Shaping Our Water Future

IWA World Water Congress & Exhibition 2024

Opportunities for Innovation and Action

the international water association

Organised by

the international water association

Co-organisers

CWWA ACEPU
Canadian Water and Wastewater Association canadienne des eaux potables et usées

CAWQ ACQE

Supporting partner

TORONTO

www.worldwatercongress.org

Why you should submit your work to the IWA World Water Congress & Exhibition 2024

- Contribute with your work to shape the global water agenda.
- Connect with leading professionals from within and outside the water sector.
- Learn and grow professionally through early access to the best content.
- Network with some 10,000 delegates and visitors from over 100 countries worldwide.

Toronto, Canada - Opportunities for Innovation and Action

The International Water Association (IWA), in partnership with the Canadian Water and Wastewater Association (CWWA) and the Canadian Association on Water Quality (CAWQ) and with the support of Destination Toronto, is proud to announce that the 2024 IWA World Water Congress & Exhibition (WWCE) will take place in Toronto, Canada, from 11-15 August 2024. It will be held in the first-class facilities of the Metro Toronto Convention Centre.

Hosting the IWA WWCE in Toronto in 2024 provides an outstanding opportunity to bring together water professionals and the wider stakeholders needed to secure progress on water in a unique global forum, allowing participants to network and to share insights and experience on the latest trends in best practice, innovative technologies, and management approaches.

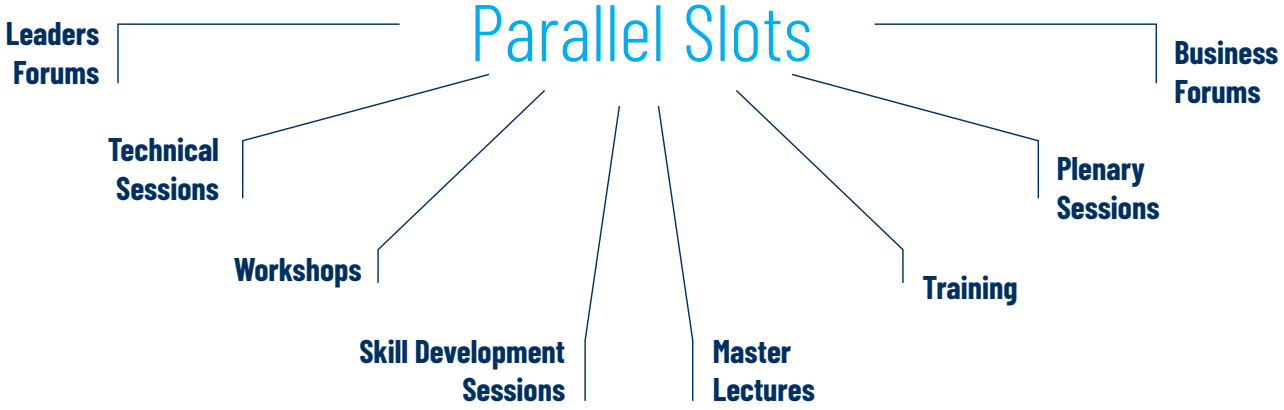
With water professionals from more than 100 countries expected to be present at this prestigious event, the experience and expertise of Canada and the wider North America region will provide the backdrop to an event that will bring together leading researchers and practitioners from around the world.

The event is expected to bring together over 10,000 participants from academia, utilities, industry, government, regulators, solutions providers, urban planning, the ICT sector, the financial sector, NGOs, and more.

IWA's World Water Congress & Exhibition series provides a global forum every two years under the banner of 'Shaping Our Water Future'. The 2024 edition in Toronto will provide a showcase for latest developments that can contribute on key agendas, from the need for action on climate change adaptation and mitigation, to progress on the circular economy and resource recovery, and the widespread application of digital technologies. The 2024 edition will present opportunities for innovation and action that together will help secure progress on water, especially on global action for the UN SDGs.

Be an active player in shaping the future of water at the IWA World Water Congress & Exhibition 2024!

Shaping Our Water Future



#WorldWaterCongress 2024 in Toronto:

- Learn and grow professionally and expand your network through privileged access to the best content and the best people worldwide
- Visionary thinkers and compelling speakers across the breadth of water-related issues
- Special focus areas including urban water, climate smart utilities, circular economy, and digitalization
- Dedicated high profile forums and summits to drive forward vital sector agendas
- Engagement of the industry, agriculture and energy sectors
- Integrated opportunities for Young Water Professionals
- Highlight global innovations and offer a global business platform

What can authors submit?

OUTLINE PAPERS

- Oral presentation (15 min) or poster;
- Oral presentations from technical sessions (90 min);
- Authors invited to potential publication with IWA Publishing.

