

A road map for
CHATHAM COUNTY

for its journey
in becoming

**THE GREENEST
COUNTY** in the
STATE of GEORGIA

Chatham
Environmental
Forum





CHATHAM
ENVIRONMENTAL
FORUM

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Since 1989, the Chatham Environmental Forum (CEF) has been quietly assisting the community in tackling some of the area's most challenging environmental issues. The CEF membership includes a broad cross-section of the community with equal representation from the business sector, governmental bodies, and environmental advocacy groups.

Over the past 20 years, the CEF has addressed complex issues, such as air quality in the Savannah area and its potential impact on community cancer rates, and the long term protection of the Floridan aquifer as the area's primary drinking water source. For each issue undertaken by the CEF, the final analysis has been a consensus product based on the best available science with recommended solutions that all sectors within the community could support.

Table of
Contents



JOIN

1 Executive Summary ::
Accepting the Challenge p.6

2 Summary of Committee Goals p.7



3.1 Green Space/Land Use p.9



3.2 Energy p.13



3.3 Transportation p.19



3.4 Climate Change p.25



3.5 Creative Infrastructure p.31



3.6 Water Management p.35



3.7 Solid Waste p.41

4 Miscellaneous p.45

5 Next Steps p.47

6 Areas of Future Focus p.48

7 Committee Members & Participants p.49

8 Full Roster: Chatham Environmental Forum p.50

The County of Chatham
Georgia

Resolution

CALLING FOR CHATHAM COUNTY TO BECOME
"THE GREENEST COUNTY" IN GEORGIA

WHEREAS, the area now known as Chatham County has had a green history, as the delta of a great river, as a home for native American Indians such as the Yamacraw tribe, as the place where General James Edward Oglethorpe chose to found the colony of Georgia, and through the subsequent 275 years of sustained settlement; and

WHEREAS, Chatham County is blessed with an abundance of natural resources, including the Atlantic Ocean, the barrier islands, the tidal marshes, the high bluff of historic Savannah, the forests of pines and live oaks, the Floridan Aquifer and a rich and complex natural ecosystem; and

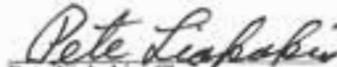
WHEREAS, Chatham County is also blessed with a diverse human ecology, with many cultural heritages; abundant infrastructure including education, transportation, industrial, national security, and all types of residential; and people who share a great love of our community despite their many differences; and

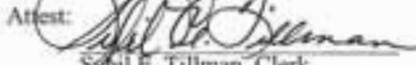
WHEREAS, we all must now learn to be as energy and resource conservative as possible in order for future generations to survive and prosper, the Board of Commissioners of Chatham County desires to show its leadership in helping to create "The Greenest County in Georgia."

NOW, THEREFORE, the Board of Commissioners of Chatham County does hereby request that the Chatham Environmental Forum, with its history of helping to find answers to the difficult environmental questions of the last 20 years, accept the challenge of developing a plan for how we can together become "The Greenest County in Georgia" by identifying ways to conserve our natural resources; conserve energy in every way possible; enhance our ability to use local labor, talent and materials; and, to make sure that our investment in new infrastructure will help us to build a high-tech, knowledge-based, and creative local economy. **AND FURTHERMORE**, the Chatham Environmental Forum should bring together representatives of local governments, local businesses, and local environmental groups, as well as other community-based institutions, to prepare a plan to enhance our existing conservation programs, eliminate barriers to energy and resource conservation, and provide guidance as to how we can work together to find an environmentally, economically, and socially sustainable future, built upon local resources by local people, as a model for other counties in Georgia, and throughout the United States.

ADOPTED THIS 5th DAY OF OCTOBER, 2007




Pete Liakakis, Chairman

Attest: 
Sibil E. Tillman, Clerk

1

The Chatham Environmental Forum has accepted the challenge of developing a plan for making Chatham County the Greenest County in Georgia!

In October 2007, The Board of Commissioners of Chatham County passed a resolution calling for Chatham County to become the “Greenest County in Georgia.” The resolution requested the CEF take on the challenge of developing a county-wide plan for achieving the stated goal.

Beginning in 2008, the Chatham County Commission provided funding for the effort. The CEF and its members, also contributing funding and in-kind services, began the plan development process with a day-long retreat facilitated by the Rocky Mountain Institute (RMI). During this retreat, CEF members, along with other interested County residents, identified, discussed, and prioritized the most pressing environmental issues facing the County. Coming out of this facilitation were the top priority areas to be included in the first edition of the plan to make Chatham the “Greenest County in Georgia” and seven topic committees were formed:

Green Space / Land Use
Energy
Transportation
Climate Change
Creative Infrastructure
Water Management
Solid Waste

Each committee included CEF members and other interested citizens of Chatham County. For more than six months, many of these committees met on a weekly basis developing short, mid and long term goals and objectives for each of the environmental priorities.

The CEF considers the Plan to be a living document, to be continually updated and refined to achieve the County’s stated goal of becoming the “greenest county” in Georgia. Additional topics identified during the RMI-facilitated retreat for future inclusion are provided at the conclusion of this document.

Goals noted within this document require a proper analysis to account for population growth or decline that may occur within the County as related to goals, timelines and percentages herein.

2 Summary of Committee Goals



GREEN SPACE / LAND USE

1 :: Jurisdictional Collaboration

Foster dialogue and a unified working relationship between all jurisdictions in the County to facilitate continuity, and create a level playing field in land use decisions and green space protection.

2:: Tools & Best Practices

Promote sustainable and informed green space/land use decisions through the development and use of analytical tools, and by using best management practices.

3:: Education & Awareness

Increase public awareness and understanding of a whole-systems approach for land use and green space management.



ENERGY

1 :: Energy Efficient County Buildings

Improve the energy efficiency of County owned buildings to reduce total energy consumption by 15% by 2010, based on the consumption rate for baseline year chosen by the County through their ICLEI* greenhouse gases (GHG) inventory process to ensure the County exceeds the Governor's Energy Challenge of 15% energy reduction below fiscal year 2007 levels by 2020. *International Council for Local Environmental Initiatives

2 :: Community Energy Consumption

Reduce the community energy consumption of the County, to exclude county governmental usage, by 5% of total energy consumed by 2010 based on the consumption rate for the baseline year chosen by the County through their ICLEI GHG inventory process.

3 :: Transportation-Related Consumption

Reduce energy consumption for transportation by the County (e.g. Chatham Area Transit (CAT), Chatham County vehicle fleet, vehicles contracted with by the County).

4 :: Renewable Energy

Increase renewable energy use and production throughout the County to 5% of total energy consumption by 2010 based on baseline year chosen by the County.



TRANSPORTATION

1 :: Complete Streets

Enhance existing and create new streets designed and operated to enable safe, attractive and comfortable access and travel for all users ("complete" streets) – including users such as pedestrians, bicyclist, motorists, transit riders, and those with a disability.

2 :: Modal Integration

Create an integrated, multimodal transportation system that reduces negative impact on the environment, including greenhouse gases; while at the same time improving accessibility, mobility and efficiency for people and commercial traffic.

3 :: Freight Distribution

Promote inbound and outbound freight distribution through the county that mitigates impacts on the environment, using multi-modal transportation and transportation best practices for environmental impacts.

4 :: Staff Participation

By January 2010, increase county staff participation through membership, in local business groups such as the Propeller Club, Savannah Traffic Club and others groups relating to the freight handling industry to identify issues and gain perspective.

5 :: Education & Awareness

Increase awareness of alternative transportation opportunities and needs.



CLIMATE CHANGE

1 :: Greenhouse Gas Reduction

Reduce countywide greenhouse gas (GHG) emissions by 20% by 2020 from a 2006 baseline year.

2 :: Analysis

Analyze the opportunities and risks associated with climate change.

3 :: Education & Awareness

Design and implement a countywide climate change education plan by the end of 2009.

4 :: Regional Climate Change Initiative

Establish and build a base of support for a climate change initiative by 2009.

5 :: Statewide Collaboration

Chatham County government to positively interact on a state level in realizing the highest possible standard for GHG emissions reductions.



CREATIVE INFRASTRUCTURE

1 :: Wayfinding Tools

Create a 'Green map' of the County that highlights places and businesses operating in sustainable ways for use by citizens and tourists alike.

2 :: Youth Engagement

Support creative outreach to community youth through programs such as those at the Telfair Museums, & at-risk youth programs such as those by All Walks of Life (AWOL).

