

On January 12, 2010, the Village of Pinecrest Council adopted Resolution 2010-01 directing the Village Manager to develop a green action plan which will take steps to expand the Village's sustainability efforts. That resolution identified the following initial steps to be completed by the Village: 1) auditing of the Pinecrest Municipal Center, Pinecrest Community Center, and all park buildings and develop proposals for retrofitting and new operating policies and procedures that will result in the Village facilities being more energy efficient; 2) to include the writing of a procurement policy that secures practices that support sustainability; 3) and to provide professional development training to staff to ensure there is a LEED certified building/zoning staff member.



The Village Council further solidified its commitment to minimize the community's impact on the environment through the adoption of the Village's first Strategic Plan on May 11, 2010. The Strategic Plan establishes sustainability as one of six core values of the government and places municipal focus on increased energy efficiency and sustainable growth management policies.

Consequently, the Village of Pinecrest has created the following Green Action Plan to combat climate change. It is the Village Council's goal to reduce the overall greenhouse gas emissions 7% below 1996 levels by 2014.

To achieve this ambitious target, the municipality must strive to consistently find



ways to conserve water and energy, facilitate the transition to renewable power sources, and improve the way staff, residents, and visitors travel within our community. The ultimate goal of the Green Action Plan is for the Village to save money through energy and water cost reductions while successfully diminishing its overall dependence on foreign oil and fossil fuels. By implementing new standards for "green building" and adopting land use regulations that promote sustainability, the Village will effectuate further reductions in waste.

As a municipality of approximately 20,000 in population, the Village Council recognizes that activities, both public as well as private, have an impact on the environment. The Village is dedicated to preserving its beautiful tree canopy and parks, reducing its environmental impact by incorporating green landscaping techniques, maintaining a Green Fleet for Village vehicles, and educating the public on the benefits of conservation, green building and development. Furthermore, in order to improve employee health by reducing biological and particulate matter contaminants into public buildings, the Village has instituted a Green Cleaning Program. The Village is currently evaluating environmentally sustainable technologies for public buildings, practicing energy and water efficiency, recycling, and has begun purchasing alternative fuel vehicles.

The Village of Pinecrest has the opportunity to become a leader among cities in Florida and the nation and is striving to become a Florida Green Building Coalition (FGBC) certified Green Local Government. The Village has been practicing "green" strategies in many departments since its inception and continuously seeks ways to incorporate the guidelines set forth by the FGBC into the daily practices of the government – with a targeted consideration of the environment in its best management practices.

The success of Village efforts to create a sustainable Pinecrest will be measured by our children. It is with them in mind, that the Village Council and administration has designed the following Environmental Impact, Energy, Water and Waste Reduction strategies:



Environmental Impact Reduction Current Practices:

- Completed an Energy Assessment Audit of the Pinecrest Municipal Center, Pinecrest Community Center, and all park buildings.
- Developed and implemented a Green Purchasing Policy.
- Practices Green Fleet procedures and techniques. Green Fleet procedures require:

1. Fuel consumption and mileage has been tracked for the past 15 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 Village receives recycling payment from the local metal recycler and those funds are returned to the Village'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 Village.
6. The Village also purchases long wearing tires and recycles all tires.
7. Vehicle batteries are recycled through the supplier.
8. Educates fleet vehicle users as to the importance of reporting all leaks or malfunctions, as well as fuel conservation techniques.

- Tree Protection ordinances are in place to preserve Village trees and canopies. The Village has been named a Tree City USA.



- Park buildings and recreation equipment is designed around significant trees to increase shade and preserve habitat for birds.

