

The Resilience of the Water Sector

6th Joint EWA/JSWA/WEF Conference
15-18 May 2018, Munich, Germany



Image Source: EYECANSEE

**Free
attendance
for IFAT trade
fair visitors**

Organized by:



**Water Environment
Federation**
the water quality people®



EUROPEAN WATER ASSOCIATION

Conference Description

Resilience is a strong emerging theme within the water sector. From long term water resource availability and water quality impacts of droughts, to the need for resilience against disruptive events with little or no warning such as floods and earthquakes, these events not only disrupt water sector infrastructure and operations, they can also affect other infrastructure that a reliable water sector depends on. This includes electrical power supplies, telecommunications, and transportation as well as disruption to the supply chain and workforce. The effects of such events can be long lasting and far-reaching, impacting customers, the environment, and

business performance. Ultimately, resilience is a significant business risk management as well as an infrastructure planning issue. This joint conference will explore ways in which the sector in its broadest terms is developing resilient systems, assets, and operations so that business continuity risk is well managed in the face of adverse conditions. The intention is to share experience from across the world covering: real life examples of lessons learned from major events; good response and recovery practices; and current activities that are strengthening resilience.

How to register

The conference is open and free of charge for all visitors of the IFAT 2018 trade fair. You can purchase a trade fair ticket directly on the website of the fair: <https://www.ifat.de/index-2.html>. You are able to purchase a daily, three-days or weekly tickets. Registration for group visitors ends on 30 April. Please make sure to have your trade fair pass printed prior to your Entry.

If you need any further assistance with your registration, please don't hesitate to contact us.

The registration of the technical field trip on Friday, 18 May 2018, is not included in your entrance ticket and has to be booked additionally. You will find a registration form on the back of this flyer.

The Conference Venue is:

Messe München GmbH
Messegelände
81823 Munich

Conference will be held in Hall B2.

Co-organizers

European Water Association (EWA)

The European Water Association (EWA) is an independent non-governmental and non-profit making organization promoting the sustainable and improved management of the total water cycle and hence the environment as a whole. It is one of the major professional associations in Europe that covers the whole water cycle with member associations from nearly all European Countries. EWA aims to provide a pan-European forum for the discussion of key technical and policy issues affecting the growing European region and to contribute more directly to the development of water related European policies, as an NGO representing a wide scope of water professionals and specialists.

Since its creation, EWA seeks „Clean Water for Europe”. This emphasizes our common responsibility in promoting water related actions – information exchange, expertise contributions, environmental education and good cooperation with the societies and other actors.

Japan Sewage Works Association (JSWA)

Starting in the latter half of the 1950s, rapid growth of industrial economy led to such social problems as aggravation of the living environment and water pollution in public water bodies. This was the situation when the Sewerage Division of the Japan Water Service Association and the National Sewage Works Development Conference were integrated to form the Japan Sewage Works Association in April 1964. JSWA got permission to establish itself as a public interest corporation in January 1965 and began full-scale activities with public organisations as regular members.

The Association’s objectives are to develop sewerage services soundly, while conducting research on sewerage systems, and to preserve a network public water bodies for the improvement of people’s lives. As a network organisation of bodies involved in sewage works, JSWA carries out a wide range of activities to promote development of sewage works, and facilitates

communication and cooperation between public organisations implementing and planning sewage works on the one hand, and National government, related organisations, enterprises and civic groups on the other.

JSWA has 1,509 organisations implementing or planning sewage works as regular members, 54 as associate members, 1,052 enterprises as supporting members, 435 as individual members and 8 honorary members, for a total of 3,058 organisations and individuals as of January 1, 2012.

Water Environment Federation (WEF)

Founded in 1928, the Water Environment Federation (WEF) is a not-for-profit technical and educational organization of 33,000 individual members and 75 affiliated Member Associations representing water quality professionals around the world. WEF members, Member Associations, and staff proudly work to achieve our mission to provide bold leadership, champion innovation, connect water professionals, and leverage knowledge to support clean and safe water worldwide.

