

SCOTLAND'S WORLD WATER DAY 2024 LEVERAGING WATER FOR A JUST TRANSITION

DYNAMIC EARTH, FRIDAY 22ND MARCH
HYBRID WITH LIVE-STREAM



General information

In Person Participation

Registration on the day

Registration will be open from 9:30 at the entrance to the exhibition area. Please have your tickets in hand when you register at the reception desk. There will be tea/coffee and refreshments served in the exhibition/catering area (*The Stratosphere*). The event will commence in the Biosphere Green Room at 10:30.

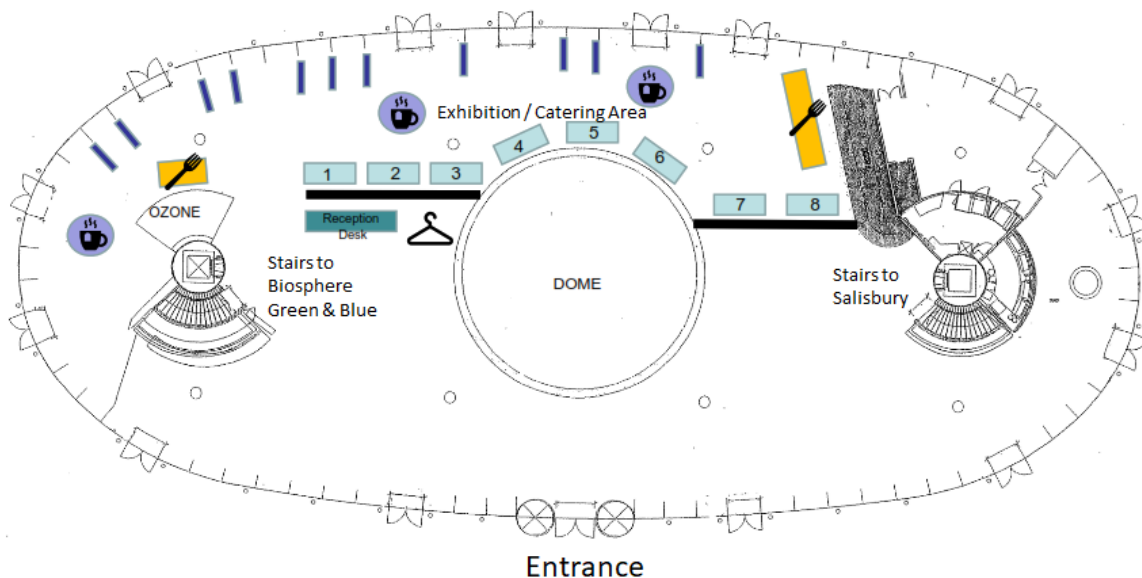


Figure 1 Dynamic Earth Floorplan

COVID-19 guidance

The health and safety of our delegates is our top priority, and we will follow all current government guidance and assure you that all necessary precautions will be in place to ensure your safety. For the most up to date information, please read the current information from the [Scottish Government](#). If you have symptoms of a virus, cold or flu, we advise that you switch to online participation given the hybrid nature of the event.

Getting here

Please click [HERE](#) for information on how to get to the centre and car parking.

Dynamic Earth's charitable mission is **"To empower people with *understanding* and *empathy* for the Earth"**. We support our visitors to make positive sustainable choices, for example by eliminating single use plastic, providing ethical food options and promoting sustainable transport options and providing e-charging points.

We recommend utilising [YOU.SMART.THING](#) to help you calculate the most carbon conscious route to the venue.

Contact

Email: wwd@hutton.ac.uk

Please visit the Event website for more information: <https://www.hnic.scot/world-water-day/2024>

Venue Wi-fi

Network: DELEGATES | Password: D3L3GATE

Virtual Resources

Live stream

World Water Day 2024 will be broadcasted via live stream for online participants, and a recording will be available post-event. Please visit the Event website for the link: <https://www.hnic.scot/world-water-day/2024>

Online attendees will be able to view the Hydro Nation Scholars Programme Poster Exhibition through our [Virtual Pavilion](#), also available on the Event website.

