



Climate Change in New York's Hudson Valley

How Can Local Government
and Community Leaders Prepare?

December 4, 2006



Synthesis & Wrap-Up



Climate Science

We know enough to act now



Climate Change Science

Art DeGaetano & Cameron Wake

- Scientists agree Earth's climate is warming
- Scientists agree humans are responsible
- Northeast climate already changing
- Some additional change in "bank"
- Magnitude of change still dependent on emissions pathway we choose



Climate Change Impacts

Understanding What's at Stake



Impacts to Hudson River Valley

Morning Panel Presentations

- Water Supply—Doug Burns
 - More precipitation; more droughts; earlier snow-melt; a potential for more flooding
 - Stormwater/flood & water supply management
 - Suggestion: incorporate climate change in planning
- Landscape and Land Use—Gary Kleppel
 - Population & low-density dev't pressures
 - Loss of water storage capacity to dev't = vulnerability to storms
 - Suggestion: local land use planning!

Impacts to Hudson River Valley

Morning Panel Presentations

- Forests & Agriculture & Invasive Species
 - David Wolfe
 - Changes in tree species; new crop options
 - Help for some crops; negative for others
 - Welcome ecology for weeds/invasive plants and “pests”
 - Heat stress, wet springs, drought, plants & pollinators
 - Many of the impacts to ecosystem unpredictable

Impacts to Hudson River Valley

Morning Panel Presentations

- Sewage Treatment Plant and Transportation Infrastructure
 - Klaus Jacob
 - Sea level rise/increasing storm intensity greatly increase severity and frequency of flooding along shorelines
 - Plan now for climate change when capitol projects are designed or modified to avoid heavy costs in the future

Impacts to Hudson River Valley

Morning Panel Presentations

- Hudson River Wetlands & Shorelines
 - Betsy Blair
 - Potential for higher water level, causing wetlands to migrate (where there is room) or disappear.
 - Shorelines will need to be the focus of comprehensive planning

Climate Change Action

Meeting the Challenge



Community Action

- New York City
 - Already among the most sustainable cities
 - Solid waste plan & building energy codes
 - Long-term sustainability plan
 - Inventories
 - Goals and Targets—30% below 2005 levels?
 - Identify measures bottom-up
 - Ambitious public outreach
 - Mayor to announce plan in next couple of weeks

Community Action

- County of Westchester—Bob Funicello
 - County Executive Westchester Global Warming Task Force
 - Looking to identify options to reduce greenhouse gas emissions in the county

Community Action

- Town of Greenburgh & Village of Irvington—
Nikki Coddington
 - Energy Star certification requirement for new homes
 - Commercial applicants must consult with energy planner (code coming—LEED std?)
 - Outreach to promote green power purchases; water conservation, transportation & buying local
 - Reducing Town’s building energy use and saving \$\$; zero emission vehicles; reducing solid waste through recycling; and considering purchase of green power.
 - Implement ICLEI’s Tools

Community Action

- Town of Guilford, CT—Sid Gale
 - Transit-oriented planning effort in Town
 - Photos of abnormally high tide present glimpse into future?
 - Current government decision making based on stable climate – this is no longer the case
 - Need to identify local and regional risks/exposures
 - Plan adaptive responses based on risk assessment



Community Action

- ICLEI's Cities for Climate Protection
 - Organization of municipalities dedicated to reducing their carbon footprints
 - Primary aim is reducing emissions, but adaptation effort started in Keene, NH
 - Network of munis sharing information about what works and what doesn't
 - Technical assistance for communities to reduce GHG emissions and adapt to climate change

