



Palm Beach County Inventory of  
Environmental Sustainability Initiatives  
July 8, 2009

*Prepared for:*

**Green Task Force**

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## Preface

On June 3, 2008, the Palm Beach County Board of County Commissioners (BCC) established the “Green Task Force on Environmental Sustainability and Conservation” under Resolution R-2008-1007. Their mission is to identify actions and policies that can be implemented by the BCC to encourage a healthier, more resource efficient and environmentally sustainable living through efficient buildings and natural resources conservation.

At the request of the task force, sixteen (16) county departments completed the U.S. Green Building Council, Florida Green Local Governmental Preliminary Inventory (See Appendix A). In addition, these same departments were asked to complete an internal inventory with the goal of identifying existing County initiatives related to resource conservation and environmental sustainability. Responses were compiled by the Department of Environmental Resources Management staff into this report entitled the “Palm Beach County Inventory of Environmental Sustainability Initiatives”. Participating departments are County Cooperative Extension, Facilities Development and Operations, Economic Development Office, Tourist Development Council, Fire Rescue, Housing and Community Development, Human Resources, Information Systems Services, Environmental Resources Management, Parks and Recreation, Planning Zoning and Building, Palm Tran, Metropolitan Planning Organization, Engineering and Public Works, Solid Waste Authority, and Water Utilities. The Palm Beach County Health Department also completed the inventory. Represented within are the responses to the following questions.

### Questions

- 1) *Identify policies and practices which state Palm Beach County’s environmental commitment.*
- 2) *Describe any Recycle and Reuse practices in place to minimize landfill space.*
- 3) *What water conservation measures have been initiated by Palm Beach County?*
- 4) *List the County’s solid and hazardous waste reduction practices.*
- 5) *What Energy Conservation efforts in the County reduce energy use?*
- 6) *Identify initiatives to minimize greenhouse gas emissions, such as car pooling.*
- 7) *How does Palm Beach County promote “green” concepts (i.e., public education)?*
- 8) *List other County efforts by which Environmental Sustainability is achieved.*

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# Palm Beach County Inventory of Environmental Sustainability Initiatives

## ***1) Identify policies and practices which state Palm Beach County's environmental commitment.***

### County Administration

- The mission of the Palm Beach County Comprehensive Plan is to guide the growth of the County through encouraging growth in areas where there is the efficient use of County resources and to discourage growth in areas where there is either insufficient resources or where the County does not wish to extend those resources. Through the policies outlined in the Future Land Use Element, the Comprehensive Plan (Plan) seeks to preserve and protect natural and man-made resources, prevent urban sprawl, promote sustainable economic development and livable communities. In addition, the Conservation, Coastal Management, Utility, Transportation, and Recreation and Open Space elements have policies that seek to balance development with resources protection.
- In June 2009, Public Affairs launched the "Palm Beach County Go Green Initiative" web site for information and education regarding environmental sustainability. To view, go to [pbcgov.com](http://pbcgov.com) and click on the "Go Green" graphic.

### Cooperative Extension

- Cooperative Extension is committed to providing research based education about sustainability in agriculture, horticulture, community and home, and encourages the adoption of such sound, sustainable practices.

### Facility Development and Operation

- Increasing building efficiency and their use of energy, water, materials.
- Reducing impact on the environment through better building design, construction and maintenance.
- By using green building practices, beneficial objectives can be achieved and return a "best value" to the County.

### Economic Development Office

- The Economic Development Office is committed to promoting the development of a resilient and sustainable economy identified in the 21<sup>st</sup> Century Palm Beach County Strategic Economic Development Plan.
- The Economic Development Office seeks to secure federal, State and local funding opportunities to assist the county in reducing fossil fuel emissions, improving energy efficiency countywide, increasing environmental sustainability and maximizing benefits to the community.

#### Tourist Development Council

- Eco-tourism marketing and promotion of sustainability.
- Encourage “green certification” in lodging industry.

#### Housing and Community Development

- All federally funded activities must receive prior environmental clearance through Housing and Community Development.

#### Human Resources

- Human Resources moved to a paperless office with online employment applications.

#### Information System Services

- Use of enterprise (centralized) data centers with energy efficient servers. Provides technologies that enable paper documents to be converted and stored in a digital format. Scanning function also offer Documents-on-Demand for electronic rather than paper reports and the Smead Link product is being implemented as an enterprise document management solution for County departments.
- Temperature settings in the Enterprise Data Center have been adjusted to a more optimum level. Multiple sensors have been installed to monitor temperature, humidity and air flow, and sends alerts.