3 :: Bicycle Paths

Support the expansion of bicycle paths and bicycle lanes throughout the community.

4 :: Local Agriculture

Call upon the Chatham County-Savannah MPC and other local planning bodies to allow locally-oriented agriculture to be a permitted use in ALL zoning districts, not just the Industrial zones.

5 :: Creative Business Incubator

Advocate for the creation of a Creative Business Incubator/Accelerator by the Savannah Economic Development Authority (SEDA) and the Creative Coast Alliance with assistance and subsidy from available State grants and local incentives.

6 :: Creative Enterprise Zones

Develop a plan for Creative Enterprise Zones, which allow economic incentives for creative employers under State laws, and companion Opportunity Zones that allow local tax incentives, especially for affordable housing.



WATER MANAGEMENT

1 :: Efficiency In Government

Specify all government facilities set the standard for effective and efficient use of water in the County.

2:: Conservation Ethic

Facilitate and ensure public education is strengthened to foster a water conservation ethic in the community.

3:: Stormwater Runoff Reduction

Reduce the quantity and improve the quality of stormwater runoff.

4:: Water Resource Integrity

Protect the function and form of water resources, keeping them intact and contiguous so they may serve Chatham County to the fullest extent possible.

5:: Water Resource Longevity

Facilitate a comprehensive approach to water management that includes understanding and evaluation of the built and natural water cycle to sustain the viability of the County's drinking water sources.



SOLID WASTE

1 :: Reduce Environmental Impacts

Reduce the measured impacts of solid waste disposal on the natural environment of the County including groundwater impacts, land use impacts by landfills, and air quality through the use of recycling efforts, composting, and alternative disposal options by 50% by 2018.

2 :: Reduce Groundwater Impacts

Reduce areal extent of groundwater impacts from landfills within the County by 50% based on 2007 baseline data or to within the confines of the permitted footprint of the landfill by 2015, whichever is greater.

3 :: Promote Bio-fuels

Promote the production of a bio-fuel processing plant within the County by providing all yard waste diverted from the landfill and not used in homeowner landscape mulch program to the bio-fuel processing facility.

4 :: Promote Recycling

Support local recycling programs, particularly the City of Savannah's, by agreeing to participate in the program, and request the City increase its targeted recycle rate from the current 10% of the waste stream to 20% of the waste stream by no later than 2010.

5 :: Promote Composting

Promote removal of all organic materials from disposal in a landfill by establishing a countywide compost program that removes 50% of remaining organic materials from countywide waste stream by 2015.

6 :: Education & Awareness

Develop countywide media campaigns to provide information about the need for improved citizen participation in waste management strategies.

THE WORDS GREEN SPACE AND LAND USE evoke many definitions and emotions. Issues of land use are frequently misunderstood, divisive, and highly political. The Green Space/Land Use committee sought to identify goals and strategies that base the decision-making process for land use and green space management on objective rather than subjective criteria.

The committee's goals and objectives are designed to foster a unified effort by all governmental jurisdictions to adopt systematic, definitive and effective methods to preserve green space and to promote efficient land use.

A public awareness campaign about a whole-systems approach would facilitate better public understanding of land use and green space management, as well as demonstrate the importance of participation of all citizens in the process.

3.1 Green Space / Land Use



3.1 Green Space / Land Use

1 :: JURISDICTIONAL COLLABORATION
Foster dialogue and a unified working relationship between all jurisdictions in the County to facilitate continuity, and create a level playing field in land use decisions and green space protection.

Objective 1 :: Maintain the integrity of ecological systems throughout Chatham County.

Action Item A ::
Define criteria for prioritizing ecological systems in the County (currently underway through the Resource Protection Commission).

Action Item B ::
Establish the mechanisms (land acquisition, conservation easements, land use regulations adjacent to sensitive lands, etc.) for the protection of high priority ecological systems.

Action Item C ::
Define green space and open space and use consistent terms among all ordinances and regulations.

Action Item D ::
Establish green space criteria requirements based on net developable area.

Objective 2 :: Promote efficient land use.

Action Item A ::
Define efficient land use in terms of density, scale, design, natural resources, transportation alternatives, development standards and regulations.

Action Item B ::
Ensure that development regulations allow and promote efficient land use.

Action Item C ::
Ensure that community gardens can exist legally within all zoning districts. (C.I.)

Action Item D ::
Evaluate where density bonuses are appropriate and develop a graduated scale for incentives.

Action Item E ::
Utilize net density instead of minimum lot sizes in selected zoning districts.

Action Item F ::
Ensure that development standards appropriately reflect community character as reflected in lot sizes, setbacks, building types, vegetation, canopy cover, massing, and scale. (C.I.)

Action Item G ::
Create a map based on the recently adopted land use map to illustrate intended density and character.

Action Item H ::
Raise the importance of design as criteria for land use decisions.

Objective 3 :: Promote conservation of sensitive lands and natural resources.

Action Item A ::
Verify that the tax assessor's office accounts for the existence of conservation easements when determining assessed value of properties.

Action Item B ::
Require local governments to abide by the tree ordinance and educate work crews about the requirements and best practices.

Action Item C ::
Encourage all jurisdictions to develop and implement a comprehensive urban forestry program to include enforcement and maintenance.

Action Item D ::
Support adoption of the Coastal Stormwater Supplement to encourage the use of low impact development stormwater strategies, including the incorporation of trees as an integral part of the stormwater management system.

Action Item E ::
Promote deeding of green space to a local government or other nonprofit organization for preservation.

Action Item F ::
Support funding for Natural Resources Protection Commission to purchase and maintain environmentally sensitive lands.

2 :: TOOLS & BEST PRACTICES

Promote sustainable and informed green space/land use decisions through the development and use of analytical tools, and by using best management practices.

Objective 1 :: Base decisions on sustainable, objective criteria and data.

Action Item A ::

Develop a *Critical Thinking Matrix* to evaluate decisions that includes categories as outlined during the Rocky Mountain facilitated session. (Categories: Community, Economy, Self-Reliance & Security, Finances & Affordability, Environment, Long-Term Effects, Off-Site Effects, Multiple Benefits)
Note: Such a matrix could be customized as a tool for each topic area.

Action Item B ::

Create a database/Geographic Information System (GIS) layer for drainage basins, preserved lands, and sensitive lands. Identify ownership/jurisdictions for such properties.

Objective 2 :: Promote green building.  

Action Item A ::

Require all new local government facilities to achieve LEED (Leadership in Energy and Environmental Design) certification.

Action Item B ::

Create incentives and/or requirements for green building in the private sector.

Action Item C ::

Create incentives for rehabilitation and upgrades to existing structures for greater energy efficiency.

3 :: EDUCATION & AWARENESS

Increase public awareness and understanding of a whole-systems approach for land use and green space management.

Objective 1 :: Create support for the establishment and implementation of efficient land use policies and regulations.

Action Item A ::

Identify target markets and outreach mechanisms.

Action Item B ::

Develop a public relations campaign about efficient and balanced land use.

GIVEN THE IMPENDING CHALLENGES POSED by climate change, the Energy Committee feels that establishing viable short term goals that achieve tangible and effective results should be the highest priority. Over-emphasis on long term goals with high targets can cause action to be postponed until those goals become too difficult to achieve. Thus, the Energy Committee desires that our recommendations affect today, not simply tomorrow.

Many Georgia communities are implementing strategies to meet the Governor's Energy Challenge to reduce energy consumption. For Chatham County to be the leader in Georgia, our goals must be more aggressive, more immediate, and include a key component of fostering renewable energy sources.

The Energy Committee developed strategies to foster energy efficiency within Chatham County's operations which may serve as a model to be adopted by the community at large. Our recommendations address energy efficiency as well as energy production from renewable energy sources.

3.2 Energy



3.2 (a) Energy

**1 :: ENERGY EFFICIENT
COUNTY BUILDINGS**
Improve the energy efficiency of County owned buildings to reduce total energy consumption by 15% by 2010, based on the consumption rate for baseline year chosen by the County through their ICLEI greenhouse gases (GHG) inventory process to ensure the County exceeds the Governor's energy challenge of 15% energy reduction below fiscal year 2007 levels by 2020.

Objective 1 (st) :: Acquire baseline energy consumption data for Chatham County-owned buildings (e.g. kWh, natural gas usage, etc.).



Action Item A (st) ::
Ensure that the ICLEI inventory for the County is completed; have energy consumption compiled in separate databases. This would mean locate the energy consumption data (e.g. kWh, natural gas usage, etc.) in a separate database from the ICLEI carbon emissions database to assist in analyzing changes in energy consumption.

