



**INVENTORY OF FULTON COUNTY
ENVIRONMENTAL PROGRAMS
AND RECOMMENDATIONS FOR IMPROVEMENT**

December 19, 2007



Table of Contents

| | |
|---|----|
| Introduction | 3 |
| Green Team Members | 3 |
| Summary of Recommendations..... | 4 |
| Operational Policies & Programs..... | 7 |
| Buildings & Grounds | 7 |
| Construction..... | 7 |
| Cleaning | 7 |
| Energy Conservation | 8 |
| Plumbing & Water Conservation..... | 9 |
| Equipment Maintenance & Replacement | 9 |
| Fleet Management | 10 |
| Fleet Makeup | 10 |
| Fleet Maintenance | 10 |
| Disposable Products..... | 11 |
| Paper Consumption..... | 11 |
| Recycling..... | 12 |
| Role of Employees | 13 |
| Employee Commute Habits..... | 13 |
| Employee Communications | 14 |
| Purchasing Policies & Programs..... | 15 |
| Community Development Policies & Programs..... | 16 |
| The Fulton County Commission on the Environment | 16 |
| Light & Noise..... | 16 |
| Water..... | 17 |
| Trees & Greenspace | 17 |
| Water Utility Policies & Programs | 19 |
| Education | 19 |
| Facilities | 20 |
| Solid Waste Policies & Programs..... | 23 |
| Landfill Methane Gas Project | 23 |
| Recycling | 23 |
| Health Policies & Programs..... | 24 |
| Scrap Tires | 24 |
| Community Sanitation / West Nile Virus..... | 24 |
| Indoor Air Quality..... | 24 |
| Appendix (Fulton County Green Team Resolution) | 26 |

Introduction

In September 2007, the Fulton County Board of Commissioners adopted a resolution, sponsored by District 5 Commissioner Emma I. Darnell, to establish the Fulton County Green Team.

The purpose of this team was to take a consolidated examination of Fulton County Government's environmental policies and practices and to advance environmental goals within Fulton County Government.

The resolution calling for creation of the Green Team stipulated that membership should include representatives of the finance, procurement, general services, health & wellness, human services, personnel, facility management, public works, and public affairs departments. In addition, the Information Technology Department has been included to the Team to provide information on technology solutions to environmental issues.

The report herein provides a snapshot of current environmental practices at Fulton County Government with the purpose of providing a baseline for future expansion.

It is the intention of the Green Team to provide quarterly updates on environmental initiatives.

Green Team Members

Suzanne Alliegro, Deputy County Manager

Corlette Dennard Banks, Environmental Quality and Education Manager, Public Works

Jessica Corbitt, Public Affairs Manager, Office of Community Relations

Gerry Easley, Deputy Director, Human Services

Tina Emerson, Environment Specialist, Health & Wellness

Demetria Mills, Senior IT Human Resources Coordinator, Information Technology

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Michael Ross, Director of Jail Services, General Services

Felicia Strong-Whitaker, Deputy Director, Purchasing

SUMMARY OF RECOMMENDATIONS

For many of the recommendations outlined below, steps have already been taken toward fulfillment. For others, work will begin within the first quarter of 2008. In addition, Green Team members have identified paper reduction and water conservation as areas of priority.

Paper Reduction

- Create a countywide paper reduction campaign with the following activities: formation of a committee to plan and carryout the campaign; conduct a waste management assessment; establish goals and develop an action plan; select and obtain education material for the campaign; publicize campaign and motivate employees to participate; measure savings realized by campaign; and perform follow-up assessments and publicity.
- Develop paper reduction policies and procedures with input from the Information Technology Department and General Services.
- Expand the use of technology and other resources available through training and education.

Water Conservation

Within County Operations

- Establish funding to retrofit all County buildings with water-saving fixtures (including automatic flush valves, waterless urinals, and automatic faucets).
- Public Works to coordinate with General Services to conduct water audits of all County buildings and report findings/recommendations by the end of 2008.
- Public Works to coordinate with Grounds Department to promote water efficient (i.e., Xeriscape, native plants and drought tolerant) landscaping objectives and to ensure that all irrigation systems are equipped with an automatic rain sensor shut-off device.
- Public Works to coordinate with Communications and Personnel Departments to provide educational and outreach information to County employees, through the webpage, newsletter, new employee orientation and training curriculum.
- Visit and tour the Emory University campus to observe and evaluate the use of enthalpy and heat wheels, seek recommendations for waterless urinal manufacturers.

