

# Sustainability Plan Framework

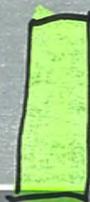
## For the City of Greenbelt

Greenbelt Advisory Committee on Environmental Sustainability

2013



Highlighted items were changed or added.



Vertical highlights indicate things were moved around.

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## SUMMARY OF PLAN

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The Greenbelt Sustainability Plan Framework Document was developed over the course of several years by the Greenbelt Advisory Committee on Sustainability (Green ACES). One of the most important lessons of our work is that sustainability runs through all community dimensions and is much wider than what is typically considered “environmental.” Equally important, Green ACES realized that a true sustainability plan requires the input and support of many different segments of our community, not just the input from one advisory committee.

Green ACES recommends that City Council use this framework document as a tool for a board or committee to be developed that is designated to complete a municipal sustainability plan, and that this body include representation from elected officials, all appropriate city departments, city advisory committees (such as Green ACES), interest groups, and the community at large.

This document should be viewed as a “map” to chart a course for sustainability, realizing that sustainability is an ever moving target.

This document includes recommendations for specific actions to enhance City performance in the seven following categories:

- **Energy**
- **Food Systems**
- **Green Building**
- **Land Use**
- **Transportation**
- **Water**
- **Waste Management**

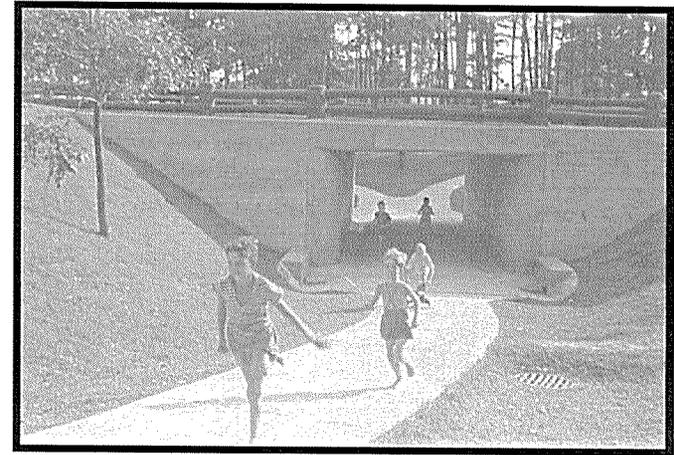
For each category, specific goals, success indicators, and implementation measures were developed as a means to continually monitor the progress being made toward becoming a sustainable city.

## INTRODUCTION

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### GREENBELT: HISTORY AND SUSTAINABILITY

Greenbelt, Maryland, a planned community built in 1937 as part of President Franklin D. Roosevelt's New Deal, is one of three Green Towns built during the Great Depression. The project put struggling Americans to work, provided much needed low-income housing in the Washington, D.C. region and was a bold experiment in town planning and cooperative living. Its first residents enjoyed modern homes, schools, a pool, a library and a town center complete with citizen-owned, cooperative businesses including a movie theater, all within walking distance in a utopian park-like setting. The community, named for the belt of green space which surrounded it, featured efficient use of land, a system of pathways for walking and biking, and a careful blend of residential, commercial and green spaces.



Despite nearly doubling in size to accommodate WWII era housing, and steady growth through the second half of the 20th century which now includes Greenbelt East and Greenbelt West, the city's historic streamlined architecture, ample green space, and innovative design have been preserved and recognized as a National Historic Landmark. Cooperatives are still a vital part of city life. Greenbelt currently has seven cooperatives: Greenbelt Housing Inc. (GHI), its housing cooperative; Greenbelt Co-op Supermarket; New Deal Café; Greenbelt Nursery School; Greenbelt Federal Credit Union; Greenbelt News Review, its local weekly newspaper; and Rapidan Camps.

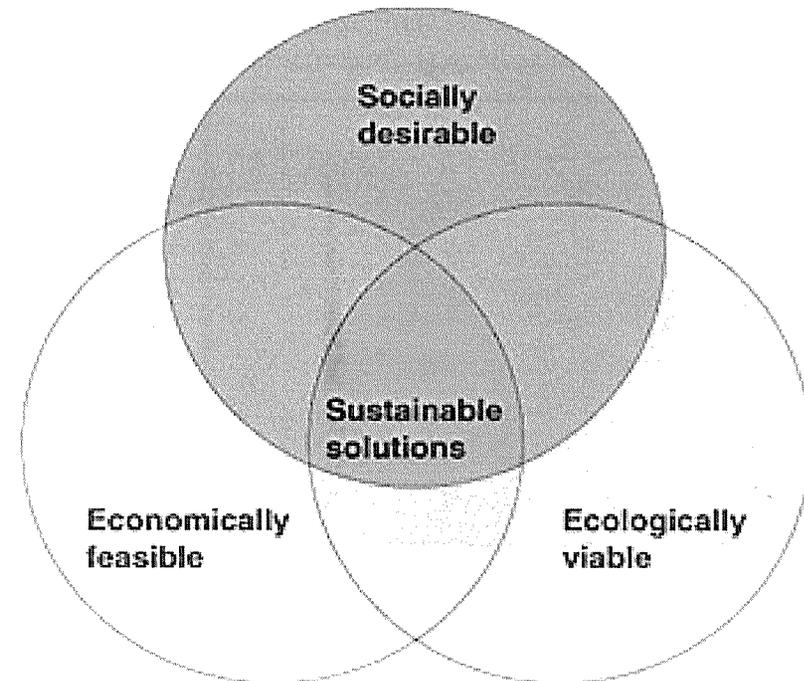
Sustainability has been an intrinsic characteristic since the community was founded 75 years ago as a planned community. As an experiment in both physical and social planning, designed as a walk-able and bike-able community, the community has continued to embrace its basic sustainability tenants. As it focuses on sustainability and the future, the City looks toward another 75 years of growth.

## WHAT IS SUSTAINABILITY?

Sustainability is related to the overall quality of life in a community. Sustainability does not have one single definition; however the general concept of sustainability involves the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainability focuses on three components: the natural environment or natural resources of a community, the social connectedness among people in the community, including the education, skills and health of the population, and lastly the economic and financial prosperity of the community. This is sometimes known as the “triple bottom line.” When these three components come together sustainable solutions result. The benefits of sustainability are three-fold and positively impact the environment, the economy and society.

The City of Greenbelt has long taken a leadership role in sustainability and “greening the environment.” This is not something new. We take pride in being socially and environmentally responsible, two things the community believes to be intrinsically interlinked. From recycling to bike paths and the overhead tree canopies in between, the city continually strives to live as Green as possible. As the rest of the world progresses into a cleaner, more eco-friendly way of life, the City of Greenbelt plans to keep evolving with it.



## FRAMEWORK FOR A SUSTAINABILITY MASTER PLAN

Developing a sustainability plan for the city is one step in an evolutionary process. The Greenbelt Advisory Committee on Environmental Sustainability (Green ACES) developed this framework document to assist the Mayor and City Council in developing a sustainability plan **with emphasis on environmental sustainability.**

The mission of Green ACES is to provide leadership to the City of Greenbelt on matters relating to environmental sustainability by serving the Greenbelt City Council in an advisory capacity providing guidance, recommendations, and research support on matters relating to environmental sustainability; engaging in sustainability projects and events, on its own and in collaboration with other entities that actively promote and model environmental sustainability; and educating City staff, elected officials, residents, and businesses on programs, practices, and activities that contribute to a green lifestyle.

In developing this framework document, Green ACES realized early on that a true sustainability plan requires the input and support of many different segments of our community. Despite its name and mission, Green ACES is but one of many Greenbelt advisory committees and boards, and organizations, promoting various aspects of sustainability, including trees, climate action, watersheds, community food production, vegan lifestyles, and peace & justice. These talented groups and individuals need to be brought together to collaborate on the city's sustainability initiatives.