Action Item B (st) ::
Develop strategies to reduce energy consumption based on baseline information.

Objective 2 (st) :: Enforce ASHRAE 90.1* for any new Chatham County owned buildings.
*American Society of Heating, Refrigerating, and Air Conditioning Engineers.

www.p2ad.org **Objective 3 (mt) ::** Require LEED Silver certification for any county owned building.

Objective 4 (mt) :: Implement an Environmental Management System (EMS) for the County governmental operations through the Pollution Prevention Assistance Division (P2AD) Partnership for a Sustainable Georgia Program to which Chatham County is currently a member.

Action Item A (mt) ::
Utilize P2AD Partnership Program to assist in defining and implementing an EMS for Chatham County local government operations.

Action Item B (mt) ::

Local Emergency Planning Committee (LEPC) shall host an Environmental Management System training exercise with P2AD for all current LEPC members and the larger business and industrial community. Chatham County employees may attend this training to assist in their efforts.

Action Item C (mt) ::

Work with Savannah Tech to offer an Environmental Management System implementation course at least once per year.

Action Item D (mt) ::

Require local government staff that direct and implement management operations to take the course (specific job roles to be defined by each governing body).

(st)
short-term

(mt)
mid-term

2 :: COMMUNITY ENERGY CONSUMPTION

Reduce the community energy consumption of the County, to exclude county governmental usage, by 5% of total energy consumed by 2010 based on the consumption rate for the baseline year chosen by the County through their ICLEI GHG inventory process.

Objective 1 :: Acquire baseline energy consumption data for the Chatham County community (e.g. kWh, natural gas usage, etc.).



Action Item A (st) ::

Ensure that the community portion of the ICLEI (International Council for Local Environmental Initiatives) inventory for the County is completed; have energy consumption compiled in separate databases. Meaning, have energy consumption data (e.g. kWh, natural gas usage, etc.) in a separate database from the ICLEI carbon emissions database from ICLEI to better help analyze changes in energy consumption.

Objective 2 :: Improve energy efficiency of buildings throughout Chatham County.

Action Item A (st) ::

Enforce ASHRAE 90.1 for new public and private non-residential buildings in the County.

Action Item B (mt) ::

Require LEED Silver certification for any government owned building.

Action Item C (st) ::

Adopt the Energy Star Home Program as a minimum standard for new homes in the County. (EnergyStar offers a 15% energy reduction)

Action Item D (mt) ::

Develop and implement the “Porch Light Project,” a countywide effort to replace all porch lights in the county with compact fluorescent light bulbs (CFLs):

Project Overview: This project would provide a public safety benefit (more light combats crime and could bring homeowners out on their porches to interact more with their neighbors); would help homeowners save money (CFLs use significantly less energy); would reduce global warming pollution overall; would increase education on the ‘greenest county in GA effort’ (fact sheets or public service announcements could be provided to talk about how much carbon would be saved, etc.); would get youth involved in their community as they would help install the new bulbs; and would provide an easy and highly visible way to mark the county’s sustainability effort.

Action Item E (mt) ::

Establish/promote the “Watt Watchers” program in public and private schools located in the County.

Program overview: Watt Watchers is a program that assists schools in reducing energy use, which saves money, reduces pollution, and educates students and the community. In fact, energy expenses are generally the second highest costs for school systems after salaries. The State of Texas was a leader in the “Watt Watchers” program.

wattwatchers.org/Assets/news/fall00.pdf and <http://wattwatchers.org/>

A similar effort was done in Georgia at a few high schools in the metro-Atlanta area several years ago.

www.eeingorgia.org/net/content/go.aspx?s=5382.0.68.4863 which is listed currently under Environmental Education Programs for Georgia schools in the 6th grade and several lesson plans are available.

3.2 (b) Energy

3 :: TRANSPORTATION-RELATED CONSUMPTION
Reduce energy consumption for transportation by the County (e.g. CAT, Chatham County vehicle fleet, vehicles contracted with by the County).



4 :: RENEWABLE ENERGY
Increase renewable energy use and production throughout the County to 5% of total energy consumption by 2010 based on baseline year chosen by the County.

Action Item A (st) ::
Establish baseline.

Action Item B (st) ::
Develop strategies to reduce energy consumption based on baseline information.

Objective 1 (st) :: Establish baseline of current renewable energy sources.

Action Item A (st) ::
Develop countywide recommendations based upon baseline information

Objective 2 (st) :: Chatham County government establishes a goal for itself of 5% renewable use by 2010.

Objective 3 (st) :: Identify environmental and economic goals related to renewable energy usage based upon ICLEI baseline data.

Objective 4 (mt) :: Prepare green-collar workforce.

Action Item A (mt) ::
Foster current efforts of the Step Up Savannah Initiative to initiate workforce training needs (once identified by the ICLEI baseline data and recruitment needs of employers) by creating green pathways out of poverty that focus on recruitment, job readiness, job training and job placement for low-income residents that offer permanent jobs with opportunities for career advancement.

Action Item B(mt) ::
Work with local universities and technical schools to offer green-collar job training courses.

Objective 5 (mt) :: Help attract renewable energy production companies and manufacturers and create markets for renewable energy.

Action Item A (mt) ::
Foster an attractive market environment through the adoption of specific standards for wind energy generation, solar energy generation, cogeneration (simultaneously produces electricity and other useful energy), and necessary infrastructure.

Action Item B (mt) ::
Encourage the County to conduct a study to inventory all energy resource sites for solar energy generation, cogeneration and wind energy generation within the County.

(st)
short-term

(mt)
mid-term

Action Item C (mt) ::

Promote local academic institutions and trade schools to establish curriculum to support the advancement of a local renewable energy infrastructure.

Action Item D (mt) ::

Utilize incentives such as the *Green Enterprise Zone* on President Street with tax abatements and other incentives by the State to attract businesses.

Action Item E (mt) ::

Pass a County resolution supporting coastal wind (land and offshore energy production).

Action Item F (mt) ::

The County Commission offers a property tax exemption for an alternative energy system (i.e., solar) on a residence.

Action Item G (mt) ::

The County, each municipality and school district, should conduct an inventory identifying public buildings, parking lots and marginal acreage that are well-suited for solar installations.

Action Item H (mt) ::

Using the solar installations inventory, select areas best suited for solar installations. Priority consideration should be to a) those installations where all of the electricity generated is used on site and b) buildings that use large quantities of hot water.

Action Item I (mt) ::

The County installs several one to two kilowatt (1kW – 2kW) solar installations as a pilot demonstration and educational program to stimulate the local marketplace. Additionally, if the County installed a 100 kW solar installation, it would be large enough to resell the power back to Georgia Power’s *Green Power* program (thereby offering a meaningful return on County investment), and it would be a pilot for commercial, rather than just residential applications.

Objective 6 (mt) :: *Build community support for renewable energy within Chatham County through education and outreach.*

Action Item A (mt) ::

Chatham County Board of Education should explore *Wind for Schools* projects in the County. Program is part of the Department of Energy’s *Wind Powering America* program.

<http://www.windpoweringamerica.gov/schools.asp>.

Action Item B (mt) ::

Work with Georgia Department of Natural Resources to establish a policy for all new structures at state parks in Chatham County to reach at least LEED Silver certification level. (Similar to Sweetwater State Park in Douglas, Georgia.)

Action Item C (mt) ::

Develop and implement the *Sunshine Bus Stop Project*, a countywide effort to install solar powered lighting at bus stops:

Project overview: *There are already a few in place, (the bus stop at Montgomery and Oglethorpe) and this should be expanded. The bus stops themselves would have simple signs within them explaining solar power and how it is beneficial to citizens and the environment. These could be designed by students to help engage youth in the community. The benefits would include: increasing public safety (police and passengers have commented on the lit bus stops in a positive way already); increase public awareness about the feasibility and benefits of renewable energy; improve public transportation infrastructure by increasing ridership and giving riders ‘pride’ in supporting public transportation; involve a variety of sectors.*

TRANSPORTATION INVESTMENTS HAVE AN enormous impact on any community. In recent history, our local, state, and national priority has been on automobile-oriented facilities. Although we recognize the importance of safe and efficient automotive travel, the Transportation Committee believes we must place equal importance on alternative transportation modes, including walking, cycling, and transit in order to have a more sustainable and equitable transportation system.