In the Community

- Design and construct a demonstration garden of water efficient landscaping at the South Fulton Maintenance and Operations Center (SFMOC). The proposed project consists of three demonstration areas: Xeriscape and habitat landscaping, water reuse landscaping and bog area, and a rain garden area. The work will also include plans and details for soft surface paths linking the landscaped areas, landscape drainage and signage for the areas adjacent to the SFMOC building and parking areas. The garden would be an educational resource for schools and citizens of Fulton County.
- Public Works and Environment and Community Development departments coordinate to develop marketing strategies for homebuilders encouraging the industry to incorporate Xeriscaping materials throughout home landscapes and common areas in neighborhoods.
- Develop a Public Education Plan to inform Fulton County citizens, business owners and other customers of Fulton County's water system of the benefits of using reclaim water for irrigation purposes.
- Develop a Conceptual Plan to make reclaimed water available commercial, industrial and residential users.
- Conduct a Risk Assessment related to the use of reclaimed water for irrigation.
- Develop a Fee Schedule for reclaimed water users

Facilities Construction & Maintenance

- Incorporate use of the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) rating systems in future construction projects to the most practical extent possible.
- Secure LEED membership for Fulton County as a government entity – "State and Local Governments"
- Key personnel in County Construction Division should pursue LEED membership and professional certification.
- Adopt the cleaning specifications outlined in the LEED for Existing Buildings – Operations and Maintenance Guidelines, Volume II to the most practical extent possible for future outsourced cleaning services
- Adopt the cleaning specifications outlined in the LEED for Existing Buildings – Operations and Maintenance Guidelines, Volume II to the most practical extent possible for future cleaning services performed with in-house (County) personnel.
- Establish funding to install electric hand dryers in all high-volume/high-traffic restrooms in County buildings. This would decrease the consumption of paper goods, and the disposal of waste paper.
- Specify the use of energy-efficient systems and equipment for the replacement of existing major equipment and systems in all future major repairs and capital improvements. American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) and Environmental Protection Agency (EPA) standards are currently being used.
- Continue to upgrade major systems and equipment to comply with most current standards.
- Adopt the operations and maintenance specifications outlined in the LEED for Existing Buildings – Operations and Maintenance Guidelines, Volume II to the most practical extent possible for future outsourced maintenance services

Fleet Management

- Consider affiliation with agencies and entities that can provide funding subsidies and/or rebates for the use of alternative-fuel vehicles (hybrids included).
- Consider funding the installation of facilities and the purchase of equipment throughout the County that can support the use of alternative fuel vehicles.
- Continue to purchase only parts, supplies, and materials that meet or exceed specifications that are recommended by the vehicle manufacturers.

Recycling

- Consider minimizing the sale/usage of beverages in containers that cannot be recycled. The demand for recycled plastic and other materials is driven by market price – currently there is a very low demand for recycled plastic. The County will incur costs to recycle plastic material.
- Consult several large recycling firms to explore the feasibility of soliciting a "master" recycling agreement that will include removal of paper, cardboard, plastics, and other non-biodegradable waste that can possibly generate revenue for the County, or offset the cost of disposing of plastic material in an environmentally manner while minimizing costs to the County.

Employee Commutes & Employee Communications

- Develop guidelines for departments to successfully implement telework, flextime, or compressed schedule programs, where possible without interrupting work flow.
- Explore direct payroll deduction payments for employees to purchase passes from other transit agencies
- Continue and expand marketing of carpool-match and transit services to employees.
- Expand the area of the Employee Portal currently dedicated to Commute Alternatives to include all environmental programs related to employees.
- Begin distribution of a Green Team Tip Sheet for employees, through electronic means to current employees and as part of new Employee Orientation beginning in 2008.

Purchasing

- Mandate that Departments, Offices, and Agencies of Fulton County shall, whenever/wherever practicable, procure products that have fewer or reduced negative impacts on human health or the environment.
- All Departments, Offices, and Agencies shall first consider office equipment that meets the U. S. Energy Star and/or EcoLogo standards when purchasing new office equipment such as appliances, computers, scanners, copiers, and printers and shall include such specifications in the solicitation documents.

Land Use and Preservation

- Coordinate with Fulton County Parks and Recreation to submit potential greenspace projects for grants from the Georgia Land Conservation Program (GLCP). The GLCP was started in April 2005 by Governor Perdue and is a revamped Georgia Community Greenspace Program. The GLCP is statewide and unlike the Georgia Community Greenspace Program which was geared to fast growing counties, this program is available to all local jurisdictions. The GLCP does not require a countywide plan and does not require a greenspace protection goal.
- Coordinate greenspace planning efforts with Fulton County Public Works alternative transportation projects.

Solid Waste

- Continue research into productive uses and alternative for the County's closed landfill sites
- Maintain adequate landfill post closure management in accordance with environmental sound practices

Health

- Hold additional "Scrap Tire Amnesty Days" in 2008.
- Plan and initiate surveys and community clean ups starting in the spring of 2008.

I. Operational Policies & Programs

A. Buildings & Grounds

1. Construction

Current Practices

The General Services Department has primary responsibility for construction and maintenance of Fulton County buildings, and the accompanying grounds. In recent years the Department has undertaken to include more environmentally conscious practices in building construction and maintenance.

Current practices are dictated by available funding and client requirements. Industry construction practices are incorporated into the scope of work by the designing team.

Policies

Design documents and specifications for new construction are based on the divisions of the Construction Specifications Institute Standards. Each design document is unique to a specific project. There are no current formal policies regarding environmental consideration in building construction.

Data

All County-owned buildings have been designed in accordance with the most current versions of the Construction Specifications Institute's specifications available at the time of design.

Recommendations

- Incorporate use of the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) rating systems in future construction projects to the most practical extent possible.
- Secure LEED membership for Fulton County as a government entity – "State and Local Governments"
- Key personnel in County Construction Division should pursue LEED membership and professional certification.