It is the responsibility of the City Council to adopt measures, institute organizational processes and changes, and commit sufficient resources aimed at integrating sustainability as a key component into the daily operations and activities of our government, businesses, and citizens. Successful implementation requires buy-in by the city manager, and city employees. Green ACES recommends that City Council use this framework document as a tool for a board or committee to be developed that is designated to complete a municipal sustainability plan, and that this body include representation from elected officials, all appropriate city departments, city advisory committees (such as Green ACES), interest groups, and the community at large.

Much of the development of this framework document pre-dated the launch of the Sustainable Maryland Certified program, a program aimed at helping Maryland municipalities learn about sustainability, implement green projects, and adopt sustainability practices and policies. When we began research on this task, we followed guidance recommended in the ICLEI Sustainability Planning Toolkit, which recommended creating a sustainability plan board or committee dedicated to the task. Sustainable Maryland Certified requires a municipality to form a Green Team, and recommends that this Team consist of members of elected officials, city staff, and business and community leaders. The Green Team shares many of the characteristics of the sustainability plan board or committee mentioned above and may serve this function.

This framework document should be viewed as a "map" to chart a course for environmental sustainability, realizing that sustainability is an ever-moving target.

It is with the above understanding that Green ACES has developed this Framework Document to assist the City of Greenbelt in developing a sustainability plan. This framework document includes recommendations for specific actions to enhance City performance in the seven following categories, each with its overarching goal:

- **Energy:** Promote energy conservation, energy efficiency, and the production and use of renewable energy in Greenbelt's residential, commercial, municipal and institutional sectors.
- **Food Systems:** Increase local food production and availability of locally produced food in Greenbelt.
- **Green Building:** Promote and encourage green building practices in both new and existing building renovations within Greenbelt's residential, commercial, municipal, and institutional sectors.
- **Land Use:** Find a balance between land use and land preservation, and find ways to protect the ecosystems while integrating with the built environment.
- **Transportation:** Connect, unify and create a transportation framework that is sustainable, efficient, convenient, reliable, inclusive, child-friendly, and accessible - including those with disabilities.
- **Waste Management:** Zero waste, to eliminate the amount of materials going to the landfill and incinerators.
- **Water:** Conservation and sustainable management of water in Greenbelt.

For each category, specific goals, success indicators, and implementation measures were developed as a means to continually monitor the progress being made toward becoming a sustainable city.

It is often said that one cannot manage what one does not measure. We need to know where we are to gauge the progress (or regression) we make in the future. Thus, one important component of the actions we take in all categories must deal with measurement, or monitoring. The need for accurate measurement and monitoring should be a prime consideration for any goals and directives laid out by the City of Greenbelt.

## WE ENVISION A GREENBELT...

### **Community Vision:**

*We envision a City of Greenbelt that has a minimal ecological footprint and supports all City stakeholders to live, work, and play in an **environmentally** sustainable manner.*

### **Sustainability Goals**

The following goals address our vision of the economic, environmental, and social aspects of sustainability.

- A. **Healthy people:** exercise; diet; lifestyle; lower chronic diseases.
- B. **Economic vitality:** local businesses; green jobs/businesses; incubator of ideas/research; tax base.
- C. **Healthy environment:** environment/resources; buildings, wildlife; biodiversity; **clean air and water.**
- D. **Well-informed citizenry:** internships; community/school partnerships; citizen education; outreach.

### **Statement on Environmental Justice**

To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the Greenbelt City Code, each Department of the City of Greenbelt shall make achieving environmental justice part of its mission. This will be achieved by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority, immigrant, and low-income populations in the City of Greenbelt.

## THE DOCUMENT'S FORMAT:

Each section is laid out with the following items:

- **General goal:** The overarching goal for each section is under each title.
- **Goals:** The goals describe the general aspirations for each category and should have both indicators and targets.
- **Success Indicators:** The success indicators provide a means of measuring performance or progress toward achieving the established goal.
- **Targets:** The targets represent achievable milestones for the community.

Each section is followed by an **action plan** for implementation. Some action plans within each section are divided into:

- **Municipal** action plan: pertains only to the City Government.
- **Residential** action plan: pertains to the residents.
- **Commercial** action plan: pertains to businesses.
- **Institutional** action plan: pertains to institutions such as churches, coops, non-profits, etc.

## ENERGY SYSTEMS

PROMOTE ENERGY CONSERVATION, ENERGY EFFICIENCY, AND THE PRODUCTION AND USE OF RENEWABLE ENERGY  
IN GREENBELT'S RESIDENTIAL, COMMERCIAL, MUNICIPAL, AND INSTITUTIONAL SECTORS.

<b>Goals</b>	<b>Success Indicators</b>	<b>Baseline Information and Possible Improvement Targets</b>
<p>Meet the State of Maryland's requirement to reduce greenhouse gas emissions and the Council of Governments (COG) Climate Change Initiative.</p> <p>COG's goals are to reduce greenhouse gas emissions by 10 percent below business as usual (BAU) levels by 2012, 20 percent below 2005 levels by 2020, and 80 percent below 2005 levels by 2050.</p> <p>The Greenhouse Gas Emissions Reduction Act of 2009 requires Maryland to reduce greenhouse gas emissions 25 percent by 2020, relative to 2006 levels.</p>	<p>Reduction of Greenhouse Gas (GHG) emissions by year compared to baseline(s):</p> <p>Municipal GHG reductions from 2005 levels:</p> <p>2010: 24.5%</p> <p>2011: Reductions projected to be much higher due to the purchase of 100% wind electricity for the July 1, 2011 to June 30, 2013 period, and beyond.</p>	<p>Municipal eCO2 tons</p> <p>2005: 3360.7 tons</p>

<p>Meet the State of Maryland’s energy efficiency and conservation goals. The EmPOWER Maryland Energy Efficiency Act of 2008 sets targets to reduce both per capita energy consumption and per capita peak demand by 15 percent by the end of 2015 (based on a 2007 baseline).</p>	<p>Percentage of energy saved from 2007 baseline per year per sector (municipal, residential, commercial, and institutional) based on:</p> <p>kWh electricity consumption;</p> <p>MBTU, Therms, or cubic feet of natural gas consumption</p> <p>Municipal electricity reduction:</p> <p>2010: 5.5%</p> <p>Municipal natural gas reduction:</p> <p>2010: 0.2%</p> <p>Amount of peak energy used per year per sector (municipal, residential, commercial, institutional) and % reduction in peak energy from baseline.</p>	<p>Municipal energy consumption –</p> <p>2007 baseline: 4,600,220 kWh</p> <p>2007 baseline Therms of natural gas usage: 129,602</p>
<p>Meet the State of Maryland’s renewable energy goals. Maryland’s Renewable Portfolio Standard (RPS) requires that 20 percent of Maryland’s electricity be generated from renewable energy sources by 2022, including 2 percent from solar energy.</p>	<p>kWh electricity produced onsite from renewable energy; renewable energy credits (RECs) for kWh electricity from renewable energy purchased</p> <p>Municipal renewable energy progress:</p> <p>Beginning on July 1, 2011, the City of Greenbelt began buying wind credits to offset 100% of the electricity it consumes.</p>	

## ENERGY SYSTEMS: ACTION PLAN

Steps and Actions Implemented and to Be Implemented	Completed/on-going (√) or Target Dates for completion	Notes and/or Responsibilities
<b><u>MUNICIPAL</u></b>		
<b>Energy Efficiency</b>		
Design and build a high performance Public Works Facility.	√	In FY 2009, the new Public Works Facility was completed. It was designed from the outset with a variety of energy efficiency features, including a high efficiency geothermal heating system.
Promote LED, induction, and other high-efficiency street lighting and outdoor lighting.	√	In 2012, using a \$93K Federal EECBG grant, the city installed exterior LED and induction lighting at several city-owned locations.
Make energy efficiency improvements at the Aquatic and Fitness Center and at the Springhill Lake Recreation Center.	√	The Pool Pak and Heat Exhaust units at the Aquatic and Fitness Center were replaced in 2010. Two new HVAC units were installed at the Springhill Lake Recreation Center in 2011 using \$63,000 in Community Development Block Grant Recovery Act money. These improvements are expected to reduce electricity usage by 10 percent.
Encourage or require high performance sustainability standards for new Greenbelt buildings, such as in developing the land around the Greenbelt Metro		
Conduct energy assessments in all City of Greenbelt municipal buildings and make all cost-effective energy improvements.	√	Chevron audited all municipal buildings about 5 years ago, and the results are still being used to guide city decisions on making energy improvements. The City should consider having another assessment done and implementing all cost-effective energy improvements using energy savings performance contracting or utility energy savings contracting, which pays for the improvements with the energy savings accrued.