WORKSHOP PROPOSALS

- 90 min workshop proposal;
- Designed to foster cooperation;
- Meant to generate ideas/new solutions.

TRAINING PROPOSALS

- 90 min or back to back slots;
- Tailored to improve particular skills;
- Focused on specific topics or complementary skills.

Submit at www.worldwatercongress.org

Authors may submit an unlimited number of proposals. However, each presenting author can only be assigned up to two submissions during the Congress.

What happens next?

How is content selected?

All the content submitted to the IWA World Water Congress and Exhibition 2024 will be peer reviewed by a panel of water professionals. The Programme Committee will then, considering their expertise and the results of the peer review, form the technical programme of the Congress.

The evaluation of the content will consider, among others:

- The impact of the work in addressing pressing water challenges;
- The originality of the work, describing new solutions or approaches;
- The fit between the thematic tracks and the proposal;
- The stage of development of the proposal (e.g. specific results based on data and/or a strong rationale).

IWA expects to receive more than 2000 submissions. From the pool of submissions the Programme will include approximately 350 oral presentations, 600 poster presentations and 65 workshops and trainings.

Will papers be published?

The Congress delegates will have access to digital pre-print proceedings that include the content that forms the technical programme. The submissions selected for oral presentation will be invited to submit a full paper and will be considered by IWA Publishing for potential publication in one of IWA Publishing journals.

Author Registration Fee

All authors (oral presenters, poster presenters, workshop organizers, training organizers) are requested to register to attend the Congress. Presenting authors are eligible for discounted registration rates.

Authors do not need to be members of IWA. However, IWA members have access to a series of benefits that include significant registration discounts.

Become a member at www.iwa-network.org/join

Find out more - dates and details

Full details on the submission options and process will be avaiable on the Congress website:

www.worldwatercongress.org

Keep an eye on the website for details, register for emailed updates on the Congress website, and follow IWA on social media for announcements.

For all the latest information on the event, see: www.worldwatercongress.org

Topics for IWA WWCE 2024

WATER UTILITY MANAGEMENT

Track 1

Utility corporate performance and management

- The digital water utility (data management);
- Customer management and engagement;
- Trade waste (industry inflows) management;
- Utility efficiency and benchmarking;
- Utility-wide performance management and optimization approaches;
- Utility-scale water savings and reuse initiatives;
- Net-zero and carbon neutral urban water services;
- Public-private sector water utility cooperation

Performance optimization and resource recovery management

- Utility-wide plant performance and optimization approaches Water savings and reuse;
- Utility-scale water savings and reuse initiatives;
- Net-zero and carbon neutral urban water services;
- Circular economy initiatives at utility level;
- Utility responses and adaptation to climate change impacts

Infrastructure and assets

- Asset management and optimization;
- Infrastructure rehabilitation;
- Sewer overflow management at utility level;
- Integration of decentralised solutions in a centralised system

Policy and social aspects, crisis management

- Economic and financial drivers to create beneficial community outcomes;
- Interactions of utilities with local and regional government agencies;
- Outbreak management - learning from crisies;
- Management of extreme events (earthquakes, floods, bushfires, major accidents and attacks etc).

WASTEWATER & RESOURCE RECOVERY

Track 2

Biological wastewater treatment

- Nutrient removal;
- Anaerobic processes;
- Activated sludge processes;
- Biofilm and granular sludge processes;
- Membrane bioreactors;
- Microbial ecology (communities, metaomics);
- Water reclamation for non-potable reuse;
- Energy efficiency and recovery;
- Recovery of nutrients and chemicals;
- Industry recycling and cross-industry synergies;
- Bio-electrochemical processes

Physicochemical treatment

- Membrane applications in wastewater management;
- Advanced oxidation processes;
- Nanomaterials and nanotechnology;
- Other physico-chemical treatment techniques

Dedicated treatment

- Treatment and recovery of industrial wastewater;
- Biosolids management and reuse;
- Emerging contaminants (micropollutants, pharmaceuticals, microplastics,...);
- Decentralised treatment and non-sewered sanitation;
- Large wastewater treatment plants

Processes in sewage collection systems

- Sewer corrosion and odour management;
- Sewer infiltration/exfiltration;
- Wastewater epidemiology (viruses, bacteria, other pathogens);
- Tracing of pharmaceuticals and other chemicals (illicit drugs etc.) in sewer systems;
- Trade waste (industry inflows) management

Digital wastewater treatment

- Instrumentation, control and automation;
- Modelling treatment processes and integrated systems

DRINKING WATER & POTABLE REUSE

Track 3

Drinking water production

- Unit operations (coagulation, (bio) filtration, membrane processes, activated carbon, ozonation...);
- Groundwater-based drinking water supply;
- Decentralized solutions and production based on multiple water sources (eg rainwater, stormwater etc.);
- Potable reuse technologies;
- Taste and odour management/removal;
- Removal of emerging contaminants;
- Disinfection techniques and byproducts management