2. Cleaning

Current Practices

Janitorial services for the majority of County-owned buildings are outsourced.

Policies

There is standard language in each janitorial services contract as follows:

he contractor shall furnish all supplies, materials, equipment, and employee training necessary for the performance of the work of this contract unless otherwise specified herein, and all substances must be used in accordance with manufacturer's recommendations. Once supplies are installed, they become the property of

Fulton County. These supplies and materials shall be of a quality and type customarily utilized by other contractors engaged in the profession of providing janitorial services. No later than five days prior to the contract starting date, the contractor shall submit a list giving the name of the manufacturer, the brand name, and intended use of each of the materials that he proposes to use in the performance of the work. The Contract Administrator must approve the contractor's listing of supplies and materials prior to their use. The use of caustic or acid based cleansers will not be approved. Materials or supplies shall not be used in performance under this contract (or placed or stored on County property) until the applicable Material Safety Data Sheets (MSDS) for all hazardous materials (products containing CAUTION or WARNING labels) have been furnished to the Contract Administrator. The Contractor shall use recycled products to the greatest extent possible.

The Contractor shall not use any material which the contracting officer's representative determines would be unsuitable for the purpose or harmful to the surfaces to which applied. Costs for correcting damage caused by misused materials will be borne by the Contractor.

Data

2,981,905 square feet of County-owned facilities are being cleaned by County contractors.

Recommendations

- Adopt the cleaning specifications outlined in the LEED for Existing Buildings – Operations and Maintenance Guidelines, Volume II to the most practical extent possible for future outsourced cleaning services
- Adopt the cleaning specifications outlined in the LEED for Existing Buildings – Operations and Maintenance Guidelines, Volume II to the most practical extent possible for future cleaning services performed with in-house (County) personnel.
- Establish funding to install electric hand dryers in all high-volume/high-traffic restrooms in County buildings. This would decrease the consumption of paper goods, and the disposal of waste paper.

3. Energy Conservation

Current Practices

The General Services Department has contracted with a third-party vendor to perform energy audits of all County-owned buildings. Operating parameters have been adjusted to ensure that all buildings are being operated in the most energy-efficient manner possible with the existing major systems and equipment. Additional funding will be needed to perform major capital improvements that will provide the County with the most energy-efficient major systems and equipment.

Policies

There are no existing energy conservation policies and procedures for County-owned buildings.

Data

- Approximately 40% of County-owned buildings have Building Automated Systems and/or Energy Management Systems.
- Approximately 75% of the existing fluorescent fixtures and emergency/exit light fixtures have been replaced with energy-efficient, low-mercury content bulbs, and Light-Emitting Diode (LED) elements.

Recommendations

- Specify the use of energy-efficient systems and equipment for the replacement of existing major equipment and systems in all future major repairs and capital improvements. American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) and Environmental Protection Agency (EPA) standards are currently being used.
- Continue to upgrade major systems and equipment to comply with most current standards produced by these entities.

4. Plumbing & Water Conservation

Current Practices

General Services has contracted with a third-party vendor to perform energy audits of all County-owned buildings – water consumption is included in this audit process.

Restroom fixtures and drinking fountains are being replaced with water saving fixtures as they fail (e.g., “low flow” toilets, etc.). Additional funding will be needed to perform major capital improvements that will provide the County with the water-saving fixtures at all buildings.

Due to pervasive drought conditions in 2007, the General Services Department has discontinued the use of water in all non-essential fixtures, i.e. decorative fountains, etc. These fixtures will be monitored and remain out of service until the current weather conditions improve and water levels return to normal.

Policies

There are no current formal policies regarding water conservation in County facilities.

Data

100% of the lavatory fixtures at the Government Center and Justice Complex Buildings are automatic, water-saving devices.

Recommendations

- Establish funding to retrofit all County buildings with water-saving fixtures (including automatic flush valves, waterless urinals, and automatic faucets).

5. Equipment Maintenance and Replacement

Current

General Services’ Preventive Maintenance tasks require inspection and repair of all leaking plumbing fixtures, and replacement of all failed lamps. The inspection and repair frequencies are weekly. All failed electric motors are replaced with energy-efficient motors.

Policies

While there are no written policies addressing energy and water conservation in equipment maintenance and replacement.

Data

N/A

Recommendations

- Adopt the operations and maintenance specifications outlined in the LEED for Existing Buildings – Operations and Maintenance Guidelines, Volume II to the most practical extent possible for future outsourced maintenance services
- Adopt the cleaning specifications outlined in the LEED for Existing Buildings – Operations and Maintenance Guidelines, Volume II to the most practical extent possible for future operations and maintenance services performed with in-house (County) personnel.
- Visit and tour the Emory University campus to observe and evaluate the use of enthalpy and heat wheels, seek recommendations for waterless urinal manufacturers.

B. Fleet Management

1. Fleet Makeup

Current Practices

Currently there are in excess of 900 small and mid-sized vehicles in the Fulton County fleet.

Policies

While there are no formal policies in place for the purchase of energy-efficient vehicles, the County does purchase the most energy-efficient vehicles possible to the extent that prevailing market rates and available funding will allow.

