

Greenhouse Gas Reduction Subcommittee

Initial Goals and Actions through August 5, 2009 for
review by the Climate Change Task Force on August 20, 2009

SUBCOMMITTEE MISSION STATEMENT

To provide the Task Force with recommendations for effectively mitigating climate change through greenhouse gas reductions in the near-term and long-term, building on existing Broward policies and practices and drawing on the best practices from cities and regions across the United States and around the world. The Subcommittee will recommend ways to foster equivalent and coordinate commitments and actions among businesses, communities, households and individuals to reduce greenhouse gas emissions.

BROWARD COUNTY COMMUNITY WIDE GREENHOUSE GAS REDUCTION GOALS

80% reduction community wide by 2050, requires 10% reduction every 5 years after 2010

2007 COMMUNITYWIDE EMISSIONS INVENTORY

- Transportation – 45%
- Residential – 27%
- Commercial – 24 %
- Waste – 2%
- Industrial -1 %
- Other – 1%

FOCAL AREAS

Transportation: Mass transit, fuel efficient vehicles, alternative fuels, vehicle miles traveled

Built Environment: Energy efficient design and construction, Energy Star equipment and appliances, land use, and maintenance standards (e.g. green buildings, urban design, smart growth, landscaping)

Zero Waste: “Reduce, Reuse, Recycle and Recover” Energy savings programs, conservation, waste reduction, recycling

Sequestration and Storage: Urban reforestation, carbon capture and sequestration

WORKING GROUPS

Transportation working group recommended goals and associated actions

Goal: Create a dedicated funding source for mass transportation.

Action: Build a functional mass transit system that will connect the region.

Action: As mass transit comes on-line, convert existing vehicles lanes to safe, dedicated bike and pedestrian lanes.

Action: Mandate the use of alternative fuels in the mass transit system and any publically funded projects.

Action: Develop the infrastructure and support facilities to encourage and enhance the use of mass transportation.

Goal: Create an all inclusive sustainability public education program for all sectors of the community.

Action: Create the dedicated funding source, develop the implementation program, and design a performance monitoring plan to ensure the success of the education program.

Action: Increase and enhance pedestrian education programs and partner with existing programs.

Action: Ensure the following specific focal components are included in the educational program:

- Alternative Fuels
- Decreasing Vehicle Miles Traveled (VMT)
- Increase in Vehicle Efficiencies
- Use of Mass Transit
- History of Transportation
- Public Capacity to bring about Change – Don't settle for inaction

Goal: Remove the encumbrances to projects that support sustainability.

Action: Facilitate the development of publically accessible infrastructure that provides alternative fuels.

Action: Develop and adopt Inter-Local Agreements with County, State, Municipal and private entities to share infrastructure that supports and promotes the use of alternative fuels.

Action: Provide free and/or priority parking for alternative fuel vehicles.

Action: Promote walk-able mixed use development designs and projects by providing flexibility in development review for these projects, enacting standards to ensure these are functional projects that achieve walk-ability and revising the zoning and land development codes to allow and encourage these projects, establishing incentives for this type of development, and adopting specific goals in the Comprehensive Plan to support and establish this.

Built Environment working group recommended goals and associated actions

Mission Statement:

To achieve a dramatic reduction in the global warming-causing greenhouse gas (GHG) emissions of the building sector by changing the way buildings and developments are planned, designed, constructed, maintained and evolved.

Goal: Incorporate appropriate energy efficient design, construction, maintenance standards and reducing demand on utilities and production of solid wastes into all new construction and renovation projects through the use of regulation, education and incentivization resulting in a 100% reduction of carbon emissions by the year 2030.

Action: An energy efficiency checklist, reducing demand on utilities and production of solid wastes and conservation, will be required for all projects residential and commercial, for either new or substantially renovated buildings prior to issuance of a building permit.

Action: To be included as a required part of the checklist, a Life Cycle Cost Analysis and an energy modeling of the building showing compliance in achieving being carbon neutral by the year 2030.

Action: Green practices become the accepted “norm” for buildings (based on the principles of LEED or another acceptable green rating system) and applicable fees would be assessed at the normal rate. Projects not incorporating green practices would be assessed 30% higher fees.

Action: There should be mandated changes for the most basic items such as: cool roofs and solar water heaters. This would occur when one or two systems or components are being replaced or repaired.

Action: Zoning requirements should be developed and enforced in conjunction with compatibility in achieving sustainable design.

Action: Work towards improving the Florida Building Code to allow more green practices such as vegetative roofs and grey water systems.

Action: Improve and increase education for building code professionals and officials, reviewers and inspectors to successfully implement green practices.

Action: Embrace allies in promoting green education and improving local codes, allies could include the Broward League of Cities and the surrounding counties; Monroe, Miami-Dade and Palm Beach.

Action: Require each municipal building department to have at least one LEED certified (or another acceptable green rating system) official as a staff member. Areas where LEED professionals are required include site selection, water and energy efficiency.

