

Linking Land Use and Water Quality

Fitchburg WI: October 2011



SUSTAINABLE COMMUNITIES BUILDING BLOCKS

U. S. EPA Partnership for Sustainable Communities

What's the Goal of this Workshop?

- Using stormwater Infrastructure as one catalyst for community development and revitalization
- Create livable communities:
 - Mix of uses and Housing Types
 - Beautiful and functional streetscapes
 - Parks, plazas and open Spaces
 - Transportation choice
 - Value Fitchburg's heritage
- Identify possible strategies



The Past: Three major growth trends over the last 50 years

- Growth on the edge
 - Employment and population growth heavily favored medium and large metropolitan regions over nonmetropolitan areas.
- Low density
 - Within metropolitan regions, most growth occurred in low-density development at the fringe of urbanized areas.
- Single use development
 - Emphasis on automobile travel to the exclusion of other modes.



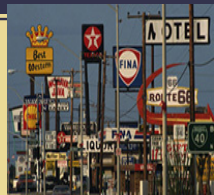
Environmental and public health impacts of growth patterns

- Contaminated runoff and impaired water quality
- Increased in driving and decreased air quality
- Habitat and farmland loss
- Growing obesity and asthma rates
- Brownfields abandonment



We are growing...

- The US Census estimates that our population will hit 300 million in the next 25-30 years
- 70 million new housing units
- Huge increase in impervious cover



Where and how will these people live?



It's The Impervious Cover

- How Communities Handle Land Development Is Critical
- "Grey" Engineered Infrastructure Solutions Can Be Costly...And Ineffective
- Blending New Approaches To Address Runoff Before It's A Problem
 - Compact development + Infill
 - Smart streets
 - Efficient parking
 - Natural resource protection
 - Green infrastructure



To best protect water quality

Preserve, Recycle, Reduce, Reuse

- **Preserve:** Protect and enhance natural features, such as undisturbed forests, meadows, wetlands, and other natural areas.
- **Recycle:** Recycle land by directing development to already degraded land, e.g., parking lots, vacant buildings, abandoned malls.
- **Reduce:** Reduce land consumption and development footprint by using land efficiently
- **Reuse:** Capture and reuse stormwater by directing it back into the into the ground through infiltration, evapotranspiration, or reuse.

Green Infrastructure at 3 scales

- 1 Municipal/watershed**
- 2 Neighborhoods**
- 3 Site**

Green Infrastructure at 3 scales

- 1 Preserve what makes your region beautiful.** Protect and connect areas to preserve the regions character, working lands, open space, and clean water that residents treasure.
- 2 Build neighborhoods for people and the environment.** Livable communities that integrate retail, office, and housing respond to what residents want by increasing convenience, using resources wisely, and offering options for getting around.
- 3 Introduce stormwater solutions throughout new development and redevelopment opportunities.**