#### Environmental Resources Management

- The Department’s primary mission is to establish, maintain and implement programs for the protection, preservation and enhancement of the land and water resources in Palm Beach County.
- Natural areas program for the purchase, land preservation, and management of more than 31,000 acres of environmentally sensitive lands and greenways, many under conservation.
- Environmental restoration programs for the enhancement and restoration of upland, freshwater, estuary, and marine habitats. Also includes a sea turtle protection program and implementation of a manatee protection plan.
- Environmental regulatory programs for protection of native vegetation, wellfield protection, groundwater and surface water protection. Includes, storage tank compliance and petroleum contaminated site clean-up activities.
- Countywide Information Network for Electronic Media Access (CINEMA) system is used for paperless file storage in the Petroleum Storage Tank Compliance and Petroleum Cleanup Programs.
- Coordinates the County’s National Pollutant Discharge Elimination Permit Compliance.
- Water quality monitoring program for protection of surface water.
- Active participation in comprehensive planning and county code and ordinance development and review.
- Invasive species removal on private and county owned and or managed land.
- Establishment of the Northeast Everglades Natural Area (NENA) trail system.
- Active volunteer network for exotic plant control and trash collection on county owned and/or managed land, native species planting, and reef monitoring.



### Planning, Zoning and Building

- The Building Division is currently attempting to find partners within the County to apply for “stimulus bill” grants, which will provide for the alteration of existing buildings to include energy efficient and hurricane resistant features not typically found in older buildings.
- The Building Division meets with builders and developers as requested to discuss how Green Building proposals will impact or comply with current code requirements.
- The Building Division participates in discussions to promote “green building practices” including redevelopment which will help to preserve undeveloped properties and the provision of more efficient public transportation.

### Parks and Recreation

- Stewardship of the park system through the management, planning and operation of native ecosystems. The goal is to preserve, protect and enhance the ecosystems unique natural functions and qualities and to further the public’s benefit in the utilization, understanding, appreciation and enjoyment of these areas. Accomplished by exotic removal and eradication (by mechanical, chemical, prescribed burning and hand methods), reforestation, lake and shoreline maintenance, wildlife management and wildfire prevention. These practices continue until restoration, reclamation, mitigation or development of the park property occurs.
- Proper protocol is followed during sea turtle nesting season (i.e, beaches are not mechanically cleaned). Wood, paper, tar, broken glass, plastic and other such materials are raked from the beaches. Debris is picked up by hand from dune vegetation. Seaweed is buried on the beach and acts as a fertilizer and stabilizer. (Palm Beach County Land Development Code - Coastal Protection; Parks Quality Standards Manual; Operations – Beach Cleaning PKO-D02)
- The collection of tropical fish (by any method) is prohibited within specific water bodies owned or managed by the Department. (Collection of Tropical Fish - DOO-029)
- Plants and tree donations from outside sources are accepted if they are native and in useable condition. Trees are trimmed and maintained for safety concerns with an added benefit of promoting healthy growth. (Operations – Tree and Plant Donations PKO-C05; Tree Trimming/Pruning PKO-C06)
- Chemicals are applied and maintained following the Florida Department of Agriculture & Consumer Services (Division of Agricultural Environmental Services) guidelines. (Operations – Chemical Applications PKO-A12)
- Boats are inspected and operated in adherence to U.S. Coast Guard guidelines. (Operations – Boat Operations PKO-D07)
- Vehicles and equipment are inspected and maintained for optimal efficiency. Staff adheres to Fleet Management’s “No Idling” policy. Staff is required to turn their vehicles off, if the transmission is in Park for more than 10 seconds. (Fleet Management CWO-035)

### Palm Tran

- Adheres to policies defined under the Palm Beach County Comprehensive Plan, Transportation Element.
- Palm Tran is committed to the use of bio-diesel fuel.
- Operational, commuter alternative, and demand management strategies reduce demand, increase vehicle occupancy rates, and reduce greenhouse emissions in accordance with the comprehensive Plan.
- Sensitive to preserving the quality of the environment and in responding to air quality and energy conservation.
- Considers, promotes, improves, and increases, as appropriate, the use of transit as a viable alternative form of transportation.

### Solid Waste Authority

- The Solid Waste Authority (SWA) provides the countywide integrated solid waste management system for Palm Beach County. The system, which is consistent with the Environmental Protection Agency's hierarchy of integrated solid waste management, includes renewable energy, recycling, source reduction, composting, and household hazardous waste programs, all of which are designed to minimize landfill disposal and protect the environment. See the Solid Waste Authority Integrated Solid Waste Management Plan, available at SWA.org.
- The SWA's Commitment to Environmental Quality commits our organization to seeking continuous improvements in environmental performance. The Authority's Environmental Management System provides the plan for achieving this objective.
- The SWA implemented Pollution Prevention Plans for every SWA operation.
- The SWA adopted a Countywide 50% Waste Reduction Goal.

### Water Utilities

- Water Utilities adheres to the policies defined under the Palm Beach County Comprehensive Plan, Utilities Element which consists of three sub-elements: - Potable Water and Wastewater, Solid Waste and Storm water Management. The goals, objectives and policies are expressed in each of the sub-elements addressing the County's desire to maximize the use of existing facilities, correct existing deficiencies and promote a more efficient land use pattern and conserve and protect water resources.