WEF and its global network of members and Member Associations (MAs) provide water quality professionals around the world with the latest in water quality education, training, and business opportunities. WEF’s diverse membership includes scientists, engineers, regulators, academics, utility managers, plant operators, and other professionals. WEF uses this collective knowledge to further a shared goal of improving water quality around the world.



Program

Tuesday 15 May 2018

Co-Moderation: Fabio Tatano (EWA), Karen Kubick (WEF)

15:30 Opening and Welcome Address (Managing Director Messe Munchen, EWA President, WEF President, JSWA President)

Session 1: Social, Economic and Human Challenges for a Resilient Water & Wastewater Sector

- 16:00 Keynote Speech: Resilience Learning for Water Sector Culture Change
Kate Baker*, University of Exeter, UK
- 16:20 Water Security Is National Security - How Community Water Values Impact Resiliency
Britt K. Sheinbaum, Oregon State University, USA
- 16:40 Water Network Resilience Assessment: Internal and External Costs Valuation for a Cost Benefit Analysis
Dr. Caty Werey, IRSTEA UMR GESTE ENGEES, France
- 17:00 Support on Formulating Sewage BCP and Training for Small and Medium-Sized Local Public Organizations
Manato Yamaguchi, Japan Institute of Wastewater Engineering Technology, Japan
- 17:20 Young Professionals and the Water Sector
Hagimar v. Ditfurth, German Water Partnership, Germany
- 17:40 Solidarity in the Water Services, Economical Rationalities, Social Determinations
Károly Kovács, Hungarian Water Association, Hungary

Wednesday 16 May 2018

Co-Moderation: Wendy Francken (EWA), Yuka Okabe (JSWA)

Session 2: Infrastructure Management – Optimization, Rehabilitation and Retrofit for Resilience

- 9:30 Keynote Speech: Research Towards a Long-Term Restoration Plan for Sewage Pipes
Hiroaki Nishisaka, Japan Institute of Wastewater Engineering Technology, Japan
- 09:50 On the Topic of the Service-Life of Sewers and Pipelines
Bert Bosseler, IKT - Institut für Unterirdische Infrastruktur gGmbH, Germany
- 10:10 Reservoirs and Sustainability – When One Does Not Equal the Other
Sandra L. Glenn, DeKalb County Department of Watershed Management, USA
- 10:30 Need to Speed up Rehabilitation Rate of Water and Wastewater Systems
Pekka E. Pietilä, Tampere University of Technology, Finland
- 10:50 How Much Data is Enough? Financial Optimisation of Condition Assessment Spending to Support Pipeline Replacement Decisions
Gerard M. Hientzsch, Echologics, Canada
- 11:10 Discussion
- 11:20 Coffee break



Co-Moderation: Jörg Londong (EWA), Dale Jacobson (WEF)

Session 3: Water and Wastewater Resilience to Geo-Environmental Hazards

- 11:40 Keynote Speech: An All Hazards Approach to Building Resilience
Lisa McFadden, Jonathan Reeves, Kevin Morley, Water Environment Federation, DC Water, AWWA, USA
- 12:00 Measures of Road and Sewerage Bureau for the Sinkhole Accident in front of Hakata Station
Akira Haraguchi, Road and Sewerage Bureau Fukuoka City, Japan
- 12:20 Using Sustainable River Management Techniques for Improved Asset Resilience in a Water Utilities Company
Alison Flynn, Matthew Buckley, Jacobs, United Utilities, UK, USA
- 12:40 Restoration of Sendai Sewerage Service From The Great East Japan Earthquake and Disaster-prevention measures for the Future
Kimimasa Kato, City of Sendai, Japan
- 13:00 Building and Utilizing the Wastewater Treatment Plant Network in Kobe City
Hidenobu Wakimoto, City of Kobe, Japan
- 13:20 Discussion
- 13:30 Lunch break