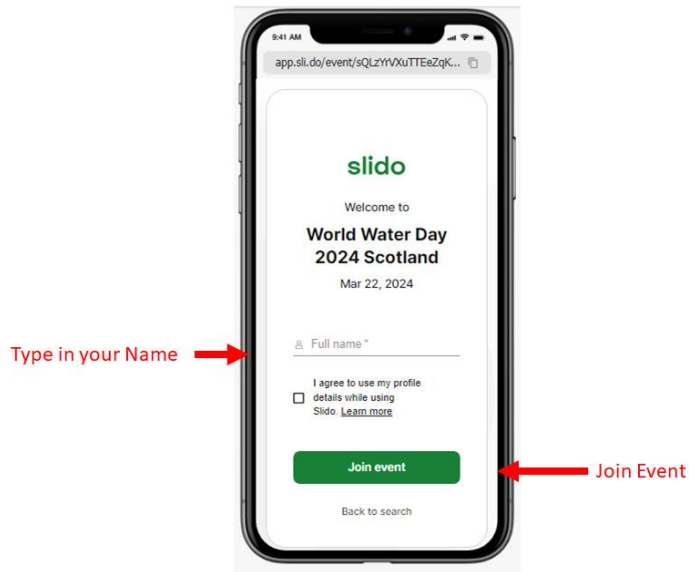
Q&A

We will be taking questions from the floor for in person participants, as well as using Slido to help facilitate our interactive Q&A, collect questions from the online audience, and hear your feedback via live polls. Both in-person and online participants can send their questions by joining at **slido.com** with access code **#1903151**. Questions can be submitted at any time, and you will be able to see and upvote questions provided by others in your device.

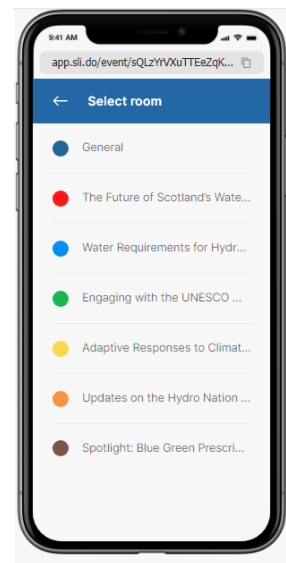
Please note that while you will be asked to enter your name to join the event, you can submit questions and vote on polls anonymously.

Submitting questions through SLIDO, and access to polls

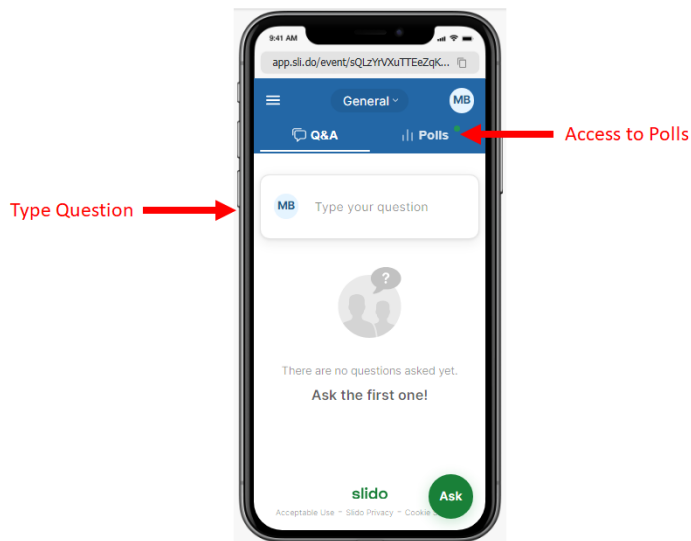
Step 1: Go to slido and join event.



Step 2: Select the talk room.



Step 3: Type question or submit vote.



Leveraging Water for a Just Transition

Water is at the centre of some of our greatest global challenges and can serve as a strategic asset or resource to maximise co-benefits of water-related strategies and activities, and help advance a just transition for climate resilience, incorporating principles of justice, inclusivity, cooperation, and sustainability, participatory and representative decision-making, and stronger institutions.

Some of the main questions we will seek to address at WWD are: *How can water act as a strategic asset to transition to a more sustainable economy in a way that is fair and inclusive to everyone? How can we maximise the co-benefits from water-related activities? How can water contribute to climate resilience? How can we leverage partnerships and cooperation (theme of Scotland's WWD2023) drawing on local, regional, and transboundary examples.*

This free hybrid event is hosted by the Hydro Nation International Centre and supported by the Scottish Government.

