



City of Maitland Green Team Environmental Impact Reduction Practices and Strategies October, 2009

I. Introduction

As a city of approximately 16,500, the City of Maitland recognizes that City activities have an impact on the environment. We are dedicated to preserving our beautiful tree canopies, parks, and reducing our environmental impact by incorporating green landscaping techniques, maintaining a Green Fleet for City vehicles, Florida DEP "Creating a Green and Profitable Work Environment" techniques, EPA Environmentally Preferable Purchasing Program, and educating the public on the benefits of conservation, green building and development.

In order to improve employee health by reducing biological and particulate matter contaminants in City buildings we have instituted Florida DEP "Creating a Green and Profitable Work Environment" techniques for Green Cleaning & Maintenance. The City is currently evaluating solar technology for City buildings, practicing energy and water efficiency, recycling, and constantly strive to maintain an environmentally friendly City..

The City of Maitland's "Green Team" has created the following plan to combat climate change. Our goal is to reduce greenhouse gas emissions 10% below 1990 levels by 2012.

To achieve this ambitious target, we must improve energy conservation, transition to renewable power sources, and change the ways we travel within our community. We can reduce operational costs for energy and water and reduce our dependence on foreign oil and fossil fuels. In the coming years, we must also use water more efficiently, set smart new standards for "green building" and land use planning, and further reduce City waste. The City has set a goal of 75% waste diversion by 2012.

City of Maitland has the opportunity to become a leader among cities in Florida and the nation. City of Maitland is striving to become a Florida Green Building Coalition (FGBC) certified Green Local Government. We are utilizing the guidelines and have found we have been practicing "green" strategies in many departments for years. Our Best Management Practices have always incorporated consideration for our environment.

The success of our efforts to create a sustainable Maitland will be evident to our residents and visitors. It is with them in mind that we have designed the following Environmental Impact, Energy, Water and Waste Reduction strategies.

2. Environmental Impact Reduction Current Practices:

- The City of Maitland is currently conducting an Assessment towards the goal of becoming a Florida Green Building Coalition (FGBC) Certified Green Local Government. This program addresses City environmental management, policies, procedures, environmental impact and citizen education.
- On September 3, 2009 City of Maitland passed Resolution 12-2009 Mandating green building standards for all new City buildings. By building according to FGBC or LEED standards the City will substantially lower operating costs and environmental impact.
- Green Fleet: Practicing Green Fleet procedures and techniques Public Works mulches tree and limbs on site when cut for safety reasons. Mulch is used on the property which eliminates need for removal.
- Tree Protection ordinances in place to preserve our trees and canopies.
- “Doggie Pots” with bags are installed in parks to encourage dog walkers to clean up after their dogs. This reduces the risk of waste being washed in to lakes and groundwater.
- Park buildings and recreation equipment is designed around significant trees to increase shade and preserve habitat for birds.
- Public works recycles metals from building repairs and park bleachers.
- Police Department uses frangible bullets and practices at an environmentally friendly range.
- Police patrol on foot and on bicycles during special events and on patrol.
- Fire Department is installing a system that allows water to be drawn from a pond, cycled through a Pump Truck and back in to the pond for training purposes.
- Fire Department uses non toxic car wash liquid for trucks.
- City property is maintained using FGBC Green Landscaping & Maintenance guidelines and Integrated Pest Management.
- City departmental Purchasing Agents have implemented EPA Environmentally Preferable Purchasing to reduce environmental impact.
- Public Works has replaced diesel mowers with propane gas mowers to reduce dependence on diesel at a annual cost savings of \$7,472.
- City boat used for Lake Invasive Species program replaced with lower power engine.
- City has been practicing “Exotic Invasive Aquatic Plant Removal” for several years to protect our lakes, including the use of carp for invasive species.
- Awarded \$549,000 cost share grant to construct a series of exfiltration units and underground retention in the Ridgewood neighborhood to protect lakes from fertilizer, yard debris and pesticides.
- Construction of new Police Station designed to achieve USGBC LEED certification. In progress.
- Invasive Plant Species Removal Program under development.
- Promote and maintain recently implemented City Recycling Program.
- Expand web site environmental information.
- Evaluating Green Building Incentives and classes on Green Building issues for to City employees and local businesses.

3. Memberships:

- Member Florida Green Building Coalition.
- Member of Ground Water Guardian.
- Member of International Council for Local Environmental Initiatives (ICLIE)
- Member of Florida Local Environmental Resources Agency (FLERA)
- Partner of EPA “Waste Wise Program”
- Member of Solid Waste Association of America (SWANA)

4. Energy Reduction Current Practices:

The City of Maitland has been practicing energy reduction strategies and is working to further reduce energy use. By reducing energy use in City buildings we can reduce operational costs and environmental impact.