Data

Of the 900 vehicles in the fleet, approximately 34 are powered by natural gas.

Recommendations

- Consider affiliation with agencies and entities that can provide funding subsidies and/or rebates for the use of alternative-fuel vehicles (hybrids included).
- Consider funding the installation of facilities and the purchase of equipment throughout the County that can support the use of alternative fuel vehicles.

2. Fleet Maintenance

Current Practices

All parts, supplies, and material purchased for the maintenance of County-owned vehicles are purchased in accordance with the manufacturers' recommendations to ensure that each vehicle is operating as designed; the goal is to ensure

that each vehicle performs in that manner in which it was designed, and that the manufacturer's estimated fuel economy standards are achieved. Fulton County vehicles are compliant with State vehicle emissions testing practices.

Policies

There are no formal policies in place for the purchase of parts and supplies that are specifically considered energy-efficient.

Data

N/A

Recommendations

- Continue to purchase only parts, supplies, and materials that meet or exceed specifications that are recommended by the vehicle manufacturers.

C. Disposable Products

1. Paper Consumption

Current Practices

Currently, Fulton County Departments procure office paper through the General Services Department's Central Supply Warehouse. This office paper poses has an environmental impact related to the consumption of natural resources.

Over the past several years, the development and improvement of technology has provided opportunities to reduce paper usage. The Fulton County Information Technology Department has put into place a number of tools to help departments reduce paper usage. These tools include: FlowPort Scanning, development of the Portal (intranet site) to share information/documents, E-Fax, network printers, MSOffice for Review/Editing, searchable PDFs vs. Hardcopy, and use of overheads vs. hardcopy printouts.

Policies

There are no formal policies in place regarding efforts to reduce paper consumption.

Data

Fulton County spends approximately \$500,000 annually on the purchase of paper. Other costs related to paper consumption include printing, postage, handling and transportation, disposal costs and storage.

Recommendations

- Create a countywide paper reduction campaign with the following activities: formation of a committee to plan and carryout the campaign; conduct a waste management assessment; establish goals and develop an action plan; select and obtain education material for the campaign; publicize campaign and motivate employees to participate; measure savings realized by campaign; and perform follow-up assessments and publicity.
- Develop paper reduction policies and procedures with input from the Information Technology Department and General Services.
- Expand the use of technology and other resources available through training and education.

2. Recycling

Current Practices

The County currently offers white paper recycling and recycling of cardboard that can be torn by hand.

Policies

Recycling is currently being coordinated by General Services. A recycling vendor has been contracted to recycle paper and cardboard. The scope of work for all County-managed janitorial contracts includes verbiage instructing janitorial contractors to provide services to include emptying recycling receptacles and preparing the recycled material for removal from that sites by the recycling vendor.

Toner cartridges are currently being returned to the vendor. There are no policies to formally address the disposal of spent toner cartridges

Data

Paper and cardboard are currently being recycled at 98 County-owned facilities.

Recommendations

- Consider minimizing the sale/usage of beverages in containers that cannot be recycled. The demand for recycled plastic and other materials is driven by market price – currently there is a very low demand for recycled plastic. The County will incur costs to recycle plastic material.
- Consult several large recycling firms to explore the feasibility of soliciting a “master” recycling agreement that will include removal of paper, cardboard, plastics, and other non-biodegradable waste that can possibly generate revenue for the County, or offset the cost of disposing of plastic material in an environmentally manner while minimizing costs to the County.

II. Role of Employees

A. Employee Commute Habits

Current Practices

Motor vehicles are a major source of air pollution in the metro Atlanta region. By use of alternative commute options, employees have the opportunity to reduce the number of miles driven, and consequently have an impact on air quality.

MARTA Cards

Fulton County offers employees the opportunity to purchase MARTA cards through payroll deduction (pre-tax) at a discounted rate. This offers tax savings to the employee and reduces Fulton County's payroll taxes. Currently, MARTA is the only transit provider from whom employees can purchase passes, though some employees have expressed interest in other providers.

Clean Air Campaign

In addition, Fulton County has a formal partnership with the Clean Air Campaign, a nonprofit agency that is charged with a variety of air quality improvement initiatives, including commute alternative programs.

The purpose of the partnership with the Clean Air Campaign is to make resources available to Fulton County employees to facilitate their access to and use of commute alternatives, including carpooling and transit use.

Employees have access to free carpool match program; access to a "guaranteed ride home" program, which offers a taxicab voucher for participating employees to go home in case of an emergency; and training and technical assistance with training in employee commute alternative programs.

The following activities are regularly carried out as part of the partnership with the Clean Air Campaign:

- "Commuter fairs" at various worksites to provide information to employees about commute options.
- Maintenance of a section of the Employee Portal intranet site with information about commute alternative resources.
- Periodic training for employee "Guaranteed Ride Home" facilitators.
- Tracking participation in Clean Air Campaign programs.

Policies

Fulton County does not currently have formal commute alternative policies in place.

Data

- The average commute distance in the Atlanta region is 16.7 miles each way. Based on that figure, if each of Fulton County's 6,000 employees makes a single occupancy vehicle (SOV) trip to work each day, the total commute distance for employees would be 200,400 miles per day, or approximately 52.1 million miles per year.
- As of November 2007, 997 employees purchased MARTA cards through direct payroll deduction. This figure comprises approximately 15% of the Fulton County Government's total workforce. By using mass transit, these employees are saving up to 8.6 million vehicle miles per year.