### Health Department

- Coordinate activities of the Pollution Prevention Coalition of Palm Beach County.
- Conduct outreach events promoting reduction of greenhouse gas emissions, air pollution, solid and hazardous waste.
- Promote reduction of green house gas emissions, air pollution, solid and hazardous waste during regulatory inspections.
- Work with industry during their permitting process to reduce air pollution, solid and hazardous waste. Examples: One industry because of their use of 1,1,1-trichloroethane as a degreasing solvent, was designated as a Title V Source subject to a federal Maximum Achievable Control Technology standard for area sources. Over the years, the Pollution Prevention (P2) Coalition and the Palm Beach County Health Department have worked with this industry in finding an alternative to this cancer causing solvent. The overall benefit of the project included the emission reductions and the re-classification of the facility from a designated Title V Source to a synthetic minor source; Another industry with which the Palm Beach County Health department has been working on reducing emissions, were also using 1,1,1-trichloroethane as a degreasing solvent. This industry implemented a process change that included the replacement of the 1,1,1-trichloroethane degreasing units with a system that does not emit a hazardous air pollutant. The overall benefit of the project included the emission reductions and the re-classification of the facility from a designated Title V Source to a synthetic minor source; Work with the sugar industry to use the by-product bagasse, as an alternative fuel.
- Installed satellite systems to downlink training courses from Universities, Environmental Protection Agency, Food and Drug Administration and other private and public agencies. This resulted in a saving of time and money on travel for office conferences and training purposes.
- Conduct presentations to communities, school children and industries.
- P2 Coalition conducts mandatory training for middle and high school science teachers in Palm Beach County on greenhouse gas reduction or reduction or non point source pollution, energy conservation and other pollution prevention concepts.

## 2) *Describe any Recycle and Reuse practice in place to minimize landfill space.*

### Cooperative Extension

- Office recycle and reuse strategies include recycling paper, plastic bottles, and beverage cans, printer cartridges, cell phones, composting and water collection through rain barrels.

### Facility Development and Operation

- All paper products in restrooms are from recycled paper.
- All offices have recycle bins for paper products.
- Areas that accept aluminum have collection bins.

### Economic Development Office

- Internally, recycles all paper products and used toner cartridges.
- Plans are in place to assist with renewable energy technologies.

### Tourist Development Council

- Tourist Development Council and agencies print on front and back of pages in all documents, if possible.
- Use of recycled paper products where ever feasible.
- Reuse paper printed on one side as scratch paper.

### Fire Rescue

- Paper, cardboard, and plastic recycling at all stations and office buildings.
- Used fluorescent light bulbs from stations are recycled by bringing them to the Solid Waste Authority.
- Fleet mechanic shop rags are laundered and reused, not disposed.
- Vehicle batteries are recycled with vendor.
- Replacing used incandescent bulbs at stations with fluorescents as they burn out.

### Human Resources

- Paper recycling.

### Information System Services

- Waste paper is collected in recycling bins.
- Bins have been placed in break rooms for collecting aluminum and plastic containers.
- Used print cartridges are recycled.

### Environmental Resources Management

- Using recycled copy paper.
- Recycling bins for plastic bottles and aluminum cans.
- Recycling bins for paper.
- Recycling of toner cartridges.
- Providing recycling bins at department-sponsored events.
- Use of biodegradable bags for seedling give-a-ways.
- Recycling of used pesticide drums.

- Reuse of clean concrete debris by the Artificial Reef Program.
- Toughbook computers are used by Petroleum Storage Tank Program field personnel reducing paper usage.

#### Planning, Zoning and Building

- Recycle paper, plastic, aluminum cans and glass.
- Standard operating practice is to utilize 2-sided copying for documents, unless impractical for the use, so each document sheet is reused on the back.
- Return used toner cartridges for recycling.
- Purchase recycled copy paper.

#### Parks and Recreation

- Paper products are recycled.
- Used motor oil, old radios, tools and batteries are collected for recycling.
- Playground components, chain link fencing, sign blanks and athletic field lighting parts that are in good condition are reused and reinstalled throughout the Park system.
- Scrap metal material (i.e., unusable sign blanks, sign posts, gates) is taken to a recycling vendor for future credits.
- Collaboratively work with other county departments to recycle products no longer used (i.e., spray paint cans given to Facilities; cleaning solvents stored at maintenance compound distributed to Parks Districts).

#### Palm Tran

- All cans, bottles and newspaper found on the bus are recycled.
- All cardboard is recycled as well as office paper.
- All tires possible are recapped and reused.
- Recycles used oil, oil filters, scrap metal, and freon.

