



SANDY SPRINGS
GEORGIA

To: John F. McDonough, City Manager

From: Nancy J. Leathers, AICP, Director of Community Development

Date: April 2, 2010 for Submission on April 20, 2010 Work Session

Agenda Item: Sustainability Program Presentation.

CMO (City Manager's Office) Recommendation:

Consideration of the Sustainability Program including the following:

1. Implement the ten initiatives listed in Table 2 of the attached Sustainability Program. Staff identified these initiatives, described in detail in Section IV, as achievable within 12 months and generally revenue neutral or revenue positive.
2. Investigate the feasibility of using future Federal grant funds for programs such as the Methane Capture and Reduction Program (listed in Section IV of the attached report). Programs such as this are more complex regional initiatives with long-term benefits for the City.
3. Continue to identify and analyze innovative approaches for the City to promote environmental sustainability; these may include initiatives from Section IV of the Sustainability Strategy such as:
 - Expanded recycling opportunities
 - Energy audits of city-operated facilities
 - Beautification projects on public property (interchanges, public parks, etc.)

Background:

A Sustainability Program brings innovation and opportunity to challenges by finding solutions that transform competing stakeholder interests into collaborative, long-term solutions. By working to identify solutions that meet the demands of economic, social, and environmental factors, sustainability serves as a strong approach to address community needs effectively.

Discussion:

It is critical for a sustainability program to be multifaceted to generate economic, social, and environmental benefits. The proposed Sandy Springs Sustainability Program joins existing achievements and practices with new initiatives to develop a cohesive plan.



Alternatives:

Continue to address existing individual environmental issues (conservation, preservation of open space, etc.) outside of the coordinated framework of a Sustainability Program.

Financial Impact:

See attached Sustainability Program – Section IV Potential Initiatives.

Attachment:

City of Sandy Springs Sustainability Program



Sustainability Program

City of Sandy Springs

April, 2010



EXECUTIVE SUMMARY

The City of Sandy Springs (the City) has several sustainability projects underway. Since the City's incorporation in late 2005, Sandy Springs has taken the lead in the Metro Region by using innovative solutions to address environmental, economic, and social issues in the City. In 2009 the City Manager requested staff prepare a report detailing potential sustainability program for Sandy Springs to consider as part of a comprehensive environmental effort.

Staff began its analysis by reviewing existing City efforts to serve as a foundation for a sustainability program. Section II of this report details City projects that are completed or underway:

- Water Conservation Ordinance
- Greenprint Study
- Energy Efficiency Conservation Block Grant (EECBG) Application
- Stormwater Management Plan
- Adoption of Metropolitan North Georgia Water Planning District (MNGWPD) Standards
- 2027 Comprehensive Plan

Staff used these projects as a base to identify other sustainability initiatives for the City to consider. Many of the proposed initiatives are drawn from, or based on, existing Federal, state, regional, or local strategies. Staff evaluated the impacts of potential initiatives on existing staff resources and overall implementation cost. Finally, staff categorized them based on how long it will take to implement each initiative. Table 1 provides a summary list of proposed initiatives categorized by impact area and implementation schedule. Staff details each initiative in Section III.

Table 1 -Potential Sustainability Initiatives and Their Impact Areas

Sustainability Initiative	Impact Area				
	Water and Environment	Materials and Resources	Energy	Green Building	Urban Design/ Transportation
Short-Term Initiatives					
Join Local Governments for Sustainability [International Council for Local Environmental Initiatives (ICLEI)]			X		
Join Atlanta Regional Commission's (ARC) Green Communities Program	X				
Conduct Tree Canopy Study/ Field Assessments	X				X
Adopt Green Government Facility Standards				X	
Promote WaterSense Certification	X				
Establish an ISO 14000 Environmental Management System		X			

Table 1 (cont.) - Potential Sustainability Initiatives and Their Impact Areas

Sustainability Initiative	Impact Area				
	Water and Environment	Materials and Resources	Energy	Green Building	Urban Design/Transportation
Create Energy Star Purchase Preference Policy		X			
Near-Term Initiatives					
Investigate Renewable Energy Credits (RECs)			X		
Endorse U.S. Mayors' Climate Protection Agreement	X				
Join U.S. Department of Energy (U.S. DOE) Clean Cities Program			X		
Join Georgia Department of Community Affairs (DCA) WaterFirst Community	X				
Conduct Resource Audits	X				
Long-Term Initiatives					
Reduce and Capture Methane			X		
Establish Beautification and Environmental Conservation					X
Establish Incentive-Based Recycling Program		X			

Recommendation

Staff analyzed short- and near-term initiatives, evaluating the anticipated implementation cost and whether the initiative can be substantially accomplished within 12 months. Staff also considered whether each initiative will:

- Be eligible for existing or future grants
- Support innovation
- Be revenue neutral or positive
- Result in a self-sustaining program

Table 2 (next page) shows an analysis summary of the recommended initiatives.

Table 2 - Recommended Initiatives

Sustainability Initiative	Existing or Future Grant Opportunity	Support Innovation	Revenue Neutral or Positive	Self-Sustaining Initiative
Join Local Governments for Sustainability (ICLEI)	X	X	X	N/A
Join ARC's Green Communities Program	X	X	N/A	N/A
Conduct Tree Canopy Study/ Field Assessments	X	X	N/A	N/A
Promote WaterSense Certification	X	X	N/A	N/A
Adopt Green Government Facility Standards	X	X	X	X
Establish an ISO 14000 Environmental Management System	X	X	N/A	X
Create Energy Star Purchase Preference Policy	X	X	X	X
Investigate RECs	N/A	X	X	X
Commission Resource Audit	N/A	X	X	X
Join Georgia DCA WaterFirst Community group	X	X	N/A	N/A

Staff recommends the City take the following actions as part of its overall Sustainability Program:

1. Implement the ten initiatives listed in **Table 2**. Staff identified these initiatives, described in detail in Section III, as achievable within 12 months and generally revenue neutral or revenue positive.
2. Investigate the feasibility of using future Federal grant funds for programs like the Methane Capture and Reduction Program (listed in Section III). This and other complex programs are regional initiatives with long-term benefits for the City.
3. Continue to identify and analyze innovative approaches for the City to promote environmental sustainability. Staff recommends presenting additional approaches to the City Manager quarterly. They may include initiatives from Section III such as:
 - Expanded recycling opportunities
 - Energy audits of city-operated facilities
 - Beautification projects on public property (interchanges, public parks, etc.)

Table 3 (next page) outlines the implementation schedule for recommended projects.