Establish a building commissioning and validation process for all Greenbelt municipal buildings and a regular schedule for commissioning all municipal buildings.		
Distribute business awards annually to Greenbelt stores selling energy-efficient appliances and products.		
<b>Renewable Energy</b>		
Purchase green electricity for city operations.	√	The City of Greenbelt purchased enough renewable energy certificates from wind energy between July 1, 2009 and June 30, 2011, to offset 15% of the total electricity it consumed. The city began purchasing wind credits to offset 100% of its electricity usage beginning on July 1, 2011.
Explore solar co-ops and similar investments for using solar energy on municipal buildings and land.	√	Public Works is looking into a Power Purchase Agreement to obtain solar panels. Optony conducted a feasibility study in 2012 to recommend which buildings could be fitted with solar panels.

<b>RESIDENTIAL</b>		
<b>Energy Efficiency</b>		
Promote use of low-cost ENERGY STAR™ home energy audits.	√	GCAN and some members of Mishkan Torah and Greenbelt Community Church sponsored an informational meeting in July 2013 by Groundswell to promote low-cost energy audits and subsequent energy improvements in Greenbelt homes.
Provide/promote/expand “tools” such as Kill-a-watt meters and thermal leak detectors to residents to help them identify areas of energy waste.	√	Currently Public Works and Greenbelt Homes Inc. (GHI) each have several Kill-a-watt meters and several thermal leak detectors for loan to Greenbelt residents and GHI homeowners, respectively.  Additional outreach is needed to inform residents of the availability of these tools.

Promote WE CAN Save Energy (Earth Aid) participation.	√	There are more than 100 Greenbelters signed up, but only ~ 2/3 of these are successfully linked to utilities. We need to expand promotion and sign-ups, and incorporate participating local businesses. This action was placed on hold when the website was experiencing difficulties. If and when the service is up and running effectively, we should resume promoting it, or else explore other similar services to promote.
Promote the adoption of energy conservation/ efficiency measures to Greenbelt residents (e.g., via presentations to Greenbelt Home Owner Associations, local events, etc.).	√	Public Works Open House and booth at the Labor Day Festival promote energy conservation/efficiency to residents.
Promote Federal, state, and county residential energy efficiency/ conservation incentives.		
<b>Renewable Energy</b>		
Promote/expand sign-ups of Clean Currents, WEGS and other green electricity providers.	√	There are more than 350 Greenbelt residents signed up for Clean Currents wind electricity. We reached the level to receive EPA Green Power Communities status (3% wind) at 21,000 people = 7,000 households @ 3% = 210 homes  Collaborate with Washington Council of Governments, EPA, and utilities to obtain EPA Green Power Communities status.
Conduct outreach on community renewable energy if/when Maryland adopts legislation enabling this concept.		
Explore working with companies like Solar City that install and finance/own solar energy systems.		
Collaborate with PRSEA/ASES to promote the Greenbelt component of	√	We started this in 2003, and implemented annually nearly every year since then. We need to expand participating solar homes and

the Solar Home Tour each year.		greatly expand outreach efforts.
Promote Federal, state, and county residential renewable energy incentives.		

<b>COMMERCIAL</b>		
<b>Energy Efficiency</b>		
Promote WE CAN participation among Greenbelt businesses.		If the WE CAN Save Energy (Earth Aid) website becomes effective again, we should encourage Greenbelt businesses to sign on and to offer rewards/incentives to homeowners who conserve electricity.
Bring onboard local hotels into a green hotel initiative.		
Promote Federal, state, and county commercial energy efficiency/conservation incentives.		
<b>Renewable Energy</b>		
Promote/expand sign-ups of green electricity providers.	√	Greenbelt Food COOP, New Deal Café, Sunoco all have signed up with Clean Currents for 100% wind RECs.
Promote/expand solar co-ops and similar investments in solar.	First system, a 21.6-kW solar array, installed.	Greenbelt Community Solar LLC was created and is exploring options for installing solar systems on government, institutional, and commercial buildings within Greenbelt. The LLC will own and operate the solar systems, while the building owners will receive the electricity they generate at a specified discounted rate. The first solar system was installed on the Greenbelt Baptist Church in December 2011.
Promote LED, induction, and other high-efficiency lighting.		
Promote Federal, state, and county commercial renewable energy incentives.		

<b>INSTITUTIONAL</b>		
<b>Energy Efficiency</b>		
Collaborate with GHI in improving GHI and GHI member buildings.	√	GHI is conducting a pilot study to determine the most effective and cost-effective measures to improve the energy efficiency of GHI homes, and will undertake a major renovation of GHI homes beginning in 2015.
Promote Green Sanctuary, green teams, and other sustainability programs at places of worship.	√	The Greenbelt Community Church created an active Green Team and committed to buying 100% wind electricity beginning in June 2011; the Greenbelt Baptist Church allowed Greenbelt Community Solar LLC to place a solar array on its roof.
Promote LED, induction, and other high-efficiency lighting.		
Collaborate with the Greenbelt Co-op Supermarket to conduct an energy assessment in the supermarket, establish a building commissioning and validation process, and a regular commissioning schedule.		
Promote Federal, state, and county commercial/ institutional energy efficiency/ conservation incentives.		
<b>Renewable Energy</b>		
Encourage GHI to purchase green electricity and to encourage its members to buy green electricity.	√	On October 21, 2010, the GHI Board voted to accept a two-year contract with Clean Currents to supply the GHI Administration Buildings with 100% wind power.
Explore solar co-ops and similar investments for using solar energy on GHI and GHI member buildings and land.		
Promote Federal, state, and county commercial/ institutional renewable energy incentives.		

## FOOD SYSTEMS

INCREASE LOCAL FOOD PRODUCTION AND AVAILABILITY OF LOCALLY PRODUCED FOOD IN GREENBELT.

Goals	Success Indicators	Baseline Information and Possible Improvement Targets
Increase Local Food Production Within Greenbelt.	Number of Community Gardens and Number of gardeners  Number of backyard gardens and poultry/rabbit enterprises.	Current Community Garden Inventory. Current inventory of backyard food production enterprises.
Support initiatives that increase availability of locally produced (150 miles) food in Greenbelt.	Presence of a farmer's market. Number of residents served by farmer's market or local food sections of grocery stores. Amount of locally produced food available for residents at farmer's markets or grocery stores.	Current Farmer's Market Numbers. Current Grocery Store Numbers with sections of locally produced food.

## FOOD SYSTEMS: ACTION PLAN

Steps and Actions Implemented and to Be Implemented	Completed/on-going (√) or Target Dates for completion	Notes and/or Responsibilities
<b><u>MUNICIPAL</u></b>		
Establish a full time City Master Gardener position.		
Examine policy changes for local animal husbandry.		
Examine/support forest gardening.	√	The Springhill Lake forest garden was established in 2013.
Partner with Federal agencies that have land to see if food production is an option (NASA, USDA).		
Provide space and support for existing and future community farmers markets throughout Greenbelt	√	Already in Historic Greenbelt core
<b><u>RESIDENTIAL</u></b>		
Education and public outreach about local food production.	√	The City supports the Three Sisters Garden Project (CHEARS)
Obtain Grant for Local Food System Outreach/Education in Greenbelt		
Develop a web-based directory (and/or pamphlets) of pick-your-own, organic food sources, and farmers markets.		
Conduct workshops on food production, nutrition, processing, marketing and		

preservation.		
Promote seasonal consumption and eating patterns.	✓	The Food COOP has a program that shares recipes made with seasonal produce.
Promote opportunities for people to grow their own items.	✓	The City provides land for community gardens.
Promote access to and support individual garden plots.	✓	The City provides land for community gardens.
Garden plots to have access to water and fences to keep the deer out: devise ways to provide needed inputs for community gardens.		
Develop food production resource inventory.		
Promote planting of edible fruit/nut trees and development of edible landscapes.		
<b>Composting - Including residential, commercial, or curbside food waste collection.</b>		
Improve opportunities for composting.	✓	The City, CHEARS and Club 125 held a composting workshop on June 8, 2013.
Conduct pilot project to collect organic wastes.	✓	The department of Public Works started in 2013 a composting pilot program for food scraps produced at PW.
Increase education about use of composting for food production.		
Utilize local compost for community gardens.		
Implement community based composting program offering low-cost composting bins.		
<b>COMMERCIAL</b>		
Encourage restaurants and local eateries to purchase locally produced ingredients.		Silver Diner has specials made with locally produced ingredients.