Co-Moderation: Iain Blackwell (EWA), Yosuke Matsumiya (JSWA)

Session 4: Urban Flooding and Climate Change - Smart Strategies and Responses

- 15:00 Keynote Speech: Climate Change and Water Resources: Call for Smart Strategies and Innovations Improving Disaster Resilience
Prof. Patrick Willems, Belgium
- 15:20 Flood Protection – “DWA – Audit” a Tool for an Integrated Approach in Municipalities
Dr. Friedrich Hetzel, DWA, Germany
- 15:40 How Can We Build Reliable and Resilient Surface Water Flood Management?
James Webber, University of Exeter, UK
- 16:00 Demonstration Study of Use of Stormwater Management Technology to Mitigate Flood Damage from Localized Heavy Rainfall
Shinichiro Oki, METAWATER & Co., Ltd, Japan
- 16:20 Evaluating City Resilience and Services Cascade Effects in Flooding Scenarios
Prof. Filipa Ferreira, University of Lisbon, Portugal
- 16:40 Making Cologne more Resilient Against Urban Flash Floods
Marc Daniel Heintz, Municipal Drainage Operations Cologne, Germany
- 17:00 Final discussion

Thursday 17 May 2018

Co-Moderation: Florin Arimia (EWA), Boryana Dimitrova (EWA)

Session 5: National and City Approaches for Water and Wastewater Resilience

- 9:30 Keynote Speech: Strengthening Water Resilience in San Francisco California
Karen Kubick, San Francisco Public Utilities Commission, USA
- 09:50 Analysis and Determination of Water Supply Resilience: UK Developments
Dr. Colin Fenn, Hydro-Logic Services International Ltd, UK
- 10:10 Seismic Retrofitting Measures for Sewerage Structures in Tokyo
Chizuru Tanaka, Bureau of Sewerage, Tokyo Metropolitan Government, Japan
- 10:30 Integrated Resiliency Planning City to City Cooperation on Evaluation of Flood Risk and co-Benefits from Mitigation Measures
Christian Nyerup Nielsen, Ramboll, Denmark
- 10:50 Comparing the Vulnerabilities of Semi-Centralised Water Reuse Systems and Centralised Wastewater Systems in the Case of Qingdao, China
Martin Zimmermann, SOE - Institute for Social-Ecological Research GmbH, Germany
- 11:10 Discussion
- 11:20 Coffee break

Co-Moderation: Johannes Lohaus (EWA Secretary General) and Eileen O'Neill (WEF Executive Director)

Session 6: Resilience Planning – Strategic, Emergency Preparedness and Emergency Response

- 11:40 Keynote Speech: Optimization Method for Sustainable Wastewater Treatment Systems in the Population Declining Society
Takeshi Ishikawa, National Institute for Land and Infrastructure Management (NILM), Japan
- 12:00 Are we prepared? Development and Assessment of Emergency Water Supply Preparation Planning
Lisa Bross, University of the Federal Armed Forces Munich, Germany
- 12:20 Resilience Adaptation Pathways for near-term and long-term Management of Urban Wastewater Systems
Seyed Sadr, University of Exeter, UK
- 12:40 Wastewater Resilience Planning
P.E, PMP Prathivadi Kishen, Sewer Authority Mid-Coastside, USA
- 13:00 Conversion of Sewage Sludge into Solid Fuel Project in the City of Osaka -For Creation of a Recycling-Oriented Society and Prevention of Global Warming
Tsuyoshi Sanjo, Osaka City, Japan
- 13:20 Discussion and Closing remarks
- 13:30 Announcing of the Next Joint WEF-EWA-JSWA Conference (Yosuke Matsumiya, Director, International Division, Engineering Department, Japan Sewage Works Association)

POSTER SESSION 17 May 2018 14:00 - 16:00

Debris Separation Technology in Combined Sewer System Study on Improvement of Water Surface Control Device, Mariko Hirokawa, Japan

