
	Multiple Types of Spillway Installation/Refurbishment in Wales (10 years of experience) (Matthew Coombs)
	Challenges in inspecting and assessing performance legacy bellmouth drop shaft and siphon spillways (Dave Crook)
	Re-establishing and improving Scour Capacity at Daer Reservoir (Ryan McHugh)
	Q&A
	Improving the emergency drawdown reliability at Llyn Brenig reservoir- Part II (Graeme Carruthers)
	Adit infill works at Tunstall Reservoir (Borja Aguilar)
	Valve Tower GRP Lining- Llyn y Fan Fach Refurbishment (Alasdair Handley)
	Holistic photographic surveys and AI defect identification of the shaft and tunnels at Dinorwig Power station (Rhys Coombs)
Q&A	
11:05 - 11:35	Refreshments and exhibition viewing (Gallery and Open Space - Chancellors Building)
11:35 – 11:55	Speed Run Session – opportunity to hear a short summary from papers included in the poster exhibitors
	The Effect of Pretreatment of Organic Matter on the outcomes of Dispersion Tests (Rialynn Davy)
	Design of Dam Safety Measures of three dams in Zambia (Paul Dickens)
	The use of vibrating wire piezometers to measure matrix suction in dams (Rafael Monroy)
	The 2020 national seismic hazard maps for the UK (Ilaria Mosca)
11:55 – 12:55	Session 6: Risks and impacts associated with climate change

	Adapting earthworks design for adverse weather conditions (Shafiq Zalmay and John Foster)
	Hydrological Risk Management for proposed Mentarang Induk Dam in Indonesia (Mubasher Hussain)
	PMP - Maximum Precipitation, Probably (Dominic Molyneux)
	Numerical simulation and assessment of clay embankment dam experiencing climate induced deformation (Andrew Zwiers)
	Q&A
12:55 - 13:00	Close of the Conference Final Thoughts and Farewells
13:00 - 14:00	Farewell Lunch – Packed Lunch (The Kitchen Table and Open Space - Chancellors Building or take away)
CONFERENCE CLOSED	