8th Annual Sustainability Conference

Resilient Infrastructure in the Age of Climate Change

Hosted By:









A PROGRAM OF SUSTAINABLE PITTSBURGH

American Society of Civil Engineers – Pittsburgh Section Environmental and Water Resources Institute – Pittsburgh Chapter **Champions for Sustainability** Sustainable Pittsburgh

In Collaboration With:





G M F The German Marshall Fund of the United States

STRENGTHENING TRANSATLANTIC COOPERATION

The City of Pittsburgh – Office of the Mayor American Public Works Association – Western Pennsylvania Chapter The German Marshall Fund of the United States

AUGUST WILSON CENTER

Thursday May 19, 2016 - 8:00AM to 3:30PM Cost: \$45 Members and Government Officials, \$55 Non-Members, \$20 Students Registration includes 5.0 PDH attendance certificate - Breakfast and lunch provided

Conference Summary

In 2016, the 8th Annual ASCE/EWRI/C4S Sustainability Conference is revisiting its first conference theme on climate change. The very first ASCE-PGH/C4S Sustainability Conference in 2008 explored the potential impacts of climate change on regional infrastructure. Since the inaugural conference in 2008, the overall landscape and dialogue relating to climate change has greatly changed. No longer is the dialogue about whether or not climate change may exist or potentially pose a threat to critical infrastructure. The dialogue has now shifted to developing real and tangible infrastructure protection strategies against the impacts climate change while at the same time finding new and innovative ways to reduce greenhouse gas emissions.

Join us on Thursday May, 19th at 8 AM at the August Wilson Center for the 8th Annual ASCE/EWRI/C4S Sustainability Conference where we will showcase various strategies, tools, and real-world case studies for creating resilient infrastructure and communities for a changing climate. Lively discussions along with questions and answer sessions from leading experts on the topic will be conducted. Engineers, architects, city planners, government officials, and related infrastructure practitioners are all encouraged to attend.

Beginning in 2008, the American Society of Civil Engineers – Pittsburgh Section (ASCE), the Environmental and Water Resources Institute – Pittsburgh Chapter (EWRI) and Champions for Sustainability / Sustainable Pittsburgh (C4S) have organized annual, day-long conferences in an effort to highlight new and cutting edge sustainability knowledge and practices for the Pittsburgh region. The conferences also provide contextual awareness of sustainability-themed issues facing the Pittsburgh region, such as public policy, funding, and socio-economic barriers.

For more information, please contact:

Tom Batroney (thomas.batroney@mottmac.com), 412-297-2922 Matt Mehalik (MMehalik@sustainablepittsburgh.org), 412-258-6644 Greg Scott (GScott@bucharthorn.com), 412-567-2235

Founded in 1852, the **American Society of Civil Engineers** (ASCE) represents more than 137,700 members of the civil engineering profession worldwide and is America's oldest national engineering society. ASCE's vision is to position engineers as global leaders, building a better quality of life. The Pittsburgh Section of ASCE has nearly 1,600 members and represents engineering and construction interests for communities throughout Western PA.

The **Environmental & Water Resources Institute** (EWRI) is a civil engineering specialty institute of the ASCE. EWRI services are designed to complement ASCE's traditional civil engineering base and to attract new categories of members (noncivil engineer allied professionals) who seek to enhance their professional and technical development. The mission of the EWRI is to provide for the technical, educational and professional needs of its members; promotes the sustainable use, conservation, and protection of natural resources; and promotes human well-being.

Champions for Sustainability (C4S), a network for sustainable business solutions, brings together companies large and small to put sustainability into practice. A program of Sustainable Pittsburgh, C4S provides value via education, technical assistance and consulting on operational needs, and serves as a catalyst for new enterprise and innovation for cementing the business case for sustainability.

A 501(c)(3) nonprofit, **Sustainable Pittsburgh** (SP) affects decision-making for the Pittsburgh region to integrate economic prosperity, social equity, and environmental quality bringing sustainable solutions for communities and businesses. Over the past 14 years, SP has proven adept at building coalitions for change on issues that get at the heart of sustainability for southwestern Pennsylvania

