WATER, MEGACITIES AND GLOBAL CHANGE

ARCEAU Ile-de-France

United Nations Educational, Scientific and Cultural Organization

1 - 4 December 2015

INTERNATIONAL CONFERENCE WATER, MEGACITIES AND GLOBAL CHANGE

"Light is Here" by Finnish artist Kari Kola, installed by Valoparta Ltd. © UNESCO/Nora Hoguenade

#CLIMATE IS WATER

UNESCO HQ

PARIS - FRANCE

LABEL PARIS2015 COP21-CMP11

WATER, MEGACITIES AND GLOBAL CHANGE
A CONFERENCE, WHY?

Paris, New York, Beijing, Mumbai, Sao Paulo... Since 2011 and for the first time in its history, the world population as a whole is now mainly concentrated in urban centers. **In 2030, more than one billion people will be living in about one hundred very large cities.** Megacities, those cities with more than 10 million people, are multiplying rapidly.
Beyond demographic issues, climate change in these megacities will require very important measures for adaptation and profound transformations to avert potential coming crises like: access to water and sanitation for all, service equity, economic viability, solutions flexibility, and innovative response to unprecedented evolutions.

The concentration in megacities of populations, services, goods and water bodies amplifies the consequences of water related risks: large-scale flooding, insufficient resources, environmental pollution and multiplication of dangers as a result of climate change. The many different management scales inevitably render more complex the water governance of these territories. In parallel, these large territories concentrate scientific and technical potential, operational skills, economic capacity and human resources that render possible the emergence of innovating solutions in domains like technology, organization, economy or culture.

Faced with such difficulties, these exceptional territories focus a multitude of resources to meet the specific challenges to water-induced climate change. It is imperative to exploit these resources for emerging and innovative solutions are deployed by these mega-urban centers, both in the river basin management plans, health and environmental, and economic and socio-political.

Recognizing on the one hand the problems ahead, but also know-how of the Ile de France region in terms of water management, and taking advantage of the holding of the COP21 in December in Paris, IdF ARCEAU association has decided to organize this conference not only to allow exchanges between megacities around the world on these water management problems, faced by elected officials, civil society, technicians and scientists, but also to generalize the use of results of international research.

WHO ARE THE STAKEHOLDERS?

The conference will bring together several different public stakeholders:

- **Scientists** who contribute to knowledge development;
- **Public** and private operators who promote technical and socio-political innovations for the benefit of users and customers;
- **Elected officials, and representatives of international institutions and of NGOs** who support policies for more efficiency and better environmental justice.

Testimony from all continents

The case studies will cover most continents, allowing to address all water management issues encountered in Megacities.

JEAN-CLAUDE DEUTSCH
PRESIDENT OF ARCEAU IdF

A young association founded by Local Authorities with responsibilities in water management organized, two years after his birth jointly with UNESCO, an international conference on "Water, Megacities and Global Change". It is an illustration of the links between the local and the global.

Based on the situation in the Paris area, it seemed essential to reflect on the governance of water in megacities, mix of decision-making, policy framework and planning and technical tools.

The conference, like ARCEAU IdF, aims to bring together three groups: researchers, representatives of technical services and political and civil society representatives.

It is at the interface of several points of view: between the regional and the global, between environmental sciences and social sciences; between different economic models, between technical and political, between the management and innovation and between hydrologic and urban systems. Compile an inventory of the issues and discuss solutions that will accompany the urban public policies, this is what we hope the discussions that will take place at UNESCO.

Needs for knowledge, mastery of technical processes and broad vision of urban policies, form a tripod on which future policies can be based.

IRINA BOKOVA
DIRECTOR-GENERAL OF UNESCO

Water means life; water is essential to our health, our wellbeing, our culture, our economy and our environment, and is linked to the most pressing global challenges. Pressures on water resources come increasingly from cities, where more than 50 percent of the world's population now lives.

In 2015, the year of UNESCO's 70th anniversary, the Organization is proud to host and organize the International Conference "Water, Megacities and Global Change" that addresses water-related challenges in view of the rapidly increasing number of megacities in the world and the impacts of climate change on the inhabitants of these urban communities.

Adaptation to climate change and variability is one of the priorities of UNESCO. Climate change is a complex issue which has consequences for all spheres of existence on our planet. It impacts – or is impacted by – global issues, including poverty, economic development, population growth, sustainable development and resource management. UNESCO - through its multidisciplinary mandate in education, natural and social sciences, culture and communication - is in a unique position to address the challenges of climate in a holistic manner.

This conference, which is included in the official programme of the COP21, will be the occasion to launch a new initiative on water and megacities, for which UNESCO will take the lead in the coming years with the cooperation of a broad range of partners.

ASSOCIATION OF THE WATER PROFESSIONALS, RESEARCHERS, DECISION MAKERS AND ELECTED OFFICIALS FROM THE PARIS METROPOLITAN AREA

ARCEAU Île-de-France

ARCEAU IdF, association created in 2013, aims to promote dialogue between the world of research and all the actors involved in the water cycle management in Île-de-France: local authorities and practitioners private, part-actors involved in urban policy, elected officials and users... The association promotes and develops all research, studies and experiments conducted in the field of water across the Paris region and in the areas related. It is firstly a networking tool and mediation and also a place to share information, debate and acculturation.
The topics mainly relate to the water cycle, in connection with a series of issues such as planning and development, demographic and societal changes, anthropogenic pressure on aquatic environments, natural hazards and Climate phenomena, governance issues, etc. All the actions of ARCEAU IdF aims to promote ownership of the knowledge, both technical and socio-political and the social utility of research conducted. Five Thematic Working Groups (TWG) work on Small urban rivers, Standards and usage, Governance and participation, Urban services and Micropollutants.
More information on **www.arceau-idf.fr**

KEYNOTE SPEAKERS PRESENTATION

JUNAID AHMAD

Senior Director for the Water Global Practice of the World Bank

Junaid Ahmad, a Bangladeshi national, is Senior Director for the Water Global Practice of the World Bank. He is responsible for the Bank's program and portfolio covering water supply, irrigation, water resource management, and sanitation. Previously, Mr. Ahmad worked extensively in Africa, South Asia and the Middle East focusing on public finance and service delivery reforms, emphasizing water in particular; constitutional reform and federalism; and city and local governance. Mr. Ahmad has published in these areas and was one of the co-authors of the 2004 WDR Making Services Work for Poor People. An economist by training, Mr. Ahmad graduated from Brown University with BA in Economics, Masters in Public Policy Degree from Harvard and a Phd from Stanford University in Applied Economics. Mr. Ahmad was previously based in South Africa and India for the World Bank. He is co-founder of Bangladesh's first private university, North South University.

MAUDE BARLOW

Canadians Council

Maude Barlow is the National Chairperson of the Council of Canadians, Canada's largest social and environmental justice organization. She served as Senior Advisor on Water to the UN General Assembly and was a leader in the campaign to have the UN recognize the human rights to water and sanitation. Her latest book is Blue Future, Protecting Water for People and the Planet Forever.

ANTHONY COX

Deputy Director - Environment Directorate Organisation for Economic Co-operation and Development (OECD)

Anthony Cox is the Deputy Director of the Environment Directorate of the Organisation for Economic Co-operation and Development (OECD). Since joining the OECD in 2000, Mr Cox has led work on water, climate, fisheries, political economy of reform, green finance and fossil fuel subsidies. He has overall responsibility for the OECD's Horizontal Programme on Water, which pools the expertise from across the OECD to address economic and governance issues in water policy. Prior to joining the OECD, Mr Cox worked as Senior Economist in the Australian Public Service, including positions in the Productivity Commission and the Australian Bureau of Agricultural and Resource Economics.

DIANE D'ARRAS

Vice-President of the International Water Association - IWA

Her career has enabled her to hold positions of responsibility, to gain a broad vision and experience in the various issues involved in water and sanitation management. She started in a Public Water Agency, which allowed her to understand the importance of integrated resources management. Later, she joined Suez Environnement where she was able to develop wide operational experience in utilities, first in her native country, France, and in 1993 in Argentina. In 1998, she made a big switch to Research and Development, first as Head of R&D at Degrémont and then in the same position with Suez Environnement. She faced there the challenges of research, developing internal and external partnerships with the water R&D networks and professional associations, at European and international levels, with universities, utilities and various industrial entities. This has given her the opportunity to establish extensive contacts in developed countries as well as in emerging countries, in Europe, America, Africa and Asia. It has made her highly aware of the diversity of situations and challenges in the water sector.