#### Engineering and Public Works

- Recycle all paper and paper products.
- Recycle all plastic containers and aluminum products.
- Recycle tree trimmings from maintenance as mulch.
- Mowing maintenance contracts require all contractors to collect and document litter. The contractors and staff recycle recyclable items (such as metals) whenever possible. Relocate and rehabilitate damaged/diseased trees for reuse, rather than simply disposing of such trees.
- Streetscape utilizes compost produced by Solid Waste Authority (SWA) in our tree holding area. Efforts to use SWA will be expanded to the greatest practicable extent.

#### Solid Waste Authority

- Internally, provides fiber and commingle recycling at all facilities.
- Internally, recycles tires, metals, motor oil, lubricants and other materials from its operations.
- Internally, purchases paper products with recycled content (Procurement).
- Internally, recycles used printer cartridges.
- Internally, uses Alternative Landfill Daily Cover materials (Landfill Operations).
- Internally, requests all proposals be presented on recycled content paper (Procurement).
- Externally, provides an integrated solid waste management and recycling system for Palm Beach County. See the Solid Waste Authority Integrated Solid Waste Management Plan which is available at SWA.org.

#### Water Utilities

- Recycles waste office paper.
- Used oil and filter recycling.
- Acid Battery recycling.
- Recycle metal electrical component wastes.
- Bio-solids from the Southern Region Water Reclamation Facility converted through pelletization into fertilizer.

#### Health Department

- Employees recycle paper, cardboard, bottles, plastic and aluminum cans.
- Department is trying to go paperless in many of its administrative activities.
- Employees are discouraged from printing emails.
- Work with communities through the Protocol for Assessment of Community Excellence Environmental Health (PACE EH) program in implementing these practices.

### ***3) What water conservation measures have been initiated by Palm Beach County?***

#### Cooperative Extension

- Water conservation strategies include awareness of water use and efforts to reduce, proper setting of sprinkler system, greater use of drip and micro irrigation, mulch and compost and a greater use of native and drought tolerant plants.

#### Tourist Development Council

- Building uses water conservation practices.

#### Facility Development and Operation

- Faucet Aerators.
- Self-closing Faucets.
- Push-button Metering Faucets.
- Fleet truck wash stations recycle water.

#### Fire Rescue

- Lawn irrigation at stations per South Florida Water Management District restrictions.
- Pump testing (hose testing) at Head Quarters pond location and water is returned to source.

#### Environmental Resources Management

- Developed the Water Conservation and Irrigation Ordinance No. 93-3 to protect water resources from wasteful irrigation practices.
- Support South Florida Water Management District watering restrictions by educating public on restrictions and water conservation techniques.
- Reduction of an already limited use of temporary irrigation for new planting.

#### Planning, Zoning and Building

- Water conservation is an important aspect of the *Florida Building Code, Plumbing*. Volume is enforced by the Building Division; in limiting water requirements for toilets and requiring

heating devices in commercial applications so the water expended while waiting for hot water to come from the tap is minimized.

- The Building Division spearheaded the adoption of an “Irrigation Ordinance” with a main thrust for conservation of water, and protection of our drinking water system.

#### Parks and Recreation

- Installing, calibrating and monitoring flow meters on irrigation systems throughout the Parks system. Nineteen (19) new flow meters have already been installed.
- Weekly inspections are being conducted on irrigation systems throughout the Parks system including those under the control of user groups and outside entities. Systems are checked for broken or clogged heads and leaks. Coverage zones are checked for adequate coverage to prevent over/under-watering. Daily checks are made to make sure common area or athletic field sprinklers are not running too long.
- Installing automatic shut off faucets for all showers, fish cleaning tables and other plumbing fixtures throughout the Parks system.
- Use of extremely drought tolerant Bermuda turf grass called “Celebration” on all multipurpose athletic field renovation projects in place of the existing Bermuda Tifway 419.
- Using organic fertilizer wherever possible and fertilizing only on watering days.
- Bahia turf grass is being used in place of St. Augustine turf grass on common areas wherever possible.
- Washing of equipment and vehicles has been decreased and is performed on an as needed basis.

#### Future Water Reduction Projects

- Install low flow faucet and shower head (where applicable) aerators in restrooms. Low flow aerators can reduce water usage by 50% without compromising performance.
- Study the practicality of waterless urinals.
- Consider the removal of plants in certain high traffic areas and use of Xeriscape or comparable method to reduce plant replacement costs and unnecessary watering.
- Considering removing the heads and capping off irrigation systems in areas with well established hedges, shrubs or small plants.
- Research use of reclaimed water for athletic and park irrigation systems.
- Investigate the use of drip irrigation systems on hedges and plant materials.

#### Palm Tran

- Installed water reclaim systems at both facilities bus wash systems.
- Installed automatic waste water treatment systems for bus chassis wash area.

