Adaptation in a Changing Environment

Flood Risk Management Workshop

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This Session

- A brief overview of what we’ve heard so far
- A quick update on the USACE Resilience Initiative
- Ms. Kelli Higgins-Roche, NY State Department of Environmental Conservations, on “Mainstreaming Resiliency in New York State”
- Mr. Iain Hyde, Deputy Director, Recovery and Resilience Office, Colorado State, on “Measuring Risk and Building Resilience”
- Mr. Todd Tucker, FEMA Region VII on the Federal Flood Risk Management Standard
- Questions & Answers
At the Workshop so far

TUESDAY, FEBRUARY 28, 2017

1:00 – 2:30 PM
LEADERSHIP & WORKSHOP OPENING
Mark Roupas, USACE Deputy Director of the Office of Homeland Security and Director of the National Flood Risk Management Program

Mr. Mark Roupas will open the 2017 Interagency Flood Risk Management Workshop by welcoming participants, laying out the objectives and his expectations for the week, highlighting some recent Flood Risk Management and Silver Jackets successes, and identifying the challenges that lie ahead.

2:30 – 3:00 PM
BREAK

3:00 – 4:30 PM
CHANGE & ADAPTATION
Catherine O’Connor, Director of Engineering of the Metropolitan Water Reclamation District of Greater Chicago

Dr. Catherine O’Connor will provide a practitioner perspective on how the Chicago landscape has been transformed given flooding and water quality challenges. The City of Chicago built canals, 109 miles of deep tunnels, 16 billion gallons of storage, and the area continues to be devastated by flooding. She will use a current situation in Robbins, Illinois to demonstrate how today’s solutions to these same challenges are different than those of the past and what’s driving them.

WEDNESDAY, MARCH 1, 2017

7:30 – 8:30 AM
OPTIONAL: SIDE MEETINGS/OPTIONAL TOPICS
Spaces will be available for teams to conduct side meetings or host short optional sessions on topics of interest to workshop participants.

Have a topic of interest to other participants? Fill out a form at the Registration Desk and we’ll assign a room and share your topic.

8:30 – 9:00 AM
Observation Science and Technology Innovation for the Changing Landscape
Remote sensing from airborne and satellite platforms with hyperspectral, LiDAR and SAR (synthetic aperture radar) capabilities are among a host of innovations increasingly available and useful to guide emergency management – mitigation, response and recovery. Near real-time observations relevant to flood depth and extent are being collected and merged with data sets on land use and land cover change, surface water, and elevation.

Dr. David Greene, NASA Earth Sciences Program and Mr. John Dormon, North Carolina Department of Public Safety will present on the emerging tools to observe, monitor, understand and describe flood risk situations.

9:00 – 10:00 AM
THE CHANGING LANDSCAPE

Participants may join a detailed discussion and demonstrations of tools or products related to factors that influence changes in flood risk or how risk should be managed in the Riverine, Coastal, and Urban landscapes.

Participants will be able to choose one of three landscape-focused tracks with interagency presentations and discussion:

RIVERINE FLOOD RISK (Auditorium)
Mr. Terry Zien, USACE St. Paul District: Moderator
Dr. Beth Faber, USACE Hydrologic Engineering Center
Dr. Katie Skalak, USGS

COASTAL FLOOD RISK (Cafeteria Conference Room)
Ms. Linda Manning, Council Oak: Moderator
Dr. Kate White, USACE Institute for Water Resources
Ms. Tucker Mahoney, FEMA

URBAN FLOOD RISK (USACE 4th Floor Conference Room)
Mr. Doug Bellomo, USACE Institute for Water Resources: Moderator
Mr. Brad Winters, Illinois Department of Natural Resources
Mr. Phetnamo Phannavong, Washington DC Department of Energy and Environment
Mr. Brian Choate, USACE Savannah District
Change is inevitable and ubiquitous

“Your life does not get better by chance, it gets better by change.”
- Jim Rohn

“Progress is impossible without Change, and those who cannot change their minds cannot change anything.”
- Charles Caleb Colton

“Change means that what was before wasn’t perfect. People want things to be better.”
- Esther Dyson

“A change in behavior begins with a change in the heart.”

“Every positive change in your life begins with a clear, unequivocal decision that you are going to either do something or stop doing something.”

“Focus on things you can.”

“Never be afraid of change. It’s always better than you don’t do change.”
- Unknown

“The secret of change is to focus all of your energy not on fighting the old, but on building the new.”

“Change does not change tradition. It strengthens it. Change is a challenge and an opportunity, not a threat.”
- Lao Tzu

“If you do not change direction, you may end up where you are heading.”

“If nothing ever changed, there’d be no butterflies.”
- Unknown

“With it, and join the dance.”
- Alan W. Watts

“Your life does not get better by chance; it gets better by change.”
- Jim Rohn
Why Adaptation?

- It's tough to make predictions, especially about the future. (Yogi Berra)
- It gets late early out there. (Yogi Berra)
- If you don't know where you're going, you might not get there. (Yogi Berra)
USACE’s Principles of Resilience

“Resilience means the ability to **anticipate**, **prepare for**, and **adapt** to changing conditions and **withstand**, respond to, and **recover** rapidly from **disruptions**.”

Presidential Executive Order 13653, Preparing the U.S. for Impacts of Climate Change (NOV 2013)
URI Foundational Concepts

- The purpose of the USACE Resilience Initiative (URI) is to **mainstream resilience thinking** – embodied by the principles of **Prepare, Absorb, Recover, and Adapt (PARA)** – throughout USACE.
- Resilience applies across the spectrum: MP, CW, and R&D
- **Resilience = Readiness**
USACE Resilience Roadmap, MAY 2016

- **Strategy 1: Evolve Standards & Criteria**
  - Risk-informed design integrated across disciplines
  - Greater accounting for uncertainty
  - Ensuring adaptive capacity

- **Strategy 2: Support Community Resilience**
  - How each mission area can best support CR
  - Work collaboratively (federal, state, regional, community, and other partnerships)

- **Strategy 3 – Focus on Priority Areas**
Current Resilience Examples

- Texas Coastal
- NACCS Study Areas
- SACCS
- Installation Energy Resilience
  - R&D
  - OASD EIE
  - DA IEE
- Master Planning
- Princeville
- Sandy Projects
- Multi-hazard tournaments
- Silver Jackets
- Norfolk
- Muncy, PA
- And many others!