Conference Agenda

8:00 - 8:30	Registration and Breakfast
8:30 - 8:45	Welcome and Introduction
8:45 - 9:30	Keynote Address: Using Climate Data to Inform Critical Infrastructure Resilience and Urban Sustainability Decision-making - Duane Verner, Program Manager, Argonne National Laboratory
9:30 - 9:45	Scheduled Break
9:45 - 10:15	City of Pittsburgh Climate Change Initiatives - Grant Ervin, Chief Resilience Officer, City of Pittsburgh
10:15 - 11:00	 The Path Forward in the City of Pittsburgh Pittsburgh's Threat Hazard Identification and Risk Assessment(THIRA) and Hazard Mitigation Plan, Ray DeMichiei, Deputy Emergency Management Director, City of Pittsburgh Climate Change Impacts on Stormwater Management, Jordan <u>Fishbach, RAND Corporation</u> Transportation via Complete Streets Policy, Kristen Saunders, <u>Department of City Planning, City of Pittsburgh</u>
11:00 - 11:30	Adapting Infrastructure and Civil Engineering Practice to a Changing Climate, American Society of Civil Engineers – Committee on Climate Change - Costa Samaras, Co-Author and Professor, Carnegie Mellon University
11:30 - 12:30	Lunch
12:30 - 1:15	International Case Study: Waste to Energy Strategies and Reducing GHG Emissions in Amsterdam - Andre Struker, Strategic Advisor/Innovation Manager, Waternet
1:15 - 2:00	 Panel Discussion: Utility Coordination for Creating Sustainable and Resilient Cities John Hilderbrand, Managing Director, Engineering & Programs,
2:00 - 3:00	Group Breakout Sessions with Conference Speakers
3:00 - 3:15	Best Student Poster Award Ceremony and Presentation
3:15 - 3:30	Closing and Expression of Appreciation

Duane Verner Program Manager at Argonne National Laboratory



Duane R. Verner, AICP, is a Program Manager at Argonne National Laboratory in the Global Security Sciences Division. Mr. Verner's work centers around critical infrastructure resilience with a particular emphasis on closing the gap between climate science and adaptation planning and design. Mr. Verner publishes and lectures on topics related to resilient cities, including dependency and interdependency analysis and critical infrastructure protection. Prior to his position with Argonne National Laboratory, Mr. Verner was a project manager with a private sector engineering firm in New York City where he was involved in a wide variety of national security and infrastructure development projects. Mr. Verner is a certified planner and holds a M.A. in Urban Planning.

Grant Ervin Chief Resilience Officer – City of Pittsburgh



Grant Ervin serves as the Chief Resilience Officer for the City of Pittsburgh were he oversees the integration of sustainability and resilience into City services, programs and policy. Prior to joining the City of Pittsburgh, Grant served as the Regional Director for 10,000 Friends of Pennsylvania, a statewide smart growth and sustainable development policy organization; and as Public Policy Manager for Pittsburgh Community Reinvestment Group (PCRG).

Grant brings fifteen years of experience, intersecting the worlds of environmental, community & economic development and infrastructure policy to create innovative and sustainable solutions for local governments, community development organizations and state agencies. Grant has helped lead the development of a variety of innovative programs including Pittsburgh's inclusion in the Rockefeller Foundation's 100 Resilient Cities Initiative; the creation of the Uptown Eco-Innovation District, District Energy Pittsburgh, Pittsburgh and Neighborhood Community Information System and the Pennsylvania Community Transportation Initiative.

Constantine Samaras Assistant Professor at Carnegie Mellon University



Costa Samaras is an assistant professor in the Department of Civil and Environmental Engineering at Carnegie Mellon University. His research spans energy, climate change, infrastructure, and defense analysis. Costa directs Carnegie Mellon's Center for Engineering and Resilience for Climate Adaptation and teaches the graduate class "Climate Adaptation for Infrastructure". He is an affiliated faculty member in Carnegie Mellon's Scott Institute for Energy Innovation and the College of Engineering's Energy Science, Technology and Policy Program. Costa is also an Adjunct Senior Researcher at the RAND Corporation and a Professor at the Pardee RAND Graduate School. He previously held positions as a Senior Engineer at the RAND Corporation and a civil engineer for Parsons Brinckerhoff in New York. Costa received a joint Ph.D. in Civil and Environmental Engineering and Engineering and Public Policy and from Carnegie Mellon, a M.P.A. in Public Policy from the Wagner Graduate School of Public Service at New York University, and a B.S. in Civil Engineering from Bucknell University. Costa tweets about energy and climate topics with @CostaSamaras.

Andre Struker Strategic Advisor and Innovation Manager at Waternet



André studied Fysics and Technology and Policy at the University of Technology in Eindhoven. He started his career as a consultant in the field of Energy savings and Renewable Energy at Ecofys. He became director of the Energy Agency *Amsterdam Reduces CO2-emissions*. Together with the city districts of Amsterdam, he stimulated and realized renewable energy and energy efficiency. During that time he got his degree on Industrial Engineering and Management at the University of Twente.

At Waternet André works on strategic issues and integrated long term solutions within the water cycle. He develops policy and projects to upgrade waste water into new materials. From 2012 he also manages the R&D program *Waternet Climate Neutral in 2020*. Together with the Port of Amsterdam and the waste to energy company AEB he started Clean Capital to upgrade waste streams.

John Hilderbrand Managing Director, Engineering and Programs at Duquesne Light Company



John C. Hilderbrand II is Managing Director, Engineering & Programs at Duquesne Light Company, a regulated electric transmission and distribution utility serving 590,000 customers in and around Pittsburgh, Pennsylvania. In this capacity, Hilderbrand is responsible for overseeing Distribution, Transmission and Substation Engineering; System Planning and Protection; Asset Management; Budget and Project Management and Vegetation Management.