<u>INSTITUTIONAL</u>		
Support partnership with schools for school gardens.		
Support healthy school lunches.		

## GREEN BUILDING SYSTEMS

PROMOTE AND ENCOURAGE GREEN BUILDING PRACTICES IN BOTH NEW AND EXISTING BUILDING RENOVATIONS WITHIN GREENBELT'S RESIDENTIAL, COMMERCIAL, MUNICIPAL, AND INSTITUTIONAL SECTORS.

Goals	Success Indicators	Baseline Information and Possible Improvement Targets
<b><u>MUNICIPAL</u></b>		
Maximize green building standards and practices for new and existing buildings.	Number of LEED certified/equivalent buildings	Additional 25% new construction reaching LEED Gold or Silver standard
Operations, engineering and maintenance for municipal buildings to be done in a sustainable manner		
Insure that healthy and efficient materials and methods are used in the existing municipal buildings.		
<b><u>RESIDENTIAL/COMMERCIAL</u></b>		
Maximize green building standards and practices for new and existing buildings.	Number of LEED certified/equivalent buildings	Additional 25% new construction reaching LEED Gold or Silver standard
Seek improved building codes that utilize sustainable methods.		

## GREEN BUILDING SYSTEMS: ACTION PLAN

Steps and Actions Implemented and to Be Implemented	Completed/on-going (√) or Target Dates for completion	Notes and/or Responsibilities
<b><u>MUNICIPAL</u></b>		
Require LEED-NC (or a similar 3 <sup>rd</sup> party green building certification) for all new buildings.		The Department of Public Works new building has many environmentally friendly features, although it was not LEED certified.
Create “Green building maintenance” procedures for existing buildings.	√	The City started using Facility Dude in 2013.
<b><u>RESIDENTIAL</u></b>		
Require LEED-NC (or a similar 3 <sup>rd</sup> party green building certification) for all new buildings.		
Require/recommend energy audits for existing home remodeling (if adding or remodeling over 25 percent of existing space.)		
Explore residential green remodeling certification programs.		
Establish education programs for sustainable building practices, including improvements to energy efficiency, resource efficiency, and indoor air quality.		

## LAND USE SYSTEMS

FIND A BALANCE BETWEEN LAND USE AND LAND PRESERVATION, AND FIND WAYS TO PROTECT THE ECOSYSTEMS WHILE INTEGRATING WITH THE BUILT ENVIRONMENT.

Goals	Success Indicators	Baseline Information and Possible Improvement Targets
<b><u>Public/Municipal</u></b>		
Reduction of existing impervious surfaces	Establish a baseline of impervious surfaces	No net increase in impervious surface
Adhere to Organic Land Care Standards. <sup>1</sup>	<p>Implementation of Green ACES Pesticide Report/Land Care Policy Report (as approved by City Council): Since 2008 Public Works has eliminated the use of toxic pesticides and herbicides and only applied pesticides, herbicides, and fertilizers for cosmetic purposes when necessary.</p> <p>Require contractors to adhere to the City's standards.</p>	New contracts will be held to the standards.
Increased use of environmentally friendly power equipment for upkeep of landscapes	Additional battery operated equipment in use: In 2013 an electric lawn mower and weed whacker were purchased for use at the Roosevelt Center.	
<b><u>Forest, wetlands, and stream corridors</u></b>		
Protect existing forested lands	No loss of forest lands based on 2010	

<sup>1</sup> www.organiclandcare.net

	baseline	
Protect existing forested stream channels	No loss of forested stream channels based on 2010 baseline in miles of stream	
Restore degraded stream channels	X miles of degraded stream channels restored – 2010 baseline	
Protect and increase the existing tree canopy	New policies and standards to maintain and increase the tree canopy: In 2013 Maryland’s Department of Natural Resources performed a Forest Stewardship Plan by a Licensed Forester, a Wildlife Biologist, and a Heritage Ecologist.	
Repair and maintain wetlands	# of acres of wetlands repaired and/or maintained	
<b><u>Farmland</u></b>		
Increase available land for local food production	Number of established baseline sites available for agriculture, including food forests: The City has community gardens and supports the Three Sisters Garden Project and the Food Forest Project (CHEARS).	
<b><u>Mix-use/Commercial Development</u></b>		
All new development in Greenbelt should be accomplished with sustainable infrastructure	Percentage of new development achieving LEED certification	Seek to achieve at least LEED Silver certification in all new development projects. <sup>2</sup>
New development should seek to protect wetlands and forest land		

<sup>2</sup> LEED ND website

<b><u>Residential</u></b>		
Increase residential tree canopy	Establish a baseline of residential tree canopy	
Decrease impervious surface	Establish a baseline of impervious surfaces	
Reduced use of fertilizers, pesticides, and herbicides.	Number of households with lawns and landscaping that uses fertilizers, pesticides and herbicides.	Decrease the number of households that use fertilizers, pesticides and herbicides through awareness, education and incentives. Perhaps with policies too.

## LAND USE SYSTEM: ACTION PLAN

Steps and Actions to Implemented and to Be Implemented	Completed/on-going (√) or Target Dates for completion	Notes and/or Responsibilities
<p><u>Public/Municipal</u>                      Implement Low Impact Development (LID) practices in new development and redevelopment of public facilities and roads</p> <p>Develop and implement high-visibility LID demonstration projects</p> <p>Implement Organic Land Care standards on public lands in Greenbelt including the food gardening plots. These are presented for example in the Northeast Organic Land Care Standards (NOFA Standards) Work to eliminate the use of non-allowed pesticides and synthetic fertilizers that are harmful to the Chesapeake Bay. Use pesticides only under guidelines in the organic standards for public health reasons. Explore feasibility of banning the use of non-organic pesticides and herbicides by service companies servicing Greenbelt residents' lawns and landscapes.</p>	<p>√</p>	<p>Public works facility – rain garden/bioretenion demonstration (2009)</p> <p>Organic Land Care policy adopted to eliminate cosmetic use of pesticides on city property in 2009.</p>

<p>Promote sustainable and safe lawn and landscaping practices to Greenbelt residences and businesses.</p> <p>Work with Public Service Commission to ensure that trimming, new lines, or additional infrastructure is installed in most sustainable method</p>		
<p><u>Forest and stream corridors</u> Protect and enhance existing forest lands</p> <p>Protect and expand existing stream buffers</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	<p>Buddy Attic Lakeshed management plan adopted in 1992</p> <p>Forest Preserve Advisory Board established in 2001</p> <p>Greenbelt Forest Preserve established in 2001--forest protection policy and management plan adopted for city forest preserve</p> <p>Current tree canopy 62% (2010)</p> <p>Greenhill Stream channel restoration project (2011)</p>
<p><u>Farmland</u> Identify opportunities for public/private partnership to support small farming enterprises</p>	<p>✓</p> <p>✓</p>	<p>City support of Greenbelt Garden plots</p> <p>City support of Greenbelt Farmer's market</p>
<p><u>Mix-use/Commercial development</u> Encourage higher-density transit oriented development</p> <p>Encourage mixed residential and commercial development</p> <p>Develop and support Low Impact Development practices in all new development</p>		

<p>Support County and State efforts to strengthen stormwater management practices</p> <p>Require mitigation for tree and open space loss for new development</p> <p>Propose ordinance that commercial manager adopt organic standards.</p>		
<p><u>Residential</u></p> <p>Adopt tree protection ordinances to support urban canopy goals</p> <p>Encourage in-fill development to reduce sprawl</p> <p>Provide education to minimize residential pesticide/herbicide/fertilizer use</p> <p>Develop incentive programs for Low Impact Development practices to retrofit existing homes and reduce stormwater runoff (i.e. rain barrels, permeable pavement, rain gardens, etc.)</p>		<p>Public Works to Partner with CHEARS and Club 125 to generate workshops that increase knowledge and awareness of these issues.</p>

## TRANSPORTATION SYSTEMS

CONNECT, UNIFY AND CREATE A TRANSPORTATION FRAMEWORK THAT IS SUSTAINABLE, EFFICIENT, CONVENIENT, RELIABLE, INCLUSIVE, CHILD-FRIENDLY, AND ACCESSIBLE – INCLUDING THOSE WITH DISABILITIES.

