

Creating Sustainable Communities in New Jersey

Hopewell Township
July 17, 2007

*The web of mutual obligations between
generations is essential for a civilized society.*
~ Thomas Jefferson



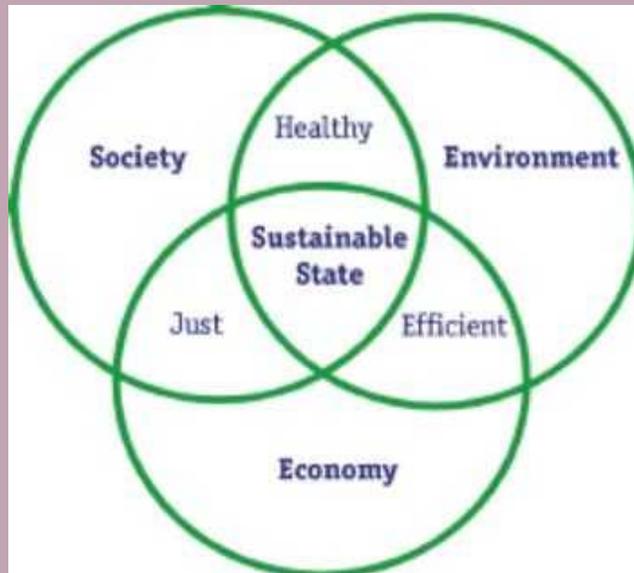
World Commission on the Environment, 1987

- Sustainability first defined and addressed as a global goal.
- **“Sustainable development** is meeting the needs of the present generation without compromising the ability of future generations to meet their needs.”



How is this applied in practice?

- Socially - Livable
- Economically - Prosperous
- Environmentally - Green



- Multi-dimensional
- Inter-connected
- Inter-dependent
- Equal importance

When one tugs at a single thing in nature, he finds it attached to the rest of the world. ~ John Muir

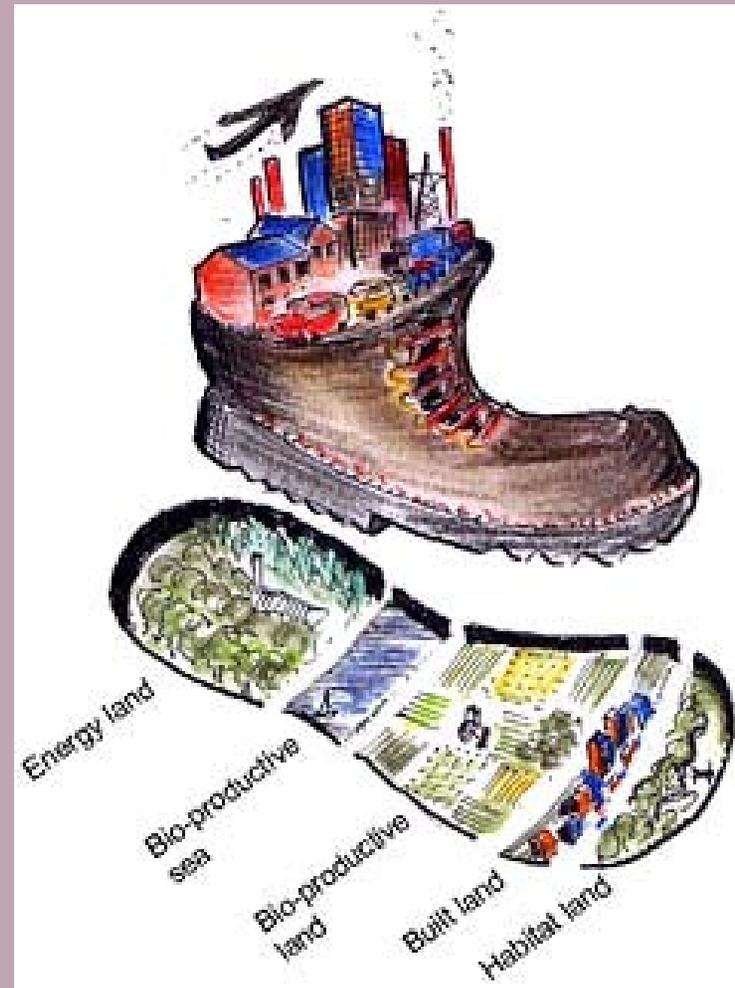
What is Sustainability?