- Police Department is applying for COPS grant to retain or rehire police officers.
- The Village of Pinecrest currently has 15 Police Bicycle Patrol Officers to increase visibility and communication with residents and reduce carbon footprint.
- Police patrol on foot during special events.
- Village property is mowed with mulcher mowers.
- Artificial mulch has been installed beneath playground equipment at Evelyn Greer Park, Suniland Park, Flagler Grove Park and Coral Pine Park. This reduces maintenance, is pervious, and is much safer for children.
- Education: Right Plant, Right Place/ Parks & Rec.
- Established a LEED Credential Policy for Building and Planning Department staff.
- Education: Mayor's attendance at "Gateway to Green" (Miami-Dade), Mayor's Climate Protection Conference."
- The Village hosted a Going Green Conference in January 2010 with the purpose of educating the public of green initiatives.
- The Village hosts an annual Earth Day Festival that highlights green vendor booths and workshops free to the general public to disseminate information on how to reduce environmental impact.
- The Village entered into an educational compact agreement with the School Board that provided Green School Goals.



Environmental Impact Reduction Future Plan:

- Become FGBC Certified Green Local Government which addresses Village management, environmental impact and citizen education.
- Construction of future buildings, in accordance with the Green Building Ordinance, will be built to FGBC LEED Standards.
- Promote FGBC Green Development and Green Homes.
- The Village of Pinecrest will evaluate bike path and sidewalk connectivity. Improving connectivity can reduce fossil fuel dependence and carbon emissions by our residents.
- The Village of Pinecrest will be establishing a Bus Circulator Route throughout the Village.
- The Village will conduct an inventory of the current community carbon footprint, establish a target for reduction, and develop and implement a climate action plan.



Energy Reduction Current Practices:

- All electronic equipment and computers have energy conservation mode.
- All employees turn lights off in rooms not in use.
- Lighting for parks and ball parks are either energy efficient, equipped with sensors, or can only be turned on by an authorized Parks & Recreation employee for ball games and special events.
- New LED lighting was installed at the Pinecrest Gardens facility.
- Implemented the Adopt-a-Tree program which provides residents the opportunity to purchase trees at low bid prices and encourages residents to plant trees in order to increase the Village's tree canopy and reduce energy consumption.
- Energy Reduction Policy is in place and requires employees to turn (change) off computer monitors when not in the office or when they go to lunch. Since monitors require more energy than the computers themselves, the Village should see a reduction in its energy bill.



Energy Reduction Future Plan:

The Village of Pinecrest is participating in the ICLEI program. ICLEI is an association of more than 1000 local governments in 67 countries committed to sustainable development. While Village staff works on further developments to document and implement energy reduction strategies we have developed this basic plan to achieve our goal of reducing energy consumption by 10% within 5 years. Need in order to achieve pt A2b.

- Programmable thermostats have been installed in Village 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.
- Replace all lighting with energy efficient fixtures and ballasts by attrition.
- Install motion sensors in public facilities where feasible.



Water Reduction Current Practices:

- Practices Green Landscaping techniques. Parks and Recreation has long been practicing Florida Yards & Neighborhoods “Right Plant, Right Place” to minimize water use. Green landscaping also reduces water usage, the amount and toxicity of fertilizers and pest management chemicals. The Village understands the importance of protecting our ground water and waterways. Pinecrest is striving to achieve our goal of reducing water consumption by 10% within 5 years. Need in order to achieve pt A2b.
- The Village adheres to the stringent Miami-Dade irrigation requirements and South Florida Water Management District water restrictions.
- Only approximately 30% of Parks property is irrigated.
- Irrigation meets Florida Yards and Neighborhood requirements.
- Automated faucets are in place at the Pinecrest Municipal Center, Community Center and Pinecrest Gardens.
- Village website offers a link to the shower head exchange program offered by Miami-Dade County.
- Police Department monitors irrigation violations while on patrol and issues citations to violators.



Water Reduction Future Plan:

- Encourage Green Home Building in Village of Pinecrest
- Encourage Green Development in Village of Pinecrest
- Continue to educate citizens on drought tolerant and native and proper irrigation techniques. Through programs, Village Newsletter and Green Page on the Village's Website.



Waste Reduction Current Practices:

- All Village Departments have participated in the 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.

