Venue: The conference will be held in "Edificio Polifuncional José Luis Massera", Senda Nelson Landoni 631. The building is part of the School of Engineering (Universidad de la República), located in the neighbourhood of Punta Carretas.

Tuesday 3 September

fv2

15:00-18:00	***Pre-Registration***

Wednesday 4 September

08:00 -09:00	***Registration***		
09:00-09:50	**Opening Ceremony (Auditorium)** *Welcome addresses from: Organizers (IWA WSP Specialist Group, OSE, Faculty of Engineering/Ricaldoni Foundation), Authorites (Ministry of environment, Ministry of Health, URSEA) and International organizations (PAHO, UNESCO, AIDIS, IDB).*		Exhibition (Entrance Hall)
09:50-10:20	**Musical Performance**		
10:20-11:00	**Keynote Session #1 (Auditorium): Dr. Daniel Buss (PAHO)**		
11:00-11:30	***Tea&Coffee Break***		
11:30-12:45	**Advanced Water Quality Management and Technology (Auditorium)** **Chairs: Julieta López, Thomas Pettersson**	**Safe Water in Public Infrastructure and Buildings** **Resilient Water Safety in a Changing Climate (Room C12)** **Chairs: Asoka Jayaratne, Marcos Bensoussan**	
	11:30 | Predicting THM Formation Potential With Rapid DOM Analysis In Two Drinking Water Treatment Plants, **Alba Cabrera Codony**, Spain **11:50 |** Development Of A Predictive Fuzzy Logic Model For Controlling The Ozone Dosing Rate In A Drinking Water Treatment Plant, **Alba Cabrera Codony,** Spain **12:10 |** Real-Time Monitoring And Modeling For Sustainable Water Management: A Response To Drought In Uruguay**, Javier Medina,** Uruguay **12:30 |** *Bridging River Basin Models And Water Safety Plans. An Approach In Uruguay, **Pablo Kok**, Uruguay **12:35 |** *Assessing Water Quality In An Agricultural Catchment: Insights And Strategies For Sustainable Land Use Management, **Florencia Hastings**, Uruguay **12:40 |** *Mitigating Groundwater Contamination From Leaking Sewer Lines Using Optimized Hot Water Injection, **Rajib Kumar Bhattacharjya**, India	**11:30 |** Microbial Characterization Of Secondary Drinking Water Distribution Systems In Uruguay, **Soledad Martínez**, Uruguay **11:50 |** Effect Of Demand Stochasticity On Microbial Quality Of Water In Premise Plumbing Systems, **Robert Nerenberg**, USA **12:10 |** Italian Guidelines For The Assessment And Management Of Risk Associated To Water Safety In Internal Plumbing Systems According To The Directive (EU) 2020/2184, **Enrico Veschetti**, Italy **12:30 |** *BRT Model To Predict Microbiological WQF Applied During 2023 Uruguayan Water Crisis, **Mariana Barcia**, Uruguay **12:35 |** *The Water Security Framework In The Amazon River Basin: ¿an Opportunity In A Changing Climate?, **Juan Cueva Orjuela**, Colombia	
12:45-13:45	***Lunch (Rodelú)***		
13:45 - 14:10	**Poster Session (Hall)**		
14:10 - 14:40	**Keynote Session #2 (Auditorium)** **The way to making WSP compulsory in Germany (Bettina Rickert, Germany)**		
14:40-16:00	**Auditing and Implementing Water Safety Plans (Auditorium)** **Chairs: Julieta López, Alejandro Iriburo**	**Emerging Water Safety Challenges (Room C12)** **Advanced Water Quality Management and Technology** **Chairs: Margarita Pintos, Thomas Pettersson**	
	14:40 | Enhancing Water Safety In Porto: Integrating Risk Assessment And Major Strategic Projects**, Bruno Brito,** Portugal **15:00 |** "Same Same, But Different": First Impressions Of Water Safety Planning In Australia With Comparison To South African Experiences -- What Can We Learn? , **Philip De Souza**, Australia **15:20 |** Water Safety Plans Regulation: The Role Of URSEA, **Sandra Rodríguez Pastorino**, Uruguay **15:40 |** Operationalising Water Safety Plans: Document To Practice, **Asoka Jayaratne**, Australia	**14:40 |** Disinfection Byproducts (DBP) During 2023 Water Emergency At The Main Drinking Water Facility In Uruguay,**Paulo Frontera**, Uruguay **15:00 |** *Characterizing An Amazonian Indigenous Tribe's Exposure To Pathogens In Drinking Water, **Daniel Kennedy**, USA **15:05 |** *Enhanced Drinking Water Surveillance Through Microbial Diversity Metrics, **Daniel Kennedy**, USA	
16:00-16:30	**Tea&Coffee break**		
16:30-18:00	**Workshop (Auditorium)** **New risk management approaches for large and small drinking-water supplies. (2nd edition WSP Manual)** **Welcome and introduction** **Philip De Souza (Atom Consulting, Australia)** **Overview of the Water Safety Plan Manual (2nd edition)** **Asoka Jayaratne (Yarra Valley Water, Australia)** **Water safety planning for small systems** **Bettina Rickert (UBA, Germany)** **Exercise, panel discussion, open Q&A discussion** **Speakers & Facilitator** **Wrap up and closing** **Philip De Souza (Atom Consulting, Australia)**		
18:15-21:00	**Welcome drink (PYG)**		