CYNTHIA ROSENZWEIG

Co-Director of UCCRN

Cynthia Rosenzweig heads the Climate Impacts Group at NASA's Goddard Institute for Space Studies in New York. In addition, she is Co-Chair of the New York City Panel on Climate Change, a group that advises the city on climate risks and adaptation for its critical infrastructure and vulnerable groups, and Co-Director of the Urban Climate Change Research Network. Rosenzweig is also a Professor at Barnard College and a Senior Research Scientist at Columbia University's Earth Institute.

ARJUN THAPAN

President of Waterlinks

Mr. Thapan has been associated with Water as a development issue for 35 years. He prepared the Water Policy of the Asian Development Bank in 2001, was its first Chair of the Water Community of Practice, and was the President's first Special Senior Advisor for Infrastructure and Water. He served on the Gurria Task Force for Water Financing, and was Chair of the World Economic Forum's Global Council on Water Security. He is currently Chairman of WaterLinks, an organization devoted to enhancing the operational efficiencies of water utilities across the Asia-Pacific Region. He is also co-chair of IWA's Efficient Water Specialist Group.

DANIEL ZIMMER

Innovation Director of KIC-Climat

Daniel Zimmer is the Innovation Director of the Knowledge and Innovation Community on Climate (Climate-KIC), a programme of the European Commission that started in 2010 and is currently involving 150 partners of about 12 European countries as well as many start-ups. He is managing a portfolio of innovative solutions that address climate change mitigation and adaptation issues. He has been previously Director of the World Water Council where he coordinated the organisation of three World Water Forums as well as several ministerial summits and roundtables on the main water challenges and associated geopolitical issues. He has a degree from AgroParisTech Engineering School and a PhD from Pierre et Marie Curie University (Paris VI). He recently published: "Water footprinting, understanding the hidden faces of water".

PROGRAM

30 NOVEMBER

18h30 - 22h:
ICE BREAKING EVENT
On invitation only

Entry: UNESCO - Fontenoy Building, floor 7 - place Fontenoy, 75 007 Paris
Participants registered for the conference may take their badge and delegate bag on site from 18:30.

DAY 1 - 1st DECEMBER

The entrance to the conference will be 125 avenue de Suffren - 75007 Paris from 1 to 4 December.

9h15 - 10h: PARTICIPANTS REGISTRATION AND WELCOMING COFFEE

10h - 12h30:
OPENING CEREMONY - ROOM II

Irina Bokova, General Director of UNESCO

Jean Claude Deutsch, President of ARCEAU IdF

Célia Blauel, Deputy Mayor of Paris in charge of environment, water and climate. President of Eau de Paris

Naoko Ishii, President of the Global Environment Fund

Cathy Oke, ICLEI Global Executive Committee

Anthony Cox, Deputy Director of Environment Directorate, OECD

Daniel Marcovitch, President of the Territorial Commission Rivers of Ile-de-France

KEYNOTE SPEECHES
Chaired by Jacques Olivier, General Director of SIAAP

> ***Cynthia Rosenzweig,*** Co-Director of UCCRN, NASA Columbia University
> ***Arjun Thapan,*** President of Waterlinks
> ***Maude Barlow,*** President of Canadians Council
> ***Daniel Zimmer,*** Innovation Director of KIC-Climat

12h30 - 14h: LUNCH

14h - 15h: ADAPTATION TO CLIMATE CHANGE: COOPERATION AND FUNDING METHOD – ROOM II
Moderated by Arjun Thapan, President of Waterlinks

Junaid Ahmad, Director of Water Division of World Bank

Cathy Oke, ICLEI Global Executive Committee

Tao Wang, Directeur Adaptation & Attenuation, Green Fund

Cassilde Brenière, French Agency Development

Representative of the Global Environment Fund *

15h - 15h30: BREAK

15h30 - 18h:
MEGACITIES' PORTRAITS - ROOM II
Moderated by Blanca Elena Jiménez Cisneros, UNESCO IHP

In the year before the conference, 12 portraits of Megacities have been prepared by researchers and operators, who are the main issues of water, the means implemented to address current risks and risk anticipation future. The main keys of five of these portraits will be presented in this session, a cross analysis of all 12 portraits and a panel discussion.

Presentation of 5 Megacities:
- Tokyo, Atsuki Matsuko
- Mumbai, Jairaj M. Phatak,
- Paris, Jean-Pierre Tabuchi
- Buenos Aires, Augusto Mercadier
- New York, Angela Licata

Synthesis of monographs,
Blanca Elena Jiménez Cisneros, UNESCO IHP

Panel discussion on 12 Megacities

18h: END OF DAY 1

** To be confirmed*

DAY 2
2nd DECEMBER

8h: REGISTRATION OF THE PARTICIPANTS

8h30 - 10h30:

RESILIENCY AND CLIMATE CHANGE 1 - ROOM IV

Chaired by Jean Marie Mouchel, METIS

Climate change and drought management in Tehran, F. Vojdani

Hô-Chi-Minh City and the increased risk of flooding by sea level rise; implementation of urban development planning policy, G. Vachaud

A simulator for strategic planning and for preparation to climate change - Application to Lima, Da Nang and Kigali, M. Schütze

The challenge of climate change for Paris Region's sanitation, J.P. Tabuchi

WATER AND MEGACITIES 1 - ROOM XI

Chaired by Daniel Marcovitch, President of the Territorial Commission Rivers of Ile-de-France

Water for megacities: challenges and solutions under global change, A. Michelsen

Piscinão: problems and possibilities of stormwater detention as civic infrastructures in São Paulo, B. Davis

Water management strategies for development of Kolkata megacity, India, A. K. Bera

Khartoum waterscapes: hydrosocial networks and transformations within the city fabric, D. Blanchon et D. Mueller-Mahn

OPERATION OF MEGACITIES TECHNICAL SYSTEMS 1 - ROOM IX

Chaired by Graham Alabaster, UN HABITAT

Assessment of the potential to reduce drinking water consumption by widespread use of rainwater harvesting systems in residential buildings, E. B. Chaib

Services for all, a specific program to develop and maintain access to water and sanitation in poor suburban areas, P. Guiffant

Forecasting quality of raw water to optimize drinking water production, N. Cheifetz

From "Waste water treatment plant" to "Water Valorization Ecosphere", G. Grau

10h30 - 11h: BREAK

11h - 13h:

RESILIENCY AND CLIMATE CHANGE 2 - ROOM IV

Chaired by Pierre Roussel, President of OIEau

Needing to forecast urban inundation events for Hô-Chi-Minh City (Viet Nam) resiliency T. Dung Tran Ngoc

Identification of trends for extreme events of precipitation in the metropolitan region of Belo Horizonte through statistical methods, M. Baptista

Urban development and its responses to flooding hazards in Bordeaux (France) and Bangkok (Thailand), C. Parin and Pr. Eggarin Anukulyudhaton

Participative Water Resilience Index (PWRI): Comparative results for long-term flood risk management projections in the great state of Sao Paulo - Brazil, A. Rosa

WATER AND MEGACITIES 2 - ROOM XI

Chaired by Bruno Nguyen, UNESCO IHP

Upstream - downstream contamination gradient of the fluvial urban system in Chennai (Tamil Nadu, India), S. P. Saravanan

The opportunities and hazards of urban integrated water resource management for public space and ecology in Los Angeles and its river, A. Robinson

Multi-scale approach of the green roofing potential: application to the Paris agglomeration, B. de Gouvello

Conciliating urban development with water resources protection in Brazil through the conception of a "Trama Verde e Azul", green-blue network, as an urban planning framework, J. Eleutério

OPERATION OF MEGACITIES TECHNICAL SYSTEMS 2 - ROOM IX

Chaired by Denis Penouel, SIAAP

ater resources quality management by implementation of Tehran megacity's wastewater project, H. Saberi

Urban water use model application for water conservation in Curitiba City, Brazil, D. Costa dos Santos

Water supply system in the Rio de Janeiro Metropolitan Region: open issues, contradictions and challenges of water access in an emerging mega-city, A. Britto

13h - 14h: LUNCH

** To be confirmed*

14h - 17h30:

WATER AND MEGACITIES FORUM

SALLE II

Water and Megacities Forum : a half day dedicated to political representatives and civil society, major stakeholders in the water management in megacities

The **Water and Megacities Forum** through two round tables will give them the floor. The first round table will address on the issue of adaptation in itself, and the second one will analyze the changes that the consequences of global change and especially climate change are likely to bring to the governance of water in megacities.