- Recycling bins are placed throughout Village buildings.
- Parks and Recreation is utilizing online registration for majority of recreational programs.
- Online customer service request for all departments in the Village which reduces paper, postage, printing, and fuel use.
- Each Department has an office supply reuse closet. Extra binders, paper clips, pens, etc. are stored in this closet for use by Department personnel which eliminates unnecessary supplies ordering.
- Recycling bins have been placed in all Village buildings to encourage recycling of paper, plastic and glass.
- Ink cartridges are recycled to the Miami-Dade County School system.
- Public Works recycles florescent tubes and aluminum signage/posts for entire Village.
- Reports required by Federal and State regulation are now available on disc. This reduced paper, printing, and shipping costs by 50%.
- Promotes hazardous waste disposal through Miami-Dade county Landfill for paint, chemicals, etc.
- Used oil may be deposited by residents at the County owned Permanent Home Chemical Collection
- The Village is providing china in the break room and reusable water bottles for Village employees to reduce waste and the number of plastic water bottles being recycled. Paper recyclables and recycled content such as coffee cups are on hand for visitors.



Waste Reduction Future Plan:

- Develop construction waste management plan that adheres to USGBC LEED guidelines for Village building construction.



Green Cleaning Current Practices:

Green Cleaning can have direct positive impacts on the health of building occupants. Particles such as dust, gases such as volatile organic compounds (VOCs), and biological materials such as mold can impact the health of occupants on a variety of levels, from simple annoyances such as itchy eyes, to more severe conditions such as asthma triggers. Poor indoor air quality can result from improper or infrequent cleaning and maintenance practices, but it can also result from various cleaning agents and other supplies used.

The Village of Pinecrest values the health of its employees. To improve the air quality in public buildings, the following guidelines for green cleaning shall be used:

- Our cleaning vendor is Vista Building Maintenance Services. We recently contracted with them in part due to their current green cleaning practices. The products they use in Village buildings are either Green Seal or EPA DfE (Designed for the environment) certified)
- MSDS sheets are available in the storage closet. (need list of cleaning products and we can pull MSDS)
- Staff practices proper storage and diluting methods.
- Cleaning is conducted after hours.
- Properly functioning and well maintained cleaning equipment.
- Regularly scheduled cleaning.
- Restrooms and food areas are regularly disinfected/sanitized.
- Proper and regular trash and recycling removal.
- Lighting upgrades have been evaluated.
- Water bills are monitored.
- Green Landscaping procedures for Village buildings practiced for years.
- Minimized plants near entry ways. (In accordance with LEED Integrated Pest Management)
- Fertilizing only when necessary.
- Entry way mats are in place and cleaned regularly (in accordance with LEED Green Cleaning guidelines).
- Developed a formal procedure for reporting spills and general complaints.



Green Cleaning Future Plan:

- Train cleaning personnel on “Creating a Green and Profitable Workplace” guidelines
- All future bids will include requirements for cleaning products in accordance with EPA EPP guidelines.
- Educate residents on Green Cleaning benefits through Green Page on website and in newsletter.

Environmental Preferable Purchasing Policy

In keeping with the Village of Pinecrest's commitment to minimize its impact on the environment this policy was created to ensure Environmentally Preferable Purchasing as outlined in the US Environmental Protection Agency Guidelines for Environmentally Preferable Purchasing (EPA EPP). This policy will apply to all Village departments.

Village of Pinecrest staff has been practicing environmentally conscious purchasing for several years. Some examples include, but are not limited to, green cleaning and maintenance, green fleet, flex fuel vehicles, bikes for Police Bicycle Patrol, Village logo water bottles for staff and the public, energy conserving electronics, recycle content paper, etc.

The Village hereby adopts the EPA EPP program in conjunction with our existing Purchasing Guidelines. It is the intent of this policy that environmental considerations should become part of normal purchasing practice, consistent with such traditional factors as product safety, price, performance, and availability.