Plan for Restoration of Sewer Pipelines Damaged by Earthquakes in Yokohama, Ryo Hakoda, Japan

Systematic Arrangement of Issues and Solutions in the Project of Volume Reduction Processing of Sewage Sludge Containing Radioactive Materials, Kosuke Shirai, Japan

Earthquake Proof Trenchless Sewer Rehabilitation Technology by Sewage Pipeline Renewal (SPR) Method, Yutaka Kitaoka, Japan

Changes of Potable Groundwater Quality in Kyiv as a Result of long-term Exploitation, Tetiana O. Koshliakova, Ukraine

Resiliency of Nepal's Water Systems Post-Earthquake, Ph.D., REHS Samendra Sherchan, USA

Reconstruction of Sewage Pumping Station in Cooperation with the Urban Development in front of Tokyo Station, Shun Kawanishi, Japan

Approach to Energy Saving and Using Waste Heat in Sewage Sludge Incineration Systems in Japan, Toshiyuki Umezome, Japan

Advanced Sewage Sludge Incinerator Composed of Pressurized Fluidized Bed Incinerator and Turbocharger, Hisashi Endo, Japan

Installation of Turbocharged Fluidized Bed Combustion System for Efficient Sludge Incineration Yoshiharu Murasato, Japan

Enabling Nutrient Resource Recovery by Integrating AnMBR Wastewater Treatment and Adaptive Hydroponics, Jorge Luis Calabria, USA

Is Society Prepared for Critical Infrastructure Failure?, Sarah Bunney, UK



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Technical and Cultural Field Trip, Friday 18 May 2018

The participants of the conference have the opportunity to take part in the technical and cultural field trip taking place on Friday, 18th May 2018.

We will visit the Walchensee storage power plant, situated outside of Munich. The imposing Walchensee storage power plant is considered to be the cradle of industrial power generation in Bavaria. Completed in 1924, it was one of the largest hydropower plants in the world with a capacity of 124,000 kilowatts (124 megawatts). Even today, with annual production of around 300 million kilowatt hours (300 gigawatt hours), it is one of the largest high-pressure storage power plants in Germany. Since 1983 it is a protected industrial monument.

The plants at Walchensee are a vivid example of a storage power plant. They use the difference in altitude between a high-altitude storage lake, here the Walchensee, and the Walchensee power plant at the lower-lying Kochelsee. Over the six 400-meter-long pressure pipelines, the water plunges from Walchensee to the turbines in the Maschinenhaus am Kochelsee, which is about 200 meters lower. After the potential energy of the water has been converted into mechanical rotational energy of the turbines, the water flows through the outlet channel of the power plant into the Kochelsee.

After the visit at the Walchensee storage power plant, we will continue our field trip with a cultural program. On the way back to the IFAT trade fair we will visit the Buchheim Museum situated near the Starnberger Lake. The Buchheim Museum is an experience that appeals to all the senses. Visitors to the museum will experience it from three perspectives: art, architecture and nature.

Please note that places for the excursion are limited and a pre- registration is a prerequisite. The costs for the field trip are 60 EUR and include bus transfer from the IFAT trade fair to Walchensee, Buchkeim Museum and back and a light lunch at the Storage Power Plant Bistro. The registration fee can be paid via bank transfer, credit card or in cash at the IFAT trade fair prior to departure.

Time schedule

- 08:45 Meeting at the trade fair of the participants
- 09:00 Departure
- 10:30 Arrival at the Walchensee Power Station
- 11:00 Presentation of the Power Station
- 11:30 Visit of the power station
- 12:30 Light lunch
- 13:30 Departure – visit of the Buchheim Museum
- 15:30 Departure to the trade fair
- 17:00 Arrival at Munich trade fair

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* **Registration Fee 60 €** (Please note that the prices exclude VAT as the EWA is exempt from paying VAT!)

Name, First Name

Company

Address

E-Mail

Phone, Fax

Date and Signature

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