#### Engineering and Public Works

- Complies with all South Florida Water Management District water use restrictions. Whenever possible, irrigation is scheduled to occur at night, when less evaporation will occur. “Smart” telemetry-controlled irrigation enables us to achieve maximum irrigation efficiency.
- Whenever possible, drought tolerant species of native trees are utilized to reduce the need for supplemental irrigation. Drought tolerant native grasses are also being utilized to reduce the need for supplemental irrigation.
- Trees and palms are maintained with mulch around their bases in order to reduce the need for irrigation and to control weed growth.
- Reduction of vehicles brought to car wash.

#### Solid Waste Authority

- Installation of a reclaim water system for truck washing (Equipment Maintenance).

- Interceptor water for cooling water at the Waste-to-Energy Facility (Plant Operations).
- Extensive use of native vegetation at all facilities (Landfill Operations/Grounds Maintenance).
- Plan to use reclaim water from East Central Regional for cooling water and other water conservation measures at the planned Mass Burn Renewable Energy Facility.
- Installation of Automated water faucets in washrooms.
- Pursuing Leadership in Energy and Environmental Design (LEED) Certification for the new Operations Building, which includes water conservation measures.

#### Water Utilities

- Maintains a strong reclaimed water program that at this time recycles approximately 60%, on average, of the wastewater produced.
- Encourages the use of reclaimed water by providing a 20% discount to normal rates for lake delivery service.
- Palm Beach County Water Utilities (PBCWUD) customers in the Village of Royal Palm Beach are charged a conservation charge that equates to 150% of the gallonage rate per 1,000 gallons of usage for all usage in excess of the authorized number of gallons per month for their customer class to encourage water conservation.
- PBCWUD customers outside of the Village of Royal Palm Beach, both residential and nonresidential pay water and wastewater commodity fees per 1,000 gallons of usage in tiered fashion to encourage conservation. The higher usage, the higher the monthly utility fee.
- Reclaimed water for irrigation is mandatory for any new development with Mandatory Reclaimed Water Service Areas (MRWSA) in Palm Beach County.
- The use of reclaimed water for irrigation is mandatory for all new development upon all or any portion of property located outside the MRWSA but within 300 feet of a reclaimed water distribution main.

#### Health Department

- Promote water conservation measures through the distribution of shower timers, toilet water balloons during outreach events.
- Work with communities through the Protocol for Assessment of Community Excellence Environmental Health (PACE EH) program in implementing these practices.

### ***4) List the county's solid and hazardous waste reduction practices.***

#### Cooperative Extension

- Solid and hazardous waste reduction strategies include proper disposal of horticultural and agricultural chemicals, cleaning chemicals, educating growers in this regard and recycling of paper.

#### Tourist Development Council

- Printer cartridges recycled as much as possible.

#### Fire Rescue

- Refrigerants, oils, Freon, antifreeze (biodegradable), and aluminum scrap are recycled by contracted vendors.
- Used oil filters are crushed and reused for scrap by vendor.
- Use of synthetic oil in vehicles which lasts longer, does not need replacing as frequently.
- Retread tires used whenever possible instead of new.

- “Kitty-litter” style oil stain remover was replaced with biodegradable soap wash and one small disposed towel.

#### Facility Development and Operation

- Vendors on contract to dispose of hazardous waste (e.g., old bulbs, ballasts, batteries, etc.).
- Solid Waste Authority receives small controlled quantities of used oils, paints, and chemicals.
- HVAC Refrigerant Reclaim-Recycle Program in place with vendors on contract.

#### Information System Services

- Use of electronic records stored in a central database, when possible, rather than paper reports and documents.
- Double-sided printing of reports, when possible.

#### Environmental Resources Management

- Using environmentally safe chemical larvicides for treatment of mosquitoes in coastal areas and control of aquatic exotic vegetation.
- Using aerial adulticide spray techniques reducing chemicals usage by 75%.
- Using predaceous mosquitofish (*Gambusia spp.*) as a larval biocontrol agent.
- Installation of Global Positioning Systems into Ultra Low Volume ground trucks that guide a driver through a prerecorded spray route which prevents over spraying streets within residential areas.
- Reduced the use of formalin.

#### Planning Zoning and Building

- Minimize waste by using less paper in our kitchens, using and washing utensils and dishes.
- Minimize solid waste by sending information electronically, rather than sending paper.

#### Parks and Recreation

- Launched a “Carry out What You carry in” trash program. Trash cans have been removed from selected parks and individual trash bag dispensers are provided in several convenient locations so visitors can collect trash they produce in the park and carry it home for proper disposal.
- Phasing out harsh/toxic chemicals (i.e. Sheila Shine) & lead based paint for less toxic, more environmentally friendly alternatives. This has resulted in an added benefit of eliminating the contaminated “red rag” cleaning service.

#### Palm Tran

- Recycle paint wastes.
- Require 2-sided copies unless otherwise required.
- Use back of single-sided copies for drafts and working papers.