1. All purchasing will now consider the following 5 EPA EPP factors when evaluating purchases for the Village:

- *Guiding Principle 1: Environment + Price + Performance = Environmentally Preferable Purchasing*
- *Guiding Principle 2: Pollution Prevention*
- *Guiding Principle 3: Life Cycle Perspective/Multiple Attributes*
- *Guiding Principle 4: Comparison of Environmental Impacts*
- *Guiding Principle 5: Environmental Performance Information*

2. All Invitations to Bid shall include the Vendor Blanket Statement described below.

3. EPP purchases will be logged on the Village of Pinecrest EPP spreadsheet.
4. Reports of EPP purchases will be submitted to Village Manager on a Quarterly basis.
5. Purchasing staff will attend training seminar "Introduction to EPA Environmentally Preferable Purchasing".

Village Manager reserves the right to make additions and changes.

Vendor Blanket Statement

In keeping with the Village of Pinecrest's commitment to minimize its impact on the environment, the Village of Pinecrest has adopted an Environmentally Preferable Purchasing Policy as outlined in the US Environmental Protection Agency Guidelines for Environmentally Preferable Purchasing. It is the Village's intent to evaluate purchases with the environmental impact of said purchase in mind. All Vendor bids shall include:

1. Material Safety Data Sheets for all chemicals.
2. Manufacturer location of product.
3. Packaging recycled content (ie: cardboard, plastic, etc)
4. Information of recyclability of product and packaging.
5. Whether product is available in bulk.
6. Any additional environmental information (ie: does vendor or manufacturer have their own program in place, etc.)
7. Any environmental certifications (ie: Green Seal, EPA DfE, Carpet and Rug Institute (CRI), etc.)

In addition, all invoices and bids are to be submitted electronically whenever possible.

In keeping with the Village's commitment to minimize its impact on the environment by reducing energy consumption, the Village's Information Technology Division ("IT") has created the following energy efficient guidelines. This policy will apply to all Village departments and employees. IT will provide assistance to all Village departments in implementing the guidelines.

1. All staff monitors and peripherals should be turned off at the end of the day, or when the user will be away from the device for more than 2 hours. All computers, monitors and peripherals should be turned off when the user will be out for an extended period of time (e.g. weekends).
2. All screen savers should be disabled in favor of "power-down" mode. Desktop computers can draw 50-100 Watts when in full operation and a laptop between 25-50 Watts. In "power-down" mode, these can be reduced to 20 and 5 Watts, respectively. For monitors, the energy use can be reduced from 25-40 Watts to 5 Watts. Please contact IT for assistance.
3. Training room and shared equipment should be turned off when not in use, including all peripherals.
4. All computer equipment that is no longer in use must be reused, recycled or disposed of through IT.
5. All devices that require charging, such as laptops and cell phones, should not have their chargers plugged in without the device. It is recommended that this extend to any device that has an AC/DC converter.
6. Wherever possible, devices that draw a trickle charge when off should be fully disabled when not in full use.
7. Whenever feasible, the Village will purchase equipment certified by the U.S. Environmental Protection Agency's (EPA) "ENERGY STAR" program. ENERGY STAR is a program helping businesses and individuals protect the environment through superior energy efficiency, and ENERGY STAR-rated equipment will improve the Village's energy and financial performance.
8. Networking/sharing a printer is a more energy/cost-efficient solution than purchasing multiple personal printers. Whenever feasible, IT will purchase strategically, networked or shared printers capable of printing on both sides of a sheet of paper in lieu of personal printers.
9. Employees will print only when necessary in order to reduce paper, energy consumption and ink cartridges.
10. As a part of the Village's website, the Website Administrator will dedicate a section, page, or area that details our involvement in the Florida Green Builder's Association's "Green Local Government Standard".
11. From time to time, the Village Manager may revise these guidelines and will distribute changes with a new effective date.