Thursday 5 September

08:00 - 09:00	**Registration**		
09:00-10:00	**Keynote Session #3 (Auditorium)** **Drinking Water Quality in Uruguay: Historical Review, Current Events and Perspectives (Danilo Rios, Fing/UdelaR, Uruguay)** **Drinking water research and regulations in Sweden and EU for sustainable and safe water supply (Thomas Petterson, Chalmers University, Sweden)**		Exhibition (Entrance Hall)
10:00-11:20	**Resilient Water Safety in a Changing Climate (Auditorium)** **Chairs: Julieta López, Asoka Jayaratne**	**Advanced Water Quality Management and Technology; Enhanced Emergency Response and Preparedness (Room C12)** **Chairs: Margarita Pintos, Thomas Pettersson**	
	10:00 | XGBoost Predictive Modelling For Drinking Water Microbial Safety, **Héctor Monclús**, Spain **10:20 |** Strategic Innovation: Operational Tools For Water Resource Management In The Santa Lucia River Basin, Uruguay, **Pablo Kok**, Uruguay **10:40 |** Barcelona's Approach To Climate Change And Water Scarcity Through Climate-Resilient Water Safety Plans, **Marta Ganzer Martí**, Spain **11:00 |** Climate Change Management: Biociudad - Aguas Andinas, **Gildas Clochard-Bossuet**, Chile	**10:00 |** Investigating The Correlation Between Water Quality And Changes In Land Use/land Cover Within An Urban Watershed In Uruguay, **Martina Pou**, Uruguay **10:20 |** Reliable Detection Of Micro- And Nanoplastics In Wastewaters, **Martín Benzo**, Uruguay **10:40 |** Dealing With Unforeseen Water (and Wastewater) Safety Challenges In Witzenberg Municipality, South Africa, **Philip De Souza**, Australia **11:00 |** Model Of Nutrient Transport From The Main Water Supply Source In Uruguay, **Pablo Gamazo**, Uruguay	
11:20-11:50	***Tea&Coffee break***		
11:50-12:50	**Next-generation Regulatory Approaches; Enhanced Emergency Response and Preparedness (Auditorium)** **Chairs: Sandra Rodriguez, Philip De Souza**	**Auditing and Implementing Water Safety Plans, Holistic Risk Assessment and Management (Room C12)** **Chairs: Julieta López, Asoka Jayaratne**	
	11:50 | The Evolution Of URSEA's Drinking-Water Quality Surveillance Plan And Future Perspectives, **Ana Gini**, Uruguay **12:10 |** Drinking Water Quality Regulatory Systems: New Zealand Vs. Uruguay, **Verónica Zefferino**, New Zealand **12:30 |** Response To Water Scarcity For Human Consumption In The Metropolitan Region Of Uruguay In 2023: A Critical Analysis, **Héctor García**, Uruguay	**11:50 |** An Innovative Approach For Water Safety Planning: A Case Study Of Governmental, University, And Small Municipalities Collaboration, **Fernando Hymno de Souza**, Brazil **12:10 |** Water Safety Plans, On The Road Towards Universalization: Uruguay 2030., **Alejandro Iriburo**, Uruguay **12:20 |** *Longitudinal Characterization Of Biofilm Formation And Water Safety In Secondary Drinking Water Distribution Systems, **Soledad Martínez**, Uruguay **12:25 |** *Water Safety Plans: An Urgent Need, **Alejandro Dorado**, Brazil	