#### Engineering and Public Works

- Recycle scrap metal.
- Recycle used oil.
- Recycle tires.
- Recycle used batteries.



#### Solid Waste Authority

- The Waste-to-Energy (Renewable Energy) Facility reduces the managed waste by 60% by weight, recovers ferrous and non-ferrous metals and produces electricity.
- Operates a Residential Materials Recycling Facility and a Commercial Materials Recycling Facility.
- Partnered with several large utilities to construct and operate the Biosolids Pelletization facility that converts dewatered sludge into sludge pellets for use a fertilizer additive.
- Owns and operates a Compost Facility that composts mulch produced from vegetative waste and wastewater sludge into a Class A horticultural product.
- All excess vegetation is delivered to a renewable energy facility or used as a soil amendment.
- Permits private sector building debris and yard waste recycling operations.
- Extensive use of electronic report distribution.

#### Water Utilities

- Has an active wastewater pretreatment program in place to regulate the discharge of hazardous, toxic or unusually strong discharge of chemicals into the wastewater collection system, regardless of volume to prevent the introduction of pollutants into the collection and treatment systems, which could interfere with the operation of the utility system, contaminate the resulting sludge, or pass through into receiving water bodies.
- Asbestos waste disposed of through licensed contractors to meet state and federal regulations.
- Properly dispose of mercury waste from electrical switch gear through licensed contractors to meet state and federal regulations.
- Properly dispose of flammable liquid and solids, organic laboratory chemicals, caustic chemicals, toxic chemicals, and poisons in accordance with all state and federal regulations through licensed contractors.
- Administer an aggressive industrial pre-treatment program that includes oil and grease generated by industry and/or commerce.

#### Health Department

- Promotes reduction of solid and hazardous waste through its licensing program, less waste leads to less licensing fees.
- Promotes reduction of solid and hazardous waste during regulatory inspections.
- The department through its licensing program promotes reduction of solid and hazardous waste. In other words less waste leads to less licensing fees.
- The Pollution Prevention (P2) Coalition recognizes industries which implement different strategies in processes that reduce environmental impact.
- Conducted a workshop with the assistance of the Florida Department of Environmental Protection for Auto Salvage yards to reduce waste.

### ***5) What Energy Conservation efforts in the County reduce Energy use?***

#### Cooperative Extension

- Energy Star appliances, keeping thermostat set at 74 degrees, turning out lights when not in a room.

#### Tourist Development Council

- Meetings are scheduled during normal working hours to reduce energy use.

- Use of green technology office equipment.

#### Facility Development and Operation

- Developing and building new and remodeled projects to energy efficient standards producing a reduction in electricity, carbon dioxide, emissions, water consumption and solid waste.
- Selection of energy efficient Heating Ventilation and Air Conditioning (HVAC), lighting and heating systems based on life cycle cost analysis. Reduction in hot water heaters, use of building automation systems and energy management systems.
- Use of high efficiency HVAC Chillers, Variable Frequency Drive motors reducing the high startup energy consumption, improving system performance by adjusting to load demand conditions.

#### Economic Development Office

- Turning lights off when rooms are not in use.
- Using e-mail as much as possible for business activities.

#### Fire Rescue

- Indoor lights in Head Quarters and Support Service buildings on motion activation sensors turn on/off automatically based on activity.
- Stations have outdoor photocell lights; turn on automatically at night only.
- All bulbs are energy star compliant.

#### Planning Zoning and Building

- Shuts lights off at night.
- Automatic shut down of computers at night.

#### Information System Services

- Implement recommendations presented in April 2008 energy usage study conducted by Information System Services.
- Planning to evaluate the feasibility of changing our evening update and software distribution processes in a way that will facilitate the practice of turning off devices every evening. Employees will be encouraged to comply with this practice, as well as other green practices referenced in this survey.

#### Environmental Resources Management

- Requests alternative fuel vehicles for the county fleet whenever possible.

#### Parks and Recreation

##### Fuel Reduction

- Installing a Central Control Irrigation System on existing systems which allows for remote access and control via computer, therefore eliminating the need to travel to the site resulting in fuel savings.
- Above ground fueling tanks have been installed at several sites throughout the Parks system. Fueling of equipment and gas dispensing at these sites has resulted in a reduction in staff traveling and fuel savings.
- Fuel reports are being scrutinized for irregularities and overall reduction in fuel consumption. Unusual activity is being flagged and researched.
- Vehicles and equipment are regularly inspected and maintained so that they are at optimal performance.