Table 3 – Implementation Schedule

	Q2	Q3	Q4	Q1
Water & Environment				
Promote WaterSense Certification	[Progress bar spanning Q2, Q3, Q4, and Q1]			
Become a DCA WaterFirst Community	[Progress bar spanning Q2, Q3, and Q4]			
Conduct Tree Canopy Study/Field Assessments	[Progress bar spanning Q2, Q3, Q4, and Q1]			
Material Reduction				
Establish ISO 14000 Env. Management	[Progress bar spanning Q2, Q3, Q4, and Q1]			
Create Energy Star Purchase Policy	[Progress bar spanning Q2, Q3, and Q4]			
Green Building				
Adopt Green Government Facility Stand.	[Progress bar spanning Q2, Q3, and Q4]			
Energy				
Join Local Governments for Sustainability	[Progress bar spanning Q2, Q3, and Q4]			
Investigate Renewable Energy Credits	[Progress bar spanning Q2, Q3, and Q4]			
Integral Projects				
Finalize Green Communities Analysis	[Progress bar spanning Q2, Q3, and Q4]			
Conduct Resource Audit	[Progress bar spanning Q2, Q3, Q4, and Q1]			

Staff can develop a comprehensive work plan to support this timeline. The work plan will detail tasks and staff assignment for each project and serve as the master document for project implementation.

II Sustainability Overview

There are many competing definitions of sustainability and organizations often choose to define sustainability in terms relating to their mission and vision. The core concept of sustainability seeks to develop long-term, viable solutions to address issues that business and local governments face including:

- **Finite Resources.** Earth’s natural resources are finite; therefore, indiscriminate use of natural resources cannot be continued into perpetuity without harming the health and diversity of natural and human systems.
- **Ecological Interdependence.** The vibrancy of natural systems depends in large part upon complex and interdependent relationships between climate, geology, plants, animals, and the nature of human interventions.
- **Economic Dependence.** Human economics systems are subsets of the natural environment; as such, healthy ecosystems are a precondition for thriving economics.
- **Social Equity.** High-functioning, stable, and healthy societies—ones that provide for the fair distribution of natural resources and other forms of wealth among all citizens—are necessary conditions for good stewardship of natural resources.
- **Legacy and Responsibility.** The quality of life for future generations depends upon the decisions and actions of the current generation.

Sustainability brings innovation and opportunity to these challenges by finding solutions that transform competing stakeholder interests into collaborative, long-term solutions. By working to identify solutions that meet the demands of economic, social, and environmental factors, sustainability serves as a strong approach to address community needs effectively.

Sustainability Trends in Municipal Government

Sustainability trends will continue to emerge in the private and public sector. Recently evolved trends include:

- Government Lead Partnerships
 - Energy Star
 - U.S. Environmental Protection Agency (U.S. EPA) Climate Leaders
 - U.S. EPA Green Power Partnerships
 - ARC Green Communities
- Private Non-Governmental Organization Partnerships
 - U.S. Climate Action Partnership
 - Climate Savers

Sustainability Program

By defining a Sustainability Program, the City of Sandy Springs has the opportunity to leverage existing city and community initiatives to define and actualize long-term goals. The demand for regional and Federal sustainable solutions has trended steadily upward since 2000, with a noticeable rate of increase beginning in mid-2006. In addition to responding to funding opportunities, the trends also require municipalities to integrate sustainability into existing procedures and policy.

Integrating sustainability into city government:

- Enhances resource management
- Improves processes
- Enhance quality of life for Sandy Springs residents and its business community

A summary of these benefits is detailed in **Table 4**.

Table 4 - Sustainability Program Benefits Summary

Lower Costs	Strong Economy
Utility cost reduction Material cost reduction Fuel reduction Enhanced employee productivity	Attraction of tourists Attraction of businesses Attraction of retirees Enhanced real estate values Stimulus of local economies (tournaments, special events) Alleviation of unemployment and economic distress
Healthier Community	Enhanced Environment
Protection of drinking water and groundwater Promotion of positive behavior in youth Facilitation of healthy lifestyles Preservation of culture and historical resources Regeneration of communities Reduction in traffic congestion (commuting options) Improved transportation options and networks	Mitigation of climate change effects Preservation of wildlife and biological diversity Improved air quality Flood prevention Expanded parks, green space, and tree cover Enhanced river, stream, and ecosystem health Reduced heat island effect Minimized greenhouse gas emissions

Overall, a sustainability program provides a structure for current and future efforts to enhance environmental and social aspects within the City of Sandy Springs. A true sustainability program weighs environmental and social efforts with economic considerations so that a strong, pragmatic approach is exercised with these often complex issues.

III EXISTING PROGRAMS AND INITIATIVES

Sandy Springs is a Metro Region leader in creating and promoting environmental programs and initiatives. In some cases, these programs required staff to partner with third-parties such as the Nature Conservancy, Council for Quality Growth, or Greater Atlanta Home Builders Association. The City has worked to address existing environmental issues (conservation, preservation of open space, etc.) proactively while continuing to champion new initiatives that benefit citizens and business owners. This section summarizes current projects and future actions associated with sustainability initiatives.

Water Conservation

The Mayor and City Council (Council) requested Lee Duncan serve as a business representative to convene a Stakeholders Group knowledgeable of the building and development process. The group was tasked with preparing recommendations to facilitate a proactive approach to water conservation within the City of Sandy Springs in November 2007. Mr. Duncan presented the Stakeholders Group's findings and recommendations to the Mayor and Council during the August 12, 2008 Mayor and Council Work Session. He provided examples of water conservation measures for the City to adopt such as a reducing the amount of impervious surface and adopting minimum standards for underground storage tanks use. Additionally, Mr. Duncan requested the Mayor and Council direct staff to identify incentives to consider for negotiation with outside utility providers such as Fulton County Sewer and City of Atlanta Water.