- Data is not available on the number of employees using other transit providers (GRTA, Cobb Community Transit, Gwinnett County Transit, etc.) since the County does not offer direct payroll deduction for these providers.

Recommendations

- Develop guidelines for departments to successfully implement tele-work, flextime, or compressed schedule programs, where possible without interrupting work flow.
- Explore direct payroll deduction payments for employees to purchase passes from other transit agencies
- Continue to market carpool-match and transit services to employees.

B. Employee Communications

Current Practices

There are several communications vehicles in place to provide information to employees on a variety of topics, including environmental topics.

There is currently a portion of the Employee Portal intranet site devoted to Commute Alternatives.

Policies

There are no formal policies regarding communications related to environmental policies and practices.

Data

N/A

Recommendations

- Expand the area of the Employee Portal currently dedicated to Commute Alternatives to include all environmental programs related to employees.
- Begin distribution of a Green Team Tip Sheet for employees, through electronic means to current employees and as part of new Employee Orientation beginning in 2008.

III. Purchasing Policies & Programs

Current Practices

The Department of Purchasing/Contract Compliance is the central purchasing entity for Fulton County Government. While the department currently has included environmentally-sensitive practices in its day-to-day business (i.e., recycling, paper reduction, etc.) the environmental-status of the items or services to be procured is determined by the user department.

Policies

There are currently no formal policies in place regarding environmental-sensitivity in procurement practices.

Data

N/A

Recommendations

Develop a countywide environmental purchasing policy that will provide preference for environmentally-sensitive goods and services, as follows:

- All Departments, Offices, and Agencies of Fulton County shall, whenever/wherever practicable, procure products that have fewer or reduced negative impacts on human health or the environment.
- All Departments, Offices, and Agencies shall first consider office equipment that meets the U. S. Energy Star and/or EcoLogo standards when purchasing new office equipment such as appliances, computers, scanners, copiers, and printers and shall include such specifications in the solicitation documents.

IV. Community Development Policies & Programs

A. The Fulton County Citizens Commission on the Environment

The Fulton County Citizens Commission on the Environment is a citizen environmental advisory group appointed by the Board of Commissioners. The Department of Environment & Community Development coordinates with this group. The purpose of the FCCCE is to investigate environmental concerns; to make recommendations to the Fulton County Board of Commissioners on environmental policies; and to increase public awareness, understanding and involvement concerning environmental issues. No costs are anticipated to be incurred for the FCCCE's recommendation to Fulton County on environmental policy. The current program focus areas for FY08 include:

1. Cities for Climate Protection Program

The FCCCE will continue to support the County's project and program initiatives on sustainability such as its goal to achieve the most efficient use of energy consumed in the buildings owned, operated and maintained by Fulton County. The FCCCE supports the County's efforts to reduce its greenhouse gas emissions and will continue to collaborate with the General Services Department on the County's participation in the Cities for Climate Protection Campaign.

2. Georgia Water Crisis

The FCCCE plans to include water issues in their sustainability efforts. The group is discussing the next steps for addressing the water crisis on the County level. The goal is to make policy and/implementation recommendations to address pertinent environmental issue to Fulton County.

B. Light & Noise

Current Practices

Fulton County Site Acceptability Noise Standards were adopted by the Board of Commissioners in April 2006. The standards are based on the Federal Housing & Urban Development environmental criteria and standards. The standards apply to all new proposed residential development. A noise study is required for proposed residential developments within five miles of the Hartsfield-Jackson International Airport boundary, 1,000 feet of an expressway, or 3,000 feet of an active rail line. It is also required if the average exterior noise level measured exceeds 65 dBA. The applicant is also required to submit sound attenuation measures that ensure the average interior sound level of a dwelling is 50 dBA or less. Residential uses that have average sound levels greater than 75 dBA are prohibited.

Fulton County Night Sky Ordinance was adopted by the Board of Commissioners on February 1, 2006 and provides a regulatory strategy for outdoor lighting that will permit reasonable uses of outdoor lighting for nighttime safety, utility, security, productivity, enjoyment and commerce; curtail and reverse the degradation of the nighttime visual environment and the night sky; preserve the dark night sky for astronomy; minimize glare, obtrusive light and artificial sky glow by limiting outdoor lighting that is misdirected, excessive or unnecessary; conserve energy and resources to the greatest extent possible; and help to protect the natural environment from the damaging effects of night lighting from man-made sources.

Policies

Fulton County Site Acceptability Noise Standards are located in the Zoning Resolution, Article 4.15 Noise. The Night Sky Ordinance is located in the Zoning Resolution, Article 4.9 Night Sky Ordinance.

Data

Approximately 10 noise studies have been reviewed since the ordinance was passed in 2006.

C. Water

Current Practices

The County Code specifies that plumbing in new construction must meet current low flow criteria mandated by state law passed in 1992, which requires the use of ultra-low-flow plumbing fixtures in all new construction, or when replacing plumbing fixtures during renovation or remodeling of existing buildings, and the labeling of plumbing fixtures with information regarding flow rates for the purpose of conserving water to maintain the integrity of drinking water supplies and reduce wastewater flows.