12:50-13:50	***Lunch (Rodelú)***		
13:50-14:20	**Poster Session II (Hall)**		
14:20-15:10	**Small Systems, Big Challenges (Auditorium)** **Chairs: Bettina Rickert, Alejandro Iriburo**	**Enhanced Emergency Response and Preparedness (Room C12)** **Chairs: Marcos Bensoussan, Thomas Pettersson**	
	14:20 | Management Of Small Drinking Water Systems With Arsenic Treatment, **Sofía Ormaechea**, Uruguay **14:40 |** Coupling Online Turbidity Monitoring With Rainfall Data To Predict Microbial Contamination In Small Water Supply Systems, **Magdalena Ujević Bošnjak**, Croatia **15:00 |** *Implementation Of Small Wastewater Treatment Plants In Uruguay, **Lino Milesi**, Uruguay	**14:20 |** Brazilian City Of São Sebastião Faces Devastating Floods And Landslides: A Case Study Of FUNASA's Emergency Response, **Lucas Achaval**, Brazil **14:40 |** Emergency Water Supply For Public Hospitals, Sanatoriums, And Dialysis Centers In The Water Scarcity Scenario. Drought In Montevideo, Uruguay, May To July 2023, **Sarah Dominguez**, Uruguay	
15:10-16:00	**Keynote Session #4 (Auditorium):** ***Building resilience in a changing climate*** **(Rafael Terra, IMFIA/FIng/UdelaR, Uruguay)** ***Water Security: an overview from LAC*** **Miguel Doria (UNESCO, Portugal)**		
16:00-16:30	***Tea&Coffee break (Hall)***		
16:30-17:00	**Keynote Session #5 (Auditorium):** ***Effects of droughts on rural drinking water sources in LAC, and considerations on alternative source options*** **(Héctor Maureira Cortés, CAZALAC, Chile)** ***Safe Water in MERCOSUR Countries: Opportunities and Challenges.*** **(Eduardo Bogado, FONPLATA, Paraguay)**		
17:00-18:30	**Workshop (Auditorium)** **Extreme events, incidents and emergencies: Are you ready?** **Welcome and introduction** **Philip De Souza (Atom Consulting, Australia)** **Overview of climate impacts and building resilience** **Philip De Souza (Atom Consulting, Australia)** **Incidents and emergencies: preparing for the worst** **Asoka Jayaratne (Yarra Valley Water, Australia)** **Case Study 1: Italy** **Dr Enrico Veschetti (National Institute of Health, Italy)** **Case Study 2: Management and Resilience: Lessons from the Water Crises of 2014/2015 and 2021** **Alexandre Bueno (SABESP, Brazil)** **Exercise, open Q&A discussion** **Speakers & Facilitator** **Wrap up and closing** **Philip De Souza (Atom Consulting, Australia)**		
20:00-22:15	**Gala Dinner (El Rancho - Club de Golf del Uruguay)** **Registration required (https://watersafety2024.org/registration/) - deadline September 3rd.**		