The statement **"Megacities Alliance for Water and Climate"** will be released, with three main objectives:

- The achievement of ambitious results for the reduction of GHG at COP21 conference
- The integration of the urban water sector into the future into international climate conference, especially the COP22 and future COPs
- The creation of an open platform for megacities allowing them to share and collaborate on the issue of water in all its forms.

14h - 15h15:
PANEL DISCUSSION:
ADAPTATION STRATEGIES TO CLIMATE CHANGE
MODERATED BY SERGE LEPELTIER,
Former Ministry of Ecology and Sustainiable Developement, President of the French Water Academy

- ***Victor Alcocer,*** CONAGUA
- ***Laura Bacha,*** AYSA,Buenos Aires
- ***Bélaïde Bedreddine,*** President of SIAAP
- ***Faral El-Awar,*** GWOPA/UN Habitat
- ***Paula Kehoe,*** San Franscisco Public Utilities Commission
- ***Michal Kravcik,*** People and Water
- ***Emily Lloyd,*** Commissioner NYCDEP
- ***Maryke Van Staden,*** ICLEI

15h15 - 15h30: CULTURAL INTERLUDE

- ***Sophie Du Buisson***
- ***rés-EAUx***
- ***Marie Velardi***

15h30 - 16h45:
PANEL DISCUSSION:
WATER GOVERNANCE IN MEGACITIES
MODERATED BY PIERRE MANSAT,
President of the International Workshop of Greater Paris

- ***Aziza Ahkmouch,*** OECD
- ***Martha Delgado,*** Former Ministry of Environment and Fundacion Pensar
- ***Régine Engström,*** Eau de Paris
- ***Adel Hagekhalil,*** Office of Sanitation of Los Angeles City
- ***Bruno Nguyen,*** UNESCO IHP
- ***Jairaj M. Phatak,*** former Municipal Commissioner of Mumbai
- ***Nathalie Seguin,*** Freshwater Action Network Mexico
- ***Marie Hélène Zerah,*** IRD Delhi

16h45 - 17h: BREAK

17h - 17h30:
STATEMENT "MEGACITIES ALLIANCE FOR WATER AND CLIMATE"
Moderated by Serge Lepeltier, , Former Ministry of Ecology and Sustainiable Developement,

- ***Presentation of the Statement, its content and Megacities' commitments***
- Key elements discussed in the morning in "the day of resilience" at Le Bourget, ***Bélaïde Bedreddine, President of SIAAP***
- ***Kim Ju Hwan,*** K-Water, Corea
- ***André Kimbuta,*** Governor of Kinshasa
- ***Clover Moore,*** Lord Mayor of Sydney (TBC)
- ***Maryke Van Staden,*** ICLEI
- ***Limin Wang,*** SEE Conservation, China
- ***Diane d'Arras,*** Elected President of IWA
- ***Blanca Elena Jiménez Cisneros,*** UNESCO IHP
- ***Charafat Afailal,*** Ministry of Water, Kingdom of Morocco

17h30: END OF DAY 2

** To be confirmed*

DAY 3
3 DECEMBER

7h30: REGISTRATION OF PARTICIPANTS

8h - 10h:

RESILIENCY AND CLIMATE CHANGE 3 - ROOM IV

Chaired by Marie-Hélène Zerah, IRD Delhi

Consequences of climate change on water ressources management on the Seine basin, C. Jost

Difficulties in installing a policy of sustainable urban drainage in the Matanza Riachuelo basin, Argentina, J. C. Bertoni

Urban hydro morphology index as tool to improve living environment and the city resilience towards climate change, M. Seidl

Long term resilience for urban water systems: myths and reality for the metropole of Paris, E. Adler

PARADOXES OF SUSTAINABLE DEVELOPMENT 1 - ROOM XI

Chaired by Pr. Jan Sopaheluwakan, Research Center for Geotechnology (LIPI)

Evaluating the environmental impact of losses reduction in drinking water networks, J. Pillot

The pragmatic integration of hydrological recommendations into a stormwater regulation- The stormwater zoning of the Val-de-Marne department, P. Bompard and G. Petrucci

Lower water bills: the city Los Angeles shows how efficient water rates produce affordable and sustainable use, B. Prokop

Water governance and sustainability dilemmas in global cities, F. Lee

INNOVATION 1 - ROOM IX

Chaired by Graciela Schneier Madanes, CNRS

Nutrient and energy flows related to wastewater management in the Greater Paris: the potential of urine source separation under global change constraints, F. Esculier

Life cycle assessment of water management forecasting scenarios in Paris suburban area, P. Loubet

Simulation of scenarii with source separated system integrated in the cities for wastewater added value, M. Besson

Potential for wastewater heat recovery in Paris : from theory to practice, M. Bouvier, M. Gaussens and O. Saison

10h - 10h30: BREAK

10h30 - 12h30:

WORKSHOP GROUNDWATER - ROOM IV

Moderated by the International Association of Hydrogeologists (IAH)

Introduction, Scope and Objectives of Session, Dr. Ken Howard, President of IAH

Resilient Cities & Groundwater - Opportunities & Threats, Dr Stephen Foster, GWP-Senior Adviser & IAH Past President

Megacities Groundwater Issues - Case Histories
- *Sao Paulo-Brasil , Dr. Ricardo Hirata*
- *Tucson/Phoenix-USA, Dr. Graciela Schneier Madanes*

Panel Discussion : Urban Groundwater Policy & Management
Dr Blanca Elena Jiménez Cisneros, UNESCO-IHP
- *Graham Alabaster*
- *Faraj El-Awar, UN-Habitat*
- *Hugues Haeffner, Suez Environnement*
- *Stéphane Dahan, World Bank*
- *Stephen Foster, IAH*
- *Ricardo Hirata, USP-Brasil*

Summation & Conclusions: Dr Ken Howard, President of IAH

PARADOXES OF SUSTAINABLE DEVELOPMENT 2 - ROOM XI

Chaired by Pierre Alain Roche, ASTEE

Urban water in megacities: path dependency in sustainability and resilience to global changes policies, B. Barraque

Impact of the new Sendai framework for disaster risk reduction on Paris flood prevention, R. Thépot

Urban hydrologic landscapes as a support for integrated urban water management. The case of the Brussels capital region (Belgium), K. de Bondt

Urban agriculture and the production of water in the metropolitan region of Belo Horizonte (RMBH), Brazil, H. Costa

** To be confirmed*

INNOVATION 2 - ROOM IX

Chaired by Ilan Juran, W-Smart *

Sanitation in a large developing metropolis: a case study of Delhi's sewers, R. de Bercegol

Using CIB scenarios for developing action plans and preparing to climate change: the case of Lima/Peru, C. D. León

The INDH-INMAE project: access to services for all in Casablanca, Morocco, I. Pechell

Innovative forms of water governance : « New public regies » and the turn from a market management to egalitarian management of a common good, C. Blatrix and M. Nakhla

12h30 - 13h: LUNCH

13h - 18h: TECHNICAL TOURS

On 3 December, participants can choose between 7 technical tours to discover various aspects of water in the Greater Paris area. Most of the tours will start after lunch from UNESCO HQ at 1:00 PM. Registration to the tours is mandatory (fees 25€). Shuttles will be provided from UNESCO HQ.

The organizers reserve the right to cancel tours if the number of participants is insufficient. Another visit is then presented.