- The City has established a two year baseline of Kilowatts and costs for major buildings in order to evaluate new energy strategies and carbon footprint.
- Programmable thermostats have been installed in several City buildings. This assures that air conditioning use is reduced when employees are not in the building. This reduces wear and tear on HVAC systems and reduces energy bills.
- All electronic equipment and computers have energy conservation mode.
- Motion sensors are installed in public bathrooms in City Hall and James Park Youth Activity Building.
- All employees turn lights off in rooms not in use.
- Lighting for Parks and Ball parks are energy efficient, equipped with sensors and/or timers.
- Energy Reduction Policy is in place and requires employees to turn off computers and monitors when not in the office, nights and weekends, or when they go to lunch. Since monitors require more energy than the computers themselves, the City should see a reduction in its energy bill.
- Energy Conservation Policy requires the City to purchase electronic equipment with energy conservation features as part of the EPA EPP program.
- City is currently, as part of Best Management Practices, replacing desk top printers and installing hub printing/fax/scan equipment. This will reduce energy and the need for several different printer cartridges.
- The new USGBC LEED certified Police Station will be prewired for hub station printer/fax/scan equipment.
- By standardizing printers the City will save an estimated \$15,000 to \$20,000 per quarter currently spent on various print cartridges.
- The City has recently purchased 2 hub printers to replace desktop printers for the new Police Station and Public Works. These printers will eliminate over 25 desk top printers.

5. Energy Reduction Plan:

The City of Maitland will be participating in the ICLEI program. ICLEI is an association of more than 1000 local governments in 67 countries committed to sustainable development. While City staff works on further developments to document and implement energy reduction strategies we have developed this basic plan.

It is Maitland's goal to reduce energy consumption by a minimum of 10% by 2012 by incorporating the following strategies:.

- Evaluating "Carbon Footprint" software.
- Replace all lighting with energy efficient fixtures and ballasts by attrition.
- Evaluating installation of additional motion sensors and programmable thermostats.
- Evaluating solar feasibility for buildings when funds are available.
- Continue to track and monitor Energy Consumption for City Buildings.
- The City will continue to expand its "Energy" section of the "Green City" webpage to assist residents and businesses conserve energy.
- City is in the process of developing informational content for young people. This site will include entertaining information regarding energy, water and waste reduction that is practical for children to inspire them to learn about environmental issues and how they can help save the planet.

6. Water Reduction Current Practices:

The City is well aware of water shortage issues in the State of Florida and is constantly evaluating how to reduce use and protect our most precious resource. In order to reduce water consumption the City has been practicing the following:

- Constantly monitoring and improving water use reduction for City property. Through established Best Management Practices the City has reduced irrigation water use by 8, 988,000 gallons since 2006 even though an Minnehaha Park has added an additional 1,790,000 for irrigation annually.
- Practices Green Landscaping techniques. Parks and Recreation has long been practicing "Right Plant, Right Place" to minimize water use. Green landscaping also reduces water usage, the amount and toxicity of fertilizers and pest management chemicals We understand the importance of protecting our ground water and waterways.
- Water Conservation Resolution/Ordinance # 1193
- Irrigation for City property meets or exceeds Florida Yards and Neighborhood requirements.
- Automated faucets are in place at City Facilities.
- Water meter testing is offered for residents.

7. Water Reduction Plan:

- Water tracking for a two year baseline has been established.
- Encourage Green Home Building in Maitland.
- Encourage Green Development in Maitland.

- Continue to educate citizens on water conservation strategies, drought tolerant and native plants, and proper irrigation techniques via City Newsletter and Green Page on City Website.
- City Buildings are under evaluation for water conservation strategies.

8. Waste Reduction Current Practices:

Waste disposal has dramatic effects on our environment and can affect our groundwater. The City has made great strides in reducing its hazardous waste by implementing a Recycling program, Green Fleet, Green Landscaping, and EPA Environmentally Preferable Purchasing. The City has set a goal of 75% waste diversion by 2012. The following are current hazardous waste and waste reductions strategies in place:

- The City has created and EPA Environmental Preferable Purchasing policy.
- City Departments have attended EPA Environmental Preferable Purchasing training. This training provides guidelines for green purchasing that includes evaluating the life cycle of products and their environmental impact, as well as cost analysis. It also promotes buying locally to maintain local jobs.
- City has implemented a Printing and Paper Use Policy.
- Practicing Green Fleet procedures which require:
 1. Fuel consumption and mileage has been tracked for several years.
 2. Recycling of used oil, air condition refrigerant, and radiator fluid.
 3. Regular maintenance to improve fuel efficiency.
 4. Recycling of lead wheel balancing weights and metal parts. In doing this, the City receives recycling payment from the local metal recycler and those funds are returned to the City's General Fund.
 5. Parts washing machine that filters and recycles parts washing fluid. This reduces the amount of toxic fluid and saves money for the City.
 6. Re-treading tires for large vehicles such as the street sweeper. This saves money for the City. The City also purchases long wearing tires and recycles all tires.
 7. Vehicle batteries are recycled through the supplier.
 8. Purchase of wrecked police cruisers, salvaging parts, then recycling back out for auction. Practices save the City over \$25,000 per year and delays the introduction of waste to the landfill.
 9. Educates fleet vehicle users as to the importance of reporting all leaks or malfunctions, as well as fuel conservation techniques. Recycling bins have been placed in all City buildings to encourage recycling of paper, plastic and glass.
- Recycling literature and procedures are printed and distributed.
- Ink cartridges are recycled through the IT Department.
- Cardboard recycling.
- Public Works recycles florescent tubes for entire City.
- Recycling bins have been placed in all City buildings to encourage recycling of paper, plastic and glass.

- Bi Annual Citizens clean up for large items and appliances, furniture and junk cars for pick up. City crews teamed up with Waste Pro of FL, Inc to pick up in each neighborhood items set out by the curb.
- Public Works practices minimal fertilizer and pest management chemicals in accordance with FGBC Green Landscaping, Florida Yards and Neighborhoods and Florida DEP "Creating a Green and Profitable workplace.
- City is evaluating record scanning and equipment to reduce paper use.
- Parks and Recreation is utilizing on line registration for majority of recreational programs.
- On line customer service request for all departments in the City which reduces paper, postage, printing, and fuel use.
- City employs an Intranet Request Service for City Staff that allows access for City Staff to make various types of requests for services or maintenance.
- City of Maitland 15 month Calendar reduces paper and mailing costs by reducing Monthly News letter by half. Highlights to promote greener living include: Farmer's Market (November, 2009) to promote family activity and support local Farmers, Water and Energy Conservation tips (February, 2030), Special Events for families in the park (July 2010), Maitland Historic Society (October, 2010), and more.
- Street Repair: When streets and intersections with brick paving are in need of repair bricks are removed, stored and reused.
- Water bills can be paid on line.
- Residents can register on line for Leisure Services activities.
- Each Department has an office supply reuse closet. Extra binders, paper clips, pens, etc. are stored in this closet for use by Departmental personnel which eliminate unnecessary supplies ordering.

9. Waste Reduction Plan:

- Public parks continue to add recycling bins as funding becomes available.
- City is evaluating record scanning and equipment to reduce paper use.
- Develop a waste tracking system for City Waste.

10. Green Cleaning:

The City of Maitland values the health of our employees. To improve the air quality in our buildings we will be using guidelines for green cleaning from: "**Creating a Green and Profitable Workplace**" guidelines for cleaning City buildings..

According to this program there are also financial benefits of green cleaning and maintenance include:

- *15-30% savings on cleaning costs*
 - *35% energy savings*
 - *20-60% water savings*

11. Green Cleaning Current Practices:

1. Contract for new Police Station requires Janitorial Services to adhere to LEED Green Cleaning practices.

2. Some current cleaning products are EPA DfE (Designed for the environment) certified).being evaluated to reduce toxicity.
3. MSDS sheets are available in the storage closet. (need list of cleaning products and we can pull MSDS)
4. Staff practices proper storage and diluting methods.
5. Cleaning is conducted after hours.
6. Properly functioning and well maintained cleaning equipment.
7. Regularly scheduled cleaning.
8. Restrooms and food areas are regularly disinfected/sanitized.
9. Proper and regular trash and recycling removal.
10. Lighting upgrades have been evaluated.
11. Water bills are monitored.
12. Green Landscaping procedures for City buildings practiced for years.
13. Minimized plants near entry ways and fertilizing only when necessary.
14. Entry way mats are in place and cleaned regularly (in accordance with LEED Green Cleaning guidelines).

12. Green Cleaning Plan:

1. Green Cleaning Janitorial Services contract will be issued in 1010 when current contract expires.
2. Train cleaning personnel on ““Creating a Green and Profitable Workplace” guidelines
3. Current cleaning products are being evaluated to reduce toxicity in accordance with EPA EPP guidelines.

The Green Team welcomes any comments and suggestions in order to further our efforts to maintaining and improving the City of Maitland as a sustainable community.