The Mayor and Council directed staff to recommend incentives to encourage water conservation along with a conservation/community outreach program. They also instructed staff to investigate possible retrofit applications for existing buildings. Specifically, the Mayor and Council asked staff to:

- Identify incentives to be considered for negotiation with outside providers and governmental entity
- Recommend a conservation program and a community outreach program to promote the support of water re-use and conservation
- Explore possible retrofit applications for existing city buildings such as low flow toilets, water fixtures, and waterless urinals

The Mayor, Council, Stakeholders Group, and staff developed a four-tiered set of incentives to encourage water conservation. The most basic level, bronze, encourages developers, builders, and homeowners to use lower flow fixtures (above code requirements) and Xeriscape applications. Additional measures were included such as limiting turf areas, using rain gardens, and adding pervious surfaces for silver certification. Silver-certified participants receive a 30 percent permit fee reduction. Developers, builders, and homeowners are further incentivized to incorporate bronze and silver standards as well as more costly graywater re-use systems, rainwater collection systems, or air conditioner condensate recirculators via the gold certification. Gold certification includes a 50 percent permit fee waiver. At the direction of Mayor and Council, a fourth category was added, platinum, that waives all building permit fees provided the applicant achieves every conservation strategy in the gold category. After the Mayor and Council approved the Water Conservation Ordinance, staff implemented the following water conservation actions:

- Added a new water conservation page to the City's Web site to serve as a single point of contact for water conservation information, permit forms, and building permit rebate forms.

- Held a joint educational forum in the third quarter of 2009 during the normally scheduled Private Professional Engineer Inspection Program training class. During the class, City staff was available to answer community members' questions about the Water Conservation Program.
- Providing quarterly reports to the City Manager regarding the program's effectiveness and any recommended improvements.

Greenprint Study

The Greenprint Study process was a collaborative effort between the City and the Trust for Public Land. The City engaged the Nature Conservancy to develop a strategic planning, communication, and decision-making tool based on local priorities to address the City's open space, recreational, and environmental goals. The final draft version of the Greenprint Study includes policies and objectives to promote connectivity between employment centers, community facilities, and neighborhoods through the use of trails, parks, green space, and utility easements. The document suggests the City can increase recreation opportunities by improving park equity through an even distribution of recreational spaces and facilities for those under the age of 18 and aged 65 and older and by identifying access points to park sites, waterfront areas, and scenic views.

Energy Efficiency Conservation Block Grant

The EECBG is administered by the U.S. DOE under the 2009 American Recovery and Reinvestment Act. The City is eligible for \$851,900.00 of the \$3.2 billion program. Staff presented the program and possible projects to the Mayor and Council on May 5, 2009. The Mayor and Council directed personnel to pursue the following projects:

1. Install solar panels on city-owned fire stations. Eligible under Renewable Energy Technologies on Government Buildings project criteria, this program will install photovoltaic cells and hot water solar systems on Fire Stations 1 and 2. The target energy reduction goal of 60 percent will generate annual savings of approximately \$16,000. This program can be expanded to include future city buildings, and current parks and recreation facilities. Benefits of the proposed program include:
 - a. Promotes energy efficiency by generating 60 percent of needed power from these systems, reducing overall costs
 - b. Reduces fossil fuel consumption
 - c. Recognizes energy savings beyond the funding period (a 20-year system)
 - d. Creates new revenue streams; the City can sell excess power to the Georgia Power grid at a rate of \$0.18 per kilowatt or on the open market as RECs, a certified source of green energy that can be purchased by entities to offset the carbon footprint of a particular industry or activity
2. **Convert remaining city traffic and pedestrian signals from incandescent bulbs to light emitting diode (LED) bulbs.** Eligible under Traffic Signals and Street Lighting Conservation project criteria, this program will upgrade 80 signals throughout the City and achieve an overall reduction in energy cost per signal of 90 – 95 percent. The project will cost an estimated \$250,000 and can be implemented within several months of award.

Stormwater Management

On September 20, 2006, the Georgia Environmental Protection Division (GA EPD) issued a National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Phase II Stormwater Discharge Permit to cover the Sandy Springs stormwater conveyance system. This action was a requirement in taking over certain permit activities from Fulton County after City incorporation. The Stormwater Program also must address MNGWPD requirements covering drinking water, sanitary sewer, and stormwater systems. The City must implement the MNGWPD's Long-Term Wastewater Management Plan, Water Supply and Water Conservation Management Plan, and Watershed Management Plan.

A stormwater conveyance system comprises connected structures to collect stormwater at one or more locations and discharge it at a single outfall, typically to a stream or drainage channel. The system's structures include pipes, manholes, catch basins, culverts, and open channels. As part of the NPDES Phase II MS4 Permit, the City must develop and implement an extensive nonpoint source pollution program. This program includes a variety of education and public involvement measures, regulatory requirements through local ordinances, and programmatic measures.

Discharges of untreated and unmitigated stormwater to the stormwater system increases nonpoint source pollution and degrades receiving waters. Spills, dumping, and improper connections to the stormwater system from residential, industrial, commercial, or institutional establishments contribute to nonpoint source pollution. The impacts of nonpoint source pollution and stormwater runoff adversely affect public health and safety, drinking water supplies, recreation, fish and other aquatic life, property values, and other lands and waters uses.

The City's Stormwater Management Program must address six minimum control measures in the NPDES permit:

- Public education and outreach
- Public involvement and participation
- Illicit discharge and detection and elimination
- Construction site stormwater runoff control in new development and redevelopment
- Post-construction stormwater management
- Pollution prevention/good housekeeping for municipal operations

MNGWPD's Watershed Management Plan has 25 mandatory local management measures divided into eight functional categories:

- Legal authority
- Watershed planning
- Land development
- Asset management
- Pollution prevention
- Watershed conditions assessment
- Education and public awareness
- Resource-specific measures

While many of the MNGWPD's management measures are covered in the NPDES requirements, several enhancements in the MNGWPD measures and two major activities are not covered in the NPDES requirements. They are:

- Development of future floodplain map
- Watershed improvement plans

The City successfully completed a MNGWPD audit by the GA EPD in 2008. The City must report on its Stormwater Program to the GA EPD annually. The GA EPD also approved the City's 2008 annual report.