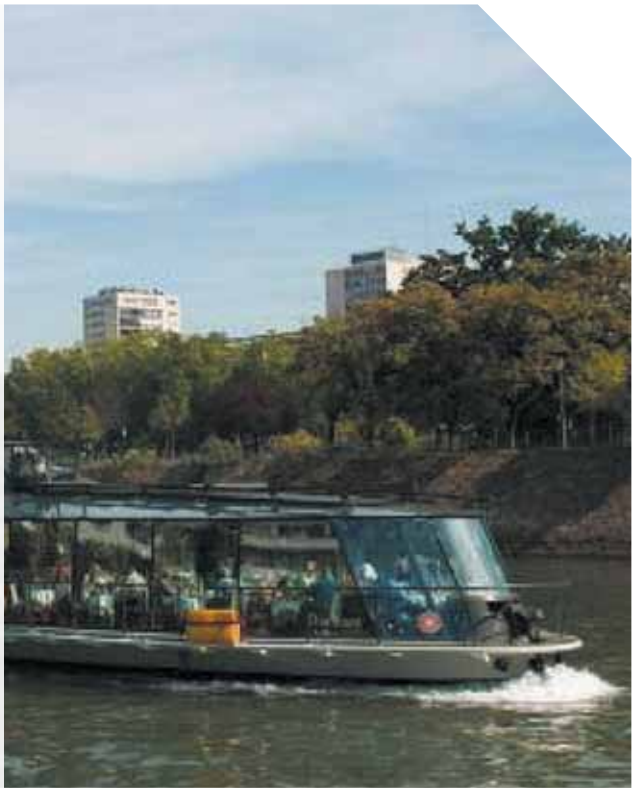
Find more details of technical tours in page 12.

18H: END OF DAY 3

19H30 - 22H:

GALA DINNER: CRUISE ON THE SEINE RIVER

Only on registration
Participation in the gala dinner is included in the packages 4 days.
You can add a participation for one day packages and accompanying persons during the conference registration (150 €) subject to availability (limited number of places).
Be careful, the boat will leave at 20:00 PM.



DAY 4
4 DECEMBER

8h: REGISTRATION OF PARTICIPANTS

8h30 - 10h30:

URBAN WATER INFRASTRUCTURE - ROOM XI

Chaired by Nilo Nascimiento de Oliveira, Federal University of Minas Gerais

Recalibrating infrastructure through subsurface and surface system design: the role of technical heritage in designing green/blue cities, T. Bacchin and F. Hooimeijer

Drinking water infrastructure of « Métropole de Lyon » : strategic asset management and technical heritage, D. Fangeat

Valuation of social and environmental externalities from sewer networks: some experiences and perspectives for asset management, C. Werey

Urban subsurface infrastructure rehabilitation management challenges of NY City water mains, E. MacFarlane, W. Cantos and I. Juran

INNOVATION 3 - ROOM IX

Chaired by Philippe Dupont, ONEMA

Decision support model for a sustainable supply of the Parisian non-potable water service. Consequences of the diversification of non-potable water resources on the Parisian territory, C. Trinh

Rapid adaptation to water resource volatility for utilities using the smart grid for water, T. Hill or G. Symmonds

Upgrading the resilience of megacities to global warming by recycling waters and adapting water quality to the uses, M. Lafforgue

Festival de l'oh! (Water festival): A tool for citizen awareness on water related issues across a suburban area of Paris-city, O. Meier

10h30 - 11h: BREAK

11h - 13h:

SMART TOOLS - ROOM XI

Chaired by Maggie White, Water Europe Solidarity

Water saving impacts of smart meter technology - an empirical five year, whole of community study in Sydney, Australia, R. Shi

Towards a geographic data management as a contribution to asset management of physical networks, P. Bordin

Offsetting the water impact of new development: crafting a national template planning and zoning ordinance, M. A. Dickinson

Scientific and technological paradigm shifts, innovative platforms to manage megacity water in a changing climate, D. Schertzer

INNOVATION 4 - ROOM IX

Chaired by Pierre Frédéric Ténière Buchot, PsEau

The Eau de Paris strategy of resource protection: an opportunity for territorial development and cooperation centered on innovation and support of sustainable agricultural systems, M. Zakeossian

Analyzing collaborations between researchers and practitioners in water and sanitation public services in the county of Seine-Saint-Denis: a retrospective and prospective look at an innovation process involving scientific inputs and reflexivity, R. Quillien and M. Soyer

New paradigms for metropolitan environmental services in France, P.A. Roche

Pavement-watering as a method to counter extreme heat events: adapting the watering method to different urban materials, M. Hendel

13h - 13h30: CLOSING SPEECHES - ROOM XI

- Point of view of young academics and professionals, presented by students from Institut d'études politiques de Paris (Sciences Po) à la fin du titre de la première intervention
- Blanca Elena Jiménez Cisneros, UNESCO IHP
- Bruno Tassin, Coordinator of the Steering Committee

13h30: END OF THE CONFERENCE

POSTERS

Many posters will be exhibited during the conference. The authors will be held at your disposal to exchange during breaks and lunches.

MANAGEMENT OF SANITATION AND DRINKING WATER SUPPLY

Storage basin in Seine-Saint-Denis County: from a collaborative conception to an evolved and shared real-time operating system, ***S. Barone***

The impact of conflicts water in Egypt after the Arab spring: the case of Cairo Megacity, ***F. Gafsi***

Sanitation master plan, a major tool for megacities sewerage planning: the case of Paris metropolitan area, ***A. Jairy***

Water Management Standards in Tehran Mega-City, ***M. Mahmoudi Maymand***

Variations of Water Availability in Lucknow - A Problem of Inequity, ***V. Mathur***

Using 3D modelling to improve instrumentation reliability at the Sucy-en-Brie surface water holding basin - CD94/ENGEES research programme (July 2012 - December 2013), ***N. Vernin***

Elimination of Wastes and Water Resources Quality Management in Tehran megacity by implementation of Tehran Wastewater Plan, ***F. Vojdani***

Advanced Analytics for Smart Water Distribution Management, ***Y. W. Zheng***

Trends in water level and flooding in Dhaka, Bangladesh and their impacts on mortality, ***I. Thiele Eich***

Water Risks Transfer as Adaptation and Planning Tool, ***A. Rosa***

POSITION AND ROLE OF WATER IN MEGACITIES

Physical analysis of the Payment for Hydrological Environmental Services for periurban spaces as an adaptive mechanism for megacities, Case Study of the Conservation Land of Mexico City, ***N. Aponte***

Challenges and opportunities for urban drainage in Metropolitan Region of Curitiba, Brazil, Brésil, ***C. Augusto Destro***

The River landscape as a new vector of projects in the Rhinish cities, ***B. A. Mehdi***

RESILIENCY OF MEGACITIES VS MAIN RISKS, THE EFFECTS OF CLIMATE CHANGE AND THEIR MITIGATION

Water Risks Transfer as Adaptation and Planning Tool, ***G. Diego***

Systemic designing for stormwater control solutions to face negative effects of climate changes in a coastal Brazilian city, ***M. Miguez***

Resilience and Urban Flooding - Resilience scale used as a planning tool for decision making considering future urban flood threats, ***A. Rosa***

Smart Urban Networks (SUN) for Resilient Infrastructure & Sustainable Ecosystems, ***I. Juran***

Sampling 'São-Rio' Megacities Water Risks: Making Sense of Its Glocal Urban Sources, Diagrammed, ***M. Nieto Tolosa***

A socio-technocratic approach to flood disasters in Mumbai City, India, ***Sherly M. A.***

MEGACITIES AND NEW RISKS

Origine and behaviour of alkylphenols and phthalates across a megacity like Paris, ***S. Deshayes***

Nitrate pollution of groundwater in the rapidly growing megacity of Kinshasa, capital of the DR Congo, ***A. Mfumu Kihumba***

WEIGHT OF THE ASSETS ON PRESENT MANAGEMENT CHOICES

The prioritization of investments in the rehabilitation of sewer networks in megacities, ***M. Ahmadi***

Performance indicator and governance of public water service, ***L. Beduneau-Wang***

Using high definition radar data in a forecasting system for the management of rainwater tanks, ***P. Bompard***

The overall approach taken by the city of Lyon out of conflict management control devices at the source of rainwater, ***N. Cossais***

The heritage of the past, an obstacle for efficient sanitation? Back on the history of sanitation of the Paris metropolitan area, ***J. P. Tabuchi***

Study concerning the long-standing of the rehabilitation of the main sewer visitable network in the Seine Saint-Denis Department, ***D. Lesage***

FORMS OF INNOVATIONS BY TECHNICAL APPROACHES

Learning from risk-oriented SUDS at changing subtropical conditions: optimizing bioretention efficiency and maintenance of stormwater treatment practices in Brazil, ***M. Macedo***

30 years of alternative solutions to traditional sewer systems - Between technical and organizational innovations, ***R. Quillien***

Learning From Risk-Based SUDS at Changing Subtropical Conditions - New Insights for Sizing Stormwater Treatment Practices Using Experimental Layouts in Brazil, ***A. Rosa***

Global change and necessity of wastewater reuse as a sanitation model and added value, ***F. Vojdani***

HUMAN ACTORS AND THE TECHNOLOGY: BENEFITS AND LIMITS OF SMART TOOLS

Water-saving devices: preliminary results in a real case scenario, ***F. J. Alonso***

PARADOXES OF SUSTAINABLE DEVELOPMENT: INCOMPATIBILITY OF OBJECTIVES, CONSTRAINTS AND SETTING UP OF PRIORITIES

Plan bleu: the challenge of integrated water management through a participatory approach, ***A. Colvez***

TECHNICALS TOURS

TECHNICAL TOUR 1:
PARIS SEWER SYSTEM

Depature time of the visit: 14:00
Meeting place: 93 quai d'Orsay 75 007 Paris
subway Alma Marceau

This tour will show you the underside of Paris from Ancient times through to the era of Belgrand, the 19th-century engineer who designed the sewer system in its current form. In the underground tunnels you will learn about Paris sanitation history. You will also discover some very specific features of Paris sewer system.