Prior to joining Duquesne Light Company in May, 2015, Hilderbrand had 30 years of utility experience in various roles at West Penn Power Company, Allegheny Power and FirstEnergy. Most recently, he held various Director level roles at FirstEnergy.

Hilderbrand holds an ASEE from The Pennsylvania State University and a BSEE from the University of Pittsburgh. He is a licensed Professional Engineer in the state of Pennsylvania.

Matt Macek Superintendent of Field Operations at PA American Water



Matt is responsible to oversee the day to day operations of the District's distribution system. Matt's eleven (11) years with Pennsylvania American Water have been spent advocating the core values of Safety, Trust, Environmental Leadership, Teamwork and High Performance as they relate to our customers. Matt's team looks to the future promoting "Clean Water for Life" for the District's 140,000 customers.

Tim Prevost Manager of Wet Weather Programs at Allegheny County Sanitary Authority



Tim Prevost is the Manager of Wet Weather Programs for the Allegheny County Sanitary Authority (ALCOSAN) where he provides engineering oversight for projects related to Consent Decree compliance to address combined and sanitary sewer overflows. Tim began his career with ALCOSAN in July 1997 after working for ALCOSAN as an engineering consultant. As a civil engineer in the Engineering Division at ALCOSAN, Tim analyzed the ALCOSAN Service area through flow monitoring and modeling while managing capital contracts.

In January 2003, Tim was promoted to his current position of Manager of Wet Weather Programs within the Regional Conveyance Division. He oversees a staff of nine and numerous engineering consulting firms. In 2013 he was awarded the ASCE-Pittsburgh Chapter *Government Engineer of the Year* award. Tim received his Bachelor of Science Degree in Civil Engineering Technology from Rochester Institute of Technology and earned his Professional Engineering license in 2002. Tim has presented papers on the subject of ALCOSAN internationally. Tim and his wife Kim reside in Moon Township with their three children Linnea, Keira, and Xander.

James Stitt Sustainability Manager at Pittsburgh Water and Sewer Authority



As the Manager of Sustainability for the Pittsburgh Water & Sewer Authority, James is responsible for integrating sustainability principles throughout Authority operations, ensuring that the PWSA's sustainability efforts enhance economic performance, environmental conservation, and community engagement. Recently, his efforts have focused on implementing watershed-wide strategies to promote green infrastructure practices for stormwater management throughout the City of Pittsburgh. In 2013, he was appointed to the City of Pittsburgh Shade Tree Commission by Mayor Bill Peduto, and he serves on the Nine Mile Run Watershed Association's Board of Directors. James received a MS in Sustainable Systems from Slippery Rock University and has a BA in Philosophy from the University of Pittsburgh.

Contact Information:

Interested in becoming involved in future conferences? Or perhaps just wish to be more informed

for future events and sustainability related outreach initiatives?

ASCE Pittsburgh Section

Tom Batroney, PE, ENV SP, M.ASCE Mott MacDonald, ASCE Pittsburgh Sustainability Committee Chair 1600 W. Carson St.

Pittsburgh, PA 15219 Phone: 412-497-2922

Email: thomas.batronev@mottmac.com

Web: https://www.mottmac.com/ and www.asce-pgh.org/sustainability

Champions for Sustainability/Sustainable Pittsburgh

Matthew Mehalik, PhD Program Director, Sustainable Pittsburgh 307 Fourth Avenue, Suite 1500 Pittsburgh, PA 15222

Phone: 412-258-6642

Web: www.sustainablepittsburgh.org

EWRI Pittsburgh Chapter

Greg Scott, PE, M.ASCE Buchart and Horn, EWRI Pittsburgh Chairman 2200 Liberty Avenue, Suite 300 Pittsburgh, PA 15222

Phone: 412-567-2235

Email: GScott@bucharthorn.com

Web: www.bucharthorn.com and www.asce-pgh.org/ewri

EWRI Carnegie Mellon University Graduate Student Chapter

Nur Orak, EWRI CMU Graduate Student President 119 Porter Hall, 5000 Forbes Avenue Pittsburgh, PA 15213

Contact website: http://ewricmu.com/contact.html
Web: https://thebridge.cmu.edu/organization/EWRI
Facebook: https://thebridge.cmu.edu/organization/EWRICMU

EWRI University of Pittsburgh Graduate Student Chapter

Sina Arjmand, EWRI Pitt Graduate Student President Benedum Hall, 3700 O'Hara Street Pittsburgh. PA 15261

Web: https://sites.google.com/site/ewriupitt/
Facebook: https://sites.google.com/site/ewriupitt/
Facebook: https://www.facebook.com/EWRIPITT

Conference Planning Committee Members:

Tom Batroney
Timothy Brett
Kelly Good
Djuna Gulliver
Matthew Mehalik
Kemal Niksic
Don Nusser
Nur Orak
Gregory Scott
Jonathan Shimko
Cathy Trexler
Liwei Zhang