Friday 6 September

08:00-09:00	**Registration**		
09:00-10:00	**Keynote Session #6 (Auditorium)** **WSP for buildings and industries (Marcos Bensoussan, NSF, Brazil)** **The situation of water and sanitation services in Latin America (Juan Martín Koutoudjian, AIDIS Interamericana, Argentina)**		Exhibition (Entrance Hall)
10:00-11:00	**Holistic Risk Assessment and Management (Auditorium)** **Chair: Bettina Rickert, Philip de Souza**	**Advances in Water Reclamation and Reuse (Room C12)** **Chairs: Sandra Rodriguez, Asoka Jayaratne**	
	10:00 | Risk Assessment Of The Inner Río De La Plata As A Source Of Drinking Water Regarding Cyanobacterial Bloom, **Ana Lía Garrido**, Netherlands **10:20 |** Business Intelligence As Tool To A Improve Holistic Risk Management In The Water Safety Plan, **Diego Pinto**, Brazil **10:40 |** Strategies For Effective Leakage Risk Management In Water Distribution Networks, **Thomas Pettersson**, Sweden	**10:00 |** Optimizing The Removal Of BTEX Compounds By Granular Activated Carbon In Water Resource Recovery, **Daniel Bencsik**, Hungary **10:20 |** The Essential Role Of Reclaimed Water For Indirect Potable Reuse Under A Severe Drought Situation In The Metropolitan Area Of Barcelona (NE Spain), **Marta Ganzer Martí**, Spain	
11:00-11:30	**Tea&Coffee break (hall)**		
11:30-12:30	**Closing Ceremony (Auditorium)**		
12:30-20:30	***Technical tours (Maldonado)*** ***Registration required by choosing one of the options (https://watersafety2024.org/technical-tour/) - deadline September 4th*** ***September 6th 12:30 PM – The bus departs from Facultad de Ingeniería, Edificio Polifuncional José Luis Massera***		
	1 – Laguna del Sauce Drinking Water Treatment Plant **The Water Treatment Plant takes raw water from the homonymous Lagoon and with a production capacity of 2 m3/s, supplies, among others, the resort cities of Maldonado, Punta del Este and Piriápolis.** **Built in 1965, its evolution reflects the incorporation of improvements to minimize risks and meet growing demand. In 1998, its treatment capacity was increased to its current level and the sludge blanket clarifiers were replaced with dissolved air flotation to improve efficiency in phytoplankton removal. The most recent reform, still in progress, gives additional strength to the treatment against algal blooms by incorporating a battery of biological filters already enabled, and an interozonizing system expected to be completed at the end of this year.** 	**2 – "El Jagüel" Wastewater Treatment Plant** **The plant has been serving the cities of Maldonado and Punta del Este since 2012, with a maximum instantaneous capacity of 1200 L/s. During the summer season, the effluents of 250,000 inhabitants are treated, reaching maximum flows of 900 L/s on average and 650 L/s on average daily.** **It is a physical-chemical plant, with stages of coagulation, flocculation, sedimentation and disinfection of the liquid line, and a sludge line with thickening, anaerobic digestion and dehydration.** **The final disposal of the treated liquid is carried out to the Atlantic Ocean through a 930 m long submarine emissary. After dewatering, the sludge has more than 30% solids content and is disposed of in a landfill.** 	

* *Poster presentation 5 min (the platform presentations are 15 min + 5 min for questions)*

POSTER SESSION, posters in addition to the posters presented in the technical sessions

Resilient Water Safety in a Changing Climate

Geographic Information System (GIS) And Water Quality, **Mariana Barcia**, Uruguay

Advanced Water Quality Management and Technology

First Impacts Of Biofiltration In Laguna Del Sauce WTP, **María Cruz**, Uruguay

Next-generation Regulatory Approaches

Regulating Catchment Risk Management In Germany: Protecting Health By Protecting The Water Resources, **Bettina Rickert**, Germany

Water Justice: Public Prosecutor's Oversight In Subdivisions, **Jhessyca Rocha**, Brazil

Daniel Buss (PAHO, USA) - Keynote Session #1 (Auditorium) - September 4th 10:20

Dr. Daniel Buss is a biologist with a master's degree in Ecology and a doctorate in Public Health. He is the head of the Climate Change and Environmental Determinants of Health Unit at the Pan American Health Organization (PAHO), based in Washington, D.C. This unit coordinates PAHO/WHO's actions in the 35 countries and 18 territories of the Americas on issues such as climate change, air quality, water, sanitation and hygiene, waste management, chemical safety, and environmental epidemiology and toxicology.

Bettina Rickert (UBA, Germany) - Keynote Session #2 (Auditorium) - September 4th 14:10

Bettina Rickert is an environmental engineer working with the German Environment Agency. She is the head of the WHO Collaborating Centre for research on drinking-water hygiene, and has more than 14 years of experience in the water sector. She has supported WSP projects and trainings in different settings, including training of WSP facilitators. Furthermore, she supports WHO's work on small-scale water supplies and on WSP.