TECHNICAL TOUR 2:
CRUISE ALONG THE SEINE AND MARNE RIVERS BANKS

Numerous restorations of the banks of the Seine and Marne rivers have been carried out recently under the supervision of the Conseil départemental du Val de Marne. It is proposed to visit these restorations by boot near the confluence of the Marne and the Seine rivers, upstream of Paris.

TECHNICAL TOUR 3:
REBIRTH OF A RIVER IN DENSE URBAN ENVIRONMENT: THE BIÈVRE RIVER

The 50 km long Bièvre River flows from the South of the Greater Paris to the Seine River. Its last 20 kms were covered 100 years ago, when the river has been transformed as a sewer. Nowadays the reopening of this river is a major objective of The Conseil départemental du Val de Marne. In early 2015 began the reopening and restoration of a 2 km long segment of the Bièvre River. This visit will present the technical issues the Département has faced as well as the public participation procedure that took place.

TECHNICAL TOUR 6:
WATER IN THE CITY - FROM WATER DROP TO RIVER

This technical tour is an introduction to stormwater best management practices in the western part of the Seine Saint Denis Department: the area of the Three Rivers in Stains, the Georges Valbon Park, will be visited as well as the now covered Vieille-Mer River, which had been buried with the post-World War II urbanization. The Seine Saint Denis Department aims to rediscover and restore this river.

TECHNICAL TOUR 7:
SEINE GRANDS LACS - FLOOD AND LOW FLOW ALLEVIATION MANAGEMENT

Seine Grands Lacs is a public utility created to manage high water levels and low flow alleviation in the catchment of the Seine River and its main tributaries. To fulfill its missions, it manages four reservoirs with a total capacity of 810 million m^3. These reservoirs are on the upstream catchment of the Seine river, the Marne River, the Aube river and on the Yonne river. Seine Grands Lacs offers to explain what its main missions are and to present a virtual visit (with technical information) of Aube Lake. As the lake is located far from Paris, only a virtual visit is possible.

TECHNICAL TOUR 8:
SEINE MORÉE: HIGHT PERFORMANCE WASTE WATER TREATMENT PLANT

Seine Morée is the last waste water treatment plant (WWTP) commissioning by the SIAAP. It is in charge of the treatment of wastewater from six municipalities (over 200 000 inhabitants) in the northeast of the *Département de Seine-Saint-Denis* in the North of Greater Paris. The most recent biological type processes has been chosen, including a separation of biological sludge membrane. Its performance (reduction of 99% of suspended solids, 98% of carbon pollution, 97% of phosphorus pollution and 83% of nitrogen pollution) contribute to achieving the objectives of the Water Framework Directive and is involved in restoration of the Morée River.

TECHNICAL TOUR 9:
THE AUSTERLITZ NON-POTABLE WATER PLANT

Paris is privileged to have an exceptional water legacy at its disposal, comprising a double underground network that guarantees both the supply of drinking water for human consumption and the supply of non-potable water, devoted to specific urban usages.
Cylindrical in shape, built in the depths of the “underbelly” of Paris, the Austerlitz non-potable water plant resembles an underground Centre Georges Pompidou, with its gigantic colored pipes and enormous pumps. Seen from outside, only the Dragon fountain, the work of artist Chen Zhen, suggests the presence of water at the location. Managed by Eau de Paris, the Austerlitz non-potable water plant plays an essential part in building the sustainable city of tomorrow that is Paris.

MEGACITIES'S PORTRAIT

Paris, London, Manila, Lagos, Mumbai, Buenos Aires, Chicago, Tokyo, Mexico, New York, Beijing et Istanbul

How climate change will affect the problems related to water faced by megacities, but also the solutions proposed?

This issue does upset the ways of designing the water management, the planned investments, customs services and traditional actions?

Following the conference's opening session (1 December) a session Monographs is proposed to participants. This session is constructed from a series of case studies carried out prior to the conference. Several city portraits are being written by "experts" local: urban services practitioners, researchers, associations ... Selected megacities are emblematic of water management problems encountered in these urban mega-centers, but also solutions deployed on hydrological, environmental, economic, socio-political ... in the context of climate change.
The realization of these monographs is coordinated by ARCEAU IdF and UNESCO and will be co published in 2016. A digital version will be provided for each conference participant.

CULTURAL EXHIBITION: WATER IN CITY IN ALL ITS FORMS

ARCEAU IdF proposes to discover work of several artists throughout the conference, on the theme of water in the city. Thus paintings, sculptures and photographs will be exhibited to multiply and share the different approaches of the water in the city.

rés-EAUx

The rés-EAUx is a place of exchange and social science studies on water at the University Paris Ouest. It includes Master students, PhD students and researchers from this university and working on issues related to water in different world regions. The goal is to cross disciplinary scientific and looks, and to feed a debate on water issues in contemporary societies, through seminars, photographic exhibitions, more informal appetizers and animation of our blog (http://reseaup10.u-paris10.fr).

SOPHIE DUBUISSON, WOMAN SCULPTOR

Blend, wedding, be one with. In life as in his artistic career is the same gesture that drives Sophia. So find daily regulars corner bars and immerse themselves in the neighborhood is "being at work".
Stone to life, its business through three stages. In the museum and exhibitions, she draws from models. His stroke is more figurative than usual. She likes to discover new works of today's artists as she likes to accomplish tireless Returns rediscovering Rodin for example.
Holding with one hand the present and, on the other, past. Join the Life Chain. When she comes back to her, his practice is in the asymmetry she found beauty, she seeks. But the matter does not instantly book. Shaping the earth requires concentration, patience and endurance. The earth is fragile and stone request invest physically. A duality: strength and gentleness in the same movement. Sculpting is being alone among his achievements is to live not quite in the standards is to invest heavily without always understood is daily experience face to face with the material and mass that needs incontournablement shape: CREATE.

MARIE VELARDI

Marie Velardi,« Aquifer (East european Aquifer System) », 2012
Marie Velardi is a Swiss artist. His artistic practice is multifaceted. She realized, including "The Future Anterior, twenty-first century / Future Perfect, 21st Century" (2006), a printed edition in French and English for more than five meters long, telling the story of the twenty-first century inspired by books and science fiction films; An "Atlas of lost islands, 2107 Edition" (2007), with ink drawings of islands will be submerged by the rising waters by 2107; A series of works related to groundwater, "Aquifers", "Renewal Time" (2012-2013). His work has been exhibited in several solo exhibitions in Switzerland and in numerous group exhibitions, including France, Belgium and Italy. She received the scholarship of the City of Geneva and the Kiefer-Hablitzel 2007 and Rotary Club District 2008 Price to Swiss Art Awards in Basel. She was selected in 2012 and 2013 in two long residencies in Rome and Paris. Marie Velardi participated in the Biennale of India Kochi-Muziris (2014).

PHOTO CONTEST OF THE CONFERENCE: WATER IN YOUR CITY: PHOTOGRAPH IT!

ARCEAU IdF wishes to give the opportunity to the conference participants to share and give their vision of Water in their city, by participating in the conference photo contest. Photos received will be displayed during the conference alongside with works of other artists. Participants can vote for the most original one!

STEERING COMMITTEE

The Steering Committee consists of 3 colleges; each college includes international and French representatives.

