

CANADIAN ASSOCIATION ON WATER QUALITY

2024 ANNUAL REPORT

The Canadian Association on Water Quality (CAWQ) is a non-governmental, nonprofit organization for scientists, engineers, technologists, administrators, practitioners, and students engaged in or interested in research on water quality or on the control or treatment of water pollution. The CAWQ was officially incorporated in the province of Ontario in 1992. Federal incorporation as a not-for-profit corporation was completed in 2012.

In 2024, the Association had 91 memberships, representing private, government, and university sectors. These memberships were broken down as follows: 12 individual CAWQ, 3 CAWQ Retired, 27 Individual joint CAWQ and IWA (our parent organization), 24 Young Water Professionals and Student CAWQ, 4 Retired Joint CAWQ and IWA, 19 Joint CAWQ-IWA Young Water Professionals, and 2 Corporate Members (University or Government).

The mission of the Canadian Association on Water Quality (CAWQ) is to foster a nationwide network of people who are dedicated to the preservation and enhancement of water quality through research and development, education, and the dissemination of knowledge.

WATER QUALITY RESEARCH JOURNAL

The Water Quality Research Journal (WQRJ) has been published continuously for over 60 years, which makes it one of the oldest peer-reviewed journals in the field, publishing in English and in French. Starting as proceedings of the annual conference of the CAWQ, the WQRJ has evolved into a quarterly journal that attracts high-level papers from Canada and abroad. In January 2017, the name of the journal changed from *Water Quality Research Journal of Canada* to *Water Quality Research Journal*. It is now indexed/abstracted in: Applied Science & Technology Abstracts, Applied Science & Technology Index, ASFA Indexing, BIOSIS, CAB International, Cambridge Scientific Abstracts, Chemical Abstracts Services, Current Contents, Agriculture, Biology & Environmental Sciences, ISI, Elsevier GeoAbstracts, Engineering Information Inc., and the International Academy at Santa Barbara. The WQRJ has been published by IWA Publishing (IWAP) since 2011 and is provided as a membership service to members of the CAWQ. The new publishing arrangements have led to faster turnaround times (review and publication) and wider international exposure. The WQRJ is now well-positioned to be the natural publication route for all CAWQ-hosted conferences.

Starting in 2021, new articles in this journal are published Open Access with no publication charges. Every researcher and practitioner in every country around the world will be able to read them. This is possible because the journal is moving to an innovative new model called Subscribe to Open (S2O). This has increased the visibility of the papers published in the journal, leading to more citations and an increased impact factor (it moved the impact factor from about 0.6 before 2020 to 2.4 now), and making it thus more attractive for researchers to submit their research work.

Dr. Peter Vanrolleghem of Université Laval (Québec City) and Dr. Arash Zamyadi of Monash University (Melbourne, Australia, formerly Polytechnique Montréal) are joint Editors of the WQRJ. They are assisted by Emma Gulseven, IWAP, and Andreia Amaral, modelEAU – Université Laval (Québec City).

The journal scope has now been revised to:

- Impact of current and emerging contaminants on aquatic ecosystems
- Aquatic ecology (ecohydrology and ecohydraulics, invasive species, biodiversity, and aquatic species at risk)
- Conservation and protection of aquatic environments
- Responsible resource development and water quality (mining, forestry, hydropower, oil and gas)
- Drinking water, wastewater and stormwater treatment technologies and strategies
- Impacts and solutions of diffuse pollution (urban and agricultural run-off) on water quality
- Industrial water quality
- Used water: Reuse and resource recovery
- equality (management, remediation, fracking, legacy contaminants)
- Assessment of surface and subsurface water quality
- Regulations, economics, strategies and policies related to water quality
- Social science issues in relation to water quality
- Water quality in remote areas
- Water quality in cold climates

A total of 20 papers in Volume 59 of the WQRJ were published in 2024 and distributed to CAWQ and international members.

The abstracts for each paper published, authors' instructions, and scope of the Journal can be accessed on the Journal's website (<https://iwaponline.com/wqri>). Full issues and all individual articles published in volumes 1 to 59 can be downloaded for free online from <https://iwaponline.com/wqri>. For more information about the WQRJ, please refer to the Annual Report produced by the Editors. This report can be viewed on the website at www.cawq.ca.

THE CAWQ WEBSITE

Online membership, journal, and symposium payments are available through the CAWQ website. A secure connection is available for credit card information to be sent via the site. The CAWQ symposium and award winner information are also available on the website. Please visit the site at www.cawq.ca or www.acqe.ca.