- Every natural system has a “carrying capacity” beyond which productivity decreases
- What will the future of our planet look like?

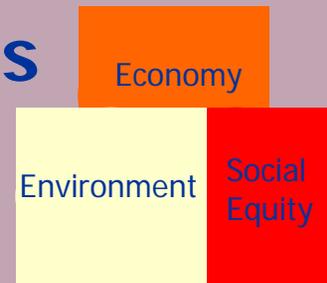


Not Living Beyond Our Means

- Our “footprint” on the planet is steadily increasing.
- The average American uses **24 acres** of the planet for food, energy, living space and other resources.



Creating Sustainable Communities in New Jersey



What do they have in common?

- **Leadership** - support of mayor, township administrator, environmental commission
- **Vision** - Passion, Community

NJ Examples:

Highland Park - 2020 Plan

Montclair - Resolution & Planning Guide

Belmar - Sustainable Living by the Sea

Lawrence - The Natural Step

Maplewood - Climate Protection Initiative

Hillsborough - Plan with Goals, Indicators and Actions



We are just beginning to realize the importance of our forests and the necessity for their preservation. They not only furnish timber and provide an important industry, but they beautify the country, temper the climate, hold the rainfall, fertilize the soil, furnish game preserves and conserve our water supply, an indispensable feature of our rapidly growing and congested civilization.

*Governor Edward C. Stokes
Inaugural Address, January 17, 1905*





Highland Park 2020 Plan

- Environmentally Sustainable - A Green Community
 - Energy and Water Efficiency in Public Buildings
 - Open Spaces reclaimed within urban areas
 - Green plantings - trees
 - Promote walking and biking
- Economically Sustainable -
 - Affordable and Prosperous Community
 - Redevelopment of the downtown
- Socially Sustainable - A Livable Community
 - Unity Fest - celebrates Borough's diversity
 - Promotion of the arts
 - Create accessible community





Green Highland Park Downtown Redevelopment

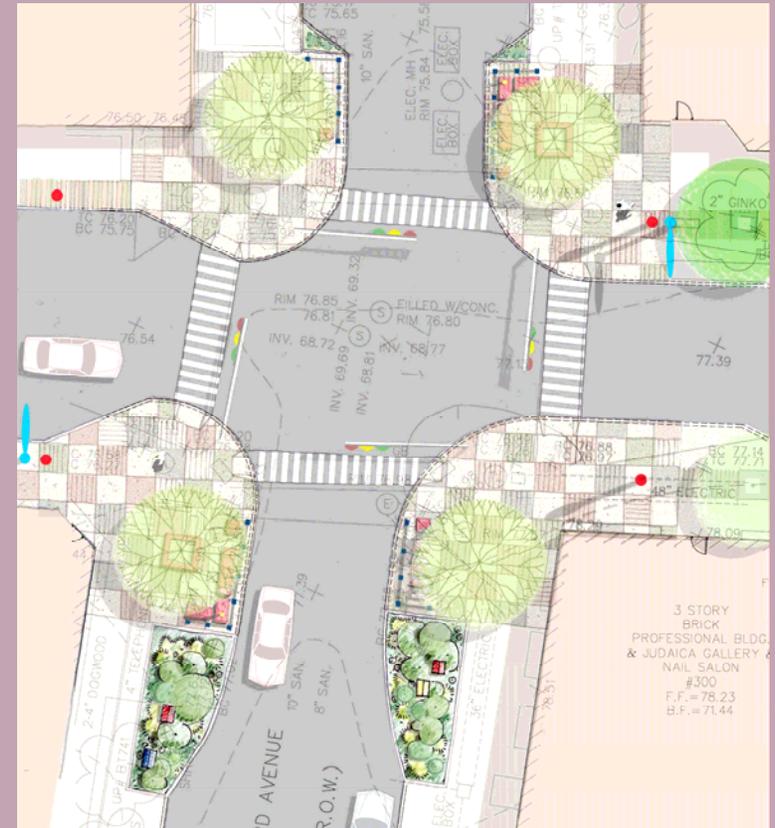
- A public realm that focuses on human interaction and safe pedestrian circulation.
- Infill development that creates intimate places for people and art.
- A mix of ground floor retail and services with offices and apartments above.
- Integrated redevelopment that preserves and enhances significant structures and street character.
- Sustainable design and development.
- Integrated landscape features that mitigate development impacts.