Scientist College - President: Bruno Tassin, Ecole nationale des ponts et chaussées - France

- Mrs. Sabine Barles, University Paris 1 Panthéon-Sorbonne - France
- Mr. Jean-Luc Bertrand-Krajewski, INSA de Lyon - France
- Mr. David Butler, Université d'Exeter, IWA/IAHR - United Kingdom
- Mr. Srinivas Chary Vedala, College of India - India
- Mr. Frédéric De Coninck, University Paris Est - France
- Mrs. Sylvy Jaglin, Université Paris-Est Marne-la-Vallée - France
- Mrs. Blanca Elena Jiménez Cisneros, UNESCO IPH - France
- Mr. Jean-Marie Mouchel, University Pierre et Marie Curie - France
- Mr. Nilo Nascimento de Oliveira, University fédérale de Minas Gerais - Brazil
- Mrs. Graciela Schneier Madanes, CNRS - France
- Mr. András Szöllösi-Nagy, UNESCO IHE - Netherlands
- Mr. Xaolui Yang, University of Beijing - China
- Mrs. Marie-Hélène Zerah, IRD Dehli - India

Operational College - President: Jean-Pierre Tabuchi, SIAAP - France

- Mr. Graham Alabaster, UN Habitat - Switzerland
- Mrs. Dominique Alba, Urban Parisian Workshop - France
- Mr. David Crawford, Tidewaytunnel - United Kingdom
- Mrs. Diane D'Arras, Suez Environnement - France
- Mrs. Régine Engström, Eau de Paris - France
- Mrs. Mercedes Galano, Val de Marne Department - France
- Mr. Michel Gousailles, SIAAP - France
- Mr. Ilan Juran, W-SMART - USA
- Pr. Hamanth Kasan, African Water Association - South Africa
- Mr. José Augusto Rocha Mendes, Ãques e Energia Electrica - Brazil
- Mr. Pierre-Alain Roche, ASTEE - France
- Mr. Régis Thépot, EPTB Seine Grands Lacs - France

Policy Makers and Civil Society College - President: Anne Le Strat, Institute on water and ecological transition - France

- Mrs. Aziza Akhmouch, OCDE - France
- Mr. Milo Fiasconaro, Aqua publica europea - Belgium
- Mrs. Katharine Jacobs, University d'Arizona - USA
- Mr. Jean Claude Oliva, Coordination Eau Ile-de-France - France
- Mr. Pierre Frédéric Ténière Buchot, PS-Eau - France
- Mrs. Maggie White, Solidarité Eau Europe - France
- Mr. Daniel Zimmer, EIT - France

ORGANIZING COMMITTEE

- Mr. Belaïde Bedreddine, Seine Saint-Denis Department
- Mr. Matthias Beekmann, OSU Effluve
- Mr. Sylvain Berrios, Syndicat Mixte Marne Vive
- Mrs. Célia Blauel, City of Paris et Eau de Paris
- Mr. Frédéric de Coninck, Labex "Futurs Urbains"
- Mr. Jean Claude Deutsch, ARCEAU IdF
- Mr. Philippe Dupont, ONEMA
- Mr. Jean François Donzier, International Office of Water
- Mrs. Josette Garnier, FIRE
- Mr. Philippe Guettier, PFE
- Mr. Didier Guillaume, Val de Marne Department
- Mr. Jean Charles Hourcade, R2DS, Ile-de-France Region
- Mrs. Blanca Elena Jiménez Cisneros, UNESCO IHP
- Mr. Jean-Louis Oliver, Water Academy
- Mr. Maurice Ouzoulias, SIAAP
- Mrs. Françoise Prêteux, Ecole Nationale des ponts et chaussées
- Mr. Pierre-Alain Roche, ASTEE
- Mrs. Corinne Rufet, Ile de France Region
- Mr. Régis Thépot, Seine Grands Lacs
- Mrs. Nathalie Touze-Foltz, IRSTEA

ORGANIZING TEAM

General Secretary: Géraldine Izambart, ARCEAU IdF

- Mr. Jean-Claude Deutsch, ARCEAU IdF
- Mr. Patrice Diatta, ARCEAU IdF
- Mrs. Cléo Lossouarn, SIAAP - France
- Mr. Bruno Nguyen, UNESCO PHI
- Mr. François Prévot, Institut de Physique du Globe de Paris
- Mrs. Mathilde Soyer, ARCEAU IdF
- Mr. Jean-Pierre Tabuchi, SIAAP
- Mr. Bruno Tassin, Ecole nationale des Ponts et Chaussées

This conference has received COP21 label from French Government.

This event is organized under the patronage of UNESCO.

ARCEAU IdF is an association supported by its founding members:

INTERDEPARTMENTAL UNION FOR SANITATION OF THE PARIS AGGLOMERATION - SIAAP

SIAAP (Interdepartmental Union for Sanitation of the Paris Agglomeration) is the public service utility that cleans every day waste water every day from 9 million inhabitants of Ile de France, including also storm water and industrial waste water. This has allowed to get to a large step forward in the Seine and the Marne river quality improvement. SIAAP, with more than 1,700 agents, cleans 7d / 7, 24H / 24, almost 2.5 million m^3 of water, transported by 440 km of main sewers and treated by its six waste water treatment plants.

SEINE SAINT DENIS DEPARTMENT

At its creation in 1968, the Seine Saint Denis Department received sanitation goods and obligations. In 1987 is created a departmental technical leadership in its own: the Directorate of Water and Sanitation. From the beginning, the political will is to innovate in the fight against floods and pollution of the natural environment by reinforcing the public service by a management board. Since then, the Department exceeds its original purpose purely technical and conducts advisory and awareness on water management with different actors of the territory.

VAL-DE-MARNE DEPARTMENT

The Val-de-Marne department (250 sq. km, 1,3M inhabitants) has a local government whose executive is elected by universal suffrage. Its territory, run through by the rivers Seine and Marne and about ten of their tributaries, encompasses 47 towns south-east of Paris.
The department manages its own sewage system (wastewater and rainwater), interfacing with effluent collection (managed by towns) and water treatment (managed at an interdepartmental level by the SIAAP). Expertise in land settlement and integrated water management make the department a leading actor in water policy.

EAU DE PARIS

Since 2010, Eau de Paris is the single operator entrusted with water production and distribution for Paris. In charge of the whole cycle, from water catchment to customer management, the public company draws, transports, treats and distributes an average of 483 000 m^3 of drinking water daily to 3 million users. It also promotes citizens awareness about water stakes. Eau de Paris embodies a public management model based on a strong principle : water is a common good and as such, as to be managed in long-term vision and in the general interest.

TERRITORIAL PUBLIC ESTABLISHMENT BASIN SEINE GRANDS LACS - TPEB SEINE GRANDS

Created in 1969, to limit high water levels and support low water periods in the catchment area of the Seine and its mains tributaries, EPTB Seine Grands Lacs is a regional institution covering the departments of Paris, Hauts-de-Seine, Seine-Saint-Denis and Val-de-Marne. To fulfill its missions, EPTB is operating four reservoirs with a global storage capacity of 810 million m^3, located along bypass channels attached to the Seine, the Marne, and the Aube and on the Yonne Rivers. As a main actor on the upstream Seine basin EPTB is developing news actions in the climate change context – to implement drought and flood management and to reduce damages due to this phenomena.

SYNDICAT MIXTE MARNE VIVE

The Syndicat mixte Marne Vive located at the eastern urban part of Paris metropole covers about a 270 km^2 of the river Marne water catchment and 1.2 million inhabitants. It is a local government, gathering 52 towns round the objective of increasing the Marne water quality in order to protect the water resource and the aquatic environment, and upgrade it to reach swimming quality. For this purpose, the Syndicate is dedicated to make studies and give advice to its members. The decision making related to public work remains within each members. On the base of a global diagnosis of the river (pollution flow assessment, water quality, fauna and flora diversity, hydraulics, sewage systems, uses, sceneries) a «Marne Plan», (S.A.G.E) is being elaborated by a mixed board of elected officials, state administration and civil society.
The Marne Plan is meant to be an incentive for local governments, a tool to reach higher standards than the European regulations by giving life to a territorial project. Turning water into an asset for local and sustainable metropolitan development is the motto.