Goals	Success Indicators	Baseline Information and Possible Improvement Targets
<p>Incorporate the concepts of collaboration, interdependence, accessibility, safety, universal design, and quality of life.</p>	<p>Improved relationship with existing transportation partners</p> <p>Recommendations from Advisory Planning Board for improved connectivity and public transportations</p> <p>Ridership increase in public transportation</p> <p>Survey established for increased walking and bicycle riding.</p> <p>More sustainable public and private transportation.</p>	<p>Establish baseline through comprehensive study, for scope and parameters see Appendix A</p>
<p>Reduce dependency on and usage of personal vehicles</p>	<p>Fewer cars on the road through public transit/Less use of personal automobiles/ Car sharing, carpooling, Zipcar.</p> <p>More use of bicycles and walking</p> <p>Improved public transportation options to major shopping destinations such as Greenway Center and Beltway Plaza</p>	<p>The APB generated a bus stop inventory and evaluation in 2013.</p> <p>Baseline established through Department of Transportation studies on number of cars on the road.</p> <p>Baseline established through testing air quality for lower emissions</p>

<p>Develop sense of community surrounding walkability and ridability, safety and accessibility</p>	<p>More positive attitudes and opinions of public transportation.</p> <p>Successful creation of alternative walk and bicycle paths to connect Greenbelt East, Greenbelt West, and Greenbelt Central.</p> <p>Increased safety features in all overpasses and underpasses that traverse major thoroughfares.</p>	
<p>Require comprehensive transportation studies on new development projects.</p>	<p>Reports provided to City staff and City Council prior to any decisions that approve new development projects and plans as well as major modifications to existing buildings.</p>	<p>These studies must show that the development plans do not have a negative impact or added major burden on the quality of life of Greenbelt residents and visitors. Quality of life factors include, but are not limited to, traffic levels, air quality, and safety. "red flag"</p> <p>Studies should go beyond traditional impact surveys to include electronic and passive trip counts and estimates.</p> <p>In addition, the study should include anecdotal information on traffic patterns.</p> <p>The studies should include the amount of traffic and studies for both rush hour and non-rush hour traffic as well as weekend traffic patterns and volume.</p>
<p>Increase accessibility to the public transportation system</p>	<p>Increased use of transportation systems by individuals with disabilities.</p>	

	<p>Improved safety and security in all Metro stations for individuals, cars, and storage of bicycles</p> <p>Establishment of a Greenbelt circulator, with a vehicle that is small enough to reach all areas of Greenbelt.</p> <p>Establishment of Sunday bus service within Greenbelt.</p>	
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## TRANSPORTATION SYSTEM: ACTION PLAN

Steps and Actions to Implemented and to Be Implemented	Completed/on-going (√) or Target Dates for completion	Notes and/or Responsibilities
<p>Create alternative walk and bicycle paths to connect Greenbelt East, Greenbelt West, and Greenbelt Central.</p> <p>Measure public opinion through surveys, polls, and community meetings.</p> <p>Ensure bicyclist safety when constructing roundabouts and intersections.</p> <p>Ensure continuous bike lanes through new and modified intersections.</p>	<p>√</p>	<p>The Advisory Planning Board (APB) presented a Pedestrian and Bicyclist Masterplan to the City in 2013.</p> <p>Change perception of public transportation in terms of economic, social, status, and environmental issues, through outreach and public education efforts at community festivals, forums, meetings, media stories, and social networking.</p>
<p>Collaborate with Metro, the county, and individuals with disabilities to identify and solve problems with maintenance of bus shelters and routes, especially during inclement weather.</p> <p>Institute Sunday bus service within Greenbelt, and to the New Carrollton and Greenbelt Metro stations.</p> <p>Develop "Circulator" bus system - with a vehicle that is a small enough to reach all areas of Greenbelt.</p>		

<p>Change perception of public transportation in terms of economic, social, status, and environmental issues, through outreach and public education efforts at community festivals, forums, meetings, media stories, and social networking.</p>		<p>Promote the idea of Public transportation = Public Safety</p> <p>location/neighborhood- specific solutions, where a community may be more interested in buses than walkability</p> <p>develop a sense of community of purpose, where people recognize they are not alone in their concerns about transportation issues</p> <p>seeing systemic issues that are first experienced as individual challenges</p> <p>develop Web Page dedicated to "Sustainable Greenbelt" on the city Web Site</p>
<p>Improved Funding for transportation:</p> <ul style="list-style-type: none"> <li>• development tax on new buildings or new ownership of existing buildings</li> <li>• WMATA contribution to additional city transportation in order to find other feeders to the subway</li> <li>• sharing costs with partners and communities</li> <li>• explore the MD Transportation Trust Fund</li> </ul>		
<p>Increase alternative, non-publicly funded transportation options.</p> <p>Look at private and not-for profit organization and business enterprises to</p>		

<p>provide alternatives to public transportation.</p> <p>Create "Bike Share" programs to allow individuals to use city-owned bicycles instead of cars.</p> <p>Expand program opportunities utilizing the University of Maryland shuttle bus expanded for all Greenbelt residents, not just students.</p>	<p>✓</p> <p>✓</p>	<p>The City is looking into a Bike Share program for Greenbelt West.</p> <p>As of 2013 Greenbelt residents may purchase UMD shuttle passes.</p>
<p>Make greater efforts to partner with neighboring communities to create a regional transportation system.</p> <p>Encourage increased visits by people from neighboring communities.</p> <p>Collaborate more with merchant associations and chamber of commerce-type organizations to promote intercity cooperation among the major shopping destinations and other types of commerce and services.</p>		
<p>Promote electric and alternative fuel vehicles and help turn gas stations into mobility energy stations.</p> <p>Build recharging capability in various locations in all three neighborhoods of the city. Work with Home Owner</p>		<p>City of Greenbelt working with COG to identify opportunities to purchase electric vehicles and to build charging stations (2013).</p>

<p>Associations, Cooperatives, and owners/developers of apartment complexes.</p> <p>Look at national and state incentives for alternative fuel vehicles and institute ways of making it more convenient to use them.</p>		
<p>Focus on safety and health concerns related to the transportation plan</p> <p>Encourage Metro to create secure storage for bicycles at Greenbelt Metro station.</p> <p>Look at safety at intersections for pedestrians, and bike riders, and along pathways, including overpasses and underpasses by providing better lighting and other safety features.</p> <p>Create pathways that are children-friendly; refocus on traditional Greenbelt values and practices regarding safety, access, and ease of use.</p> <p>Provide educational opportunities for drivers, bicycle riders, and pedestrians on safety issues for each, and how they all must work together to create a safe environment.</p>		

## WASTE SYSTEMS

ZERO WASTE, TO REDUCE THE AMOUNT OF MATERIALS GOING INTO THE LANDFILL AND INCINERATORS.