- Decreased maintenance frequency has resulted in a reduction in equipment use: mow every 10 days (instead of weekly); perform aesthetic trimming, edging, etc. quarterly; collect litter and debris every other day; perform heart trail and pathway mulching once a year. Athletic fields are conditioned once per day; infield renovations are completed every 9 months. As an additional cost/fuel savings the process has already begun to have athletic field materials delivered directly to the job site. Put garbage crew on a four 10 hr/ day work week. Work routines are analyzed for maximum efficiency and fuel savings.
- Vehicles have been downsized therefore saving fuel. Numerous caretaker vehicles were downsized from large trucks to utility carts.

#### Future Fuel Reduction Projects

- Hybrid/smaller vehicles will be replacing large vehicles wherever possible.
- Staff will be encouraged to get direct deposit. This would eliminate the need to have staff deliver paychecks to satellite offices.

#### Electricity Reduction

- Light motion sensors have been installed at John Prince Park Maintenance Compound.
- Staff has been directed to power off all computer/peripheral equipment at the end of their shift.
- Fluorescent lighting fixtures or reduced light fixtures are being used wherever possible. For example, security lighting fixtures have already been reduced at Caloosa Park press box.

#### Future Electricity Reduction Projects

- Light motion sensors will be installed in the interior of buildings throughout the Parks System wherever possible.
- Conscientious effort will be made to encourage staff to turn off lights when not in use. Signage reminding staff to “Turn it off” will be posted. Every effort will be made to shut down lights in unused areas in the Parks.
- Encourage staff to raise the thermostat level whenever the building is not occupied.
- Work with Athletics and Park Ranger staff to monitor athletic field lighting during non-usage periods and make adjustments to timers.
- Where practical, lighting timers will be installed in building interiors.
- Continue installing the “Control Link” system to better control athletic field lighting.
- Investigate the use of motion detectors on security lighting around buildings.
- Work with Florida Power and Light to reduce electricity consumption ( i.e. Installing Seasonal Demand Time of use Rate meters)
- Inspections have been implemented of all restrooms to make sure the faucets and toilets are working properly and do not run constantly or drip.

#### Palm Tran

- Added tint to all lobby windows.
- Turns off lights in unoccupied offices.

#### Engineering and Public Works

- Use of hybrid vehicles.
- Sets Air Conditioner at higher temperatures.
- Uses automatic lighting.
- Reduced contracted mowing maintenance frequencies. Station large vehicles at secure locations near work sites and use smaller vehicles to drive employees from office to the work sites.
- Uses telemetry-controlled irrigation systems with rain shut-off sensors to avoid unnecessary irrigation.
- Uses Light-emitting Diode (LED) traffic signals.
- Turns off equipment and lighting when not needed.

### Solid Waste Authority

- Computer control of the HVAC system in the Administration Building (Engineering).
- Replacing light fixtures with more energy efficient light fixtures (such as T-8 for T-12).
- Purchase of Hybrid Vehicles where appropriate (Equipment Maintenance).
- Use of landfill gas to power the sludge dryers at the Pelletization Facility (Engineering).
- All facilities on the Jog Road campus are powered by the Resource Recovery Facility (Renewable Energy Facility).
- Transfer Stations reduce mileage, fuel consumption and emissions (Chief Operating Officer).
- Pursuing Leadership in Energy and Environmental Design (LEED) Certification on the new operations building.

### Water Utilities

- There are light motion sensors in all stairwells.
- Designing ozone treatment systems at Water Treatment Plant (WTP) No. 2 with magnetic Ion Exchange, a more energy efficient process.
- Eliminated concentrate water booster pumps at WTP Nos. 3 and 9.
- Using high efficiency motors at all pumping facilities.
- Adjusted operation of membrane treatment plants for greater efficiency of operations.
- Implemented FPL interruptible rates at 5-Water Utility facilities and adding 3-additional facilities at this time.
- Adjusted pump impellers system-wide to allow for more efficient operation of raw water pumps.

### Health Department

- Use energy saving measures in computer usage and purchases.
- Purchased the Honda Insight to promote a change in the peoples thinking towards energy conservation. The program has been successful and hybrids are now recognized as the fuel efficient, greenhouse gas reduction vehicle.
- Promote energy saving driving habits in outreach events.
- Conduct outreach events to promote energy conservation.
- In coordination with academia, conducted car clinics during the car care month and Clean Air Month.
- TV presentations promoting car care and alternative energy usage.
- Used pump toppers in gas stations to provide guidance to motorists on how to achieve good gas mileage in their vehicles
- Advertised on the outside of Palm Tran buses guidance to motorists on how to achieve good gas mileage in their vehicles.
- Energy saving was achieved when gas and time was saved using the satellite systems to downlink courses for employees seeking to advance their educational career. This resulted in the department benefiting from qualified employees in public health, engineering, environmental science and geology.

## ***6) Identify initiatives to minimize greenhouse gas emissions, such as car pooling.***

### Cooperative Extension

- More fuel efficient vehicles, car pooling, educating the community about how to reduce emissions by reducing car trips, considering the purchase of a more fuel efficient vehicle, planning landscapes wisely to reduce mowing of large lawn areas.