ORGANIZATION OF SYMPOSIA

CAWQ organizes annual regional symposia on water quality research, providing a venue for the presentation of recent research results and the opportunity for the exchange of information and networking. Presenters at the symposia are encouraged to submit their work for peer review and

publication in the *Water Quality Research Journal*. Some details about these conferences organized in 2024 include:

- The *Pacific Symposium on Water Quality Research* was held along the *Water & Environment Student Talks (WEST)* at the University of British Columbia on June 12-14, 2024. This symposium was chaired by Katie Moloney and Eloisa Sia.
- The 59th *Central Canadian Symposium on Water Quality Research* was held at Western University in London, Ontario, on April 8-9, 2024. This symposium was chaired by Dr. Martha Dagnew.
- The *Atlantic Canada Symposium on Water Quality Research* (integrated with PEOPLE 2024 symposium) was held virtually on November 25-26, 2024. The symposium was chaired by Dr. Bing Chen and Dr. Baiyu Zhang.

These symposiums unite our researchers, young professionals and students, and stakeholders, creating a unique opportunity to exchange ideas, sharing experiences, and grow collaborations, to help address new water quality challenges.

The CAWQ sponsors a competition for the “best presentation” of a research paper made by a student at each of the regional symposia. Historically, only one prize was awarded. Starting in 2012, two awards are issued at each symposium, and Young Professionals (under age 35) were also made eligible for the award. The winners receive the Philip H. Jones Award, which was established in honour of a founding member of the association. The Award winners receive a certificate, a cash prize of \$300 for first place and \$200 for second place, a one-year joint membership in CAWQ and IWA, one-year subscriptions to the *Water Quality Research Journal* and *Water 21*, a mention of their name in an issue of the journal and on the website, and a formal invitation to submit their work for peer review and eventual publication in the WQRJ. The following students were presented the Philip H. Jones Award at symposia held in 2024:

Mohammad Noor Tamim (1st Place)
Western University
Central Canadian Symposium on Water Quality Research, April 4-9, 2024

Zanina Ilieva (2nd Place)
Toronto Metropolitan University
Central Canadian Symposium on Water Quality Research, April 4-9, 2024

Sama Al-Ani (3rd Place)
McMaster University
Central Canadian Symposium on Water Quality Research, April 4-9, 2024

Sabrina Jivani (3rd Place)
Western University
Central Canadian Symposium on Water Quality Research, April 4-9, 2024

Phoebe Riddell (1st Place)
University of Manitoba
WEST 2024 Conference, June 12-14, 2024

Rachel Boyer (2nd Place)
University of Victoria
WEST 2024 Conference, June 12-14, 2024

Muhammad Qasim Mahmood (1st Place)
University of Prince Edward Island
Atlantic Canada Symposium on Water Quality Research, November 25-26, 2024

Yuanmei Zhang (2nd Place)
Memorial University
Atlantic Canada Symposium on Water Quality Research, November 25-26, 2024

He Peng (3rd Place)
Concordia University
Atlantic Canada Symposium on Water Quality Research, November 25-26, 2024

SUPPORT OF STUDENTS

As part of its mandate, the Association provides assistance and encouragement to students in the water quality and water pollution fields. Students are encouraged to join CAWQ in the Young Water Professionals (less than 35 years of age) membership category. This includes significant reductions in CAWQ membership fees (by approximately 75% of the regular fee) and in symposia registration fees, as well as the awarding of the Philip H. Jones Awards for the “best student presentations” at each of the regional symposia, as mentioned above.

INTERNATIONAL ACTIVITIES

A joint CAWQ-IWA membership is available to CAWQ members. The joint membership fees represent a saving of up to 25% over membership of CAWQ and IWA purchased separately. In addition, joint CAWQ-IWA members may subscribe to any or all of the IWA journals, which are available in print or electronic format. Please refer to "IWAP online" for a complete list of online journals and the Water Reference Library for books and reports. These include the following:

- *Water Quality Research Journal* — The journal is a forum for original research dealing with the aquatic environment and should report new and significant findings that advance the understanding of the field. Critical review articles are especially encouraged.
- *Water Science & Technology* — This journal publishes peer-reviewed papers on all aspects of the science and technology of wastewater treatment and water quality management worldwide.
- *Water Practice & Technology* - The journal presents papers on all practical aspects of water and wastewater treatment and management throughout the water cycle.
- *Water Supply* — This journal publishes peer-reviewed papers on all aspects of water

supply.

- *Journal of Hydroinformatics* — A peer-reviewed journal devoted to the application of information technology in the widest sense to problems of the aquatic environment. It promotes Hydroinformatics as a cross-disciplinary field of study, combining technological, human-sociological and more general environmental interests, including an ethical perspective.
- *Aqua - Water infrastructure, Ecosystems and Society* — This journal publishes peer-reviewed scientific and technical, review, and practical papers dealing with research and development in water supply, technology and management covering the complete water cycle.
- *Journal of Water and Health* — A peer-reviewed journal devoted to the dissemination of information on the health implications and control of waterborne microorganisms and chemical substances in the broadest sense for developing and developed countries worldwide.
- *Journal of Water and Climate Change* — This journal publishes novel peer-reviewed research and practitioner papers on all aspects of water science, technology, management and innovation in response to climate change, with emphasis on reduction of energy usage. Review papers are particularly encouraged.
- *Hydrology Research* — This journal publishes articles within hydrology in its widest sense, with an emphasis on water quantity and quality aspects of the hydrological cycle.
- *Journal of Water, Sanitation and Hygiene for Development* — A peer-reviewed journal devoted to the dissemination of high-quality information on the science, policy and practice of drinking-water supply, sanitation and hygiene at local, national and international levels.
- *Water Policy* – This official journal of the World Water Council publishes reviews, research papers and progress reports in, among others, the following areas: financial, diplomatic, organizational, legal, administrative and research; organized by country, region or river basin.
- *Journal of Water Reuse and Desalination (JWRD)* — An international open access journal publishing peer-reviewed papers on the science and technology, policy, regulation, social and economic aspects and applications of sustainable sources of water to cope with water scarcity, including new sources of non-conventional water
- *H₂Open Journal* - A journal that publishes Open Access original, peer-reviewed, internationally relevant articles covering all aspects of 21st century water research.
- *Blue-Green Systems* – A journal that brings together cutting-edge research on sustainable, energy and efficient water use in cities.
- *Water Reuse* – This journal covers all aspects of the treatment and use of non-conventional water resources.