Action: Develop and promote a local construction materials market – new and reused.

Action: Solicitors of projects for both county and municipal bids that both employ LEED professionals (or another acceptable green rating system) as well employ green practices in their business environment, shall be awarded preferential points in the bid process.

Zero waste working group recommended goals and associated actions

Goal: Achieve a zero waste by 2030 through facilitation of waste reduction, reuse, increased recycling and public education efforts.

Action: Recycling initiatives should be increased by 25% - 30% by 2011 through the implementation of programs such as:

1. County and Cities initiating single-stream recycling at all residential properties with increase attention on multi-family complexes public drop off areas and incentive programs (e.g. RecycleBanks)
2. County and Cities initiating green waste recycling programs

- i. Automated cart service
 - ii. Segregated bulk waste
 - iii. Residential drop off
 - iv. Targeting roadway maintenance
 - v. Enhanced recycling at BIC landfill
- 3. County and Cities mandating commercial recycling at a preferred rate during rebid/negotiations
- 4. County and Cities requiring the pre-processing of construction debris as a franchise/license agreement or building permit fee
- 5. County and Cities expanding Public Place Recycling
- 6. County and Cities expanding e-waste recycling programs
- 7. County and Cities adopting policies that stimulate the recycling market (reuse network)

Action: Recycling initiatives should be increased by 30% - 50% by 2020 through the implementation of programs such as:

- 1. County and Cities fully implementing single stream recycling for all residential properties
- 2. County and Cities expanded green wastes to collection of yard waste and organics (e.g. foods and contaminated paper) including wastewater residue (biosolids) for use for biofuels or syngas production
- 3. County and Cities to requiring food and beverage container and possibly organic recycling at all bars restaurants and institutions with food services
- 4. County and Cities requiring the pre-processing of construction debris as a franchise/license agreement or building permit fee
- 5. County and Cities codifying LEED Credits for construction recycling with reprocessing requirements
- 6. County and Cities supporting Product Stewardship initiatives for e-waste, fluorescents, paints and other materials
- 7. County and Cities supporting beverage container deposits (e.g. Bottle Bill) including linkage of unredeemed deposits dedicated to Recovered Material Processing Facilities and municipal recycling programs
- 8. County and Cities expanding public place recycling (e.g. parks, stadiums, shopping areas etc.)

Action: Achieve Zero Waste in landfills through programs such as:

- 1. County and Cities investing in reuse infrastructure and programs for green waste
 - i. Mulching
 - ii. Composting Streamline Green Waste recycling
- 2. County and Cities establishing homeowner incentives for “backyard” composting

- i. Green waste
 - ii. organics
- 3. County and Cities creating policies that require products produced in south Florida to be non-toxic and recyclable
- 4. County and Cities utilizing programs such as “Pay as You Throw” to reduce the amount of waste being discarded
- 5. Creating Partnerships with local business to create a Reuse Network (ie thrift shops etc)
- 6. County and Cities creating policies that require businesses/manufacturers reuse materials for the production of goods
- 7. County and Cities creating policies that require manufactures to use environmental sustainable materials to produce goods.
- 8. Partnering with local food growers to provide locally grown foods to schools, homes, restaurants and implement community garden programs
- 9. Collaborating with grassroots organizations to implement programs and streamline education and outreach

Sequestration and Storage working group recommended goals and associated actions

Goal: Broward County will determine the baseline urban canopy and increase the present estimated coverage by 50% (~18 % total) using Florida-friendly™ trees, planted in public and private lands, and manage these trees through regulation and public outreach in order to accelerate progress towards meeting the County’s goal of reducing GHGs by 20 percent by 2020.

Action: Quantify Canopy -Perform a Broward County canopy study utilizing UFORE or a comparable program to obtain baseline data for the County on canopy and species, incorporating existing data from municipal tree inventories and Broward County School Board UFORE data while encouraging other municipalities to apply for grants to perform tree inventories and repeating the canopy study every five years to determine progress on expansion and sustainability of the canopy.

Action: Promote Florida Friendly Landscaping™ - Create a list of recommended Florida Friendly Landscaping™ trees that are the most salt, wind and drought tolerant when implementing planting projects in publicly accessible lands and promote municipal landscape codes and tree ordinances that include tree protection and Florida Friendly Landscaping™ Best Management Practice statutes to ensure consistency.

Action: Forestation -Plant trees and shrubs known to sequester and store high levels of carbon in all available public and private lands, including unused properties, school and government properties and conservation lands utilizing trees and shrubs acquired through grants, private

public partnerships with the green industry and with developers or agencies looking for opportunities to offset carbon emissions and become carbon neutral.

Action: Outreach- Support existing county and municipal outreach programs and tree boards and promote new outreach programs to provide educational experiences for adult and child residents and provide the best research based educational materials regarding the role of urban forests in sequestration and storage in mitigating climate change.

Action: Carbon markets- Upon completion of tree inventory studies, determine feasibility of entering carbon markets.