Thank you for joining us to celebrate the first 10 years of the JBA Trust.

We asked for your views on our support for engagement, education and research. This is what we heard you say, and how it will influence our plans for the future.

JBA Trust 10th year

Anniversary events, September 2022

JBA trust

110 scholarships and bursaries with funding

over 50 MSc projects, and placement students

Worked with 22 universities

33,000 hours donated

300 flood risk & STEM education events

54,000 YouTube subscribers

What you told us

Engagement & education

Add new capabilities in physical & digital models, e.g.

- trees & bank veg
- debris
- soils & runoff
- groundwater abstraction
- canal locks (safety)

- hydroelectric power (e.g. Archimedes screw)
- fish pass types
- water quality impacts of storms & climate e.g. CSOs

Raise awareness of the physical models and resources with student teachers PCGE courses.

Geographical Association may be a useful link.

There are few events that bring local environment groups together

Connect physical models and resources with real world examples.

Show urban environments.

Use videos of real-world cases?

What about drone footage?

Wave tank - show long shore processes, groynes, wind waves, rip tides, salinity, deltas.

Support for research

Resilience is a key theme.

Change and resilience to change are important.

Resilience within the water cycle:

- floods
- droughts
- impacts of waste and plastics on people and nature

Understand the implications of situations where people can't be protected from risks.

What is long term efficacy of green engineering and nature based solutions?

Encourage good practice in modelling - list assumptions, explain them in relevant terms.

What are the sources of uncertainty?

Using the past to predict the future is a problem in a changing environment

How can effective communication and managing expectations help improve resilience ?

Data-driven methods are important for many types of models and observations:

Data science skills needed by engineers, scientists and maybe others.

Seek to influence?

Many self-teach

How to use machine learning to improve understanding as well as predictions?

Learn from how the use & understanding of models matured during pandemic.

Our plans

Your input will help us to shape our plans over the next 10 years as we review our research themes and keep developing our engagement resources.

We will support research on some of the topics you raised, including on applications of machine learning alongside process models, and on social justice in flood risk management.

We aim to prioritise events with wider reach, like science fairs, and find partnerships to connect with new groups.

Your suggestions have given us some good ideas to enhance our engagement models: thank you!

We are grateful for contributions to our 10th anniversary events from Nabil Abbas, Karen Collins, Gabby Crisp (National Trust), Adam Bakri, Chris Lucas (River Stewardship Company), Gill Battarbee (Addingham Environment Group), Keith Beven, Joseph Earl (Lancaster University), Adam Corbridge (Geographical Association), Nick Gregory (North Yorkshire Fire & Rescue Service), Kelly Hollick (Broughton Estate), Peter Jimack (Leeds University), Anna Jones, Claire Jones (Edge Hill University), Geoff Maskell (Aire Rivers Trust), Phil Mason, Sean McCarthy (Hydrotec), Freya Muir (Glasgow University), Chelsie Naylor (Todmorden Climate College), Shaun O'Hare, Sue Patchett (River Worth Friends), Georgios Sarailidis (Bristol University), Lily Speer (Institution of Civil Engineers), Becky Watters (Environment Agency); and Rowan Barker, Jeremy Benn, Jenny Broomby, Duncan Faulkner, Ben Hall, Barry Hankin, Becka Lee, Fay Luxford, Frank O'Connell, Eleanor Pearson, Doug Pender, Vicky Shackle, Gillian Taylor, Kirsty Styles (JBA)

The background is a photo of an old farm pond in Somerset, now surrounded by mature woodland in recreational use. The original picture has been processed using a clustering algorithm, similar in principle to many machine learning techniques, to create an abstract image. We've chosen this image because it combines some of the themes of the workshops: the water environment, how people interact with a changing environment, and data-driven analysis.