The scope of the Committee's goals emphasize the mobility of people, goods and freight. Problems related to parking, increased commercial and freight traffic, and a growing suburban population require us to invest in building a sustainable multi-modal transportation system. It is vital that public awareness and education be a focus as we make the transportation system more accessible, safe, and efficient.

The following recommendations seek process and investment change that reduces environmental impacts and improves quality of life for Chatham County residents as we enhance mobility throughout our community.

3.3 Transportation



3.3 (a) Transportation

1 :: COMPLETE STREETS

Enhance existing and create new streets designed and operated to enable safe, attractive and comfortable access and travel for all users (“complete” streets) – including users such as pedestrians, bicyclist, motorists, transit riders, and those with a disability.

Objective 1 :: *By August 2009, compile guidelines for complete streets for new development, including guidelines for retrofitting existing development where possible.*

Action Item A ::

Charge Metropolitan Planning Commission (MPC) / Metropolitan Planning Organization (MPO) staff to gather and compile current data and information, including evaluation of context sensitive design.

Action Item B ::

Establish guidelines for a complete street, involving stakeholders (planners, architects, developers, Georgia Department of Transportation (DOT), etc.) in review process of guidelines.

Action Item C ::

Take guidelines to appropriate governmental entities for approval, adoption, and implementation.

Objective 2 :: *By December 2009, inventory and then prioritize specific geographic areas for implementation of complete streets program.*

Action Item A ::

MPC, MPO and key stakeholders inventory and prioritize locations for complete streets, taking into account adopted guidelines.

Action Item B ::

With key stakeholders, MPC and MPO develop an implementation plan to include prioritization of costs and funding sources.

Action Item C ::

Take plan to appropriate governmental entities for approval and adoption.

Objective 2 :: *By January 2010, incorporate complete streets concepts and guidelines into development regulations to establish complete street networks.*

Action Item A ::

Ask local governments and MPC to adopt zoning and subdivision regulations that require complete street networks for new development.

Action Item B ::

Ask local governments to revise regulations to include requirements for complete street networks.

Objective 3 :: *Adjust the transportation planning process, including funding priorities, to emphasize and accelerate complete street implementation.*

Action Item A ::

Ask local governments to adjust the transportation planning process, including funding priorities, to emphasize and accelerate complete street implementation.

2 :: MODAL INTEGRATION

Create an integrated, multimodal transportation system that reduces negative impact on the environment, including greenhouse gases; while at the same time improving accessibility, mobility and efficiency for people and commercial traffic.

Objective 1 :: Increase usage while decreasing greenhouse gas emissions and general carbon footprint of mass transit.

Action Item A ::

Request that the MPO place mass public mobility and inter-modal transportation connectivity as the highest priorities for future planning and funding of infrastructure.

Action Item B ::

Implement a green fleet program for the Chatham County mass transit system, incorporating hybrid vehicles, requiring 10% increase of fleet vehicles annually until full conversion.

Action Item D ::

Develop a plan for an electric streetcar system for the core area of the city including the Landmark Historic District to minimize the need for auto ownership in the downtown area.

Action Item E ::

By August 2009, evaluate current routes to improve efficiency and accessibility with respect to; major employers, schools, hospitals, park and ride opportunities, other modes of transportation.

Objective 2 :: Increase pedestrian activity and grow the use of bicycles as a safe and effective form of transportation.

Action Item A ::

By 2010, the MPO will fund and approve a revised county bikeway/ greenway plan that integrates bikeway/greenway corridors, safe routes to school, transit linkages, end-of-trip facilities, and a bicycling education and encouragement plan.

Action Item B ::

Complete the greenways plan and integrate it with the bikeway plan by December 2010. Prioritize projects within both plans with completion timetables, including identification of linkages to critical destinations and other transportation options.

Action Item C ::

Complete the following components of the Coastal Georgia/East Coast Greenway through Chatham County as noted, including:

Completion of trail and trailhead development of Coastal Georgia Greenway spine route through Chatham County (that includes development of the Savannah–Ogeechee (S-O) Canal in accordance with the Corridor Master Plan) (December 2012), and Completion of McQueen’s Island Trail, Phase II (December 2010), and Acquisition of rights-of-way for Savannah-to-Tybee rail trail and Coastal Georgia Greenway/East Coast Greenway opposite rail at AmTrak Station between Telfair Road and S-O Canal (December 2010), and Complete Truman Linear Park Trail, Phase II (December 2012), and Extend Hutchinson Island Trail eastward approximately two miles (December 2015), and Complete construction of Savannah-to-Tybee rail trail December 2015).

Action Item D ::

By 2012, increase trips by bicycle to 3% of all trips and by 2015 increase trips to 5% of all trips. This will be measured by bike use counts performed at least once annually.

Action Item E ::

Increase bicycle-focused transportation investments.

Action Item F ::

Identify and convert a Savannah street as a dedicated bicycle commuter route into downtown Savannah.

3.3 (b) Transportation

Objective 3 :: *Improve safety and connectivity for pedestrian traffic.*

Action Item A ::

Provide cross walk devices at the top 100 pedestrian crossings in the county by 2012.

Action Item B ::

Increase pedestrian-focused transportation investment.

Objective 4 :: *Increase connectivity and reduce environmental impact for commercial traffic.*

Objective 5 :: *Improve Regional Connectivity. Recognize that transportation conditions within Chatham County are significantly impacted by traffic originating outside the county. Encouraging, supporting, and actively participating in regional planning and implementation is essential to improvement of Chatham's intra- and inter-county conditions.*

3 :: FREIGHT DISTRIBUTION

Promote inbound and outbound freight distribution through the county that mitigates impacts on the environment, using multi-modal transportation and transportation best practices for environmental impacts.

Objective 1 :: *Support the freight/distribution stakeholders green initiatives.*

Action Item A ::

Recognize freight/distribution activities that reduce impacts on environment through an annual awards program.

Action Item B ::

Create opportunities for collaboration with public and private stakeholders.

Objective 2 :: *Support Georgia Ports Authority (GPA) completion of "last mile" projects by 2014 through funding and/or political support.*

Action Item A ::

Prioritize through MPO "last mile" projects as part of 2009 requests.

Action Item B ::

County to pass resolution supporting funding from DOT for "last mile" projects, recognizing GPA's importance to economy and reduced environmental impacts through more efficient freight movement.

Objective 3 :: *Increase rail traffic for import and export cargo from waterborne commerce, to include both public and private entities.*

Action Item A ::

Include freight industry personnel in MPO planning process.

Objective 4 :: *Minimize by 10% the traffic impact of daytime truck traffic (establish baseline based on travel times) to and from the Port by improving existing and establishing new routes to and from distribution centers and interstates.*

Action Item A ::

MPC/MPO staff to establish baseline of current travel patterns, times, and corridors by August 2009.

Action Item B ::

MPC/MPO staff to include freight/distribution stakeholders in development of routes.

4 :: EDUCATION & AWARENESS
Increase awareness of alternative transportation opportunities and needs.



Objective 4 :: *By January 2010, increase staff participation through membership, in local groups such as the Propeller Club, Savannah Traffic Club and others relating to the freight handling industry to identify issues and gain perspective.*

Action Item A ::
Support County staff member involvement in transportation-related organizations.

Objective 1 :: *Encourage understanding of rights and obligations of users of various transportation modes.*

Action Item A ::
Dedicate City/County resources and staff time toward public service announcements, town hall meetings, and a website.

Action Item B ::
Implement the national Safe Routes to Schools program that teaches children to walk and bicycle to school safely. This program includes funding.

Action Item C ::
Create a green transportation education program for professionals, elected officials and other community leaders.

Action Item D ::
Work collectively with SCAD (Savannah College of Art and Design) and other colleges to implement a pedestrian/bicycle education program to incorporate in freshman student orientation.

Objective 2 :: *Create a map of 'green' transportation options, including interconnections with traditional modes and critical destinations.*



Action Item A ::
By April 2009, identify important transportation routes and locations to be included in map.

Action Item B ::
Within 6 months, compile data sets needed for map, i.e. MPC, SAGIS (Savannah Area Geographic Information System), Chatham County, CAT, City of Savannah using GIS technology.

Action Item C ::
Within 6 months, dedicate County resources towards the creation of a print map using GIS.

Action Item D ::
By 2011, create an interactive map available via Chatham County website and affiliates, including transportation routes plus additional information about alternative transportation options and safety in the County.

