

# The British Dam Society

## 21st Biennial Conference – The University of Nottingham

### Conference Programme



### Wednesday 14th September 2022

REGISTRATION AND WELCOME		
From 15:00	Accommodation Check In	Newark Hall or Jubilee Conference Centre Hotel
16:00 - 19:00	Conference Registration	Business School South (Map ref. 7)
18:00 - 20:00	Evening Dinner	The Atrium (Map ref.5)
20:00 – 22:00	Exhibitor Reception	The Atrium - Exhibition Area
OTHER ACTIVITIES		
20:00 - 21:00	YPG Meet and Greet	Newark Hall Bar
20:00 - 20:30	Meeting of Session Chairs Workshop Facilitators Meeting BDS Executive Meeting	Business School South (Map ref. 7)
19:00 - 23:00	Bar Open	Newark Hall Bar

## Thursday 15th September 2022

<b>MORNING</b> - The morning session highlights will include the conference keynote speaker address and opening speaker followed by two technical sessions in the Main Lecture theatre Business School South	
07:00 - 08:30	Breakfast (The Atrium / Spokes Café)
08:00 - 08:45	Late Registration (Business School South)
09:00 - 09:20	<b>Conference Opening</b> Main Lecture Theatre (B52) - Business School South Welcome by <b>David Littlemore</b> , Chair of BDS Opening welcome: <b>Dr. Bob Stear</b> , Chief Engineer Severn Trent Water
09:20 - 09:50	<b>KEYNOTE SPEECH</b> Speaker: <b>Caroline Douglass</b> , Executive Director of Flood and Coastal Risk Management, Environment Agency
09:50-10:00	Update on the ICE review into the supply of Panel Engineers - Andrew Crudgington
10:00-10:05	Update on legislation by DEFRA - <b>Jan Kiernan</b> , Senior Policy Adviser Reservoir Safety and Reservoir Review, DEFRA
10:05 - 11:10	<b>Session 1: Legislation, research and guidance</b>
	Reflections on the National Review of Reservoir Safety (Alan Warren)
	Towards a new procedure for estimating the probable maximum flood in the UK (Duncan Faulkner)
	Little spend, large gain. The importance of targeted and proportionate effort analysing failure mechanisms when applying RARS (Miguel Piedra)
	Best value planning of strategic water supply reservoirs in England (Julian Welbank)
	Q&A
11:10 - 11:40	Refreshments and exhibition viewing (The Atrium)
11:40 - 13:00	<b>Session 2: Reservoir societal and environmental impacts</b>
	Cowlyd Reservoir Scour Valve Refurbishment: A story over 7 years. (Louise Shaw)
	Cwm Clydach – investigation of an ownerless and historic masonry dam (Steve Morris and James Howard)
	Non Statutory Reservoirs - A Journey of Discovery (Mark Roberts)
	Toddbrook Reservoir: spillway replacement design for a public space (Anthea Peters and Veronika Martins)
	Q&A
13:00 - 14:00	Lunch (The Atrium)

## Thursday 15th September 2022 (continued...)

<b>AFTERNOON</b> - The afternoon provides a choice of <u>either</u> site visits or technical workshops					
<b>SITE VISITS</b> - leave at 13:00 (packed lunch provided) and return by 17:30					
<b>Site Visit S1:</b> Hall Reservoir (Newton on Trent, Lincolnshire- 1hr 15 mins Travel Time) Anglian Water			<b>Site Visit S2:</b> Redmires Reservoir (Fulwood, Sheffield – 1hr 30 mins Travel Time) Yorkshire Water		
<b>WORKSHOPS – locations to be specified</b>					
14:00 - 15:30	T1 & T6 Panel Engineer Development (SE) (S12 site to Wollaton Lake & Newstead Abbey Upper Lake)	T2 Concrete dams lessons  <b>Business School South - Lecture Theatre A25</b>	T3 Retrofitting of aging dams – drawdown capacity  <b>Business School South - Lecture Theatre B52</b>	T4 Managing conflict between reservoir safety and other legislation PART A  <b>Business School South - Lecture Theatre B02</b>	T5 ICE review into the supply of Panel Engineers  <b>Business School South - Lecture Theatre A06</b>
15:30 - 16:00		Refreshments and exhibition viewing (The Atrium)			
16:00 - 17:30	<b>Bus pick up at the Exchange Building at 1pm</b>	T7 Toddbrook virtual site visit  <b>Business School South - Lecture Theatre A25</b>	T8 Geotechnical investigation of dams  <b>Business School South - Lecture Theatre B52</b>	T9 Managing conflict between reservoir safety and other legislation PART B  <b>Business School South - Lecture Theatre B02</b>	
<b>EVENING</b> – The Young Professionals Group will host the evening activities and is open to all delegates					
18:00 - 20:00	Evening Dinner			The Atrium	
20:00 - 22:00	Quiz – Hosted by Young Professionals Group			The Atrium	
20:00 - 22:00	Bar Available			The Atrium	
19:00 - 00:00	Bar Open			Newark Hall Bar	