Distribution systems

- Distribution piping (house/building plumbing, metal and plastic leaching etc.);
- Non-revenue water and leakage management;
- Biofilms and pathogen management in water distribution;
- Microbiology and biofilms;
- Intermittent supply system challenges and optimization

Microbial quality, detection and management of contaminants

- Pathogen detection and management plumbing, metal and plastic leaching etc.;
- Disinfection techniques and byproducts management;
- Emerging microbial contaminants/ pathogens and antibiotic resistant bacteria/genes;
- Microbial and chemical risk assessment including toxicology

Management, policy and social aspect

- Water quality standards, regulations and economics;
- Disaster management and water safety plans;
- Water quality outbreak management - learning from crisis;
- Water demand management and use efficiency;
- Communication with stakeholders;
- Microbial and chemical risk assessment including toxicology

Digital drinking water

- Monitoring and control;
- Data management and data security;
- IoT initiatives, data and hardware integration;
- Modelling treatment processes and systems.

For all the latest information on the event, see: www.worldwatercongress.org

Topics for IWA WWCE 2024

CITY-SCALE PLANNING & OPERATIONS

Track 4

Planning

- Integration of water management and urban planning;
- Modelling and other decision-support tools for urban water planning;
- Resilience planning and design;
- Impact of urban (re)development and densification on water management;
- Impacts and mitigation of climate change

Infrastructure and operations

- Modelling/optimisation of water supply and sewer networks and processes;
- Sewer infiltration-inflows, unintended sewer in-/overflows;
- Rehabilitation and retrofitting of water and wastewater infrastructure;
- Rainwater, stormwater and urban drainage;
- Urban scale groundwater mapping, monitoring and modelling;
- Water-energy interactions in the urban water cycle.

Digital water cities

- Sensors, instrumentation and IoT in urban systems;
- From data to information to decision;
- Data management, accessibility and security;
- Use of weather radar, numerical weather prediction, drones and remote sensing

Water wise cities

- Nature-based solutions, sponge cities and blue/green infrastructure;
- Water-sensitive urban design and hybrid centralised/decentralised solutions;
- Transitioning to and implementation of sustainable and water wise cities;
- Quantification of economic, human and environmental benefits of water wise solutions;
- City-scale challenges and solutions to achieve the Sustainable Development Goals (SDGs)

COMMUNITIES, COMMUNICATION & PARTNERSHIP

Track 5

Collaboration, capacity building and communication

- Community, customer and stakeholder engagement and communication at local level;
- Community behaviour change– methods, communication and incentives;
- Community-focused decision making;
- Resilience planning across the water cycle and the community;
- Collaboration of local and regional government agencies with water service providers

Digital transformation

- Impacts of digital transformation on society, citizens, and businesses;
- Customer management and engagement using digital tools;
- Integration/management of databases across urban and water system

Policy and regulation

- Cost of water, pricing and incentives;
- Regulation coordination across agencies (economic, environmental, services etc.);
- Incentives and drivers to enable change;
- System thinking and planning;
- Environmental impact assessment based planning

Cross-sectorial governance

- Enabling health, well-being and liveability outcomes;
- Life with water, art and architecture;
- Entrepreneurship and innovation partnerships;
- Cross-institutional coordination and collaboration;
- Partnerships and cooperation in and beyond the water sector;
- Water management in industries

WASH and community-scale water management

- Community-based water supply and management;
- Small-scale/decentralised sanitation solutions at community level;
- Pandemic/crisis management in developing countries

WATER RESOURCES & LARGE SCALE WATER MANAGEMENT

Track 6

Groundwater

- Groundwater mapping, monitoring and modelling;
- Protection of groundwater quality and quantity;
- Soil contamination and groundwater remediation;
- Governance, management and institutional arrangements.

Surface water

- Surface water monitoring systems and models;
- Protection of surface water quality and quantity;
- Source-to-sea pollution management;
- Pollution from point sources - agriculture, industry, urban;
- Diffuse pollution - sources and mitigation;
- Water-related ecosystems and environmental flows

Integrated water resource management

- Water stress, droughts and floods, including impact of climate change;
- Catchment management and natural capital approaches on different scales;
- Large-scale nature-based solutions and biodiversity;
- Water rights, trading and partnerships;
- Water resource management and adaptation to climate change impacts

Holistic assessments and approaches

- Life cycle assessment, water efficiency, water footprint, virtual water, etc.;
- Planetary boundaries and science of sustainability;
- Water resource management towards Sustainable Development Goals (SDGs);
- Circular economy initiatives and approaches;
- Challenges and progress towards achieving the Sustainable Development Goals (SDGs)

For all the latest information on the event, see: www.worldwatercongress.org