Green Highland Park Downtown Redevelopment

- Bumped out curbs - shorter pedestrian crossings and reduction in traffic speed.
- Corners designed as a “carpet” using recycled glass pavers and cast-in-place concrete woven into pattern.
- Rain gardens to intercept storm water - feature native plants and bio-engineered soils work together to filter runoff.
- Decorative birdhouses and shrubs attractive to butterflies.



Typical Raritan Ave. Intersection Plan





Green Highland Park

Earth Day Dedication 2007
Centennial Park



Primary Features:

- Tree Grove
- Rain Garden Bioretention Area





Green Highland Park

Earth Day Dedication 2007 Eugene Young Environmental Center and Native Plant Reserve





Township of Montclair

- Energy Audit of Municipal Buildings and schools to assess current energy use and related costs and greenhouse gas emissions in summer of 2005. Estimated savings if measures implemented - \$100,000 per year.



- Upgraded to LED Traffic Lights 90% less energy and \$10,000 annual savings



- Purchased 6 Honda Civic GX compressed natural gas (CNG) vehicles \$23,500 in rebates from BPU AFV program





Township of Montclair



- *BikeMontclair* - Goal is to make community more bike & pedestrian friendly.
 - DOT Local Planning Grant
 - *Tour de Montclair* - non-competitive scenic ride for families and cyclists

- Expand and Improve Solid Waste Recycling Program - Weekly collection of mixed paper, collection of plastics and encourage waste reduction.





Belmar Borough

Sustainable Living by the Sea: Belmar's Blueprint for Building a Livable, Affordable and Inclusive Community

- Preserving and Enhancing Belmar's Strong Sense of Community
- Incorporate Smart Growth Policies into Redevelopment Plan
Transit Village, public spaces to walk and gather
USGBC - Leadership in Energy and Environmental Design (LEED)
- Commitment to Clean Water and a Quality Environment
- Affordable and Inclusive Housing
- Energy Conservation and the Use of Renewable Energy
- Incorporating the Arts





Belmar Seaport Village

Sustainable Living by the Sea: Belmar's Blueprint for Building A Livable, Affordable & Inclusive Community



GALE

Artist's Concept – Ninth Ave & Main, Belmar, New Jersey


CORENET
GLOBAL



Belmar Borough Sustainable Design Guide

1. Sustainable Neighborhood Design
LEED for Neighborhood Development

2. Green Building Design
LEED for New Construction



3. Energy Sources and Use
Optimize Energy Efficiency
On Site Renewable Energy





Lawrence Township

Sustaining Earth and Life in Lawrence

Common Ground Agenda Targeted Outcomes for 2016 -

Developed by 110 Citizens of Lawrence representing a wide range of stakeholder groups at a future search conference entitled "Natural Steps for a Sustainable Lawrence", March 30 - April 1, 2006

Clean Air-Water-Soil
Town Centers
Recycling
Education
Inclusion
Bike & Pedestrian
Pathways