AS A COASTAL COUNTY, CHATHAM COUNTY will be among the first to be impacted by the effects of Climate Change in the coming decades. Exactly what the effects will be are yet to be determined. However, there are many actions which can be taken now that can minimize potential local and regional effects as well as reduce global greenhouse gas emissions.

This committee believes the best leadership is by example. Chatham County has the opportunity to position itself as the state leader in addressing complex climate change issues at a local level. The recommendations that follow are a blueprint for Chatham County as well as a model for other communities.

3.4 Climate Change



3.4(a) Climate Change

1 :: GREENHOUSE GAS REDUCTION Reduce countywide greenhouse gas (GHG) emissions by 20% by 2020 from a 2006 baseline year.

Objective 1 :: Establish baseline data for Chatham County community (unincorporated) by July 2009, including residential, industrial, commercial and governmental GHG emissions. (En)

Action Item A ::

Utilize the ICLEI software to analyze county emissions of greenhouse gas to include a public and private aspect.

Action Item B ::

Publicize goals on/around Earth Day.

Action Item C ::

Partner with the City of Savannah and other municipalities, to the greatest extent possible, to maximize GHG reduction opportunities.

Objective 2 :: Develop a phased GHG reduction plan for the Chatham County government based on the data collected in the baseline inventory by December 2009. (En)

Action Item A ::

Analyze GHG audit to identify the largest emitters.

Action Item B ::

Identify areas for reduction which would provide for the largest reduction of GHGs.

Action Item C ::

Implement reduction strategies to reduce GHG emissions, such as:

- LED light bulbs in all traffic signals
- Evaluate strategies to help existing retail and commercial structures meet a minimum energy standard (improve insulation in ceiling, water pipes, etc, lighting, low flow fixtures, weather stripping, etc)
- Provide residential curbside recycling throughout the county (S.W.)
- Provide commercial recycling (Tr)
- Implement a green fleet program for the County vehicle fleet, incorporating hybrid vehicles and operational policies that prohibit idling of County vehicles.

- Use biodiesel for the County fleet (S.W.)
- Require “cool” roofing in all new structures countywide (En)
- Commit to planting 365 new trees each year (G/L)
- Comprehensive upgrade of all existing County owned buildings (through service contracts or some other mechanism), including upgrades to lighting, HVAC, building envelope, water heating, building automation systems, and any other electrical or mechanical system
- Purchase or generate green power for municipal operations (En)
- Implement an environmentally preferable procurement policy (Energy Star for all new office equipment, etc)
- Create a “business challenge” to meet GHG reduction goals set by the County.
- Provide support and recognition for businesses willing to participate in the above business challenge
- Eliminate CFCs and HCFCs from County buildings
- Implement a countywide weatherization program for low income housing (En)
- Subsidize employee’s CAT fare (Tr)
- Create a revolving fund for energy conservation measures that can be used on County owned buildings for energy improvements and paid back through energy savings (En)
- Implement a climate change and energy conservation education program for County residents
- Implement environmental education in all public school curriculum
- Carpooling system, such as the Coastal Commuters program or other comparable programs (Tr)

2 :: ANALYSIS

Analyze the opportunities and risks associated with climate change.



Objective 3 :: Use data to develop an action plan for reductions guidelines for new growth and development (public and private) to keep GHG emissions level or to reduce future GHG emissions by 2010.

Action Item A ::

Implement reduction strategy to reduce GHG emissions, such as:

- Require LEED Silver buildings for any new County-funded buildings 
- Require the use of fly ash/slag in all concrete used in County construction projects (minimum 25%)
- Require 25% construction and demolition (C&D) waste from any development project, countywide to be recycled
- Adopt a grey water ordinance for new development to reduce GHG emissions from wastewater treatment 
- Work to create "green collar" jobs by having construction apprenticeship programs teaching green building principles 
- Provide tax exemptions for any building or house receiving a LEED Gold or higher certification 
- Update the building code to require the use of 1.28 gallons per flush or less or dual flush toilets in any new installation 
- Require all new CAT buses be hybrid, electric or natural gas 
- Require moisture sensors on all irrigation systems countywide 
- Update local building code to reflect no cost/low cost energy efficiency measures, such as Low-E windows, insulation levels, water heater efficiencies, etc. 
- Require all car wash facilities to recycle their water 

Objective 1 :: Prepare and adopt a climate change adaptation plan for Chatham County by 2011.

Action Item A ::

Hire a qualified authority to conduct analysis and prepare an adaptation plan.

Objective 2 :: Develop an action plan based on recommendations from climate change adaptation plan by 2012.

3.4(b) Climate Change

3 :: EDUCATION & AWARENESS
Design and implement a countywide climate change education plan by the end of 2009.

Objective 1 :: Educate our target audience, the public, about ICLEI, what the County is planning to do and why the County is taking action.

Action Item A ::
Dedication of County resources and staff time toward achieving the countywide climate change education plan.

Action Item B ::
Have a website up and running through Chatham County Government site.

Action Item C ::
Run regular public service announcements.

Action Item D ::
Hold semi-annual town hall meetings on greening efforts.

Action Item E ::
Promote local examples of success: leadership opportunities.

Action Item F ::
Establish a branding plan to help market a climate change education plan.

www.climatecommunities.us.
Action Item G ::
Participate in annual "Local Action Climate Week."

Objective 2 :: Establish a citizen resource program to help citizens reduce their own GHG emissions.

4 :: REGIONAL CLIMATE CHANGE INITIATIVE
Establish and build a base of support for a climate change initiative by 2009.

Objective 1:: Collaborate with all entities in Chatham County by 2009 in efforts to reduce GHG emissions in step with the County's timetable, including local municipalities, public and private schools, institutes of higher education, private industries, Georgia Ports Authority and the residential community. En

Action Item A ::
Partner with the Chatham Environmental Forum to assist with this collaboration.

Action Item B ::
Partner with Savannah College of Art and Design to establish a Branding Plan to help build base of support for the Climate Change Initiative (see "joIN").

Action Item C ::
Partner with SCAD to implement Branding Plan.

Action Item D ::
Host a forum by the end of 2009, to include all entities listed above, to introduce a true regional approach to GHG reductions.

5 :: STATEWIDE COLLABORATION
Chatham County government to positively interact on a state level in realizing the highest possible standard for GHG emissions reductions.



Action Item A ::

Market the County's local efforts across the state through the Association County Commissioners of Georgia (ACCG) and other programs and organizations (both public and private).

Action Item B ::

Set successful example for the State and other communities of best practices methods of GHG emissions reductions.

Action Item C ::

Encourage the State of Georgia to provide incentives to local governments to reduce GHG emissions.

Action Item D ::

Participate in the Governor's Energy Challenge.

Action Item E ::

Participate in the *Partnership for Sustainable Georgia*, administered through the Pollution Prevention Assistance Division.

Action Item F ::

Actively participate in any state or legislative study committees on climate change.

THE GOAL OF THE CREATIVE INFRASTRUCTURE committee is to foster a clean and local economy that relies on intellectual capital. The CEF has been and will continue to be committed to finding ways to sustain Chatham County with infrastructure that is fueled by our creativity, rather than our natural resources.

The committee membership was a diverse representation of our community, including people from the business sector, the environmental community, the arts, and government. We also had equal gender representation, and a wide variety of ethnic, cultural and religious backgrounds, as well as a broad range of age groups.

3.5 Creative Infrastructure



3.5 Creative Infrastructure

1 :: WAYFINDING TOOLS

Develop and create a “Green Map” for the County, which highlights places, connections, and businesses operating in a sustainable way, providing a mapping guide for citizens and visitors. This piece of creative infrastructure would be web-based, online and interactive. It would be linked to other web sites that map, promote, advertise and help define our community.

Objective 1 (st) :: Use existing SAGIS platform and other existing media to create a framework for a Green Map of sustainable and creative infrastructure in Chatham County, with links to other information sites.

Objective 2 (mt) :: Identify a permanent host, and permanent funding source to maintain and update the Green Map of Chatham County.

Objective 3 (lt) :: To connect the Green Map to similar tools in other communities, becoming a part of an international network of sustainable infrastructure.

2 :: YOUTH ENGAGEMENT

Support for creative outreach to the youth of our community through programs like those ongoing at the Telfair museums, and especially for those at-risk youth, like the programs being operated by All Walks Of Life (AWOL).

Objective 1 (st) :: Work with AWOL, Telfair museums, and other community service providers to define the infrastructure (locations, buildings, programs, and equipment) needed to create an effective program of outreach to at-risk youth, teaching them to use their creativity in productive and healthy ways.

