

# Updates on Urban Heat Island Related Activities



**Eva Wong**  
**EPA Urban Heat Island Webcast**  
**January 29, 2008**

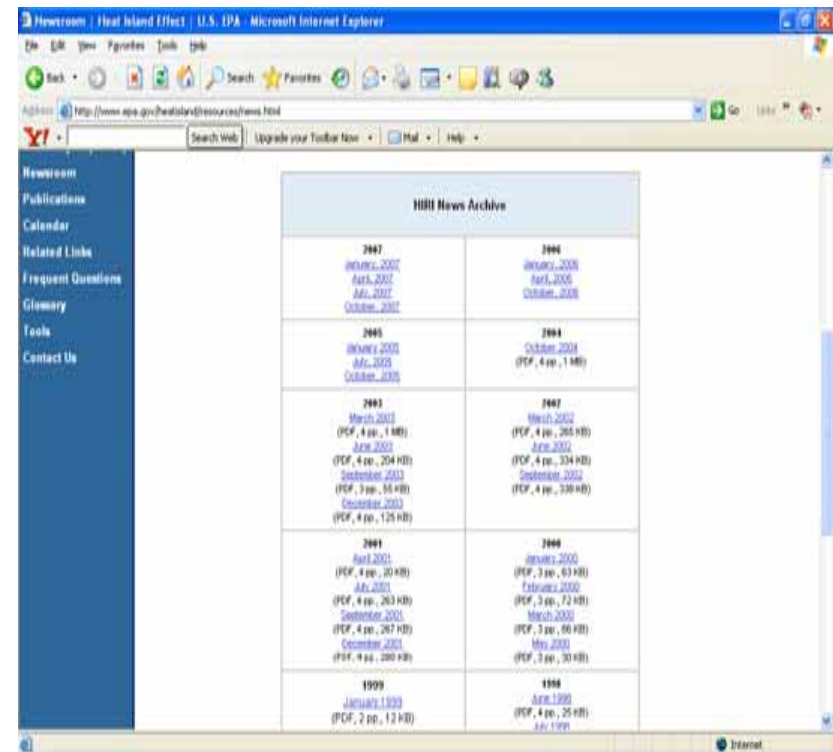
# EPA's HIRI Program

- **Build Capacity**
  - Educate -- Website, Outreach materials
  - Foster networks
    - Conferences and workshops
    - HI listserv, national UHI webcasts
- **Turn Research into Guidance**
  - MIST Energy and AQ Tool
  - Excessive Heat Events Guide
  - UHI Compendium
- **Stay Engaged, Fill Gaps**
  - Emerging Research
  - S&L Needs
  - TRB Subcommittee



# Build Capacity - EPA Heat Island Website: [www.epa.gov/heatisland](http://www.epa.gov/heatisland)

- Main website for UHI information
- Revamp through Spring 2008
- Group information into 5 basic categories (currently 15)
- Add current information and relevant links on relevant pages
- Provide overview then link to more detailed downloadable file
- Revamp UHI conference call/webcast page so that subject matter is upfront vs. date of event



# Turn Research into Guidance: Urban Heat Island Guidebook/Compendium

- Recent change from “guidebook” to “compendium”
- Post chapters as they become available in conjunction with website revamp
- Focus on mitigation strategies
- Also material on UHI phenomenon, mitigation activities around the U.S., relationship with global climate change



# Fill Gaps: Transportation Research Board (TRB) Subcommittee

- Growing local momentum and demand for guidance on pavement choices (roofing and urban forestry/green infrastructure data available, but what about pavement?)  
Most research has focused on solar reflectance
- Implementation considerations raise many issues -- need for broader and deeper approach
- Cambridge Systematics – *Cool Pavement* report – status of research and implementation activity
- June 2005 EPA Cool Pavement workshop

# Fill Gaps: EPA Partnership with Arizona State University

- 2006 Partnership w/Arizona State University



- Transdisciplinary group researchers, gov't and industrial partners examining rapid urbanization impacts
- Extensive facilities for laboratory and field experiments
- Developing next generation of building and paving materials to reduce UHI impacts and address sustainability
- Materials Dbase w/thermal performance data
- Staffed call and email help center
- Education - summer institute, executive education workshops, fellowships for grad students
- Holistic approach - beyond 3 strategies

# Fill Gaps: TRB AF000(2) – Paving Materials and the Urban Climate

## Some Subcommittee Focus Areas:

- How pavement design and material selection contribute to surface and subsurface temperature fluctuations
- Thermal and radiative characterization of common paving materials
- Enhance pavements at the nanoscale.
- Pavement impacts beyond UHI

## Some Subcommittee Activities:

- Advance the state of knowledge regarding technologies and practices to mitigate UHI impacts
- Address model and design practices, testing and standard development, technological approaches, and planning and policy considerations
- Provide a home for TRB related activities (sessions, workshops, reports, etc.)

# Some Upcoming Events

- Quarterly UHI Webcasts: April, July, and October 2008
- February 7-9 New Partners for Smart Growth in Washington DC
- April 9-10 American Public Works Association Climate Change Symposium in Tempe, AZ (ASU National Center of Excellence hosting)
- April TRB Call for Papers for Paving Materials and the Urban Climate Subcommittee
- April 15-19 Association of American Geographers in Boston, MA
- April 27-May 1 American Planning Association Conference in Las Vegas, NV
- April 29-May 2 Greening Rooftops for Sustainable Communities Conference in Baltimore, MD
- *Summer 2009 Second International Workshop on Countermeasures to Urban Heat Islands in California??*



# Just FYI....

- **Clean Energy-Environment Municipal Network – Launched 2007**
- **Informational and peer exchange network:**
  - **Facilitate local government clean energy**
  - **Focus on established, cost-effective best practices**
  - **Serve as a Gateway to existing resources**
  - **Develop new tools, resources, and guidance**

[www.epa.gov/solar/energy-programs/state-and-local/local.html](http://www.epa.gov/solar/energy-programs/state-and-local/local.html)

- **Monthly webcast series starting in February 28<sup>th</sup> 2-3:30 Eastern**  
**- will send info to UHI listserv**
- **Andrea Denny and Eva Wong**



# Let's Hear from You

- Who are you?
- What's your involvement and interest in UHI-related work?
- What's going on in your community – briefly (3 minutes)?

## Volunteers:

- Tucson
- ACT
- Dallas
- Others?