Policies

Fulton County provides this information in the Municipal Codes <http://www.municode.com/resources/gateway.asp> Chapter 14, Article 2 Division 2.

Data

N/A

D. Trees & Greenspace

Current Practices

The Fulton County Community Greenspace Program represents the participation of Fulton County and its municipalities in the Georgia Community Greenspace Program. Created in 2000, the Georgia Community Greenspace Program and Trust Fund, provided grant funds to local governments to assist in the acquisition and permanent protection of land. The program was directed at the county level and required the coordinating the planning efforts of all municipalities within the county. The Georgia Community Greenspace Program was active for fiscal years 2001 – 2003.

Policies

The Fulton County Tree Preservation Ordinance, adopted in 2000, is designed to cultivate and encourage a high level of tree preservation, promote the general provisions within this ordinance, and develop detailed provisions within the administrative guidelines in order to implement the regulations set forth to preserve, maintain, and replant trees within unincorporated Fulton County, Georgia. The Ordinance is intended to provide standards for the preservation of trees as part of the land development, building construction and timber harvest processes. The Ordinance is not intended to regulate individual properties where activities do not require a land disturbance, building construction or timber harvest permit.

The benefits to Fulton County citizens derived from tree protection and replanting include:

- Improved control of soil erosion.
- Moderation of storm water runoff and improved water quality.
- Interception of airborne particulate matter and the reduction of some air pollutants.
- Enhanced habitat for desirable wildlife
- Reduction of noise and glare
- Climate moderation
- Aesthetics and scenic amenity
- Increased property value.

The 2000 Tree Preservation Ordinance and Administrative Guidelines was last revised by the Department of Environment and Community Development, Plan Review Division in January 2003.

The Tree Bank is a component of the Tree Ordinance which serves as a mechanism for developments in Fulton County to meet tree density requirements offsite that cannot be met onsite. The tree plantings occur on Fulton County facilities. The developer works directly with General Services because the offsite facilities must be county owned.

Fulton County Wetlands Protection Ordinance

Our wetlands protection ordinance protects wetlands as designated by the USACE (National Wetlands Inventory Wetlands). The ordinance encourages in-county mitigation for any Fulton County projects requiring mitigation for any impacts to wetlands (USACOE has final call on this, however, as it is federally regulated).

The ordinance was approved in June 2002.

Data

Fulton County developed a coordinated “greenspace” plan for 11 governments. Working cooperatively, Fulton County set a goal to permanently protect 20% of the County’s geographic area. Comprising 342,930 acres, Fulton County’s 20% goal calls for the permanent protection of approximately 68,000 acres.

Recommendations

- Coordinate with Fulton County Parks and Recreation to submit potential greenspace projects for grants from the Georgia Land Conservation Program (GLCP). The GLCP was started in April 2005 by Governor Perdue and is a revamped Georgia Community Greenspace Program. The GLCP is statewide and unlike the Georgia Community Greenspace Program which was geared to fast growing counties, this program is available to all local jurisdictions. The GLCP does not require a countywide plan and does not require a greenspace protection goal.
- Coordinate greenspace planning efforts with Fulton County Public Works alternative transportation projects.

V. Water Utility Policies & Programs

A. Education

Current Practices

Fulton County has developed a well-designed and comprehensive public education and outreach program in order to protect and conserve Fulton County's water resources for future generations. Consumers often don't realize that many of the things they do every day contribute to the degradation of our environment. Below is a partial listing of programs that are currently being done as part of the Public Education and Outreach Program.

Efficient Landscape Program

A water-conservative approach to landscaping (i.e., Xeriscape and drought landscaping objectives) is being promoted. Plants whose natural requirements are appropriate to the local climate are emphasized, and care is taken to avoid losing water to evaporation and runoff. Publications, speaking engagements, exhibits, and community workshops present efficient landscaping concepts and methods to residents and businesses. The DPW works in partnership with the Fulton County Extension Service and the Clean Water Campaign to conduct classes on Xeriscaping, Composting and Rain Gardens.

Rain Barrel/Rain Garden Program

A demonstration rain garden has been installed at the Atlanta-Fulton County Water Resources Commission's water treatment plant for educational purposes and to demonstrate responsible and water-efficient landscaping. Additionally, Fulton County has partnered with local businesses such as Harry's Farmers Market and Coca-Cola to host rain barrel workshops and composting workshops.

School Education

Fulton County provides water conservation, water quality and environmental education through classroom presentations, community programs, and public workshops. One of the most effective ways of educating the community is through children's programs because children carry the message home. Common presentation tools include interactive games, videos, puppet shows, Project WET (Water Education for Teachers) and the Enviroscape model, to name a few.

Community Events

Fulton County partners with other water utilities, municipalities, civic and non-profit organizations, and water resource agencies to provide community outreach and education primarily through festivals, fairs, and beautification projects. By sponsoring or exhibiting at community events, staff can directly communicate with residents about important water conservation and quality issues. Activity packages (games, brochures, etc.) are created and distributed; along with promotional items such as pencils, flower seeds, and cups.