Philip De Souza (Atom Consulting, Australia)
Workshops (Auditorium) September 4th 16:30 ; September 5th 17:00

Philip de Souza is the Global Lead: Water Safety Planning at Atom Consulting and is based in Sydney, Australia.
He is a professionally registered Engineer who has more than 20 years of experience with water supply and sanitation services in local government, benchmarking, water treatment, water quality management and associated risk management.
Philip has a BSc Chemical Engineering degree from the University of Cape Town and an Honours degree-Cum Laude in Water Utilisation Engineering from the University of Pretoria.
Philip is a Fellow of the International Water Association (IWA) and the current co-chair of the IWA Water Safety Planning Specialist Group. He also forms part of the World Health Organization's (WHO) global panel of water safety planning Trainer of Trainers.

Asoka Jayaratne (Yarra Valley Water, Australia)
Workshops (Auditorium) September 4th 16:30 ; September 5th 17:00

Asoka is the Water Quality Specialist at Yarra Valley Water in Melbourne, Australia. He holds a bachelor's degree in civil engineering and a Master of Engineering (Hons) in Water Management. He is Fellow of the Institution of Engineers, Australia and a Fellow of the Institution of Engineers, Sri Lanka. Asoka has been a member of the Editorial Committee of the Australian Water Association's Water e-Journal, an online hub for high-quality technical water papers in Australia.
Asoka has been working in the water industry for over 40 years. He has been with Yarra Valley Water since 1997. His main areas of expertise include development and implementation of drinking and recycled water risk management plans (Water Safety Plans), implementation of the Hazard Analysis and Critical Control Point (HACCP) system for the drinking water supply system since 1999, development of strategies to improve water quality in the distribution system, routine water quality monitoring and maintenance programs such as water mains cleaning, reservoir cleaning, regulatory compliance, regulator and other stakeholder liaison, annual reports, special investigations and staff and contractor training .

Danilo Ríos (Fing/UdelaR, Uruguay) - Keynote Session #3 (Auditorium) - September 5th 09:00

Danilo is a Civil Engineer, Hydraulic and Sanitary option and holds a Master degree in Environmental Engineering from Faculty of Engineering, University of the Republic, Uruguay. He is currently adjunct Professor of the Department of Environmental Engineering, Faculty of Engineering, University of the Republic. He was General Manager of State Sanitary Works (OSE) between 2006 and 2015 and Director of Sanitation of the Municipality of Montevideo between 2015 and 2018. Danilo is author of the books: Biological Risks and Disinfection byproducts and Drinking Water History and sensitivity.

Thomas Pettersson (Chalmers University, Sweden) - Keynote Session #3 (Auditorium) - September 5th 09:30

Thomas is Associate professor in Drinking Water Engineering at Chalmers University of Technology, Sweden, at the the Division of Water Environment Technology. Thomas is leader of thetheme Hazards and risks for drinking water resources and treatment, at Chalmers. Thomas expertise is within drinking water research.

He is also the director of the National Research Centre DRICKS program, which is a collaboration between Chalmers, University and 4 other Swedish universities and 11 Swedish water producers. DRICKS hosts several research projects focusing on providing safe and healthy drinking water – from source to tap. Thomas supervises several PhD students.

Rafael Terra (IMFIA/FIng/UdelaR, Uruguay)) - Keynote Session #4 (Auditorium) - September 5th 15:10

Professor at the Institute of Fluid Mechanics and Environmental Engineering at Universidad de la República. Engineer and Climate Scientist by formation, Dr. Terra has been working for more than twenty years on climate risk management in the agriculture, water resources and energy sectors.
Rafael Terra is a Civil Engineer, Hydraulic and Sanitary option, Faculty of Engineering, University of the Republic, Uruguay. He has a Doctor degree in Atmospheric Sciences University of California, Los Angeles (UCLA), USA and a Master degree of Atmospheric Sciences, Institute of Atmospheric Sciences, UCLA, Los Angeles, USA.

Miguel de França Doria (UNESCO, Uruguay) - Keynote Session #4 (Auditorium) - September 5th 15:40

Miguel de França Doria was born in Lisbon, where he studied environmental engineering, worked as a water analyst in a quality control laboratory and as a consultant for hydrological environmental impact assessments. He completed his degree in Environmental Science and holds a PhD in Environmental Science from the University of East Anglia (Norwich, UK). He joined the Secretariat of UNESCO's International Hydrological Programme (IHP) in Paris in 2006, where, among other duties, he was Officer Responsible for Water Education and Deputy Secretary of the IHP Intergovernmental Council. Since 2015, he is the IHP Regional Hydrologist for Latin America and the Caribbean, based at the UNESCO Office in Montevideo.