Goals	Success Indicators	Baseline Information and Possible Improvement Targets
Reduce total waste sent to landfill	<p>Weight of materials taken to landfill by the City's Department of Public Works (this includes residences and businesses that the City serves). (tons)</p> <p>Weight of materials taken to landfill by contractors that service the rest of the City. (tons)</p>	<p>Baseline: In 2005, 2164.69 tons of materials were landfilled.</p> <p>Baseline: weight of landfilled materials in 2005 by contractors (tons)</p>
Increase recycling rate	<p>Weight of materials collected curbside by Public Works Department. (tons)</p> <p>Weight of materials recycled by the City other than curbside collection. (tons)</p> <p>Weight of materials collected by contractors. (tons)</p>	<p>Baseline: In 2005, 1935.82 tons of materials were diverted from the landfill; 2164.69 tons were landfilled; the recycling rate was 47.21%</p> <p>Baseline: weight of materials in 2005 by contractors. (tons)</p> <p>Target: Increase both groups by 65% by 2020</p> <p>Ultimate Target: to increase diversion rates to 95% by 2050</p>

Increase composting	Number of households composting (self-reported)	Baseline: number of self-reported composters  Target: increase number of self-reported composters
Increase yard waste diversion	Weight of yard waste taken to Northway each year (tons)	Baseline: tons taken to Northway in 2005 were 440.50.  Target: increase tons taken to Northway
Increase diversion of electronics from landfill	Number of cars attending electronics recycling events.  Weight of electronics brought to the events (tons).	Baseline: the number of vehicles coming to FY 2009 recycling events was 573. The number of tons collected in 2009 was 15.5.  Target: increase number of vehicles dropping off electronics at recycling events. In FY 2012 the number of vehicles was 782 and the tonnage 29.26
Increase business participation in recycling program	Number of businesses participating in recycling (# of businesses)	
Increase recycling in condos and apartments	Number of condos and number of apartment complexes that are truly providing recycling opportunities (# of condos/apartments)	
Increase green purchasing by the City	Adopt a Green Purchasing policy for all City Departments.	

## WASTE SYSTEMS: ACTION PLAN

Steps and Actions to Implemented and to Be Implemented	Completed/on-going (√) or Target Dates for completion	Notes and/or Responsibilities
Encourage Greenbelt businesses to reduce their waste stream by recycling and composting.	√	<p>Outreach to businesses. In 2013 the Greenbelt Food COOP started a recycling program.</p> <p>Conduct a survey of businesses. Do they recycle? Who is their waste hauler? Do they collect recycling?</p> <p>Encourage recycling at businesses.</p>
Continue with Reduce, Reuse, Recycle campaigns: Encourage donation drop off, donations to thrift stores, to Community Forklift, etc.	√	<p>Recycling guidelines reminders are published in social media, and listservs, at least twice per year.</p>
Encourage food composting, and yard waste composting.	√	<p>Conduct a survey to learn more about composting habits in Greenbelt.</p> <p>Conduct annual workshops on composting.</p> <p>Public Works, CHEARS and Club 125 co-hosted a composting workshop on June 8, 2013.</p> <p>Start outreach campaign to encourage yard waste diversion.</p>
Continue with recycling campaigns: Purchase and distribute recycling rolling carts for all the City's customers.	√	<p>The budget for recycling rolling carts was cut for FY 2014????</p>
Encourage recycling at condos and apartment buildings		<p>Learn more about what each multi-family unit is doing to encourage recycling; work with the County to enforce recycling laws for apartments and condos.</p>
Adopt a green purchasing agreement for		<p>Conduct survey with each City department about their Green</p>

<p>all City Departments. Adopt “no Styrofoam” policy</p>	<p>√</p>	<p>purchasing policies. The City is encouraging all departments to stop using Styrofoam. Vendors at the Labor Day Festival are banned from using Styrofoam.</p>
<p>Create “Green Festivals” policy to improve recycling and composting at all festivals within the city</p>	<p>√</p>	<p>The City’s permit includes a line that stipulates organizers should ask for recycling bins for their festivals (added in 2012).</p>
<p>Increase public awareness of reuse organizations and events</p>		<p>Add a section on the City’s website where reuse organizations and events are being showcased; consider putting a list in the welcome packets. (Lutheran Church Thrift Store and Flea Market; Greenbelt Nursery School Yard Sale fundraiser; GES Labor Day Book Sale fundraiser; Mamas &amp; Papas Farmers Market Swaps; neighborhood yard sales).</p>

## WATER SYSTEMS

### CONSERVATION AND SUSTAINABLE MANAGEMENT OF WATER IN GREENBELT

<b>Goals</b>	<b>Success Indicators</b>	<b>Baseline Information and Possible Improvement Targets</b>
Reduce the water consumption of Greenbelt government, households, businesses, and institutions	Per year per sector (municipal, residential, commercial, institutional)  Gallons of water consumed per building in the City government.  Gallons of water consumed per sector: residential, commercial, institutional	Gallons of water consumption. Reduce 5% per year.
Support and implement Low Impact Development (LID) practices at municipal, residential and commercial sites to capture and manage 100% of 1" rain events	City Council support of State stormwater legislation requiring site design practices to manage 1" rain events.	
Eliminate all unpermitted pollution to surface waters within the City of Greenbelt	No reported incidents of illicit discharges within City limits.	

## WATER SYSTEMS: ACTION PLAN

Steps and Actions to Implemented and to Be Implemented	Completed/on-going (√) or Target Dates for completion	Notes and/or Responsibilities
<b>Municipal</b>		
<b>Water Conservation</b>		
Require water-efficient components (toilets, faucets, etc.) in all new and renovated public buildings	√	Renovated Public Works building includes low-flow components.
Develop ordinances to support the use of greywater recycling for landscape and other appropriate use		
Develop ordinances to support the use of composting toilets		
<b>Stormwater Management</b>		
Support County and State-wide stormwater management legislation to require LID practices		2012 legislative session
Install and maintain "stormceptor" filters or other LID practices in public parking areas to intercept, filter, and infiltrate storm runoff. Use LID practices upon all major reconstruction/restoration of parking areas and/or storm water utilities.	√	Demonstration rain gardens constructed at the Youth Center and Public Works building.
Achieve 100% capture of 1" rain events for all new development sites and major redevelopment sites.		Permit requirement for development/redevelopment projects
<b>Pollution Prevention</b>		
Strictly enforce "no dumping" ordinances to reduce illicit discharges	√	

Expand "Do Not Dump" storm drain labeling to reach all storm drains in Greenbelt	√	Coordinate with local watershed groups, schools, scout troops, etc. for labeling activities.
<b>Residential</b>		
<b>Water Conservation</b>		
Provide residential education (and incentives?) for the adoption of low flow showerheads, toilets, and faucets in residential homes.		WE CAN Save Energy campaign sponsored by Council of Governments included a package with water saving devices for participants (2009).
Provide education (and incentives?) to minimize water use in residential and commercial landscaping (i.e., increased use of rain barrels/cisterns, education on xeriscaping, rain gardens, etc.)	√	Public Works Open House, an annual event, showcases rain barrels and encourages rain gardens.
<b>Stormwater Management</b>		
Provide education for adoption of rain harvesting by residents (rain barrel)		Public Works Open House, an annual event, showcases rain barrels and encourages rain gardens.
Develop rain barrel bulk purchase program	√	Bulk purchase program initiated by GHI 2007
Provide education for adoption of rain gardens, permeable pavement and other site-level LID practices for homeowners		
<b>Pollution Prevention</b>		
Provide education to residents in practices to reduce non-point source pollution (proper lawn fertilization, proper maintenance of vehicles to reduce pollution, parking lot/driveway filters, etc.)		Create a workshop, perhaps sponsored by Public Works, CHEARS and Club 125.

<b>Commercial</b>		
<b>Water Conservation</b>		
Provide commercial education (and incentives?) for the adoption of water efficiency measures in apartments, hotels, and other commercial buildings (low-flow showerheads, toilets, waterless urinals, auto-sensor technology, etc.)	√	Greenbriar Condominium has contracted with Water Savings, Inc. (WSI) to implement a "FREE" plumbing fixture upgrade/water conservation program within the community. The program is installing state-of-the-art commodes and massaging shower heads within each bathroom, and offers rapid response to repair leaks. The program is paid for out of the savings resulting from reduced water consumption.
Provide education (and incentives?) to minimize water use in commercial landscaping (i.e., increased use of rain barrels/cisterns, education on xeriscaping, rain gardens, etc.)		
<b>Stormwater Management</b>		
Implement LID retrofits to attenuate and infiltrate stormwater runoff from impervious surfaces		
Install and maintain "stormceptor" filters or other LID practices in parking areas to intercept, filter, and infiltrate storm runoff.		
Achieve 100% capture of 1" rain events for all new development sites and major redevelopment sites.		
<b>Pollution Prevention</b>		
Provide education to businesses in practices to reduce non-point source pollution (proper lawn fertilization, proper maintenance of vehicles to reduce pollution, parking lot/driveway filters, etc.)		