Policies

In November, 2007, the Board of Commissioners adopted a recommended three-phase plan to achieve a water reduction goal of 10%.

Data

FULTON COUNTY DAILY WATER OUTFLOWS (MGD)

| | Oct '06 | Oct '07 | Nov '06 | Nov '07 |
|-----------------|---------|---------|---------|---------|
| AVERAGE: | 29.55 | 25.68 | 24.39 | 19.42 |
| LOW: | 23.99 | 19.41 | 21.71 | 16.84 |
| HIGH: | 34.13 | 33.87 | 27.15 | 21.81 |

October Reduction = 13%

November Reduction = 20%

** Met Mandated Maximum Daily Flow

Recommendations

- Design and construct a demonstration garden of water efficient landscaping at the South Fulton Maintenance and Operations Center (SFMOC). The proposed project consists of three demonstration areas: Xeriscape and habitat landscaping, water reuse landscaping and bog area, and a rain garden area. The work will also include plans and details for soft surface paths linking the landscaped areas, landscape drainage and signage for the areas adjacent to the SFMOC building and parking areas. The garden would be an educational resource for schools and citizens of Fulton County.
- Coordinate with General Services to conduct water audits of all County buildings and report findings/recommendations by the end of 2008.
- Coordinate with Grounds Department to promote water efficient (i.e., Xeriscape, native plants and drought tolerant) landscaping objectives and to ensure that all irrigation systems are equipped with an automatic rain sensor shut-off device.
- Coordinate with Environment and Community Department to develop marketing strategies for homebuilders encouraging the industry to incorporate Xeriscaping materials throughout home landscapes and common areas in neighborhoods.
- Coordinate with Communications and Personnel Departments to provide educational and outreach information to County employees, through the webpage, newsletter, new employee orientation and training curriculum.

B. Facilities

Current Practices

The Fulton County Emergency Water Conservation Measures were approved by the Fulton County Board of Commission on November 7, 2007. Recently, Governor Sonny Perdue mandated a reduction in water consumption by 10% from last winter's usage (December 2006-March 2007). This mandate is applicable to the entire District; therefore, as a water provider and as a customer of the City of Atlanta, the County must meet this reduction.

The 3-phased water conservation plan is designed to encourage customers to reduce their water usage, going from voluntary reduction with continued evaluation to mandatory measures. Phase I (Public Awareness Campaign) involves a direct mailing to all customers, retrofit rebate program and direct contact with the largest water customers. Phase II (Public Awareness/Plumbing Retrofit) requires continued public awareness to all customers and notification apartment complexes to immediately retrofit of all plumbing fixtures. Phase III (Emergency Water Pricing Structure) involves the development and presentation of an emergency water pricing structure to the Board of Commissioners for consideration (with severe economic impact for non-compliance).

Additionally, Public Works will work with other Fulton County Departments (General Services, Fire, Sheriff, etc.) to provide technical assistance, recommend different efficiency actions to reduce water consumption and assist with development of conservation plans.

The Fulton County **Water Reuse Program** requires that the Department of PW, in conjunction with other County Departments, pursue avenues for utilizing reclaimed water for irrigation and other applications that do not require potable water. Fulton County contracted with a private company to build and operate its first treatment facility (Cauley Creek) with a comprehensive reuse program. The plant, which was placed in operation in 2002, currently produces up to 5 MGD of reuse quality water. The treated effluent is used to irrigate golf courses and other landscaped areas. Presently this service is not available to private homeowners; however there are plans to make this service available in the future. Customers are required to sign a written agreement and attend a reuse educational program before being connected to the reuse system. Additionally, customers must post signs informing the public that reclaimed water is used for irrigation purposes and that it is not intended for drinking.

The overall design philosophy of **the Johns Creek Environmental Campus Sustainable and Energy Efficiency Design** is based on the understanding that this facility is to last 50+ years. The project embraces sustainability, energy efficiency, and educating the public about our environment. The design of the facility is a campus-like project that has enabled the structures to be configured into a compact plan reducing the coverage of the site. The reduced footprint and building area allows for a reduction in energy usage for facility operations for HVAC, lighting, and other power requirements. The facility is located on a public transportation route. Easy site access allows for more efficient construction and ultimate operations of the facility. Limited site lighting will be used to reduce light spill into the adjacent neighborhood. Low impact lighting not only reduces impact to the adjacent neighborhood but reduces power usage at the facility. VOC-free paint will be used in all public spaces. Process flexibility has been provided to allow the treatment process to be optimized for minimal chemical and power usage / cost. The use of reuse water for toilets and waterless urinals reduce the potable water usage at the facility saving water and associated energy for treatment and conveyance. Additionally, Public Works is pursuing the use of reuse water for the site hydrant system for fire protection. This facility incorporates an educational facility. Its purpose is to inform the public about water conservation and the environmentally significant measures being taken to protect our water resources. The facility also includes a park that utilizes reuse water for all irrigation, further reducing potable water usage and associated energy usage.