Objective 2 (mt) :: Develop a feasibility study of the types of infrastructure and programs needed.

Objective 3 (lt) :: Identify and obtain funding strategies to implement the creation / construction of the identified infrastructure.

3 :: BICYCLE PATHS AND LANES

Support for the expansion of bicycle paths and bicycle lanes throughout our community, because many of our creative people prefer this way to move around our County.



Objective 1 (st) :: Support Transportation committee’s proposals.

Objective 2 (mt) :: Advocate inclusion of bicycle mobility in future land use plans.

Objective 3 (lt) :: Connect all creative infrastructure with bicycle paths and safe bicycle lanes.

(st)
short-term

(mt)
mid-term

(lt)
long-term

4 :: LOCAL AGRICULTURE

G/L

Call upon the MPC and other local planning bodies to strongly consider allowing locally oriented agriculture to be a permitted use in ALL zoning districts. This does not include grazing animals, and should regulate the clearing of land, and the use of chemicals and potable water.

Objective 1 (st) :: Advocate for the inclusion of local sustainable agriculture in the Unified Zoning Ordinance being prepared by the MPC at this time.

Objective 2 (mt) :: Work with other local governments to include similar measures in their respective zoning ordinances.

Objective 3 (lt) :: To allow an environment where enough fresh food can be harvested in Chatham County to fulfill the local demand for such produce.

5:: CREATIVE BUSINESS INCUBATOR

Advocate for the creation of an *Innovation Incubator* by the *Savannah Economic Development Authority (SEDA)* with assistance and subsidy from available State grants and local incentives. This would be a place where creative businesses could be located in their infancy with very attractive rent structure, and access to shared business infrastructure, so that they can grow into sustainable businesses.

This will also provide a kind of intellectual “hothouse” environment so that creative people of different backgrounds and expertise can “cross-pollinate” and inform each other’s ideas. This facility should be surrounded by a *Creative Enterprise Zone*.

Objective 1 (st) :: Support the *Innovation Incubator* by requesting that Chatham County assist in identifying legal parameters, possible grants, possible sites and local tax incentives for its creation.

Objective 2 (mt) :: Work with Chatham County and the site’s host jurisdiction to identify capital funding and operating subsidies for the *Innovation Incubator*.

Objective 3 (lt) :: Foster the development and growth of 25 creative businesses per year from start-ups to sustainable local businesses.

6 :: CREATIVE ENTERPRISE ZONES

Develop a plan for *Creative Enterprise Zones (CEZ)*, which allow economic incentives for creative employers under State laws, and companion *Opportunity Zones* that allow local tax incentives, especially for affordable housing. Such a zone is not a zoning district per se, but rather an organic overlay district that allows for a creative ecology (not an enclave) that provides “fertilizer” for creative people and creative enterprises.

This CEZ would enhance the ability of SEDA and other economic developers to market our community to the many creative industries and small businesses seeking to relocate from other, less tolerant and attractive communities. It would include creative outreach centers that reinforce the goals of AWOL and similar programs. It would also empower creative enterprises, such as the *Innovation Incubator*, and other elements like performing arts infrastructure, studio space, and a culinary arts center.

The CEZ would also encourage strategic partnerships with institutions like SCAD, Savannah Tech, Savannah-Chatham County Public Schools, and other area educational providers. It would allow for relaxation of some of the strict standards for design, parking, outdoor entertainment and signage that protect other areas, especially the *National Landmark Historic District*. The area’s infrastructure would be more oriented to pedestrians and alternative transportation.

Objective 1 (st) :: Work with CEF, Savannah Development and Renewal Authority (SDRA) and planners to develop characteristics and standards for a *Creative Enterprise Zone*. Work with Chatham County to develop the legal framework for a *Georgia Enterprise Zone* and a local companion *Opportunity Zone*.

Objective 2 (mt) :: Identify a geographic location or locations for the *Creative Enterprise Zone*, and seek sponsorship from the local host jurisdictions for its creation.

Objective 3 (lt) :: Seek investment in the creation of a sustained pool of creative talent, new jobs, outside investment by the private sector, and empowerment for local creative people.

C.I.

THE WATER MANAGEMENT COMMITTEE WAS comprised of representatives from public and private entities. The committee focused on water resources, including ground water, fresh and salt surface waters, and storm waters, with the objective of recommending activities that would protect and enhance the quantity and quality of these resources.

The committee studied and referenced existing approved water resource plans such as the State-wide Water Plan, the Chatham County Water Management Plan, the Tri-Centennial Strategic Plan, the Coastal Stormwater Supplement Plan and the Coastal Georgia Comprehensive Plan. Through collaborative efforts, five concise goals were created.

The associated action items target connecting the residents to our water resources, conveying the real value of these resources, and fostering a conservation ethic. In addition, suggestions are provided for meeting future infrastructure challenges and absorbing extreme changes in environmental conditions.

3.6 Water Management



3.6(a) Water Management

1 :: EFFICIENCY IN GOVERNMENT Specify all government facilities set the standard for effective and efficient use of water in the County.

Objective 1 :: Local governments shall achieve effective and efficient use of outdoor water.

Action Item A (mt) ::

All county and municipal owned landscaped areas including but not limited to passive and active recreation, facility grounds, roadway medians and entryways, shall utilize an alternative, nonpotable source for irrigation.

Action Item B (st) ::

Irrigation systems utilizing potable sources that cannot feasibly transfer to a nonpotable source shall be metered.

Action Item C (mt) ::

Facilities utilizing potable sources for vehicle washing and maintenance shall implement water recycling systems.

Action Item D (st) ::

The xeriscape principles shall be applied to existing and newly created county and municipal landscaped areas.

Objective 2 :: Local governments shall achieve effective and efficient use of indoor water.

Action Item A (mt) ::

Plumbing retrofits shall be conducted for all facilities to install ultra low flow and waterless devices.

Action Item B (st) ::

All facilities shall be metered.

Action Item C (st) ::

Increase support for County and Municipal Staff to obtain LEED accreditation.

Action Item D (st) ::

Require new facilities and all retrofits to comply with appropriate LEED standards.



Objective 3 :: Local governments shall achieve effective and efficient use of stormwater.



Action Item A (mt) ::

All existing impervious surfaces (i.e. parking lots, roof tops, etc.) shall be analyzed as opportunities to reduce stormwater runoff and reuse as a nonpotable source.

Action Item B (st) ::

Develop and enforce maximum parking standards to reduce the amount of polluted runoff from parking lots.

Action Item C (st) ::

Newly designed facilities shall adhere to the recommendations of the adopted Coastal Stormwater Supplement.

(st)
short-term

(mt)
mid-term



2:: CONSERVATION ETHIC

Facilitate and ensure public education is strengthened to foster a water conservation ethic in the community.

Objective 1 :: *Conduct a marketing study to characterize Chatham County's diverse community and determine the most effective media tools to utilize.*

Action Item A (st) ::

Seek funding to support a county-wide three year mass marketing plan focusing on water conservation.

Action Item B (st) ::

Include in the water billing statements a voluntary one to five dollar donation to a water conservation education fund.

Action Item C (st) ::

Utilize existing forms such as billing statements and the water Compliance Status Report to promote the conservation ethic.

Action Item D (st) ::

Establish partnerships with large commercial enterprises to promote conservation message through a "leadership by example" role.

Objective 2 :: *Create a network of key individuals that are/will be instrumental in guiding the future policy of Chatham County's water resources. The network shall be supported by a central mechanism that disseminates information to the public.*

Action Item A (st) ::

Create list of water related significant projects (county, region, and state) and compile a fact sheet for each.

Action Item B (st) ::

Create a digital clearinghouse to include project fact sheet and schedules of applicable public meetings and agendas.

Action Item C (st) ::

Assign person(s) to attend meetings and submit meeting notes.

Objective 3 :: *Research and facilitate a mechanism to raise the awareness of the intrinsic value of drinking water as a resource and commodity in Chatham County.*

Action Item A (st) ::

Conduct research to determine the local market's elasticity over a ten year timeframe for water (indoor and outdoor) and sewer services.

Action Item B (st) ::

Establish local water use profiles based on characteristics of communities and neighborhoods.

3.6(b) Water Management

3:: STORMWATER RUNOFF REDUCTION Reduce the quantity and improve the quality of stormwater runoff.

Objective 1 :: Eliminate discharges from substandard septic systems.