Open Space - Stewardship
Landscapes
Land use (ordinances)
Solar Energy
Local Economy
Bio-regionalism
Food - Farming

www.sustainablelawrence.org/



Lawrence - A Community Initiative Creating Relationships



Eco-Tips: Be Sustainable Everyday
Sustainability Challenge
Clean Energy



Maplewood, NJ

- Member of ICLEI's*
Cities for Climate Protection
- Jitney service



* International Council for Local Environmental Initiatives



Maplewood, NJ Climate Change Impact and Emissions Reduction Plan

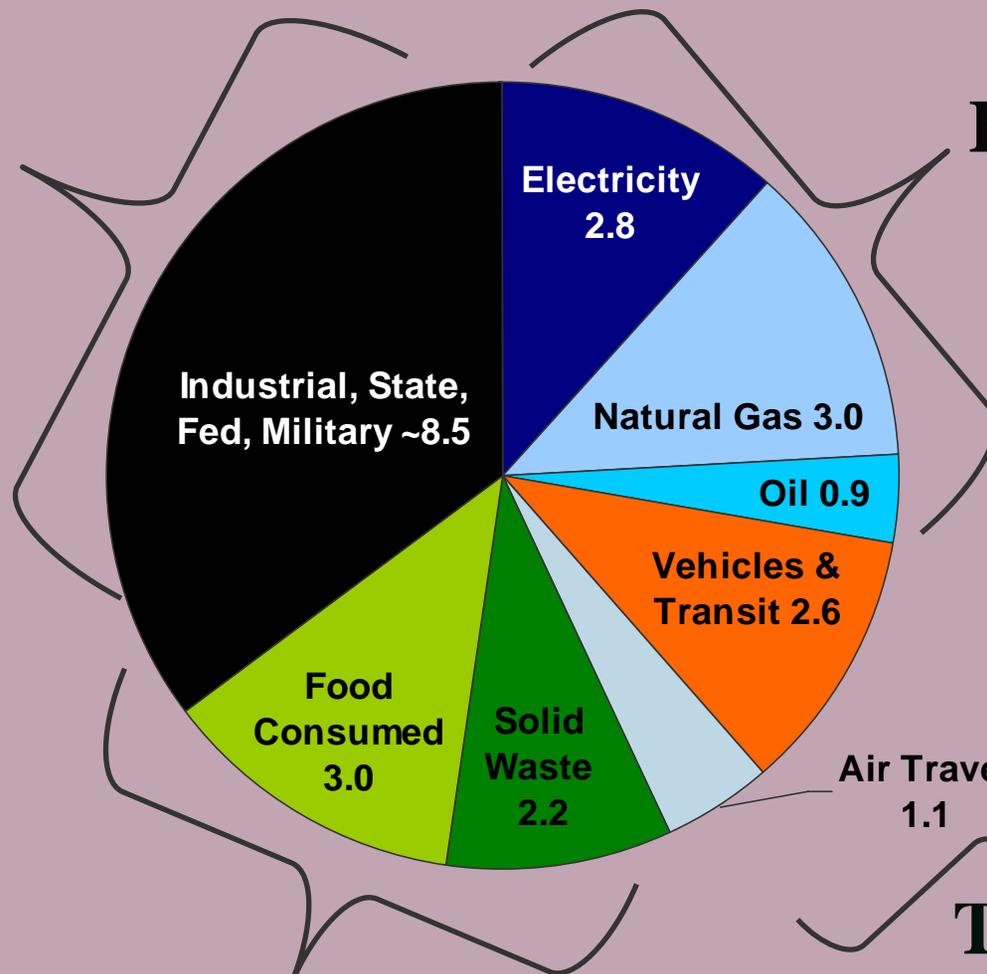


June 9, 2007



How much CO2 does Maplewood contribute? = 16 tons “locally addressable” per person