Adoption of Metropolitan North Georgia Water Planning District Standards

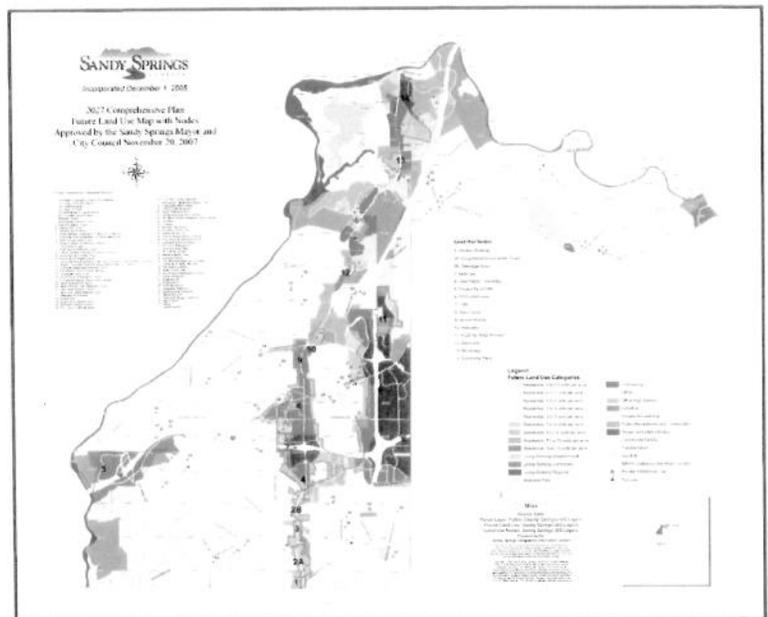
The City of Sandy Springs adopted and enforces ordinances based on the MNGWPD's Model Stormwater Ordinances. These ordinances are part of the MNGWPD's Watershed Management Plan; they establish baseline development standards for stormwater management. They include provisions to mitigate adverse impacts of runoff from new developments and redevelopments. The City's Post-Development Stormwater Management Ordinance, Stream Buffer Protection Ordinance, and Soil Erosion and Sedimentation Ordinance most significantly and directly apply to and affect stormwater runoff related to development activities within the City. The ordinances require permitted development to include designs that uphold the MNGWPD's Watershed Management Plan. They require construction activities within the City to implement erosion and sedimentation control measures consistent with the MNGWPD's Watershed Management Plan and Georgia Soil and Water Conservation Commission standards.

Results of ordinance enforcement include:

- Weekly municipal court hearings on citations relating to erosion, tree protection, and stream buffer violations
- Installation of comprehensive stormwater management facilities at redevelopment sites permitted by the City where little or no stormwater management existed before redevelopment such as The Prado, The Schenck School, and Woodland Elementary School

2027 Comprehensive Plan

The City's Future Land Use Plan as contained in the 2027 Comprehensive Plan directs intense and dense future development and redevelopment to one of the City's 14 Living Working Nodes. These nodes are located along the City's primary commercial corridor, transportation corridors, and employment centers. By incentivizing future development in these locations that accommodate growth easily, other City areas are protected from development pressures. In addition to land use issues, the Comprehensive Plan includes policy guidance for open space and green space.



IV POTENTIAL INITIATIVES

Staff compiled a list of potential initiatives the City can undertake if it desires to implement additional sustainability practices. Staff grouped these initiatives by timeline (short-, near-, or long-term) and impact area (water/environment, materials and resources, energy, green building and industry, and urban design and transportation). As part of the discussion for each initiative, staff estimated potential cost and impact to the City’s existing staffing levels. Staff identified additional funding sources wherever possible.

Short-Term Initiatives

Short-term initiatives are achievable within 6 months or less.

Local Governments for Sustainability (ICLEI)

ICLEI is an international association of local governments that made a commitment to sustainable development. Approximately 600 member cities, towns, counties, including three Georgia communities (Atlanta, Tybee Island, and Decatur), are members in the U.S. Membership dues are based on population; Sandy Springs will be charged approximately \$1,500 annually to join. Member communities have access to online resources and technical assistance including grant opportunity identification. A satellite office in Atlanta’s City Hall serves Southeast U.S. members. Other ICLEI-provided services include a proprietary carbon footprint identification software package.

Energy		Short-Term		
Staffing Impact	Initiative Cost			
	Low	Medium	High	
None	X			
Medium				
High				

ARC’s Green Communities Program

The ARC’s Green Communities Program is a voluntary certification program to encourage local governments to become more sustainable. ARC developed the program to assist local governments in reducing their overall environmental impact. Local governments earn points in 10 categories by implementing specific policies and practices that contribute to overall sustainability.

Water and Environment		Short-Term		
Staffing Impact	Initiative Cost			
	Low	Medium	High	
None				
Medium		X		
High				

The categories are:

- Green Building
- Energy Efficiency
- Green Power
- Water Use Reduction and Efficiency
- Trees and Green space
- Transportation
- Recycling and Waste Reduction
- Land Use
- Education
- Innovation

ARC established three levels of recognition (bronze, silver, and gold) based on an overall scoring system. The appendix contains a detailed listing of ARC’s certification elements coupled with an analysis showing how the City compares to these standards. If the standard is not currently met, a recommended course of action is included.

For the majority of ARC’s standards, specific policies related to sustainability will need to be adopted by the City. By pursuing the recommended strategies in this report, the City of Sandy Springs will likely qualify for the bronze or silver level recognition.

Conduct Tree Canopy Study/ Field Assessments

Staff is recommending a two-pronged approach to address the City’s tree canopy. The first effort is related to a new assessment of the size of the City’s tree canopy, while the second addresses the health and viability of existing trees.

The City has been working with the University of Georgia on an update to the 2005 Tree Canopy Study. In 2005, the percentage of the tree canopy area in Sandy Springs was 55%. However, since 2005 the City adopted a Tree Conservation Ordinance that has been vigorously enforced by the Community Development Department. The latest tree canopy study (due to be released by the University of Georgia later this Spring) can be used to analyze the effectiveness of the City efforts to protect the tree canopy.

Urban Design and Transportation	Short-Term		
	Initiative Cost		
Staffing Impact	Low	Medium	High
None			
Medium			
High		X	

A second part of this effort relates to the condition of code-required trees within the City. Both Sandy Springs and Fulton County have required commercial developments to provide buffer and parking lot shade trees. Staff from Community Development has been working with Fulton County to obtain copies of the approved landscape plans for each property in Sandy Springs with an approved landscape plan. Because the landscape plans track with the zoning for each parcel, the required number and type of shade / buffer trees must be maintained as detailed on the approved plans. Staff has started to select random sampling areas of the City to determine how well these existing development comply with the approved plans. The City Arborist can be available to work with the owners proactively to replace dead trees or identify measures to ensure the viability of the healthy trees.