Action Item A (st) ::

Adopt a septic system maintenance ordinance.

Action Item B (mt) ::

Provide tax incentives for septic system maintenance.

Action Item C (mt) ::

Continue to pursue sewer infrastructure extensions to provide service to areas with existing site conditions which are no longer suitable for proper septic function.

Objective 2 :: Adopt stormwater system improvements and maintenance policies that protect water quality.

Action Item A (st) ::

Adhere to appropriate recommendations from the *Coastal Stormwater Supplement* regarding pre and post construction maintenance.

Action Item B (st) ::

Aggressively pursue completion of *Inflow and Infiltration* (separating remaining storm and sanitary sewer lines) program.

Action Item C (lt) ::

Consider funding community wide projects that focus on stormwater quality improvements vs. stormwater quantity improvements.

Action Item D (st) ::

Train facilities and public works maintenance staff to apply appropriate best management practices in the field.

4:: WATER RESOURCE INTEGRITY Protect the function and form of water resources, keeping them intact and contiguous so they may serve Chatham County to the fullest extent possible.

Objective 1 :: Require watershed-based management to protect water resources that includes multi-county and state coordination.

Action Item A (st) ::

Develop riparian buffer regulations that are effective for stormwater control and pollutant removal and that are based on best management practices.

Action Item B (st) ::

Acquire and permanently protect land that floods repeatedly.

Action Item C (st) ::

Amend existing wetland protection regulations to include protection for surface-isolated wetlands.

Action Item D (st) ::

Consider the recommendations of the Georgia Department of Natural Resources (DNR) Marsh Hammocks Stakeholders Collaborative Dialogue.

Objective 2 :: Encourage coordination among agencies and jurisdictions in developing and funding conservation land uses and ensuring public access to publicly held and supported conservation areas.

Action Item A (st) ::

Update zoning regulations to include a category for lands preserved under conservation easements.

Action Item B (st) ::

Continue to fund administrative support for the Chatham County *Resource Protection Commission* and continue to support the Commission's charge.

Action Item C (st) ::

Facilitate workshops on the value and tax benefits of land conservation easements for the public and government staff.

(st)
short-term

(mt)
mid-term

(lt)
long-term



5:: WATER RESOURCE LONGEVITY

Facilitate a comprehensive approach to water management that includes understanding and evaluation of the built and natural water cycle to sustain the viability of the County’s drinking water sources.

Objective 1 :: *Develop a water system that is resilient to climate change and anthropogenic activity.*

Action Item A (mt & lt) ::

Minimize vulnerability of system to potential threats including but not limited to saltwater intrusion, pharmaceuticals and personal care products, Savannah River Site, drought, sea level rise, etc.

Action Item B (mt & lt) ::

Develop and refine adaptation strategies for ground and surface water sources including storage and conveyance, demand variables for domestic and industrial use, conservation, treatment options, storm-water management, and in-stream ecological requirements.

Action Item C (st) ::

Organize a stakeholder group to include technical, water management, environmental and regulatory individuals to assess impacts and adopt an implementation plan.

Objective 2 :: *Improve the opportunity for sustainable utilization of Chatham County’s water resources for both recreational and commercial purposes.*

Action Item A (st) ::

Consider adhering to the recommendations of the DNR Docks and Marinas Committee.

Action Item B (st) ::

Assist with the Creative Infrastructure Committee ‘Green Map’ to include location of all public access points.



Action Item C (st) ::

Assist with exhibit to include locations of public shellfish beds.

Action Item D (st) ::

Research ways to sustain, expand, and diversify this resource.

Action Item E (st) ::

Facilitate a mechanism to distribute educational and informational materials on the locations of the public access and shellfish beds.

IN CHATHAM COUNTY, LIKE IN OTHER communities across America, governmental entities and private contractors alike must collect, treat and dispose of the solid waste generated by our local population. The goal would be to accomplish this task in the most environmentally and socially acceptable manner using the most economically feasible method. As our area population grows, so does the quantity of solid waste generated and so do the impacts to our local community. More solid waste generation results in more trash collection trucks on our local roads, more land used for solid waste disposal facilities, more potential impacts to our surface and groundwater, and air quality.

Many communities have begun looking at more creative ways to lessen the impacts of accomplishing this task. Chatham County is one of those communities. We too have begun looking at solid waste differently. We have begun to hear the terms recycling, source reduction and composting more frequently used to describe our selected ways to lessening those overall impacts. The goals and objectives developed by the committee serve to foster that change from just discussion to action.

3.7 Solid Waste



3.7 Solid Waste

1 :: REDUCE ENVIRONMENTAL IMPACTS
Reduce the measured impacts of solid waste disposal on the natural environment of the County including groundwater impacts, land use impacts by landfills, and air quality through the use of recycling efforts, composting, and alternative disposal options by 50% by 2018.

Objective 1 :: *Develop baseline data for the total volume of solid waste disposed of from within Chatham County during 2007 and quantify the impacts to groundwater, land and air of that waste disposal.*

Action Item A ::

Using a survey instrument, obtain baseline data from all waste haulers and disposal facilities within the geographic boundary of the County of waste volumes disposed of in 2007. Survey instrument to be submitted to parties no later than March 2009 and received no later than 15 April 2009.

Action Item B ::

Using a survey instrument, request publically available information from both public and private landfills, regarding current groundwater contamination and remedial status, land mass of landfill, estimated or quantified releases to air (whether permitted or unpermitted). Survey instrument to be submitted to parties no later than March 2009 and received no later than 15 April 2009.



Objective 2 :: *Reduce solid waste disposal volumes within the geographic boundary of Chatham County by 30% by 2012 based on 2007 baseline.*

Action Item A ::

Implement a community-wide education program for household composting.

Action Item B ::

Make public mulch more readily available (publicity, easier to obtain, etc.)

Action Item C ::

Adopt procurement policy of preferred buying from companies that are ISO 14001 certified to ensure reductions in product packaging have been implemented by companies and therefore reducing the County solid waste stream.

Action Item D ::

Enact additional business taxes on the use of plastic bags at retail stores or consider banning their use within the County.

2 :: REDUCE GROUNDWATER IMPACTS
Reduce areal extent of groundwater impacts from landfills within the County by 50% based on 2007 baseline data or to within the confines of the permitted footprint of the landfill by 2015, whichever is greater.

Action Item A ::

Develop a baseline for the County landfills based on 2007 reporting data by directly requesting information on soil/groundwater contaminant plumes from the area landfills. This information is public information based on reporting requirements to Georgia Environmental Protection Division (EPD).

Action Item B ::

Track landfill containment plumes and lobby EPD for expedited remedial actions.

3 :: PROMOTE BIO-FUELS

Promote the production of a bio-fuel processing plant within the County by providing all yard waste diverted from the landfill and not used in homeowner landscape mulch program to the bio-fuel processing facility.



4 :: PROMOTE RECYCLING

Support local recycling programs, particularly the City of Savannah's, by agreeing to participate in the program, and request the City increase its targeted recycle rate from the current 10% of the waste stream to 20% of the waste stream by no later than 2010.



Action Item A ::

Estimate the annual quantity of mulch produced from yard waste collection and subtract the estimated annual usage from homeowners. All excess mulch shall be provided to the bio-fuels processing facility as "seed" material to assist the facility's construction and initial start up.

Action Item B ::

Further support the bio-fuels production by converting its fleet vehicles, where possible, to bio-fuel.

5 :: PROMOTE COMPOSTING

Promote removal of all organic materials from disposal in a landfill by establishing a countywide compost program that removes 50% of remaining organic materials from countywide waste stream by 2015.

Action Item A ::

Develop an educational program for use in the public schools, local garden clubs, churches and other civic organizations specifically to instruct homeowners how to conduct residential composting.

6 :: EDUCATION & AWARENESS

Promote the County's landscape mulch program by increasing public awareness of the program through education and media campaigns and improving public accessibility to the mulch by providing home delivery (at cost) and assistance in loading of vehicles at the mulching locations.

4 Miscellaneous

Education & Awareness

This subject has been found to be of critical importance to every committee, and is listed as the focus of a primary goal for 5 of the 7 committees. Seen here are the specific descriptions for each of the 5 committees that list Education & Awareness.



GREEN SPACE / LAND USE

Education & Awareness

Increase public awareness and understanding of a whole-systems approach for land use and green space management.



TRANSPORTATION

Education & Awareness

Increase awareness of alternative transportation opportunities and needs.