**Non-local
emissions
= 8.5 tons**



**Buildings
= 6.7 tons**

**Consumption
= 5.2 tons**

**Transportation
= 3.7 tons**

Maplewood's Plan to reach 20% reduction

Source of Emissions	Tons CO2	Change Strategy	Reduction CO2
Electricity	71	All homes add 10 efficient bulbs; 30% electricity - Clean Power	7 19
Vehicles Mass Transit	66	Vehicles get avg. 10 mpg better	19
Solid Waste	40	Double recycling collections	13
Natural Gas	74	50% of buildings improve heating efficiency by 25%	7
Oil	24	50% of oil homes switch to gas	6
Air travel	29	15% travelers buy carbon offsets	4
Food Consumed	76	10% switch to plant-based/local diet	4
Total	380		79 (-21%)

Sustainable Hillsborough

- Hillsborough is among the first five communities in NJ to attempt a comprehensive Sustainable Community Plan.*
- An opportunity to create a vision for the future of Hillsborough and a plan to achieve it.



* Five Communities: Highland Park, Hillsborough, Lawrence, Princeton, West Windsor



The Sustainable Hillsborough Initiative

- Grant from the Municipal Land Use Center
- NJSSI and SBMWA are partners
- Planning Department is Hillsborough's staff
- Purpose is to create a long-term vision, and action plan, and a way to track progress
- Emphasis on ensuring the plan is used
- Creates roles for government, citizens, businesses, congregations, homeowners associations, civic groups.



What is the process?

Through a series of community events and meetings:

- Establish a steering committee or “core group”
- Create comprehensive **goals**
- Select **indicators** to track progress.
- Decide on **actions** and **strategies**.
- Write and distribute final Plan.
- Coordinate municipal and citizen “task forces” and implementation.
- Evaluate indicators and goals to track progress.
- Change and improve actions and strategies going forward.



Goals: What do we want?

Prioritize the township's goals for future development, using past plans and community input:

- Economic Vitality
- Healthy, Equitable Communities
- Quality Housing
- Sustainable Community Design
- Good Government
- Support local farming
- Preserve Environmentally Sensitive Lands
- Efficient Transportation
- Protect groundwater supply



Indicators: How are we doing?

- Indicators are any type of “measurement” of a trend or condition.
- Temperature and Ecological Footprint are different types of indicators.
- Sustainability indicators will measure the “health” of Princeton as a sustainable community.

Vehicle Ownership: Princeton, 2000	U.S. Census Bureau, 2000
Time Spent in Traffic	Locally Created Data/Surveys
Average Vehicle Miles Traveled	DOT/Locally Created Data/Surveys
Green House Gas Emissions Per Driver	Estimates/Locally Created Data
Vehicles per Person	Estimates/Locally Created Data
Percent of Township’s non-emergency fleet vehicles using alternative fuels	Township data
Auto commute time: Princeton	U.S. Census Bureau, 2000
Pedestrian and Bicycle Safety: Number of bicycle and pedestrian collisions involving motor vehicles	NJDOT / Township Police Department
Bike paths: Number of bike paths completed in township	Township data
Township Parking Facilities	Township data
Bicycle Facilities: Number of and usage of bike racks and lockers at the train station	Local Data

Some possible **indicators** of efficient transportation in Princeton Township.



Actions and Strategies: What will we do?

- Strategies are action steps taken to meet the goals and targets of the plan
- Strategies may apply to government, citizens, businesses, developers or other community members.

Sustainable Strategies:

AUSTIN, TX: City of Austin offers a green building program of education and financial incentives for residents to build and remodel with energy-saving 'green' technology.

LAWRENCEVILLE, NJ: Sustainable Lawrence partners with a local school to integrate sustainability into the curriculum and promote energy efficiency in school buildings.

CORAL GABLES, FL: The municipal fleet and emergency vehicles run on 100% biodiesel, a low-emissions fuel made from soybean oil.



For Information or Assistance Contact:

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www.state.nj.us/dep/dsr/bscit/SustCommunities.htm

*He who knows what sweets and virtues are in the ground,
the waters, the plants, the heavens, and how to come at these
enchantments, is the rich and royal man.*

~ Ralph Waldo Emerson, 1844