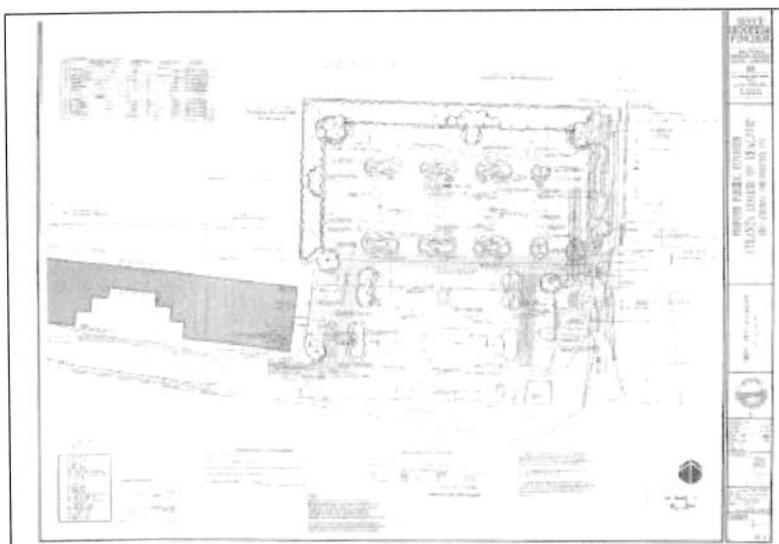
The first site selected for analysis was the Atlanta Board of Realtors site at 5784 Lake Forrest Drive. Based upon a comparison between the approved landscape plan and the field conditions, the Atlanta Board of Realtors complies with the approved landscape plan. The table on the following page provides a summary of staff’s analysis.

Atlanta Board of Realtors - 5784 Lake Forrest Drive

On April 1, 2010, the Arborists of Sandy Springs conducted a site visit at 5784 Lake Forrest Drive to determine if any trees were missing from the site. To help with the inspection a copy of the site plan dated 9/8/97 was on hand. Upon inspection no dead/dying trees were found in the parking lot. When the current site was compared to the above mentioned plans it was noted that the 116 Loblolly Pines were not planted in the 25' Landscape Strip (Buffer). This 25' Landscape Strip or Buffer is located along the north and west side of the new parking lot addition adjacent to residential properties. Instead of the Loblolly Pines, 'Yoshino' Cherry trees and red maples were found to be planted in the 25' Landscape Strip. This was deemed to be an acceptable replacement by the Arborist. The smallest tree measured at 7" DBH and the largest tree in the parking lot measured 20" DBH.



On-Site Trees			Note
Required	Provided	Common Name	
116	0	Loblolly Pine	-
3	3	'Natchez' Crape Myrtle	-
20	33	'October Glory' Red Maple	13 substituted for Loblolly Pine
5	0	Overcup Oak	-
20	20	Southern Magnolia	-
7	12	Willow Oak	-
-	9	'Yoshino' Cherry	substituted for Loblolly Pine



Promote WaterSense Certification

According to the U.S. EPA Web site, WaterSense is a partnership program sponsored by the U.S. EPA that helps identify water-efficient products. Many products are available that may reduce water usage by approximately 20 percent. To promote this Federal licensing program, the City can incorporate WaterSense certification as part of its Water Conservation Program as a component of the silver or gold achievement level. In addition, the City can promote this Federal program through the Sandy Springs Conservation Web page.

Water and Environment	Short-Term		
Staffing Impact	Initiative Cost		
	Low	Medium	High
None	X		
Medium			
High			

Green Government Facilities

The City can lead the way in advancing efficient building standards by requiring all new, large, City-funded government building construction and renovation to be Green Globes or Leadership in Environmental and Energy Design (LEED) certified. The U.S. Green Building Council states, by incorporating green concepts into the new construction design process, a certified green building may cost no more to build than a code compliant building. Additionally, the New York State Energy Research and Development Authority states a one-time investment premium of less than 1 percent of first costs can increase energy efficiency above standard building code practices by 20 – 30 percent. This investment is not only economical, it supports water and energy conservation as well. This program is necessary to achieve ARC Green Communities certification, an initiative discussed later in this section.

Water and Environment	Short-Term		
Staffing Impact	Initiative Cost		
	Low	Medium	High
None	X		
Medium			
High			

Establish an ISO 14000 Environmental Management System

The City can formally adopt an Environmental Management System consistent with the requirements of the International Organization for Standardization (ISO). The ISO is a non-governmental organization that maintains international standards related to classification of materials, manufacture of products, and provision of services. ISO 14000 addresses environmental standards associated with the impact of manufactured products upon the environment. Establishing an ISO 14000 Environmental Management System at City Hall will focus staff on reducing materials, energy, and transportation and fuel use.

Materials and Resources	Short-Term		
Staffing Impact	Initiative Cost		
	Low	Medium	High
None			
Medium			
High	X		

This program requires the City to establish targets in each category followed by implementation and reporting. By establishing an ISO-compliant Environmental Management System, the City can require products it purchases to come from recycled material whenever possible. After evaluating its purchasing procedures, the City may also decide to incorporate material reduction and recycling into its purchasing policies. Other ISO 14000 requirements include placing a greater emphasis upon energy use management and an overall reduction of fuel use by the City. Some initiatives in City Hall like the current practice of using recyclable paper and plastic products may already meet ISO 14000 requirements. While staff can pursue ISO 14000 compliance, certification will not be an objective due to the cost of audits. This program must be implemented to be eligible for ARC Green Cities certification, an initiative discussed earlier in this section.

Create Energy Star Purchase Preference

Most appliances and computer equipment currently carry the Energy Star tag. Energy Star is a joint program of the U.S. EPA and the U.S. DOE to promote the use of energy efficient products and practices. As a very low-cost alternative, the City can adopt a purchasing preference for appliances and other electrical equipment certified as meeting Energy Star standards.

Materials and Resources		Short-Term		
Staffing Impact	Initiative Cost			
	Low	Medium	High	
None	X			
Medium				
High				

Near-Term Initiatives

Near-term initiatives are achievable within 6 to 12 months.

Renewable Energy Credits

An Atlanta-based company, Sterling Planet, currently provides a private market to sell and purchase RECs which are similar to a form of currency based on kilowatt hours. Under the plan proposed by Sterling Planet, RECs can be transferred between uses within their private market. Although Sterling Planet uses the trademarked name White Tags™ to refer to RECs, they can be traded in a manner similar to Green Tags or other RECs. Through a market established by Sterling Planet, the company matches buyers with sellers. Buyers include electric utilities in mandated markets with portfolio standards and corporations or institutions in voluntary markets that are looking to meet greenhouse gas emission goals.

Energy		Near-Term		
Staffing Impact	Initiative Cost			
	Low	Medium	High	
None	X			
Medium				
High				

Sellers include those who have taken concrete, effective measures to reduce their energy use and contracted with Sterling Planet to measure, monetize, and certify their energy savings results. While no municipalities have partnered with Sterling Planet to date, the City can use the White Tag concept to receive monetary credit for the planned use of solar power at municipal fire stations. Under this scenario the City can sell or transfer White Tags if Sandy Springs produced more energy than it consumes at the municipal fire stations powered by solar panels.