Héctor Maureira Cortés (CAZALAC, Chile) - Keynote Session #5 (Auditorium) - September 5th 16:30

´Héctor Maureira is Project and Research Unit Manager of the Regional Water Center for Arid and Semi-Arid Zones of Latin America and the Caribbean (CAZALAC), an UNESCO category 2 centre located in La Serena, Chile. He is an Environmental Civil Engineer (University of La Serena, 2013), with a Magister degree in Environmental Management at Católica del Norte University (2015).

Eduardo Bogado (FONPLATA, Paraguay) - Keynote Session #5 (Auditorium) - September 5th 16:45

Eduardo is an economist from the Universidad Católica "Nuestra Señora de la Asunción" (Paraguay). He holds a master's degree in water technology and management from the Polytechnic University of Catalonia and in Corporate Finance from the European School of Management and Business (Spain).
He is currently working as a Project Specialist at FONPLATA overseeing projects related to the water and sanitation sector in Uruguay and Brazil.
Before joining the bank, he worked for 10 years at the IDB, where he co-led the design of projects and sectoral dialogue to promote better water, sanitation, and solid waste services in Paraguay. He also led the generation and dissemination of various publications.

Marcos Bensoussan (NSF, Brazil) - Keynote Session #6 (Auditorium) - September 6th 09:00

Chemical Engineer, graduated from Mackenzie University (São Paulo/Brazil), he has more than 46 years of experience in the water theme. It always works focused on water treatment, its uses, always seeking to have safe water. Since 1999 he has been working on the subject of the Legionella bacterium In 2009, he developed the concept of a Water Safety Plan for buildings and industries Member of several technical committees and associations dedicated to the theme of water. He is currently director of the Water Division of NSF and is based in São Paulo, Brazil He conceived and produced two books: "Legionella na Visao de Especialistas" e "Plano de Seguranca da Agua na visão de Especialistas"

Juan Martín Koutoudjian (AIDIS Interamericana, Argentina)
Keynote Session #6 (Auditorium) - September 6th 09:30

Juan Martín is an Argentine Mechanical Engineer with more than 47 years of experience consulting projects. Especially with multilateral credit organizations (WB; IDB, CAF, JBIC). Technical Vice-President of AIDIS Interamericana and Vice-President of AIDIS Argentina. Former National Director of Drinking Water and Sanitation of the Secretariat of Infrastructure and Water Policy of the Nation and former Director of Sanitary Services of the province of Buenos Aires, Argentina. Expert in electromechanical works for sanitation, irrigation, storm drains and solid waste, developed in Germany, Dominican Republic, Vietnam and Peru. Panelist and speaker at various forums on water, environment and climate change, organized by AIDIS and other institutions in Argentina. Organizer of the 37th Inter-American Congress of Sanitary and Environmental Engineering. Currently, organizer of the 39th Inter-American Congress of Sanitary and Environmental Engineering in Perú. More than 40 years of teaching experience in universities and private institutes and NGO´s on topics related to: Climate Change, Water, Sanitation, Solid Waste and Environment.

Alexandre Bueno (SABESP, Brazil) - Workshop (Auditorium) September 5th 17:00

Alexandre has a Bachelor's degree in Production Engineering and Administration with a focus on Systems Analysis, Specialist in Public Management, and Master's degree in Aquaculture and Fisheries from the Institute of Fisheries of the State of São Paulo - APTA. Currently, he is the Manager of the Water Resources Department at the Water Production Business Unit. Since 1998, he has been involved in the development, research, and control of conventional processes in the sanitation sector, automation of water pumping stations, reservoir management, and environmental management in water production systems in the Metropolitan Region of São Paulo. As the Manager of the Water Resources Department, he oversees the qualitative and quantitative management of supply sources and ensures compliance with the National Water Resources Plan for Sabesp's dams.

Enrico Veschetti (National Institute of Health, Italy) - Workshop (Auditorium) September 5th 17:00

Enrico has a PhD degree in Applied Biochemistry and Chemistry and a MSc degree in Analytical Chemistry. He is currently a Senior researcher at the Italian National Institute of Health (ISS) and Director of the functional area "Chemical risk" of the ISS National Centre of Water Safety.