


The Role of Land Use
in a Sustainable
Economy
Colorado Brownfields Conference
November 15 & 16, 2007



About NALGEP

- The National Association of Local Government Environmental Professionals provides our members with:
 - Peer to peer learning opportunities,
 - Training and technical assistance,
 - A voice in Washington, and
 - Information on environmental policies, tools, and information.
- Spiegel & McDiarmid: A mid-sized, Washington, DC-based law firm provides staff and management to NALGEP.



Brownfield Communities Network
Join Today!

- Network of over 1000 individuals
- Membership is free!
- Funded by a grant from U.S. EPA




Land Use and a Sustainable Economy

- Stormwater
- Green Buildings
- Green Infrastructure
- Climate Change



Stormwater

- Local governments are trying many methods for reducing the volume and pollutant loadings of stormwater



Church Parking Lot in Cheverly, MD



- Two bioretention facilities to control runoff from parking lots



Green Highway Program

Improve water quality by retrofitting the highway median and interchanges

Demonstrate how LID techniques can treat stormwater pollutants generated by highway traffic

Before

After

Bioretention

Prince Georges County – Green Street Program

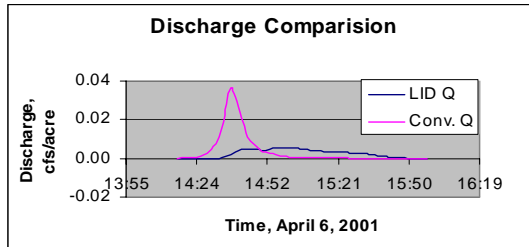
- Project Elements:
 - Provides curb cuts to divert street runoff to roadside bioretention facilities and amended soil areas;
 - Retrofit existing street median areas to accept stormwater runoff and treat it with LID BMP's;
 - Devising solutions using LID to alleviate road drainage problems;
 - Link with Trash Management projects.

BIORETENTION % POLLUTANT REMOVAL

	Cu	Pb	Zn	P	TKN	NH4	NO3
Upper	90	93	87	0	37	54	-97
Middle	93	99	98	73	60	86	-194
Lower	93	99	99	81	68	79	23
Field	97	96	95	65	52	92	16

Dr. Allen Davis, University of Maryland

LID Works



Green Infrastructure

- The nation's natural life support system.
- A network of wilderness, parks, greenways, conservation easements, and farm land.
- Supports native species, maintains natural ecological processes, sustains air and water resources, and contributes to the health and quality of life for America's communities and people.



EPA's Definition:

- Green infrastructure consists of the interconnected network of open spaces and natural areas (such as forested areas, floodplains and wetlands) that improve water quality while providing recreational opportunities and wildlife habitat.
- Green infrastructure consists of site-specific management practices (such as rain gardens, porous pavements, and green roofs) that are designed to maintain natural hydrologic functions by absorbing and infiltrating precipitation where it falls.



Green Roofs



Green Buildings

- Montgomery County, MD requires every “newly constructed or extensively modified non-residential building or multi-family residential building with more than 10,000 square feet of gross floor area” to achieve 20 points in the LEED rating system. 26 points are needed for certification. (Chapter 8, Article VII of the Montgomery County Code)




From the outside our school looks like a regular school, but on the inside...




Great Seneca Creek ES

- Features include:
 - 30% energy savings primarily through a geothermal well field
 - Energy Star roof coating – high albedo white coating
 - 40% reduction in water use through waterless urinals, dual flush toilets
 - 90% recycled construction waste




Gainesville, Florida

- In October 2002, the City passed an ordinance requiring government buildings to be LEED certified.
- The ordinance also established “fast track” building permits for LEED projects, and
- A 50% reduction in building permit fees for private contractors who use LEED.

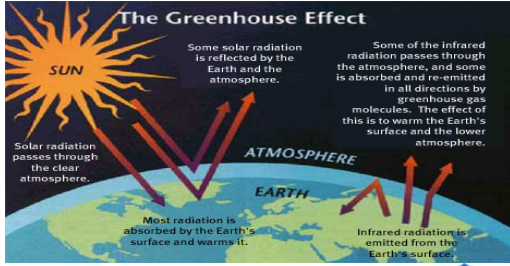


Gainesville, Florida

- Pre-LEED Incentive: 169,000 sf
- Post-LEED Incentive: 1.1 million sf
- More than a six fold increase over a three year period



Climate Change



Climate Change

- 710 Cities Have Signed Mayor Nickel's Climate Protection Agreement (*as of 10/30/2007*)





Keene, New Hampshire GHG Reduction Targets

- 2 targets for 2015
 - Community target = 10% annual emissions reduction below 1995 levels
 - Municipal target = 20% annual emissions reduction below 1995 levels
- To reach the community goal, reduce approximately 73,000 tons of CO₂
- To reach the municipal goal, reduce approximately 1,300 tons of CO₂



Reduction Measures to Date

- Biodiesel throughout city fleet (68 vehicles in total) - 2001
- Hybrid vehicle replacement – 2005
- Geothermal system at DPW - 2003
- Methane recovery system - 1994
- Internal municipal recycling program – 2002




Reduction Measures to Date

- LED Replacements for traffic signals - 2000
- Police on Bicycles – 2002
- Offset Christmas Tree Lighting Ceremony - Annually
- Recycling Outreach and Backyard Composting Program – 1993
- Energy upgrades at Library and Waste Water Facility



Reduction Measure Savings...

- LED Replacements - \$3,854 annually
- Police on Bicycles - \$805 annually
- Internal Recycling Program - \$3,140 annually
- Methane Recovery System - \$ 55,000 annually (estimated)
- The Keane, NH point of contact is Mikaela Engert
 Email: mengert@ci.keene.nh.us
 Tel: (603) 352-5474



Thank You!

Paul Connor
Executive Director
National Association of Local Government
Environmental Professionals (NALGEP)
 1333 New Hampshire Avenue, NW
 Washington, DC 20036
 Phone: (202) 638-6254
 Fax: (202) 393-2866
 E-mail: paul.connor@spiegelmc.com
 Web: www.nalgep.org