U.S. Mayors' Climate Protection Agreement

In 2005, the U.S. Conference of Mayors unanimously endorsed a Climate Protection Agreement. Signing communities agree to:

- Strive to meet or beat the Kyoto Protocol targets in their own communities, through actions ranging from anti-sprawl land-use policies to urban forest restoration projects to public information campaigns
- Urge their state governments and the Federal government to enact policies and programs to meet or beat the greenhouse gas emission reduction target suggested for the U.S. in the Kyoto Protocol, a 7 percent reduction from 1990 levels by 2012
- Urge the U.S. Congress to pass the bipartisan greenhouse gas reduction legislation that will establish a national emission trading system

Water and Environment		Near-Term		
Staffing Impact	Initiative Cost			
	Low	Medium	High	
None				
Medium				
High			X	

At the present time, approximately 900 mayors committed their cities to reach this goal. Georgia participants include Alpharetta, Athens, Atlanta, Augusta, Decatur, East Point, Macon, Savannah, and Tybee Island. Member cities have access to best management practices and current literature on climate change. While the initial costs are nominal, the

overall goal of reducing greenhouse gases for a municipality like Sandy Springs which does not provide water, wastewater, or electricity services may be cost-prohibitive. More information is needed before the City can commit to endorse this goal.

U.S. DOE Clean Cities Program

The mission of the Clean Cities Program is to advance U.S. energy, economic, and environmental security by encouraging local decision makers to adopt practices to reduce petroleum use in transportation sector. Participating Clean Cities appoint a coordinator responsible for helping the local government reduce petroleum use. According to the U.S DOE, the approximately 90 Clean Cities coalitions represent 229 million U.S. citizens (78 percent of the country's total population). Through participation in the Clean Cities program, the City may be eligible for program-specific grants. Possible projects for the City under this program may include purchasing more fuel efficient police cars or establishing a rideshare program for employees.

Energy	Near-Term		
	Initiative Cost		
Staffing Impact	Low	Medium	High
None			
Medium			X
High			

DCA WaterFirst Community

DCA's WaterFirst Community water initiative is a voluntary program between state and local governments. The program's goal is for local governments and the State to work to protect water resources proactively through wise management. One of the most important components of this program is recognition by local governments of the linkages between local land use decisions and shared water resources. Based on work completed by the City, Sandy Springs may already qualify as a WaterFirst Community. The criteria for certification addresses:

Water and Environment	Near-Term		
	Initiative Cost		
Staffing Impact	Low	Medium	High
None			
Medium			X
High			

- Watershed assessment
- Stormwater master planning
- Water supply planning
- Water supply protection
- Water conservation
- Wastewater treatment systems and management
- Residual biosolids
- Water reclamation and reuse

Partner Georgia communities include Tybee Island, Savannah, Rome, and several water authorities including the Cobb/Marietta Water Authority. If the City is interested in the program, staff must research to see if additional supporting policies are needed beyond the Comprehensive Plan and Water Conservation Ordinance to participate.

Conduct Resource Audits

The City can consider performing overall resource usage audit for the buildings owned or operated by Sandy Springs. This will provide the City with a baseline of its current energy and water usage for use in future initiatives. Having this data may be key to receive future funds from the Federal government for new energy efficiency programs. The City will know its heavy electricity or power use spots and work to adjust use patterns. This may ultimately reduce consumption and energy/water costs. This initiative may not require much staff time or a large expenditure of funds if it can be conducted with the cooperation of City service providers.

Staffing Impact	Initiative Cost		
	Low	Medium	High
None			
Medium	X		
High			

Long-Term Initiatives

Long-term initiatives are achievable in 12 months and beyond.

Reduce and Capture Methane

The City can investigate reducing, capturing, and re-using current methane output at the Morgan Falls Domestic Solid Waste Landfill. DeKalb County participates in this practice and its program is a recognized within the EECBG.

A Methane Reduction and Capture Program has three areas beneficial to the City:

- Reduced emissions**—Capturing current methane production will eliminate methane gas release into the atmosphere. The U.S. EPA recognizes the gas as being 22 times as toxic as carbon dioxide in the natural environment. Methane converted to renewable energy reduces also decreases conventional combustion emissions (e.g. from coal) in electrical power generation because less nonrenewable power is needed.
- Capture of methane for electrical power generation**—Methane production of renewable electrical energy can be used for city facilities to reduce the overall operation cost and improve energy efficiency. The City can sell back excess electricity produced to the grid (purchased by Georgia Power) or sell it as RECs to third party suppliers. The relatively constant output of biogas from landfills creates a stable, local supply of renewable energy and a consistent revenue stream. It supplies fuel at a relatively constant rate, providing a hedge against price and supply instability in the broader energy market. This creates a cushion to the local municipality during turbulent commodity markets.
- Capture and convert landfill gases (LFG) to liquefied natural gas (LNG), predominately methane**—LNG production from biogas produced at the landfill can be sold as renewable energy to anyone connected to an existing gas transmission and distribution network. This practice opens renewable energy availability to a large customer base while generating revenue and RECs for the City. The City can redistribute LNG to city-owned fleet vehicles designed to operate on LNG. This will reduce the amount of diesel fuel purchased and used by the City, making a positive bottom-line contribution to its fleet operating budget.

Staffing Impact	Initiative Cost		
	Low	Medium	High
None			
Medium			
High			X

The Methane Reduction and Capture Program creates renewable energy sources for the City while reducing greenhouse gases and improving air quality for the residents. Methane wells currently collect and incinerate gas at the landfill. Retrofits can be incorporated into the existing system to collect and convert LFG into renewable energy sources such as

electricity or LNG. The resulting revenue stream will provide the City years of available funding to offset capital operating costs or to invest in other a robust, long-term sustainability goals.

Beautification and Environmental Conservation

There are several national programs such as the Sustainable Sites Initiative that promote sustainable land design. The Sustainable Sites Initiative is an interdisciplinary effort by the American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center, and the U.S. Botanic Garden to create voluntary national guidelines and performance benchmarks for sustainable land design. This may be a good approach for the City to consider when design professionals are preparing plans for future gateway treatments in Sandy Springs. As part of this effort, the City will define sustainable standards for beautification throughout Sandy Springs on public property to ensure low maintenance costs, long-term viability, and continuity throughout the City. With an emphasis placed upon low maintenance costs, the City can encourage developers and residents to use native and drought tolerant landscape practices.