CLIMATE CHANGE

Education & Awareness

Design and implement a countywide Climate Change Education Plan by the end of 2009.



WATER MANAGEMENT

Education & Awareness

Facilitate a mechanism to raise the awareness of the intrinsic value of drinking water as a resource and commodity in the County, and ensure public education is strengthened to foster a water conservation ethic in the community.



SOLID WASTE

Education & Awareness

Promote the County's landscape mulch program by increasing public awareness of the program through education and media campaigns and improving public accessibility to the mulch by providing home delivery (at cost) and assistance in loading of vehicles at the mulching locations.

Critical Thinking Matrix

The Committee on Green Space/Land Use has proposed that a Critical Thinking Matrix be devised and implemented to help coordinate efforts of the CEF. Such a tool would provide opportunities to explore relationships between the areas of :

Community,
Economy,
Self-Reliance & Security,
Finances & Affordability,
Environment,
Long-Term Effects,
Off-Site Effects,
Multiple Benefits

Shared Goals & Objectives

Presented here are goals and objectives that are shared between various committees.

Action Plan for GHG reductions for new growth and development.



Further develop bicycle friendly infrastructure.



Implementation of green building techniques and technologies.



Devise criteria for 'green' business practices.



Tools to encourage more local agriculture and community gardens.



Baseline data for energy consumption.



5 Next Steps



FOR THE CHATHAM COUNTY COMMISSION

The CEF would request that each Commissioner set aside the time to read and understand the plan. We welcome your comments and input. The CEF is available to provide follow-up informational sessions with the Commissioners and/or staff. This document represents a community based effort for a county-wide plan and we recognize that not all of the goals/objectives are within the jurisdictional purview of the Chatham County Commission. As such, we recommend the following immediate actions:

Request the County Staff review the plan and identify those aspects of the plan that may be implemented by the County government. Staff should provide an anticipated date for completion of the stated goal/objective. We would request this review be completed with 45 days and be submitted to the CEF Chairperson.

Request the Commissioners further direct Staff to provide quarterly progress reports to the Commission and the CEF on their implementation process.

Request the Commissioners continue their support of this effort with continued funding, when appropriate. The CEF will continue the further development of the Plan as additional topic areas are added and the Plan is updated.

Request the Commission utilize their leadership positions in promoting the adoption of the plan, as applicable, by other local governmental bodies.

It is the CEF's hope that Chatham County government and the City of Savannah will become a model to engage the Savannah-Chatham County Public School System, Savannah's private schools, other town and city municipalities (Tybee, Pooler, Bloomingdale, Garden City, Thunderbolt, Vernonburg), private business, universities and colleges, neighborhoods, and individuals.

FOR THE CHATHAM ENVIRONMENTAL FORUM

Immediately begin to add additional priority topic areas to the plan as identified during the RMI-facilitated session. (See *Areas of Future Focus*, next page)

Evaluate potential future roles for the CEF in achieving the Plan:

Present the Plan to other local governmental bodies to solicit adoption of county-wide goals/objectives.

Coordinate development of goals objectives (desired outcomes) and metrics.

Gather technical assistance to develop metrics.

Advise County Commission.

Evaluate metrics and progress of the Plan.

6 Areas of Future Focus



For Chatham County to truly become a sustainable community, it will take cooperation, collaboration, and commitment from governments, organizations, businesses, and residents. As this plan indicates, the recommendations and action items are not the sole responsibility of one entity or agency. The CEF will continue to work with each of the municipalities in Chatham County to encourage adoption and implementation of this plan for each local government. In addition, other agencies and authorities are encouraged to adopt this plan as guiding policy. Potential organizations to approach include the Chatham County Board of Education, Savannah Economic Development Authority, and the Savannah Area Chamber of Commerce.

Our long-term goal is for this plan to be embraced by other communities in Coastal Georgia. Our natural resources do not know political boundaries. Many of our most complex challenges, such as mobility and transportation alternatives, will require a regional approach to developing comprehensive solutions. Although the plan was developed with Chatham County as a starting point, this by no means is intended to be the end of the conversation.

As mentioned in the introduction, this process began with a facilitated session by the Rocky Mountain Institute (RMI). During this session, the CEF also identified many other topics that are very relevant, with the intent that these would be addressed and incorporated into this Plan in the near future. In no particular order, these issues are:

Impacts of the built environment on the estuarine environment (docks, upland development, etc.)

Utilize natural resources without destroying the resource

Coastal hazards and weather

Marsh and seafood industry

Species diversity and habitat conservation

Groundwater issues: saltwater intrusion and pressure

Redevelopment opportunities

Alternative fuel use

Green vehicles: bike, hybrid powered vehicles, electric, etc.

Local food production and markets

Unemployment and poverty reduction

Environmental curriculum in the schools

Human health (public: both mental and physical)

Educational resources

Incubator space availability

Social and diverse equity

Affordable housing

7 Committee Members & Participants

CEF members
shown in bold.

GREEN SPACE / LAND USE

Dale Thorpe, Chair
Will Bereson
Beth Blalock
Denise Grabowski
Dennis Hutton
Bethany Jewell
Frank McIntosh
Gwen McKee
Jeremy Merklinger
Trace Tarel
Laura Walker

ENERGY

Judy Jennings, Chair
Sara Barczak, Recorder
Brian Barton
Carliss Bates
Stephanie Chu
Bethany Jewell
Charlie Milmine
Pat Shay

TRANSPORTATION

Wesley Woolf, Chair
Beth Blalock
Sean Brandon
Ben Brewton
Phillip Claxton
Denise Grabowski
Jo Ann Hickman
Monica Mastrianni
Jeremy Merklinger
Larry Miles
Hope Moorer
Lynn Pitts
Joe Murray Rivers
Bob Scanlon
Amanda Taylor
Tom Thomson
Drew Wade
Mark Wilkes

CLIMATE CHANGE

Gwen McKee, Chair
Sara Barczak
Brian Barton
Scott Boylston
Otis Brock
David Fields
Judy Jennings
Bethany Jewell
Alison Johnson
Michael Koon
Tommy Linstroth
Pat Monahan
Hope Moorer
Summer Teal Simpson
Rachel Smithson
Larry Stuber
Trace Tarel
Paul Wolff

CREATIVE INFRASTRUCTURE

Patrick Shay, Chair
Amanda Blind
Ben Brewton
Scott Boylston
Stephanie Chu
M. Conner
Dare Dukes
Fitz Haile
Steven High
Bethany Jewell
Davena Jordan
T. Jordan
Tom Kohler
Lisa Lee-High
Gwen McKee
Lynn Pitts
Summer Teal Simpson
Lise Sundrla

WATER MANAGEMENT

Bob Scanlon, Chair
Patrick Burk
Jim Collins
Ralph Forbes
William Hodgins
Dennis Hutton
Jackie Jackson-Teel
Larry Stuber
Jeff Thornburg
Laura Walker
Wesley Wolff

SOLID WASTE

Larry Miles, Chair
Matthew Bergen
Allen Cywin
Dennis Hutton
Bethany Jewell
Mark Lofton
David Nash
Bob Scanlon
Trenton Stillwell
Larry Stuber

8

Full Roster: Chatham Environmental Forum

BUSINESS

Brian Barton
Denise Grabowski
Martin Melaver
Jeremy Merklinger
* Larry Miles
Lynn Pitts
Trace Tarel
Trip Tollison

Georgia Power
Lott + Barber
Melaver, Inc.
DP Partners
Arrowood Environmental Group, Inc.
Savannah Economic Development Authority
Gunn, Meyerhoff & Shay Architects
Savannah Area Chamber of Commerce

ENVIRONMENT

Sara Barczak
Ben Brewton
Allen Cywin
Judy Jennings
Tommy Linstroth
** Patty McIntosh
Gwen McKee
Dale Thorpe
Wesley Woolf

Southern Alliance for Clean Energy
The Coastal Environmental Organization of Georgia
At-Large
Sierra Club
US Green Building Council
The Georgia Conservancy
Community Volunteer
Savannah Tree Foundation
Center for a Sustainable Coast

GOVERNMENT

Stephanie Chu
Craig Gordon
Hope Moorer
Joe Murray Rivers
Bob Scanlon
Patrick Shay
Thomas Thomson

Chatham County Youth Commission
Georgia House of Representatives
Georgia Ports Authority
Chatham Area Transit
City of Savannah
Chatham County Board of Commissioners
Chatham County – Savannah MPC

* 2008 – 2009 Chair

** 2007 – 2008 Chair

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