



You are invited to attend the INTERAGENCY FORUM on CLIMATE CHANGE IMPACTS and ADAPTATIONS

## Special Training Session: Climate Adaptation & Infrastructure Engineering

**Wednesday, 11 February: 1:00 – 4:30 PM and Thursday, 12 February: 9:00 AM – 4:30 PM**

**NASA HQ Auditorium, 300 E. Street SW, Washington, DC**

*As the Nation moves to renew and replace its aging infrastructure, there is an urgent and critical need to integrate climate change information into infrastructure engineering practice to better withstand the damaging effects of a changing climate. This special training session frames and organizes information so that engineers, architects, planners, and program and project managers may begin integrating climate change information into infrastructure design and management.*

Audience: engineers, architects, decision-makers, academia, interested parties

There is no cost to attend the training. Pre-registration is required. To register, complete the online registration form at <http://www.cvent.com/d/hrq8jz>.

After you register, you will receive a confirmation email; it will contain a reminder to review material in advance of the training and bring an agency-specific project/issue for your use during the training. It is strongly suggested that you read the materials in advance in order to gain the most benefit from the training.

Due to the interactive nature of the training, with audience/panel discussions and small group discussions, **attendance in person is recommended**, especially for those in the DC area. Web conferencing will be available for those who are unable to attend in person, but please note that the telephone line will be in Broadcast Only mode.

Join us as we explore answers to questions such as:

- How can I communicate effectively with infrastructure designers about the need to address climate change impacts?
- Where is the best place to insert climate considerations into our long design and procurement processes?
- Where can I get trusted climate projection data to use in vulnerability assessments or the design process?

Sessions on:

- ☐ Consequences of Changing Climate on Infrastructure & Engineering
- ☐ Climate Change Data, Information & Tools
- ☐ Panel Discussion: Reflections / Experiences with Integrating Climate Change into Infrastructure Engineering
- ☐ Case Studies / Tool Demonstrations (most of the day February 12)

## ***Special Training Session – Climate Adaptation & Infrastructure Engineering***

NASA Headquarters Auditorium 300 E. Street SW, Washington, DC

### **Prior to Training Session**

- Read suggested reading and review reference materials
  - National Academy of Sciences & The Royal Society (2014); [\*Climate Change: Evidence and Causes\*](#); 31 pp
  - U.S. Global Change Research Program (2014); [\*U.S. National Climate Assessment: Overview – Climate Change Impacts in the United States\*](#); 20 pp
  - American's Design and Construction Industry (2014); [\*Industry Statement on Resilience\*](#); 1 pp
- Be prepared to bring to the training session:
  - Schematic and knowledge of organization's capital planning lifecycle
  - A sample project to utilize during the training session

**Wednesday, February 11, 2015** (1:00 pm – 4:30 pm)

**Registration & Networking Opportunity** (12:30 – 1:00)

**Welcome, Purpose & Introductions** (1:00 – 1:30)

**Consequences of a Changing Climate on Infrastructure and Engineering** (1:30 – 2:45)

*High Priority Risk List: Infrastructure & Climate Risks* – I. Sam Higuchi, Staff Engineer, Office of Strategic Infrastructure, NASA

*Legal Risks and Liability of Design Engineering Services and Construction Contracts* – Michael B. Gerrard, Andrew Sabin Professor of Professional Practice at Columbia Law School; Director, Center for Climate Change Law; Member, Faculty of the Earth Institute

*Adapting Infrastructure to a Changing Climate* – Richard N. Wright, PhD, Dist.M.ASCE, NAE, Vice Chair of Committee on Adaptation to a Changing Climate, American Society of Civil Engineers

*Break* (2:45 – 3:00)

**Climate Change Data, Information & Tools** (3:00 – 4:00)

Richard Driggers, Director for Data and Systems Integration Policy, White House National Security Staff

**Discussion** (4:00 – 4:30)

**Thursday, February 12, 2015** (9:00 am – 4:30 pm)

**Registration & Networking Opportunity** (8:30 – 9:00)

**Panel Discussion – Reflections & Experiences with Integrating Climate Change into Infrastructure Engineering** (9:00 – 10:30)

*How climate change adaptation is being taught to the next generation of civil engineers – Climate Adaptation for Infrastructure Engineers* – Constantine Samaras, Assistant Professor, Civil and Environmental Engineering, Carnegie Mellon University

*How an architect is re-educating in order to integrate climate considerations* – Ann Kosmal, U.S. General Services Administration

*How a civil engineer is integrating climate resilience into the infrastructure lifecycle* – TBD

*Break* (10:30 – 10:45)

**Case Study / Tool Demonstration #1 – Federal Highways Administration** (10:45 – 12:00)

Rob Hyman, AICP, Sustainable Transport and Climate Change Team, Federal Highway Administration; Cassandra Snow, Associate, ICF International

*LUNCH on your own* (12:00 – 1:00)

**Case Study / Tool Demonstration #2 – U.S. Army Corps of Engineers** (1:00 – 3:00)

Kate White, PhD, PE, Senior Lead for Global and Climate Change, USACE Institute for Water Resources

*Break* (3:00 – 3:15 pm)

**Case Study / Tool Demonstration #2 – U.S. Army Corps of Engineers continued** (3:15 – 4:00)

**Summary & Closing Remarks** (4:00 – 4:30)