Urban Design and Transportation		Long-Term		
Staffing Impact	Initiative Cost			
	Low	Medium	High	
None				
Medium	X			
High				

Incentive-Based Recycling Program

The City set a goal to divert an additional 10 percent of solid waste during the next 10 years from traditional landfills to recycling programs. Currently, waste haulers are not required to offer recycling as a service. As an alternative to mandatory recycling and a way to increase recycling in apartment complexes, the City may investigate creating a Recycling Bank Rewards Program. This program can be offered as a curbside service, or through kiosks collection at specified locations around the City. The program's rewards component enables individuals to collect recycling points based on their participation, earning rewards from private community sponsors. With the establishment of such a program, residents redeem coupons and gift cards based on their recycling participation. The program is designed so that both local and national companies can sponsor the program.

Materials and Resources		Long-Term		
Staffing Impact	Initiative Cost			
	Low	Medium	High	
None				
Medium				
High		X		

V RECOMMENDATIONS

It is critical for a sustainability program to be multifaceted to generate economic, social, and environmental benefits. The proposed Sandy Springs Sustainability Program joins existing achievements and practices with new initiatives to develop a cohesive plan. The recommended Sustainability Program uses a five point framework to serve as the core structure to build on over time. The five components represent an integral approach to sustainability:

- **Water and Environmental Enhancements**—Enhance natural beauty and promote natural resource stewardship.
- **Material Reduction**—Provide resources and opportunities for material reduction to citizens and the business community.
- **Energy Efficiency**—Maximize energy efficiency for carbon and cost reduction.
- **Green Building and Industry**—Promote green infrastructure and business growth.
- **Urban Design and Transportation**—Enhance mobility and access to citizens for improved quality of life.

Current Sandy Springs sustainability efforts include water and environmental enhancements, energy efficiency, and urban design and transportation components. Incorporating material reduction and green building and industry projects into the Sandy Springs Sustainability Program will transform the individual strategies into a comprehensive effort.

Staff analyzed initiatives evaluating anticipated implementation cost and project implementation timeline. Staff also considered whether each initiative will:

- Be eligible for existing or future grants
- Support innovation
- Be revenue neutral or positive
- Result in a self-sustaining program

Table 5 (next page) summarizes recommended short- and near-term initiatives.

Table 5 - Recommended Initiatives

Sustainability Initiative	Existing or Future Grant Opportunity	Support Innovation	Revenue Neutral or Positive	Self-Sustaining Initiative
Join Local Governments for Sustainability (ICLEI)	X	X	X	N/A
Join ARC's Green Communities Program	X	X	N/A	N/A
Conduct Tree Canopy Study/ Field Assessments	X	X	N/A	N/A
Promote WaterSense Certification	X	X	N/A	N/A
Adopt Green Government Facility Standards	X	X	X	X
Establish an ISO 14000 Environmental Management System	X	X	N/A	X
Create Energy Star Purchase Preference Policy	X	X	X	X
Investigate RECs	N/A	X	X	X
Commission Resource Audit	N/A	X	X	X
Join Georgia DCA WaterFirst Community group	X	X	N/A	N/A

Some of the activities in **Table 5** are interrelated and depend on one another. Each project provides support for existing or proposed activities to build a comprehensive sustainability program. Staff can develop alternate recommendations if a particular project is objectionable.

VI ACTION PLAN

Staff recommends the City take the following actions as part of its overall Sustainability Program:

1. Implement the ten initiatives listed in **Table 5** (previous section). Staff identified these initiatives as achievable within 12 months and generally revenue neutral or revenue positive.
2. Investigate the feasibility of using future Federal grant funds for programs like the Methane Capture and Reduction Program. Programs such as this are more complex regional initiatives with long-term benefits to the City. Additionally, these initiatives appear eligible for full funding through the next round of competitive energy efficiency grants.
3. Continue to identify and analyze innovative approaches for the City to promote environmental sustainability. Staff can present these additional approaches to the City Manager quarterly. They may include initiatives from Section III such as expanded recycling opportunities, energy audits of city-operated facilities, and beautification projects on public property (interchanges, public parks, etc.).

Table 6 shows the implementation schedule for the recommended projects.

Table 6 – Implementation Schedule

	Q2	Q3	Q4	Q1
Water & Environment				
Promote WaterSense Certification	[Progress bar spanning Q2, Q3, Q4, and Q1]			
Become a DCA WaterFirst Community	[Progress bar spanning Q2, Q3, and Q4]			
Conduct Tree Canopy Study/Field Assessments	[Progress bar spanning Q2, Q3, Q4, and Q1]			
Material Reduction				
Establish ISO 14000 Env. Management	[Progress bar spanning Q2, Q3, Q4, and Q1]			
Create Energy Star Purchase Policy	[Progress bar spanning Q2, Q3, and Q4]			
Green Building				
Adopt Green Government Facility Stand.	[Progress bar spanning Q2, Q3, and Q4]			
Energy				
Join Local Governments for Sustainability	[Progress bar spanning Q2, Q3, and Q4]			
Investigate Renewable Energy Credits	[Progress bar spanning Q2, Q3, and Q4]			
Integral Projects				
Finalize Green Communities Analysis	[Progress bar spanning Q2, Q3, and Q4]			
Conduct Resource Audit	[Progress bar spanning Q2, Q3, Q4, and Q1]			

Staff can develop a comprehensive work plan to support this timeline. The work plan can detail tasks and staff assignment for each project. This plan will serve as the master document for the project implementation.

Appendix



Green Communities Summary

ITEM	DOCUMENT REQUIRED	CITY CONTACT	STATUS
1.) Government LEED Policy	A copy of the official ordinance or policy with date of adoption	David Schmid	Incomplete
3.) Government ENERGY STAR/EarthCraft Policy	A copy of the official ordinance or policy with date of adoption	David Schmid	Incomplete
4.) Government ENERGY STAR/LEED Renovation Policy	A copy of the official ordinance or policy with date of adoption	David Schmid	Incomplete
5.) Community Green Building Incentives	A copy of the official ordinance or policy with date of adoption Documentation on how the incentive will be implemented	David Schmid	Incomplete
7.) Government Energy Audits	A description of items inspected for in the energy audits A list of the existing government owned buildings and those that have been audited, including what changes have been implemented from the audits A description of the plan to audit and implement changes in remaining buildings within 4 years	TBD	Incomplete
8.) Government ENERGY STAR Partner	A copy of the ENERGY STAR Partner letter A copy of the jurisdiction's Energy Strategy for the Future Educational materials used to educate staff and the public about the partnership and ENERGY STAR	David Schmid	Incomplete
9.) Government ENERGY STAR Purchase Policy	A copy of the ordinance or policy with date of adoption	David Schmid	Incomplete