CITY OF PARIS

For an ambitious water policy, Paris accompanies the transition to the city of tomorrow and is committed to meeting the challenge of climate change. Ensuring flawless Parisian of today and tomorrow, a public water service, safe, responsible and solidarity, while a strong commitment in a territorial battle preservation and water resources alongside reconquest all actors, political or civil society, these are the main commitments of the Paris water policy with which it puts in resonance the climate, sustainable energy or biodiversity.

ILE-DE-FRANCE REGION

With an area of 12,000 km^2, 80% of natural and agricultural spaces, the Île-de-France Region represents 2.8% of the national territory. It is drawn by the 4440 km of rivers and streams. It comprises eight departments, municipalities 1281, and 11.7 million people or 20% of the French population. The decentralization laws have conferred competences (high schools, vocational training, transport, land use and planning ...). The Ile-de-France Region will assert during the Cop21 experience and proposals for energy transition, transport and mobility, the fight against food waste, green job creation, of energy renovation of housing, preservation of agricultural and wooded areas.

PARTNERS

UNESCO - IHP

The UNESCO International Hydrological Programme (IHP) is the only intergovernmental programme of the United Nations system devoted to water research, water resources management, and education and capacity building. Its eighth phase (IHP-VIII, 2014-2021) is devoted to "Water security: Responses to local, regional and global challenges." Using an interdisciplinary approach, and with the contribution of the "UNESCO Water Family" it addresses among others the topics the adaptation to climate change impacts, the management and protection of groundwater resources and water resources management for human settlements of the future.

SEINE NORMANDY RIVER BASIN AGENCY

Like the 5 other French river basins, the Seine Normandy river basin Agency is a public institution of the French ministry in charge of sustainable development. It mission is to improve the knowledge of the water sector, aquatic environment, finance the protection of water resource and control pollution. River basin is committed to restoring the function and biodiversity of the aquatic environment, protecting the groundwater catchment, controlling pollution in addition to promoting the integrated management of water resources and the democracy of water in the world. **www.eau-seine-normandie.fr**

FRENCH NATIONAL AGENCY FOR WATER AND AQUATIC ENVIRONMENTS - ONEMA

French National Agency for Water and Aquatic Environments, a public agency to restore water and aquatic environments to good ecological status. Created by the Law on water and aquatic environments, dated 30 December 2006, and the implementation decree dated 25 March 2007, Onema is a public agency operating under the supervision of the Ecology ministry. It participates in implementing water policy, calling on its scientific and technical capabilities as well as its in-depth knowledge of aquatic environments and the stakeholders in the water sector.
Four missions in restoring water and aquatic environments to good ecological status:

1. Mobilise research on sustainable management of water and aquatic environments ;
2. Gain knowledge on the status and uses of water and aquatic environments ;
3. Policing water and aquatic environments ;
4. Support for water policies.

R2DS

R2DS Île-de-France is a scientific interest group (GIS) managed by the CNRS. It was created in 2006 at the initiative of the Regional Council of Île-de-France in order to promote research on sustainable development. His research program is marked by the need to take into account the long-term effects of interactions between human activities and the natural or built environment. It aims to develop the region's expertise in the field of sustainable development by mobilizing an interdisciplinary scientific community of the universe sciences, life sciences, engineering sciences, prospective modeling and social sciences.

FRENCH ENGINEERING SCHOOL - ENPC

Founded in 1747, the prestigious French engineering school École des Ponts ParisTech prepares future top executives to tackle the challenges of sustainable society in the 21st century. Along with its highly reputed engineering and urban planning courses, the school plays a key role in the academic, public and economic ecosystems of sustainable development and social responsibility. Its partner-based research centres on four main socio-economic issues, i.e. city systems and mobility; management of risks, resources and environment; responsible, evolving factories for the future; and economics, usage and society.

OBSERVATORY OF SCIENCES OF THE UNIVERSE - OSU EFLUVE

The Observatory of Sciences of the Universe: Fluid envelopes from urban scale to astrobiology (OSU-EFLUVE) is a research federation between 5 laboratories working in the field of environmental (air-water-soil) and material (thermal properties of buildings) sciences. It is a component of the University Paris Est Créteil (UPEC), and a collaborative laboratory run by UPEC, CNRS, Ecole des Ponts et Chaussés Paristech and University Paris Diderot. Its permanent staff of almost 300 researchers, engineers, technicians and administrators, OSU-EFLUVE pursues the main missions: (i) long-term observation of environmental key variables, (ii) initiating federative and integrated research, (iii) launching of technical and analytical platforms, (iv) training, (v) animation and communication.

SCIENTIFIC AND TECHNICAL ASSOCIATION FOR WATER AND ENVIRONMENT - ASTEE

The mission of the Scientific and Technical Association for Water and Environment consists in carrying out in-depth reflections on the various methodological, technical and regulatory aspects linked to management of drinking water, sanitation and aquatic environments in France. To carry out properly these tasks, ASTEE implements working groups and committees to carry out reflections, to ensure a technical and regulatory watch, to realize studies and research. ASTEE is habilitated to make recommendations to public authorities. It constantly offers advice and decisional support to the various sustainable development stakeholders, notably to locally elected officials from intercommunity territories, cities and public institutions, as well as in urban or rural areas.

FIRE RESEARCH FEDERATION

The FIRE Research Federation comprises 18 laboratories in the Ile-de-France Region with the objectives to better understand environmental functions and services, from local to regional scales on the basis of studies, studying their driving mechanisms in the rural and urban socio-ecosystems. A prediction of the global change impacts for proposing attenuation measures require challenging research questions handled by observations, experiments and modelling approaches. FIRE promotes interdisciplinary research initiatives, contributes to a structuration of the environmental research in the Ile-de-France Region, and supports innovative projects. At total, FIRE is a tool for decompartmentalizing the research on the environment.

FUTURE URBAN LABEX

The Future Urban LABEX conducts interdisciplinary projects of education and research in the field of urban studies. It combines 13 laboratories in eastern Paris, all attached to the universities and institutions University Paris-Est community. Societal transformations and material demand of urbanized spaces, because of their complexity, crossing multiple looks. Within the LABEX, researchers in planning, architecture, environmental science, economics, geography, history, sociology, in the field of transport and modeling, innovative projects amounted to address Issues of the city of tomorrow. The LABEX, funded through future investments, developing a range of interventions: training montage with foreign partners, structuring transversal groups for the development and long-term accumulation of scientific knowledge, partnership operations with players in the professional world, editorial recovery, mounting international conferences, thematic summer schools, etc.

INTERNATIONAL OFFICE OF WATER

Association declared of public utility by the State Council (1991), OIEau is responsible for general interest missions:

- Informing (data management, information systems, documentation, design and animation websites)
- Training (capacity building of water sector professionals on 7500 m² teaching facilities of National Training Center for Water Professions)
- Manage and cooperate (in France and abroad, supporting the development of water services and sanitation and efficient implementation of Integrated Water Resources Management in the basins of rivers, lakes and aquifers).

NATIONAL RESEARCH INSTITUTE OF SCIENCE AND TECHNOLOGY FOR ENVIRONMENT - IRSTEA

IRSTEA, the National Research Institute of Science and Technology for Environment and Agriculture, is a Public Scientific and Technical Research Establishment (EPST) falling within the purview of the ministries of research and agriculture. Its multidisciplinary, action-oriented approach to research and expertise in support of public policy involves strong partnerships with French and European universities and research organizations, economic entities and public authorities. The Institute is a founding member of AllEnvi, the National Alliance for Environmental Research, and the European PEER (Partnership for European Environmental Research) network. Irstea has the "Carnot Institute" label since 2006.

WATER ACADEMY

Created and hosted since 20 years by the Regional Water Agency of Seine-Normandie, the Water Academy is a pluridisciplinary, intersectoral, prospective and international think thank that aims to contribute to a better water management, in France and abroad. Its members, all volunteers and experienced, are conducting studies and methodological guides in collaboration with different partners (national and multilateral) on issues of general interest. For example : “Joint management of transboundary aquifer systems”.
The Water Academy’s President is Serge LEPELTIER, Former Minister of Ecology and Sustainable Development, and its Secretary General is Jean-Louis OLIVER.
For more information please visit our website : HYPERLINK "http://www.academie-eau.org" www.academie-eau.org

FRENCH WATER PARTNERSHIP – FWP

The Partnership French Water is a platform for exchange and reflection that helps to whet the agenda of the global political agenda and sharing internationally and collectively the French know-how. The FWP brings together over 120 members today, public and private water stakeholders and disseminating collective messages in European and international fora and institutions such as the UN, the European Union, the Union for the Mediterranean or even at events like the World Water Forum and World Water Week in Stockholm.