## Thank You

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Green ACES wishes to thank past and present committee members, City Council and staff liaisons, and others who contributed to the development of this document.

## APPENDIX A

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### **I. Introduction**

How does Transportation fit into a plan for a complete city? It is key to building and sustaining that complete city.

What are the elements of a complete city? Paraphrasing from a speech by President Obama: Housing, Transportation, the Environment, Jobs, Schools – are all key elements of making a complete city. These things are not mutually exclusive, but go hand in hand. Affordable housing that exists in close proximity to jobs and transportation translates to shorter trips and lower travel costs. It means safer, greener, more livable communities. It also means that the people who live, work, and play in a city can more easily connect and to each other, increasing commonly shared experiences which strengthen the sense of community

Transportation is key to long term economic sustainability and redevelopment of the City. For example, Greenbelt has a high office vacancy rate, including all of one building where Hewlett Packard was located. Increasingly, businesses focus on a City's transportation program, as well as its environmental, educational, recreational and cultural offerings as items that will attract or deter movement to our City.

Related to this is job development within Greenbelt. If greater numbers can walk, bike, or shuttle to jobs that are in Greenbelt, and not in Rockville or Arlington, the result could very well be less travel on the Beltway, BW Parkway, and other arteries. That will reduce both the carbon emissions released into the air and the cost of maintenance on those arteries since they will be used less.

The restructuring of WMATA's and the County's bus services will be a challenge to our residents. One long-term solution is the introduction of a true circulator bus program. While funding is a key question for all of our City's services, a circulator could be operated through an expanded Greenbelt Connection program. Among the major points that the circulator would connect: The major shopping centers, major employers, and the post office, as well as parks, recreation areas, and schools in all parts of our city. We also need to look at nearby destinations, too.

To help reduce the time for bus commutes to Greenbelt and New Carrollton metro stations, we should explore creating separate bus lanes and stop lights that allow busses to move on in their separate lanes. The experience of car drivers and riders watching busses go by as they wait at the light might, on its own, create a new market of bus riders.

We need to work towards the elimination of the disincentives to use mass transit. One example: a fellow Greenbelter who biked to the Greenbelt Metro to access the Green Line Metro to L'Enfant Plaza and work discontinued that practice when bike racks tripled in cost. Now, he drives to work. Another Greenbelter's bike was stolen at the Metro station, even though it was securely locked to the bike rack. Greenbelters in all parts of the city, but particularly residents who live within walking distance of the Metro station, are deterred by a high incidence of crime for people walking to and from the station.

A sustainable transportation framework means a community that can get to and from work, within Greenbelt or in DC, Virginia or Baltimore, without having to depend on a personal vehicle. It means a community where residents can get to and from home to civic, recreational, cultural, environmental, and other types of community-oriented activities without personal vehicle dependence. This helps erase the divide between our major sectors. It also means that folks from our region can access our amenities more easily as well, helping to make each of those offerings more sustainable.

Offering reliable and frequent, streamlined, mass transit alternatives, in tandem with strengthening existing pedestrian and bicycle pathways, which include providing secure underpasses and overpasses, also help erase the physical divisions of the tri-sected City.

Consistent with City plans that go back to 1979, plans for additional overpasses and underpasses should be considered for safer access across major arteries such as Greenbelt Road. These overpasses will allow access from Old Greenbelt to Greenway Center, from Greenbelt North (adjacent to Lakeside North / Police Station) to Franklin Park at Greenbelt Station, and a bike path from the Greenbelt Metro Station, through Greenbelt and continuing to Goddard Space Flight Center.

It needs to be pointed out that those skyways, overpasses, and underpasses require the input of respective communities, as well as the various appropriate city departments and advisory boards. They need to be pro-active in the design and implementation of well-lit, safe passages that go hand in hand in encouraging frequent use. In Greenbelt's earlier days, one could walk underground from the Middle School (then Greenbelt Junior High) in a spillway under Kenilworth Avenue, and arriving out by the Lake and the American Legion.

Lighting for these passages, as well as sidewalks in all parts of the City, is critical. For example, improved lighting for the pathways in Franklin Park is just one area noted in community meetings that will create a safer Franklin Park. Lighting, obviously, should be "green", by using modern technological advances, such as LED fixtures. Video cameras, as well as increased police and citizen patrol will provide added security. The more attractive, reliable, frequent, safe, and available passages for alternative movement (bus, bike, Segway, foot, etc.), the better.

Benefits to investing in our local transportation framework are numerous. The more people are using alternatives, the need and use of personal vehicles should result in less wear and tear on the roads. That will yield a cost savings for road maintenance. Increased participation in community offerings could also result - young folks will not have to rely on their parents to drive them to practice or games, as one example. Finally, fewer emissions yield a cleaner environment, fewer cases of asthma and other health related negative impacts.

Regarding the use of personal vehicles, the City should urge that the State of Maryland encourage/require gas stations to offer alternative fuels. This might include tax incentives to fuel stations to move them in the right direction. This is one of the priority items the City Council is going to be urging state legislators to take on in the next legislative session in Annapolis. Another is to establish electrical recharging stations throughout the city for electric cars and other electric vehicles. Another possible solution would be any necessary modifications of traffic laws to encourage the use of electric "golf" carts for short trips.

Finally, the city should create a bicycle-friendly environment by installing secure racks and sheds in Roosevelt Center, each of the Recreation Centers, and other destinations.

## **II. Creating a Comprehensive Strategic Transportation Plan for Greenbelt**

### A. Major aspects of, and goals for, the Green ACES Strategic Plan for Transportation

1. Connecting, unifying, and creating a framework that is sustainable, efficient, convenient, reliable, inclusive, child-friendly, and accessible (in all senses of the word).
2. Incorporate the concepts of collaboration, interdependence, accessibility, safety, universal design, and quality of life.

### B. Making Greenbelt attractive

1. To other communities that supply sustainable connections.
2. To bring Green businesses to Greenbelt by improving our connectivity within the city, as well as to the city from outside communities.

### C. Develop Plans and measurable goals

1. Short term (1 - 3 years)
2. Medium term (3 - 15 years)
3. Long term (15 - 30 year)
4. Review and update goals yearly to reflect changes that occur that affect the accomplishment of these goals.

### D. Create several working groups

1. Utilize a logical framework
2. Look at the Who, What, Where, Why, and When, as well as the How of a comprehensive and sustainable transportation plan.