Sustainability Program for the City of Sandy Springs

10). Government LED Traffic Lights	<p>A copy of the policy to install only LED lamps in traffic signals with date of adoption</p> <p>Total number of signals and number of signals that have already been retrofitted</p> <p>A description of the plan to retrofit existing traffic signals with LED lamps within 4 years</p>	Public Works	Incomplete
11.) Government "Lights Out/Power Down" Policy	<p>A copy of the local government policy or ordinance with date of adoption</p> <p>A description of the procedure to ensure all employees know about the policy</p>	David Schmid	Incomplete
13.) Government or Community LED Light Bulb Program	Documentation describing the program's effectiveness, budget, length of program, and promotion	David Schmid	Incomplete
14.) Community Energy Codes	<p>A copy of the policy stating the local government will enforce the most recent version of the International Energy Conservation Code as adopted and amended by DCA</p> <p>A copy of the documents used by the inspector to ensure the commercial and residential energy codes are followed including a checklist of what is inspected</p>	Robert Wheeler	<p>Ordinance Passed</p> <p>Inspector Checklist Required</p>
15.) Community Outdoor Lighting Efficiency	<p>A copy of the policy or ordinance with date of adoption</p> <p>Description of how ordinance exceeds typical lighting ordinances to reduce energy</p>	David Schmid	Incomplete
17.) Government Green Energy Purchasing	<p>A copy of the EPA Green Power Partnership agreement</p> <p>A copy of a previously submitted Partner Yearly Report</p>	City Management	Incomplete



Sustainability Program for the City of Sandy Springs

18.) Community Solar Incentives	<p>A copy of the official ordinance or policy with date of adoption</p> <p>Documentation on how the incentive will be implemented</p>	David Schmid	Incomplete
19.) Government Water Audits	<p>A description of items inspected for in the water audits</p> <p>A list of the existing government owned buildings and a list of those that have been audited and what changes have been implemented</p> <p>A description of the plan to audit and implement changes in remaining buildings within 4 years</p>	City Management	Incomplete
20.) Government High Efficiency Plumbing Fixtures	<p>A copy of the policy with date of adoption</p>	David Schmid	Incomplete
25.) Community Stormwater Management Plan	<p>Letter from EPD stating the jurisdiction is in compliance with or making a good faith effort towards compliance with the plan</p>	David Chastant	Incomplete
26.) Community Incentives for WaterSense Homes	<p>A copy of the policy or ordinance with date of adoption</p> <p>Documentation on how the policy will be implemented</p>	David Schmid	Incomplete
29.) Government Greenspace Plan	<p>A copy of the adopted greenspace plan with date of adoption</p> <p>Provide description of how greenspace plan is actively being implemented</p>	Michael Barnett	Incomplete
31.) Government Landscaping Practices	<p>A copy of the plan with date of adoption</p> <p>A site visit to an example property where the practices are implemented</p>	Michael Barnett	Incomplete
32.) Community Tree City USA	<p>A copy of the Tree City USA designation</p>	Michael Barnett	Complete
33.) Community Parking Lot Canopy Requirements	<p>A copy of the policy with date of adoption</p> <p>An example of a location where the policy has been implemented</p>	Michael Barnett	Complete



Sustainability Program for the City of Sandy Springs

36.) Community Farmers Markets	A description of each farmers market with information on the goods offered, dates and times of operation, location, who it is operated by, how the local government supports it, and contact information for the coordinator	City Management	Complete – Need Report
39.) Government No-Idling Policy	A copy of the policy or ordinance with date of adoption A description of the procedure followed to ensure all employees are educated on the policy and any additional documents provided to employees	David Schmid	Incomplete
43.) Community Traffic Signal Synchronization	A copy of the plan the local government has implemented Information on the estimated fuel savings and pollution reduction from the program	Public Works	Complete / Need Report
45.) Community Bicycle Facilities	A copy of the ordinance or policy for requiring end-of-trip bicycle facilities at all community facilities with date of adoption A list of all community facilities and whether end-of-trip bicycle facilities are at each location A plan that outlines implementation schedule	Zoning / GIS	Incomplete
46.) Community Bicycle and Pedestrian Plan	A copy of the plan, with date of adoption	Public Works	Documentation Required
48.) Government Environmentally Preferable Purchasing	A copy of the policy with date of adoption A description of how these changes have been incorporated into the existing purchasing policies A description of the procedure to ensure employees know about the policy	City Management	Incomplete
49.) Government Traditional Recycling Program	Documentation of the recycling program (drop-off places in the buildings, who the recycling company is, etc.)	City Management	Incomplete

50.) Government Nontraditional Recycling Program	Documentation of the recycling program (copy of the contract with recycling company, list of drop-off locations in the buildings, who the recycling company is, list of items that are recycled, etc.) Photos of the drop-off locations	City Management	Incomplete
51.) Government Recycled Paper Purchasing	A copy of the policy with date of adoption A description of how these changes have been incorporated into the existing purchasing policies A description of the procedure to ensure employees know about the policy	City Management	Incomplete
54.) Community Nontraditional Recycling Facilities	A description of permanent drop off locations (location, what is accepted, etc.) A description of the temporary drop off locations and when these events occur annually Copies of the outreach materials that are used to advertise the program	City Management	Incomplete
59.) Community Smart Growth Incentives	A copy of the policy(s) or ordinance(s) that establish the smart growth incentives A description of the three smart growth policy options implemented through the incentives Documentation on how the incentive(s) will be implemented	Planning and Zoning	Incomplete
60.) Community Revitalization Incentives/Strategies	A copy of the published analysis of potential buildings for reuse, greyfields for restoration, and brownfields for redevelopment Documentation on the incentives and/or revitalization strategies and how each will be implemented	Planning and Zoning / GIS	Incomplete



Sustainability Program for the City of Sandy Springs

61.) Government Employee Education	<p>General description of education program for staff on sustainability</p> <p>A copy of the education and outreach materials used to educate the government employees on each of the government measures(full list below) implemented by the local government</p> <p>List in the table below those materials being used as documentation of government employee education</p>	David Schmid	Incomplete
62.) Community Member Education	<p>General description of public awareness and outreach program on sustainability</p> <p>A copy of the education and outreach materials used to educate the community on each of the community measures(full list below) implemented by the local government</p> <p>List in the table below those materials being used as documentation of community member education</p>	David Schmid	Incomplete