

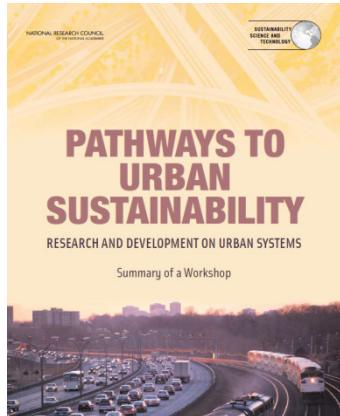
## **Pathways to Urban Sustainability**

### **Themes from Research and Development on Urban Systems**

**Fall 2009**

- **Workshop Objective and format:**

- Explored landscape of urban sustainability research programs in US
- Supported by U.S Forest Service, Centers for Disease Control and Prevention, U.S. Geological Survey, National Aeronautics and Space Administration, U.S. Dept. of Energy, U.S. Dept. of Housing and Urban Development, and The George and Cynthia Mitchell Endowment for Sustainability Science.
- Participants shared information about activities and planning efforts of federal agencies, related initiatives by universities, the private sector, nongovernmental groups, state and local agencies, and international organizations.



## **Pathways to Urban Sustainability**

### **Themes from Research and Development on Urban Systems**

**Fall 2009**

#### **•Outcomes:**

- Need for place-based solutions, bottom-up instead of top-down approach for placing the nation's cities on a more sustainable path, and a role for federal government and research community to facilitate place-based solutions and document lessons learned.
- Advancing urban sustainability agenda requires multi-dimensional responses that draw on variety of disciplines and skills. Integrated research networks including social scientists, natural and physical scientists, engineers, and planners required to make urban sustainability agenda successful.
- Science will need to be factored into an integrated multi-pronged strategy to advance urban sustainability principles and practices.



# **Regional Approaches to Urban Sustainability**

## **A Series of Workshops**

- Series of workshops began Fall 2010 to foster discussion of regional approaches to making U.S. metropolitan areas more sustainable; emphasis on building evidence base upon which policies and programs might be developed.
- Workshops provide much-needed space to explore opportunities for more integrated approaches to develop sustainable metropolitan regions.
- Regions:
  - Atlanta (Fall 2010)
  - Houston (Fall 2011)
  - New York, Portland, Midwest (“Rust Belt”).



# **Regional Approaches to Urban Sustainability Objectives**

- Discuss ways that regional actors are approaching sustainability; how they are attempting to merge environmental, social, and economic objectives
- Share information about ongoing activities and strategic planning efforts, including lessons learned
- Examine role that science, technology, and research can play in supporting efforts to make region more sustainable
- Explore how federal agency efforts, particularly interagency partnerships, can complement/leverage efforts of other key stakeholders



## Pathways to Urban Sustainability Themes from the Atlanta Metropolitan Area

Fall 2010  
Re-framing the Problem

- Held September 2010
- Supported by Home Depot Foundation, U.S. Forest Service, U.S. Department of Energy, Interface Environmental Foundation, Turner Foundation, and the George and Cynthia Mitchell Endowment for Sustainability Science
- Endorsed a “systems approach” as having an important role in addressing sustainability. For example, infrastructure – transportation, electrical and energy systems, water and waste handling, and natural systems – require such an approach as major environmental and societal components are interconnected and interrelated.



# SUSTAINABILITY

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### **Pathways to Urban Sustainability**

#### **Themes from the Atlanta Metropolitan Area**

Fall 2010

Pathways Forward

- Enforced concept that environmental protection and economic development are NOT mutually exclusive concepts.
- As the Atlanta metropolitan area transitions towards sustainability, a long-term vision for a sustainable region would envision and include the key steps taken in the region.
- Education is a critical part of metropolitan Atlanta's transition to sustainability. Informed citizenry has the potential to influence the political climate and elect leaders and public officials that are receptive to creating sustainability goals and implementing programs which achieve those goals.



## **Pathways to Urban Sustainability** **Themes from the Atlanta Metropolitan Area** Fall 2010 Pathways Forward

- Emphasized need to include public health when evaluating sustainability issues on an urban scale.
- Targeted research would help close knowledge gaps, enhance the effectiveness of education, and provide information that influences decisions in the region.
- Metropolitan Atlanta is complex system. Adaptive management principles from ecology would be useful to understand how such a system will react. Recognizes these dynamic systems, and managing them requires continual accumulation of evidence, learning from it, and uncertainty.



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### **Pathways to Urban Sustainability**

#### **A Focus on the Houston Metropolitan Area**

Planned Fall 2011  
Houston Region

- Houston is fourth largest city in the United States; part of the sixth largest and one of the fastest-growing metropolitan areas nationwide. Growth is result of strong regional economy, anchored by the energy industry and bustling port.
- Large coastal city and hub for fossil fuel industries; forefront of many sustainability challenges.
- Continued growth could exacerbate Houston's environmental challenges, but local stakeholders engaging in innovative programs in hopes of charting a path toward sustainability and urban resilience.



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### **Pathways to Urban Sustainability**

#### **A Focus on the Houston Metropolitan Area**

Planned Fall 2011  
Focus Issues

- Located in a vulnerable coastal zone, and extreme events such as 2008's Hurricane Ike demonstrated outsized impacts natural disasters can have on urban areas. Land use decisions have resulted in a high degree of automobile dependency, traffic congestion, and polluted sites in close proximity to residential areas.
- Air quality has been problem for decades—ozone and particulate matter are persistent threat to human health in the area.



# SUSTAINABILITY

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### **Pathways to Urban Sustainability**

#### **A Focus on the Houston Metropolitan Area**

Planned Fall 2011

A Workshop

- National Research Council organizing workshop to foster discussion of approaches to urban sustainability in Houston metropolitan region.
- Funding received by Houston Endowment, and proposals submitted to the Meadows Foundation and Brown Foundation.
- Workshop will emphasize building evidence base upon which policies and programs might be developed to help identify place-based research needs and assess promising practices.
- Anticipated outcomes may include: examples of sustainable urban initiatives; identification of barriers to sustainability; a better understanding of the role of public-private partnerships, and catalysts needed for action.