In keeping with the Village's commitment to minimize its impact on the environment by reducing waste, the Village Manager has created the following recycling policy. This policy will apply to all Village departments and employees.

It is the Village of Pinecrest's policy for all Departments to recycle materials as outlined in the following guidelines. Please contact the Office of the Village Manager if you have any questions.

The State of Florida has given cities a goal of recycling 75% of all solid waste. To meet the 75% goal, each person in the Village will need to recycle 3.47 lbs per day.

We encourage our residents to recycle and in order to lead by example we must constantly improve our own recycling habits.

- Each office and meeting space shall have a recycling bin for single stream recycling of paper, plastic, glass and cans.
- Deliver used ink cartridges to the Office of the Village Manager for recycling.
- All electronic equipment will be recycled through the IT/GIS Administrator.
- Batteries shall be delivered to the County owned Permanent Home Chemical Collection Center for recycling.
- All Request for Bids will include information on packaging recycled content and recycling information at end of life for products per the Village's Environmentally Preferable Purchasing Policy.
- Florescent light tubes will be recycled through the County owned Permanent Home Chemical Collection Center.
- The Village will continue to comply with Green Fleet Best Management Practices

for recycling hazardous chemicals and metals.

It is the policy of the Village of Pinecrest for all employees to review and follow the attached guidelines in order to meet the 75% goal at all of its facilities within the next year.

From time to time, the Village Manager may revise the policy and will distribute changes with a new effective date.

In keeping with the Village of Pinecrest's commitment to minimize its impact on the environment, this policy was created to ensure participation in accordance with the Florida Green Builder's Association's (FGBC) Florida Green Local Government Standard *Fleet Management and Vehicle Maintenance Module*. This policy will apply to all Village departments.

According to the FGBC "Local governments have an opportunity to lead by example and demonstrate the viability and benefits of various environmental practices and technologies within their community." In particular, vehicles are a very visible aspect of operations that are seen daily by the public and are usually widely dispersed geographically. In effect, they are moving advertisements for local government in action.

The Village requires regular maintenance of vehicles to reduce environmental impact and improve longevity of vehicles. In addition, as of January 2011, the Village Police Department has purchased 34 total vehicles, 50% of which are E-85 capable. When you add 2 hybrid cars, this raises our "green capable" ratio to 55.8%. The Police Department also operates a Police Bike Patrol which contributes to the health of our officers, offers higher visibility to residents and reduces fuel consumption and other associated vehicle repair costs.

The Village currently contracts vehicle maintenance and repair with Auto Electric Services for police and other Village vehicles. After reviewing the above referenced Module it has been determined that Auto Electric Services practices 90% of the green fleet practices (see attached). Per this Policy, the time of our next request for Bid participation and documentation of Green Fleet Practices will be required as part of the Bid submittal.

The Village of Pinecrest adopts the Florida Green Builder's Association's (FGBC) Florida Green Local Government Standard *Fleet Management and Vehicle Maintenance Module* for all Village vehicles.

The LEED Professional Credential Program is administered by the United States Green Building Certification Institute. The multi-faceted credentialing program ensures an individual's current level of competence and is the mark of the most qualified, educated and influential green building professionals in the marketplace. Three levels of excellence distinguish practitioners with basic, advanced and extraordinary levels of knowledge:

Tier 1: LEED Green Associate (Basic)

Tier 2: LEED Accredited Professional with Specialty (Advanced)

Tier 3: LEED Accredited Professional Fellow (Extraordinary)

Village Requirement

In furtherance of the Village's Strategic Plan Initiative for Environmental Sustainability, the Building and Planning Department will require as a condition of employment, that the Building Official, Planning Director, Village Planner and the Chief level building inspectors (employed as of April 1, 2010) become LEED GA accredited by the end of FY 2010 and LEED AP accredited by the end of FY 2011 as follows:

- a) Building Official and Chief Inspectors – LEED AP in Green Building Design and Construction
- b) Planning Director and Village Planner – LEED AP in Green Neighborhood and Planning Development

In addition, any new employee hired in the future for the position of Building Official, Planning Director, Village Planner and Chief Inspector will be required to obtain Tier 1 and Tier 2 accreditation during the first and second year of employment as described below.