In association with Elsevier

- *Water Research* — This journal publishes refereed, original research papers on all aspects of the science and technology of water quality and its management worldwide.
- *Water Resources & Economics* - This journal addresses the financial and economic dimensions affecting the use of water resources, be it water extraction, pollution or allocation, across different economic sectors like agriculture, energy, industry and urban

water supply as well as between local, regional and transboundary river basins.

- *Water Resources & Industry* - This journal aims to move research to innovation by focusing on the role industry plays in the exploitation, management and treatment of water resources.

INITIATIVES

The IWA was founded in 1998 by the amalgamation of the International Association on Water Quality (IAWQ) and the International Water Services Association (IWSA) to form the new International Water Association (IWA), with interests and responsibilities similar to those of its two founding organizations. Before the merger, the CAWQ served as the Canadian National Committee (CNC) of the IAWQ and represented Canada on the IAWQ Governing Board. From 1998 to 2007, the CAWQ was the sole member of the CNC.

The Canadian Water and Wastewater Association (CWWA) is a national association with members from the water services sector, municipalities and regional organizations. This association shares with the CAWQ the common objectives of advancing and implementing knowledge for the provision of safe drinking water and the environmentally sound management of wastewater. After discussions between the CAWQ and CWWA, the complementary objectives of the two organizations would be enhanced by establishing a framework for their collaboration. As a result, since 2007, the CWWA and the CAWQ have agreed to become partners of the CNC-IWA to better participate in the activities and promotion of the IWA.

In 2024, CAWQ and CWWA helped co-host the IWA World Water Congress & Exhibition. This is the global event for water professionals covering the full water cycle. Join thousands of leading water professionals and companies convened by the International Water Association on August 11-14, 2024, in Toronto, Canada. The event thematic areas include Basins and Water Resources, Urban Water Management, Drinking Water Systems, Industrial Water and Wastewater, Information and Communications Technology, Water and Health, Resource Recovery and Reuse, Water Governance, Regulation and Utility Management, Treatment Technologies, and Innovation. Thought-leaders, decision makers, leading researchers, and business representatives from within and outside the water sector will focus on water solutions to shape our water future.

REVENUE

The CAWQ has implemented a policy that requires students, who are by design significant participants in all CAWQ symposia, to become paid members of the CAWQ in the Young Water Professional membership category for the year as part of their symposium registration fee. This is targeted to increase student membership in the CAWQ, with the goal being to retain higher numbers of them as members after they graduate. Young Water Professional members of CAWQ have electronic access to the journal.

The Canadian National Committee (CNC) of IWA (CWWA is the equal joint member of CNC) drafted a letter to IWA requesting that:

- IWA levies a \$20 fee on all Canadian individual IWA memberships and remits those funds

to CNC;

- IWA levies a \$40 fee on all Canadian corporate memberships and remits those funds to CNC;
- IWA requests that organizers of IWA events in Canada be asked to voluntarily place a levy of \$5 per delegate on all registrations and remit those funds to CNC.

The CAWQ is working with CWWA to generate the CNC guidance for promoting and organizing IWA conferences, seminars, and workshops on all aspects of water management – scientific, technical, management, legal, financial policy etc., in Canada. A framework needs to be formed to guide the different stages of the approval of the IWA events and point out each party's responsibilities at each stage. The document will also clarify the CNC-CAWQ-CWWA benefits on event registration and define the revenue of each party.

GOVERNANCE & ADMINISTRATION

The Board of Directors of the CAWQ is comprised of the Executive Committee and Regional Directors, as shown below. All individuals are volunteers and are appointed to these positions as per the Bylaws of the CAWQ. These bylaws can be found on the CAWQ website.

Mr. Brad Cutler is warmly thanked for his service in managing the CAWQ website and membership systems. Financial administrative services are provided by Ms. Marilyn Crawford, who contributes CAWQ in the long run and a significant way. The CAWQ is sincerely grateful to Mr. Cutler and Ms. Crawford for their invaluable assistance and support.

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