- E. Look at transportation options other than WMATA and THE Bus
  1. Expand city transportation opportunities and options
  2. Seek funding for the county, state, and Federal diverted to the city
  3. Explore alternative funding for transportation; public, local businesses, Federal, state, and local grants.
- F. Learn from the experiences of other cities with mature sustainability programs.
  1. Alexandria, VA: threshold radius from the city within which a coalition of entities/stakeholders was created; contributions to public transportation from within that radius.
  2. Portland, OR: Dedicated Web Site, "Sustainable Portland" provides information on all forms of alternative transportation; includes updates on community activities, and notices/announcements relating to sustainability efforts of the city.
  3. Denver, CO: small scale/mini regional plan; 7 adjoining counties created a funding base and financial investment process; increase in sales tax \$.01 for every \$10.00 for transportation; include a commitment to move the region forward when the planning becomes a connective investment.
- G. Create a comprehensive "Sustainable Greenbelt" Web Site
  1. Modeled after the "Sustainable Portland" Web Site.
  2. Resides in the City's Web Site
  3. Links to the Green ACES Web Site that is
- H. Encourage WMATA to look at bus transfers
  1. Set up so people have time to shop, then get back on the bus without additional payment to continue to do errand
  2. Look at Los Angeles transfer program: allows getting on and off bus with a timed transfer; allows multiple destination stops and time to spend at each destination; use the transfer as many times as you want as long as you continue in the same direction
- I. Utilize the 4-cities coalition
  1. Greenbelt, Berwyn Heights, College Park, and New Carrollton
  2. Develop a regional solution to transportation challenges.
- J. Increase communications and explore common areas of interest
  1. Neighboring communities of Beltsville, Bowie, Cheverly, Edmonston, Glenn Dale, Hyattsville, Lanham, Laurel, Riverdale, University Park
  2. Other planned communities of Columbia and Reston.
  3. Incorporated cities in Maryland that are similar in size to Greenbelt (20,000 - 30,000) -- Laurel, College Park, Cumberland, and Salisbury.
- L. Address general issues
  1. Design vs. retrofit
  2. Isolation vs. integration

3. Inclusion vs. exclusion.
- M. Look at how people connect with Greenbelt:
  1. Those who live and work in Greenbelt
  2. Those who live in Greenbelt and work outside
  3. Those who work in Greenbelt and live outside.
- N. Research how the other two Green Towns have developed their transportation systems
  1. Unique to these towns?
  2. Part of the larger community in which they are located?
  3. Other special aspects?

### **III. Elements of a Comprehensive Transportation Plan for Greenbelt and Neighboring Environs**

- A. For each of the short, medium, and long-term goals, develop and implement plans:
  1. Phase 1 - Identify needs; solicit input from identified allies and stakeholders
  2. Phase 2 - Address needs, develop comprehensive Strategic Plan
  3. Phase 3 - Identify private and public sector funding sources, community support, education and outreach, public hearings, reach out to three or four neighborhoods of Greenbelt,
  4. Phase 4 - Implementation
- B. Focus Levels
  1. Non-motorized Individual Movement on Sidewalk/Pathways
    - a. pedestrian
    - b. wheelchair/walker
    - c. bicycle
    - d. personal mobility device
  2. Motorized Individual Movement
    - a. motor scooters
    - b. motorcycles
    - c. cars
    - d. golf cart or other electronic vehicles
    - e. power wheelchairs and mobility scooters
  3. Small Group
    - a. carpool/vanpool
    - b. ParaTransit

- c. shuttle bus
- d. circulators

#### 4. Large Group

- a. bus – WMATA and THE Bus
- b. subway

### C. Issues

#### 1. Access

- a. pedestrian/bicycle/mobility overpasses for four major arteries cutting across/dissecting Greenbelt: Kenilworth Avenue, Greenbelt Road, Baltimore Washington Parkway, and Interstate 495/95
- b. easier access from bus stops to commerce centers, i.e., Roosevelt Center and Beltway Plaza.
- c. connecting GAC and old Post Office space to upper plaza in Roosevelt Center.
- d. make Roosevelt Center more pedestrian- and bus rider-friendly at entrances to Roosevelt Center other than from Crescent Road and Parkway Road
- e. develop electricity recharging stations around Greenbelt for electric vehicles
- f. make Greenbelt more bicycle-friendly by providing secure tie-down areas for bicycles around the city
- g. develop greater capacity and availability for city-supported zip-cars, bicycle rentals, and bicycle sharing.
- h. develop pedestrian/bicycle pathways around city
- i. make it easier for those who must use their cars for transportation needs, i.e., individuals with disabilities.
- j. how do people get to and from selected destinations within and outside the Greenbelt city limits?
- k. explore moving the bus bays from Crescent Rd to Centerway or on the back side of the Roosevelt Center

#### 2. Funding

- a. development tax on new buildings or new ownership of existing buildings
- b. WMATA contribution to additional city transportation in order to find other feeders to the subway
- c. sharing costs with Allies
- d. explore the MD Transportation Trust Fund

#### 3. Stakeholders

- a. UMCP shuttle bus
- b. community of practice - group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.
- c. identify the vested interest of stakeholders and allies

#### 4. Communication, Education, and Public Outreach

- a. promote the idea of Public transportation = Public Safety
- b. location/neighborhood- specific solutions, where a community may be more interested in buses than walkability

- c. develop a sense of community of purpose, where people recognize they are not alone in their concerns about transportation issues
- d. seeing systemic issues that are first experienced as individual challenges
- e. develop Web Page dedicated to "Sustainable Greenbelt" on the city Web Site

4. Miscellaneous

- a. incentives other than environmental sustainability: economic, time/efficiency, convenience, diversity/expansion of opportunities, and connectivity
- b. institute a no-idling law for buses when stopped for extended periods of time, i.e., Roosevelt Center transfer point
- c. creation of bus lanes
- d. look at the interconnection of residential, commercial, recreation, educational, religious, and cultural and the concentric circles of connectivity

D. Major Stakeholders/Allies

1. UMCP [Transportation Office]
2. WMATA [TRU-G contacts]
3. GSFC [Transportation Office, Office of Human Capital Management, Management Operations Directorate]
4. Prince George's County Department of Public Works and Transportation [Bus people]
5. Franklin Park [Management Office]
6. GEAC and other HOA's [Contact list from TRU-G, City of Greenbelt, and Green ACES Web Sites]
7. Federal Court House [Administrative Office]
8. BARC Transportation Office, Office of Human Capital Management, Management Operations
9. DWT [???
10. Advisory Planning Board Rep. [George Branyan], Bike & Pedestrian Planning- [Amy Hofstra]
11. Greenbelt Bicycle Coalition [Bill Clarke]
12. [Bob Cahalan], GSFC bike path champion.
13. Transit Riders United-Greenbelt [Jen Errick]
14. Selected Destinations [Choose major destinations within each category]
15. Greenbelt community organizations [Those that deal with people issues]
16. MARC [Same office types as for WMATA and The Bus]
17. The city of Greenbelt [Department of Public Works, Department of Transportation]

E. Selected Destinations

1. Residential
  - a. Boxwood Civic
  - b. Charlestown Village Condominiums

- c. Franklin Park at Greenbelt Station
  - d. Greenbelt Homes Inc (GHI)
  - e. Greenbriar
  - f. Green Ridge House
  - g. Greenwood Village
  - h. Hunting Ridge Condominiums
  - i. Lakeside
  - j. Lakewood
  - k. Ora Glen
  - l. Parkside at Greenbelt
  - m. Windsor Green
  - n. Woodland Hills
2. Commercial Shopping Centers
- a. Beltway Plaza
  - b. Greenway Center
  - c. Cipriano Square
  - d. Eastgate Shopping Center
  - e. Roosevelt Center
  - f. The Market Place Shopping Center
  - g. Free State Mall Shopping Center
  - h. Hill Top Shopping Center
  - i. Enterprise Shopping Center
  - j. Lanham Shopping Center
  - k. Hollywood Shopping Center
3. Recreation Centers/Areas
- a. Springhill Lake Recreation Center
  - b. Schrom Hills
  - c. Lake Artesia
  - d. Indian Creek Park
  - e. Buddy Attick Lake Park
  - f. Greenbelt Regional Park
  - g. Seabrook Park
  - h. Glenn Dale Park

- i. Palmar Park
- j. Gaywood Neighborhood Park
- k. Hollywood Recreation Center
- 4. Schools
  - a. Greenbelt Elementary
  - b. Springhill Lake Elementary
  - c. Roosevelt High School
  - d. Robert Goddard Middle School
  - e. DuVal High School
  - f. home school associations
  - g. religious schools
  - h. charter schools
  - i. University of Maryland, College Park
  - j. Capitol College
- 5. Houses of Worship
  - a. synagogues
  - b. churches
  - c. mosques
- 6. Large employers
  - a. aerospace
  - b. Doctors Community Hospital
  - c. shopping centers
  - e. hospitality/hotels
- 7. Cultural
  - a. Greenbelt Arts Center
  - b. Old Greenbelt Theater
  - c. Academy 8 at Beltway Plaza Movie Theater
- 8. Restaurants/Night Spots