The Village will provide training in preparation of the LEED accreditation

exams for each category that is a requirement of each position and will cover the cost of one exam for each tier required. The employee will be required to pass the accreditation exam, and become accredited, within six-months after completing the exam training course.

The employee will be responsible for the cost of retaking the accreditation exam should he/she fail to pass the initial exam. Failure to obtain the required accreditation within six months from the date of completion of the training course will result in termination of employment.

The Village will provide continuing education training in order to maintain the employee's accreditation.

It shall be the policy of the Village that landscaping activities will adhere to FGBC “Landscaping Maintenance Guidelines” as part of the Village’s best management practices whenever fiscally feasible.

Plan Using Nature for Site Layout and Preparation

- Identify and work with existing features
- Preserving existing desirable trees
- Identify and plan for environmental characteristics
- Draw a site plan
- Identify and incorporate functional needs
- Identify and incorporate aesthetic desires
- Use low-maintenance ground-cover instead of turf
- Group plants by common environmental and maintenance needs
- Removal of invasive species

Right Plant – Right Place

- Select environmentally compatible and native plants
- Vary plant material to encourage bio-diversity
- Ensure utility and hardscape clearance
- Ensure adequate spacing
- Plant for shading and energy conservation
- Avoid invasive species
- Select appropriate turf grasses

Xeriscaping and Water Conserving Irrigation Systems

- Right Plant – Right Place
- Use xeriscaping and native plants

- Design the irrigation system to match the landscape
- Use irrigation timers and sensors
- Use drip or micro-irrigation
- Perform periodic maintenance
- Evaluate rain water collection systems
- Evaluate reclaimed or gray water use

Mulch and Compost

- Apply mulch properly
- Use organic mulch whenever practical
- Evaluate use of inorganic mulching materials
- Consider composting and the use of compost

Fertilizers

- Right Plant – Right Place
- Fertilize to achieve a targeted objective
- Apply fertilizers appropriately
- Consider exclusively using organic fertilizers
- Capture run-off for reuse

Herbicides, Insecticides, and Integrated Pest Management

- Right Plant – Right Place
- Cultural, biological, and genetic components of IPM
- Analysis and record keeping
- Evaluate alternatives before resorting to chemicals
- Transport barriers as a chemical alternative
- Manual controls as a chemical alternative

- Mechanical controls as a chemical alternative
- Mulch as a chemical alternative
- Species rotation as a chemical alternative
- Biological controls as a chemical alternative
- Fire as a chemical alternative
- Use chemicals to achieve a targeted objective
- Apply chemicals appropriately
- Proper storage
- Capture of run-off for reuse

Proper Pruning, Trimming and Mowing Techniques

- Right Plant – Right Place
- Plant properly
- Proper pruning and trimming
- Proper mowing
- Properly dispose of all landscape waste
- Reducing non-road emissions

Proper Storage, Handling, and Disposal of Landscaping Chemicals

- Inventory management
- Selecting a site and construction of facilities
- Storage containers / secondary containment
- Mixing
- Waste recycling/disposal
- Container recycling/disposal
- Plan and prepare for spills and other emergencies

Green Roofs (Evaluate for Future Repairs and Installation)

- Intensive or extensive
- Waterproofing
- Soil
- Plant life
- Maintenance

Outdoor Accessories

- Paths and walkways
- Recycled-content and renewable-resource construction materials
- Recycled plastic lumber
- Certified forest lumber
- Avoid CCA lumber
- Outdoor lighting to be energy efficient or on timers/sensors

Public Education Campaign

- Educate community about Adopt-a-Tree program and invasive exotic plants and regulations
- Host an annual Arbor Day celebration through a local tree planting ceremony