## Friday 16th September 2022

<b>MORNING</b> - The morning session highlights will include two technical sessions in the Main Lecture theatre Business School South	
07:00 - 08:30	Breakfast (The Atrium / Spokes Café)
09:00 - 11:00	<b>Announcements</b> - Main Lecture Theatre (B52) Business School South
	<b>Updates from the Regulators</b> Natural Resources Wales - Gerallt Richards Environment Agency - Maddie Prendergast and Abi Coates
	<b>Session 3: Flood Storage</b>
	Design of dual-purpose dams – incorporating flood storage dams into new-build infrastructure – the A120 Little Hadham Bypass and Flood Alleviation Scheme (Paul Dickens)
	Towards a Systems Analysis of Flood Storage Reservoirs in a Changing Climate (Silvia Garattini and Shaun Yeoh)
	Calverley Flood Storage Reservoir: sustainably delivering flood protection for social benefit (Emily Hale and David Bull)
	Use of Operational Reservoir Assets for Additional Flood Protection (John Foster)
	Q&A
11:00 - 11:30	Refreshments and exhibition viewing (The Atrium)
11:30 - 13:00	<b>Session 4: Reservoir Operation and Investigation</b> - Main Lecture Theatre (B52) Business School South
	Remote Inspection of Reservoirs (Dominic Molyneux and Dave Crook)
	Determining the condition of a Masonry Dam with the use of UAVs and machine learning (Rhys Coombs and Richard Williams)
	Advancing the state of practice in seismic dam assessment – A case study for Toddbrook Reservoir (Ziggy Lubkowski)
	Hydraulic Study of the Taff Fawr Reservoir Cascade (Paul Dickens and Veronika Martins)
	Q&A
13:00 - 14:00	Lunch (The Atrium)

## Friday 16th September 2022 (continued...)

<b>AFTERNOON</b> - The afternoon provides a choice of <u>either</u> site visits or technical workshops					
<b>SITE VISITS - leave at 13:00 (packed lunch provided) and return by 17:00</b>					
<b>Site Visit S3:</b> Carsington Reservoir (Ashbourne, Derbyshire - 1hr Travel Time) Severn Trent Water			<b>Site Visit S4:</b> Harthill Reservoir (Harthill, Sheffield - 1hr Travel Time) Canal Rivers Trust		
<b>WORKSHOPS – locations to be specified</b>					
14:00 - 15:30	F1 Emergency planning/Onsite Plans PART A - Emergency planning for small owners  <b>Xu Yafen Building – Lecture Theatre B18</b>	F2 Service reservoirs  <b>Business School South - Lecture Theatre B52</b>	F3 Reservoir surveying techniques  <b>Business School South - Lecture Theatre B02</b>	F4 Panel Engineer Development (SE) – experience and application for panel  <b>Business School South - Lecture Theatre A06</b>	F5 Design of flood storage reservoirs  <b>Business School South - Lecture Theatre A25</b>
15:30 - 16:00	Refreshments and exhibition viewing (The Atrium)				
16:00 - 17:30	F6 Emergency planning/Onsite Plans PART B - Testing of plans  <b>Xu Yafen Building – Lecture Theatre B18</b>	F7 Gated structures on dams – design, actuation, testing and maintenance  <b>Business School South - Lecture Theatre B52</b>	F8 Sustainable reservoir management  <b>Business School South - Lecture Theatre A25</b>	F9 Discontinuance of reservoirs  <b>Business School South - Lecture Theatre B02</b>	
<b>EVENING</b> – The Main Event! The BDS Conference Dinner including the Geoffrey Binnie Lecture and presentation of the Bateman Award 2022					
18:00 – 19:00	Coaches to the East Midland Conference Centre			Exchange Building	
18:15	Coach leaves for East Midland Conference Centre for delegates staying in the hotel.			Jubilee Conference Centre Hotel	
18:30 - 19:00	Pre-dinner Drinks Reception			East Midlands Conference Centre	
19:15 - 20.15	The Geoffrey Binnie Lecture by Tim Hill			East Midlands Conference Centre	
20:30 – 12.00	Conference Dinner Bateman Award			East Midlands Conference Centre	

## Saturday 17<sup>th</sup> September 2022

<b>MORNING</b> - The Saturday session highlights will include two technical sessions in the Main Lecture theatre Business School South and before the conference is closed we will announce the award for the Young Professionals Best Presentation	
07:00 - 08:30	Breakfast (The Atrium / Spokes Café)
09:00 - 11:00	<b>Announcements</b> Main Lecture Theatre Business School South B52 <b>Session 5: Extending the lifespan of assets</b>
	Remedial works to ornamental ponds within a historic park (Stephen Cavanagh)
	A sustainable approach to spillway refurbishment for Talybont Reservoir (Barry Cotter and David Rebollo)
	Loch Thom Reservoir - Drawdown and Freeboard Improvement Works (Alasdair Walker)
	Extending the life of reservoir assets - Upstream embankment pitching repairs at Selsset Reservoir (India Hutchinson)
	Q&A
11:00 - 11:30	Refreshments and exhibition viewing (The Atrium)
11:30 - 13:00	<b>Session 6: Reactive response/remedial works</b> - Main Lecture Theatre Business School South B52
	Dorisland Reservoir Embankment Safety Stabilisation (David Bell)
	Foundation leakage from service reservoirs (Alan Brown)
	Installation of emergency drawdown system for Dam Safety Management at Cogra Moss IR, Cumbria (Mike Dixon and Chris Parks)
	Future Proofing Old Dam Protection Gates Using Modern Techniques (Yue He)
	Q&A
13:00 - 13:15	<b>Close of the Conference</b> Final Thoughts and Farewells
13:15 - 14:00	Farewell Lunch (The Atrium)
<b>CONFERENCE CLOSED</b>	