Event Programme

09:30-10:30 **Registration with tea/coffee and refreshments** (*Room: Stratosphere*)

Opening (*Room: Biosphere Green*)

10:30-10:35 **Welcome**

[*Rachel Helliwell, Director of the Hydro Nation International Centre*](#)

10:35-10:50 **Opening address**

[*Nicole Paterson, Chief Executive, Scottish Environment Protection Agency*](#)

Plenary Session (*Room: Biosphere Green*)

10:50-11:20 **Leveraging Water Policy for a Sustainable Future: The Future of Scotland's Water Policy**

[*Jon Rathjen, Deputy Director, Water Policy & Directorate of Energy and Climate Change Operations, Scottish Government*](#)

Description: *As we learn more about the impacts of climate change and the biodiversity emergency, we recognise that we must take action. Action to mitigate climate change but also to adapt to it. We need to recognise the need to reverse the decline we see in so many aspects of nature. In the water industry we are also learning more about the state of the assets we rely on to deliver services and how they are faring in the face of climate change but also how they can respond to population growth and in country migration. We must also recognise that to keep delivering high quality levels of services they need to be affordable and efficiently delivered. Quite a challenge! Today I hope to describe the changes we are hoping to take forward to put us on the path to facing the big challenges we already see, to be flexible to handle new emerging challenges and to keep the trust of customers and gain their involvement in the changes we will need to see if we are to become a truly sustainable, carbon positive, nature positive water industry.*

11:20-11:50 Leveraging the Water-Energy Nexus: Water Requirements for Hydrogen Energy Production in Scotland

[Patrick Campbell, Director for Water US, Ramboll](#)

Description: A case study is used to assess the water supplies required for potential future hydrogen production in Scotland. A mapping centric methodology presents the relative availability of various types of water sources in the context of regional hydrogen planning and other infrastructure. A resiliency approach is used to evaluate supply alternatives, including considerations such as circularity.

11:50-12:20 Leveraging Water Cooperation: Engaging with the UNESCO Water Family – International Opportunities for Scotland

[John Rowan, Director, UNESCO Centre of Water Law, Policy & Science](#)

Description: This presentation will showcase the achievements and opportunities for engagement through UNESCO's global water family. In 2008 the UK's only Category 2 UNESCO Water Centre was established in Dundee and it remains unique in the world for its integrative water law, policy and science approaches 'promoting development through good water governance'. The Dundee Centre for Water Law, Policy & Science under the auspices of UNESCO (CWLPS) was founded in 2008 in the University of Dundee with the mission to carry out world leading water research and educational activities that help to build capacity and deliver sustainable and equitable water futures for all, as articulated UNESCO's Intergovernmental Hydrological Programme (IHP). We are currently in the 9th Phase (2022-2029) wherein five priorities (transformative tools) are identified to achieve the 2030 Agenda and the Sustainable Development Goals, viz: scientific research and innovation; water education in the fourth industrial revolution; bridging the data knowledge gap; integrated water management under conditions of global change; and, water governance based on science for mitigation, adaptation, and resilience. The presentation will briefly reflect on the contributions made during the past 15 years, but largely focus on the opportunities for interested parties to participate more actively in UNESCO Programmes. Headline projects, e.g. the 'Eddleston Water - Natural Flood Management Study' in the Tweed Basin awarded UNESCO Ecohydrology Demonstration Platform Status in 2023, and the latest developments in the 'Disaster-Resilient Floating Homes' Programme in Bangladesh (winner of the UN Risk Award 2019 from the UNDRR) will be introduced. Proposals to revitalise UNESCO's Flagship Initiative HELP (Hydrology for the Environment, Life and Policy) representing an international network of 91 river basins spread over 67 countries will also be shared. HELP is designed as a transdisciplinary initiative promoting scientists, policy makers, and stakeholders to share water knowledge and expertise to promote better use of water resources, especially with growing risks from climate change and associated pressures. We foresee great collaborative advantage drawing from outstanding academic, practitioner and policy communities across Scotland and with international partners. We gratefully acknowledge the vital financial support and policy platform provided by the Scottish Government's Hydro Nation Agenda.

12:20-13:30 Lunch Break with Networking & Exhibitions (Room: Stratosphere)

On display: [Hydro Nation Scholars Programme](#) ([Virtual Pavilion online](#))



Annual CREW Lecture (Room: Biosphere Green)

13:30-14:00 Leveraging Water for Climate Resilience: Adaptive Responses to Climate-Driven Water Quality Issues

[Linda May, Freshwater Ecologist, UKCEH](#)

Description: Scottish lochs and reservoirs are warming at an alarming rate. This is increasing the risk of them developing algal blooms, which reduce their value for water supply, recreational use, and wildlife habitat. In this [CREW project](#), we have shown that these impacts can be mitigated by adopting more sustainable land use strategies and lifestyles. In particular, we recommend that measures are put in place to reduce fertiliser runoff from land to water.

