Report on the 2016 Texas Water Roadmap Forum

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REPORT ON THE 2015-2016 TEXAS WATER ROADMAP FORUMS

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The Water Roadmap Forums

- Forums were held to build a path toward establishing consensus on means and directions to address important water-related topics in Texas.
Introduction to Roadmapping

Compass

GPS

Dashboard

Goals

Pathways

Baselines, & Points of Departure

Metrics, Indicators, and Benchmarks of Performance, Excellence, and Success

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Baselines, & Points of Departure

Metrics, Indicators, and Benchmarks of Performance, Excellence, and Success
The Charrettes
• Define the most pressing water-related technology deficiencies for which applicable intellectual property or researched solutions may be available already.

• Invitation only.

• 100 participants

• February 2015
• Underwriter:
  • Wells Fargo Foundation

• Co-Sponsors:
  • Meadows Foundation
  • Texas Research and Technology Foundation
  • National Science Foundation Research Coordination Network on Climate, Energy, Environment and Engagement in Semiarid Regions (NSF/RCN-CE3SAR)

• Host:
  • Water Institute of Texas

• Supporters
  • AccelerateH2O
  • Meadows Center for Water and the Environment
  • STAR Park at the Texas State University
Roadmap Forum II
The Water-Energy-Food Nexus

• Identify and develop responses to local, state, national, and global challenges opportunities relative to water resources in research, education, outreach, and policy at the WATER-ENERGY-FOOD Nexus.

• Invitation only
• Two-day forum
• 125-75 participants
• November 2015
Co-Sponsors:
- The Texas A&M University System
- Area 41

Host:
- Institute for Water Resources Science and Technology, Texas A&M University-San Antonio.

Supporter - Facilitator:
- NSF/RCN-CE3SAR
Roadmap Forum III

• Explore challenges identified in the first two forums:
  1. Communication,
  2. Water workforce education,
  3. Information management,
  4. Data access and research issues
• Focus on partnerships and funding
  • State Water Implementation Fund for Texas (SWIFT) (TWDB Sponsorship) and State Revolving Loan
• 60 participants
• November 2016
• Sponsors:
  • Texas Water Development Board
  • NSF/RCN-CE3SAR and facilitator

• Host:
  • Institute for Water Resources Science and Technology, Texas A&M University-San Antonio
The Complexity of Water and the Technology Fix

Context of:
- Volatility
- Uncertainty
- Complexity
- Ambiguity
Obstacles to Success

- Undervaluation of water.
- Counter-productive policies.
- Old and failing infrastructure.
- Inadequacy of higher education to adapt curricula to meet need.
- Failure to connect surface water and groundwater in policy and management.
- Investment and market challenges.
- Siloing of just about everything related to water.
Nexus: water-energy-food
Nexus: water-energy-food

- Water-food-energy systems lack coherence at the policy, regulatory and organizational levels.
- Education and research in these areas are fragmented and unconnected.
- Higher education is slow in responding to need for integrated curricula in water degree programs.
- Gap in public understanding about water matters.
Third Forum - The Challenges

- Communication
- Information management
- Data access
- Education
- Research
Third Forum
Funding & Partnerships

- Texas Water Development Board
  - State Water Implementation Fund for Texas (SWIFT)
- Revolving loan programs
Areas of Action

A series of regional research projects on various aspects of the water-energy-food nexus in Texas are in initial stages of work.
Areas of Action

A water science and technology degree program is moving through the approvals at Texas A&M University-San Antonio designed to adapt to water workforce needs and resolve curriculum deficiencies noted at all three forums.
Initiatives from the third forum include proposed formation of a large-scale collaboration on improving dataset use and access, and initiation of discussions about partnerships with small communities to support water project financing through SWIFT.
Beyond the Water Forums

• Impartial listing of positive actions that can be taken to solve pressing needs in the water sector.

• Compelling call for action, along with basic directions on how to proceed forward.
  • Agreement on need for urgency.
  • Information in the forum reports.
  • Participant consensus.
  • Statements of action.
The Water Roadmap Forums
• National Science Foundation Research Coordination Network on Climate, Energy, Environment and Engagement in Semiarid Regions
• Wells Fargo Foundation
• Meadows Foundation
• Texas Research and Technology Foundation
• Water Institute of Texas
• AccelerateH2O
• Meadows Center for Water and the Environment
• STAR Park at Texas State University
• The Texas A&M University System
• Area 41
• Institute for Water Resources Science and Technology, Texas A&M University-San Antonio.
• Texas Water Development Board
• National Science Foundation Coupled Natural & Human Systems Grant #DEB-1518541
• Cynthia & George Mitchell Foundation
• Texas Water Research Network
http://www.water-texas.org/water-forum-download/