Policies

In 2001, the Georgia General Assembly enacted Senate Bill 130, which established The Metropolitan North Georgia Water Planning District (the "District") and charged it with addressing comprehensive water resource management planning in the 16-county area of metropolitan north Georgia. Water conservation is essential to meeting projected District water demands; therefore, each of the sixteen counties in the metropolitan area has been charged with the task of creating and managing its own water conservation program. On May 21, 2003 the Fulton County Board of Commissioners approved the Fulton County Water Conservation Plan.

Fulton County's Water Conservation Plan is designed to:

- Reduce peak water demands through efficient water use; thereby, reducing capital expenditures for meeting increased capacity needs.
- Encourage the wise use of water by helping our customers identify water as a finite resource.
- Contribute to ensuring an adequate clean drinking water supply for our present and future customers.
- Educate all areas of the public on the need to conserve water.
- Enhance Fulton County's commitment to responsible environmental stewardship.

- Continue to improve system monitoring and maintenance.
- Contribute to the District's target goal of reducing per capita water use by 11 percent, or 136 MGD, by 2030.

Data

Over the past year, the Public Education and Outreach staff has:

- Provided water quality, pollution prevention, and water conservation education to approximately 3,000 students and teachers;
- Promoted environmental stewardship by marking 475 community storm drains with the message “Keep it Clean – Drains to River”;
- Trained 361 volunteers in the Adopt-A-Stream Program;
- Reached over 15,000 people through special events such as Drinking Water Week, Arbor Day, Earth Day, Rivers Alive, Bulk Waste Amnesty Day, Cool Waters, the Back to the Chattahoochee River Race and Festival, community cleanups, festivals, science fairs and workshops; and,
- Participated in several career day activities with local elementary and high schools, highlighting some of the exciting careers and opportunities available within the field of Public Works.

Recommendations

The Public Works Department has plans in place to:

- Develop a Public Education Plan to inform Fulton County citizens, business owners and other customers of Fulton County’s water system of the benefits of using reclaim water for irrigation purposes.
- Develop a Conceptual Plan to make reclaimed water available commercial, industrial and residential users.
- Conduct a Risk Assessment related to the use of reclaimed water for irrigation.
- Develop a Fee Schedule for reclaimed water users

VI. Solid Waste Policies & Programs

A. Landfill Methane Gas Project

Current Practices

Fulton County owns two landfills, Morgan Falls and Merk Miles, each with gas collection systems. The County is pursuing options for using methane gas from Merk Miles landfill as a renewable source of energy for the Wolf Creek amphitheater. Currently the County is flaring the methane gas which does reduce greenhouse gas emissions from the landfill. Since the Wolf Creek amphitheater is located in close proximity to the landfill, the County wants to pursue using the gas directly as an energy source for the project.

Policies

Fulton County Board of Commissioners approved a policy which allows the Public Work Department to pursue the sale of carbon credits generated from the reduction in greenhouse gas emission from the Morgan Falls and Merk miles landfill sites.

Data: Extensive data collection and analyses is being done to calculate the County's total carbon foot print. This process will result in data which identifies Fulton County's total contribution to greenhouse gas emissions into the atmosphere.

Recommendations

The Public Works Department has plans in place to:

- Continue research into productive uses and alternative for the County's closed landfill sites
- Maintain adequate landfill post closure management in accordance with environmental sound practices

B. Recycling

Solid waste services are typically a municipal function. Fulton County does not operate or provide solid waste services to residents of unincorporated Fulton County; however, Fulton County does require solid waste service providers (garbage companies) to provide curbside recycling as a permit condition of operating within Fulton County. All cities in Fulton County are required under state law to provide an effective program to management solid waste handling practices within their respective jurisdictions.

VII. Health Policies & Programs

A. Scrap Tires

Current Practices

In 2006, the Fulton County Department of Health and Wellness offered the citizens of the County the opportunity to dispose of scrap tires by placing two (2) containers specifically for scrap tires in each of the five (5) commission districts.

Policies

The Board of Commissioners adopted a resolution regarding scrap tire disposal in 2000.

Data

During the 2006 Campaign the event yielded 1,776 tires. Fulton County estimates that 150 to 200 tons of scrap tires were disposed of through this project.

Recommendations

- Additional "Scrap Tire Amnesty Days" are planned for 2008.

B. Community Sanitation / West Nile Virus

Current Practices

The Community Sanitation/WNV Program perform surveys in neighborhoods and communities from which high volumes of rodent and mosquito complaints are reported. For 2007, surveys were performed in neighborhoods such as; Dixie Hill, Oakland City and Summerhill. Neighborhoods were also encouraged to use the days leading up to the survey to clean up.

Policies

The County has adopted policies related to rat control, nuisances and solid waste disposal.

Data

N/A

Recommendations

- Further surveys and community clean ups will be planned and initiated starting in the spring of 2008.

C. Indoor Air Quality

Current Practices

The Fulton County Department of Health and Wellness offer restaurateurs of Fulton County operating a smoke-free business-the opportunity to receive a discount on their annual license fee.

In addition, Fulton County Environmental Specialists are working with all food service establishments, tourist accommodations and indoor swimming pools through routine inspections to insure that the Georgia Smoke Free Air Act of 2005 is being enforced.

Policies

The Board of Commissioners adopted the Fulton County Clean Indoor Air Ordinance.

Data

N/A

Recommendations

N/A

APPENDIX: Green Team Resolution