URBAN CLIMATE CHANGE RESEARCH NETWORK - UCCRN

The Urban Climate Change Research Network (www.uccrn.org) is a consortium of over 600 researchers in developed and developing country cities around the world, working to enhance science-based decision-making on climate and related sustainability issues in cities. The UCCRN aims to institutionalize a sustained state-of-the-knowledge assessment process of climate change science tailored for urban needs while drawing on the experience of cities as they act to adapt to and mitigate the impacts of climate change. The UCCRN is based at Columbia University's Earth Institute, and was founded in 2007 during the C40 Climate Summit in New York.

GENERAL INFORMATION

CONFERENCE VENUE

The entrance for the ice breaking event will be at 7 place de Fontenoy - 75 007 Paris.
The entrance for the conference from 1 to 4 december will be at 125 avenue de Suffren - 75 007 Paris.
Be careful: An identity document will be required for all entering UNESCO

M ACCÈS

Two possible Metro stops (600m): Cambronne, Ségur

PUBLIC TRANSPORT IN PARIS

- http://en.parisinfo.com/practical-paris/how-to-get-to-and-around-paris/public-transport-paris
- http://www.parisinfo.com/paris-pratique/se-deplacer-a-paris/transports-en-commun-paris

FROM CHARLES DE GAULLE AIRPORT

By Roissybus and Metro

- Take the Roissybus to Opéra Metro station,
- Take Metro line 8 (direction Balard) to La Motte Picquet Grenelle,
- Take Metro line 10 (direction Gare d'Austerlitz) to Ségur.

By RER and Metro

- Take RER B to Denfert-Rochereau Metro station,
- Take Metro, line 6 (direction Charles de Gaulle - Étoile) to Cambronne.

By taxi: Metered taxis are available from the airport: Approximatively fees from 70 € to 80 €

FROM ORLY AIRPORT

Orlybus and Metro

- Take Orlybus to Denfert-Rochereau Metro station,
- Take Metro, line 6 (direction Charles de Gaulle - Étoile) to Cambronne.

By RER and Metro

- Take RER B to Denfert-Rochereau Metro station,
- Take Metro, line 6 (direction Charles de Gaulle - Étoile) to Cambronne.

By taxi: Metered taxis are available from the airport: Approximatively fees 50 €

FROM GARE DU NORD TRAIN STATION (EUROSTAR AND THALYS)

By Metro

- Take Metro, line 4 (direction Porte d'Orleans) to Denfert Rochereau,
- Take Metro, line 6 (direction Charles de Gaulle - Étoile) to Cambronne.

By taxi: Metered taxis are available from outside the station

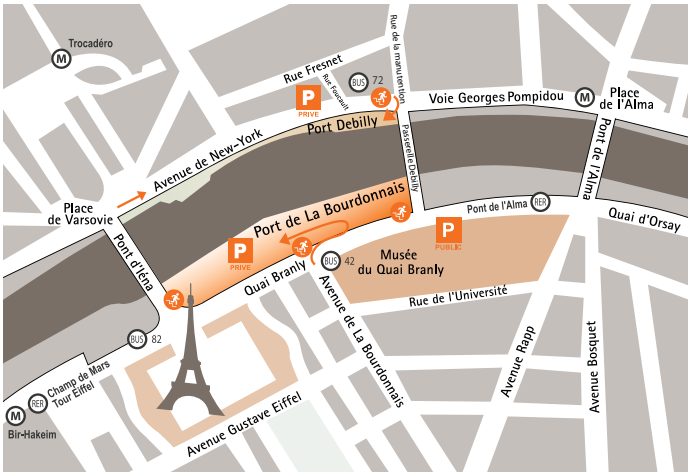
Using GPS : 7 place Fontenoy, 75007 Paris, France
www.gpsvisualizer.com/geocode

GALA DINNER 3 DECEMBER

CRUISE ON THE SEINE RIVER

Venue: Ponton 7 - Port de la Bourdonnais - 75 007 Paris
Access: RER C - Station Pont de l'Alma
Access to the boat from 19:30 to 20:00 and back at 22:00
We kindly remind you that participation in the gala dinner is subject to registration (limited number of place).
BE CAREFUL: DEPARTURE BOAT ON 20:00

Walking distance from the UNESCO HQ: 1,5 km



REGISTRATION

Registration fees include attendance at the sessions, delegate bag with all session's material, lunch and morning and afternoon coffee breaks coffee. It doesn't include technical tours.

FEES

4 Days Gala dinner included	Member Arceau IdF	**630 €**
	Hight Incomes Country	**810 €**
	Low Incomes Country	**540 €**
	Student	**540 €**

1 Day Without Gala dinner	Member Arceau IdF	**240 €**
	Hight Incomes Country	**325 €**
	Low Incomes Country	**210 €**
	Student	**210 €**

Technical tour	**25 €/visite**
Extra Gala dinner seat	**150 €**

PAYMENT INFORMATION

- Association ARCEAU IdF is not submitted to VAT.
- Payment must be made in euros (€).
- Any bank transfer fees and charge are the responsibility of the delegate.
- Documentary evidence is asked to benefit student fee

Be careful: your registration will be definitely taken into account only at the reception of the payment of registration fees.

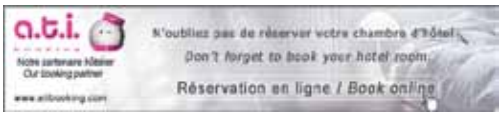
CANCELLATION

All cancellations must be made in writing to **geraldine.izambart@arceau-idf.fr**.
Cancellations received:

- Before 20 November will receive a 50% refund
- No refund will be made after 20 November.

ACCOMODATION

We inform you that because of the simultaneous venue of the international conference Paris Climat (COP 21) from November 30th to December 11th, a large number of visitors are expected to come to Paris these days. Therefore delegates are kindly requested to anticipate as much as possible their hotel reservation. Please find below link with hotel booking systems **emcg2015@atibooking.com** (free service).



CONTACT

For all questions, please contact the conference **geraldine.izambart@arceau-idf.fr**

30 NOVEMBER - 18:30 - 22h: **Ice breaking event**

DAY 1	DAY 2	DAY 3	DAY 4
		8:00 - 10:00 **Resiliency and climate change 3** *Room IV*	
	8:30 - 10:30 **Resiliency and climate change 1** *Room IV*		8:30 - 10:30 **Urban water infrastructures** *Room XI*
9:15 - 10:00 **Registration and welcome coffee**	**Water in megacities 1** *Room XI*	**Paradoxes of sustainable development 1** *Room XI*	**Innovation 3** *Room IX*
	Operation of megacities technical systems 1 *Room IX*	**Innovation 1** *Room IX*	
10:00 - 12:30 **Openning ceremony** *Room II*	**Break**	**Break**	**Break**
	11:00 - 13:00 **Resiliency and climate change 2** *Room IV*	10:30 - 12:30 **WORKSHOP** Megacities and Groundwater - *Room IV*	11:00 - 13:00 **Smart tools** *Room XI*
	Water in megacities 2 *Room XI*	**Paradoxes of sustainable development 2** *Room XI*	**Innovation 4** *Room IX*
12:30 - 14:00 **Lunch**	**Operation of megacities technical systems 2** *Room IX*	**Innovation 2** *Room IX*	
	13:00 - 14:00 **Lunch**	12:30 - 13:00 **Lunch**	13:00 - 13:30 **Closing Speeches** *Room XI*
14:00 - 15:00 **Adaptation to climate change: cooperation and funding method** *Room II*	**WATER AND MEGACITIES FORUM** 14:00 - 15:15 **Panel discussion Water Governance in Megacities** *Room II*	13:00 - 18:00 **Technical tours**	
	Cultural Interlude		
	15:30 - 16:45 **Panel discussion Adaptation to climate change** *Room II*		
Break	**Break**		
15:30 - 18:00 **Megacities portraits** *Room II*	17:00 - 17:30 **Statement "Megacities Alliance for Water and Climate"** *Room II*		
		19:30 - 22:00 **Gala dinner: cruise on the Seine River**	

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