Breakout Session (see descriptions for Room information)

14:00-15:30 The organising committee have assigned in-person delegates (based on their preference where possible) to one of three breakout rooms, with the assigned session included on delegate's name badges. During the first 15 minutes, instructions will be provided in the Plenary room (Biosphere Green), then delegates will have time to disperse to the respective breakout room. Delegates will remain in the assigned session for the entire duration. In each session, delegates will be split into 3-5 subgroups, each with a facilitator. An expert speaker will provide a 10-min introduction, followed by a 60-min discussion on the following overarching questions:

1. What do we know and where are the gaps (e.g. examples of best practise/successes, identified gaps)?
2. What do we need to be doing and how do we need to be doing it (e.g. actionable, policy relevant recommendations)?

Breakout session 1 : What does a Just Transition to Climate Resilience and Net Zero need to look like? (Room: Biosphere Green)

Leads: [Catriona Laing and Ian Freeman \(Scottish Government\)](#)

Description: This breakout session will focus on reflections and future direction from the water sector; and, how effective partnerships and collaborations can accelerate delivery of Scotland's transition to a net zero and climate resilient nation.

Breakout session 2: Water Resources Management and Nature-based Solutions in Rural and Urban Settings
(Room: Biosphere Blue)

Lead: [Christopher White, Head of Centre for Water, Environment, Sustainability and Public Health, University of Strathclyde](#)

Description: This breakout session will focus on water resource management (WRM) and the use of nature-based solutions (NbS) and sustainable urban drainage systems (SuDS) approaches across rural and urban environments. This session will further explore the following sub questions per table/group:

Group	Sub-questions/discussion points
1	<ul style="list-style-type: none">• How effective are NbS/SuDS in urban and rural settings?• Are they practical/cost effective?
2	<ul style="list-style-type: none">• Do existing NbS/SuDS solutions deal with both flooding and water shortages/scarcity?• What examples can we draw on for either/both across Scotland?
3	<ul style="list-style-type: none">• What lessons can urban environments learn from rural environments, and vice versa?• What are the barriers/challenges to adoption/uptake, maintenance, and management?
4	<ul style="list-style-type: none">• What enables effective collaboration, partnerships, and stewardship?• How is effectiveness measured across multiple (disjointed) policy areas?
5	<ul style="list-style-type: none">• How does NbS/SuDS fit into wider water resource management practises?• How does/can NbS solutions get funded?

Breakout session 3: Blue-green Skills for the Water Sector (Room: Salisbury Suite)

Lead: [Douglas Bertram, Principal Knowledge Exchange Fellow, University of Strathclyde](#)

Description: This breakout session will focus on green skills, apprenticeships, and employment in the water sector, water policy and implementation, and priorities for education and training, businesses, and the workforce. Key considerations include: where are the gaps in the labour/skills market in the water sector which need to be filled to support a just transition to net-zero; what is needed from government (new water legislation)- as well as from education, training, and industry stakeholders - to facilitate retraining opportunities and tackle critical blue/green skills gaps in the Scottish workforce; what are the priorities for the education and vocational training sectors (e.g. developing new qualifications and apprenticeships, future-proofing the existing offer, aligning with needs on the ground, careers advice, and progression to employment).

Hydro Nation Scholars to scribe and report.

15:30-16:00 Afternoon coffee (Room: Stratosphere)

16:00-16:30 Summary of Breakout Sessions (Room: Biosphere Green)

Hydro Nation Scholars

Breakout 1: [Luisa Orci Fernandez](#), [Saba Al Hosni](#)

Breakout 2: [Andrew Tabas](#), [Laura Young](#)

Breakout 3: [David Bryan](#), [Oludare Durodola](#)

Plenary Session (Room: Biosphere Green)

16:30-16:40 **Updates on the Hydro Nation Chair Research & Innovation Programme**

Andrew Tyler, Scotland Hydro Nation Chair, University of Stirling

16:40-16:45 **Spotlight: Blue-Green Prescribing Blueprint - A Prescription for Scotland's Healthy Population and Healthy Planet**

[Julius Caesar Alejandre, Hydro Nation Scholar, Glasgow Caledonian University](#)

Description: *The increasing prevalence of mental health conditions and the emerging problem of pharmaceutical pollution are closely interlinked and have human and planetary health consequences. As Scotland adopts both a Wellbeing and Net Zero Economy, transitioning to sustainable healthcare is underpinned in the NHS Climate Emergency and Sustainability Strategy. The Blue-Green Prescribing Blueprint lays out the foundations of a sustainable mental healthcare programme for Scotland to help reduce antidepressant pollution through blue social prescribing and eco-directed and sustainable pharmaceutical prescribing.*

16:45-17:00 **Summary & Close of the World Water Day 2024 Event**

Alex Plant, Chief Executive, Scottish Water

17:00-18:00 **Post-event Reception & Networking (Room: Stratosphere)**

18:00 **Event close**