### Facility Development and Operation

- Advocates car pooling for employees when possible. Encourage employees to utilize Palm Tran and Tri-Rail on their way into work.

### Economic Development Office

- Alternate work schedules are being utilized.
- Carpooling to sites when possible.

### Tourist Development Council

- Staff car pools to work and to off-site meetings where possible.

### Fire Rescue

- Staff members may choose to work 4-10 hour work days, decreasing their vehicle emissions.

### Human Resources

- Involved with South Florida Commuter Services to promote van and car pooling throughout the County.

### Information System Services

- Allowing employees to selection 4-10 hour work days as a workweek option. The 4-day workweek is scheduled by almost 40% of our work thereby cutting the number of trips for these employees by 20%.

### Environmental Resources Management

- Native seedling giveaways at events such as the South Florida Fair.
- Native planting on county owned and/or managed natural areas.
- Regulatory requirements for planting of upland and aquatic vegetation.
- Encouraging 4 - 10 hour work days to reduce fuel consumption.
- 10 employees carpool to work.
- Proposal sent to Administration for consideration of a shuttle from the West Palm Beach Tri-Rail to Vista Center to encourage staff to use public transportation to commute to work.
- Co-sponsoring "Bicycle Week" events.

### Planning Zoning and Building

- Use of hybrid vehicles.
- Few employees take tri-rail, some employees car pool.

### Parks and Recreation

- Reduced size of fleet and equipment and encourage ride and equipment sharing.
- Decentralized operations have resulted in a more productive work force and fuel costs savings: increased from 5 locations to 21 throughout the County. Every effort was made to locate staff near their home. This has also improved staff morale by saving our employees money on fuel costs on their personal vehicles.
- Daily work assignments are now distributed at the end of the workday. Therefore, staff is able to leave early in the morning to avoid rush hour traffic. Staff working in the early hours of the morning, results in fuel savings and a more productive work force.
- Every effort is made to schedule tasks and staff together to facilitate car pooling whenever possible.
- Car pooling is encouraged wherever possible for any department/division events.

### Palm Tran

- Using bio-diesel in all 141 buses, purchased 3 hybrid buses.
- Installed nitrogen in all vehicle tires.
- Converted 10 buses from hydraulic fans to electrical increasing MPG by 12%.
- House the local representative of the regional van pool program who is included in various events to promote alternative modes.
- Several staff members work 4 days.
- Some staff carpool on occasion. One staff person bikes to work on occasion.

### Engineering and Public Works

- Plant trees and grass in roadway locations. Well-maintained trees and turf grass remove carbon dioxide and other pollutants from the air.
- Staff utilizes the most energy efficient appropriate vehicles/equipment possible to perform work for given situations.
- Staff car pools to remote work sites when possible.
- Many of our staff works 4-10 hour day work weeks.
- Minimizes driving.

### Solid Waste Authority

- Usage of Biodiesel in the tractor trailer fleet and heavy equipment.
- Purchase of Hybrid Vehicles where appropriate (Equipment Maintenance).
- Replacing light fixtures with more energy efficient light fixtures (such as T-8 for T-12).
- Landfill Gas Collection System to reduce greenhouse gas emissions (Chief Operating Officer).
- The Waste-to-Energy facility produces energy from biomass reducing the consumption of fossil fuels (Chief Administrative Officer).
- Transfer Stations reduce mileage, fuel consumption and emissions (Chief Operating Officer).
- SWA is pursuing Leadership in Energy and Environmental Design (LEED) Certification on the new operations building.
- Flexible work day schedules (e.g., 4-10 hour days and 3 thirteen hour days).

### Water Utilities

- Staff carpooling.
- Use methane as a heat source for the digesters at Southern Region Water Reclamation Facility.
- Use low sulfur diesel fuels for heavy equipment operation and electric generators.
- Odor control scrubbers at Southern Regional Water Reclamation Facility.

- Extensive air quality monitoring program to minimize the potential for pollutant emissions at Water Utilities Department’s facility generators and air blowers.
- Odor control at major wastewater collection and transmission facilities.
- Established alternate work scheduling for department employees.

#### Health Department

- Employees are encouraged to use public transit or car pool.
- Walk to lunch or carpool.
- Policy requires mandatory use of a hybrid vehicle for long distance trips.
- Promote Florida Department of Transportation’s share a ride program.

### ***7) How does Palm Beach County promote “green” concepts (i.e., public education)?***

#### Cooperative Extension

- Promotes “green concepts” in nearly every program and exhibit and through the more than 2,200 printed publication titles distributed to the public. The living examples found in the Mounts Botanical Garden attempt to exemplify “green” concepts unique to South Florida.

#### Facility Development and Operation

- By using green building practices, beneficial objectives can be achieved and return a “best value” to the County. Whenever members of the public visit our buildings they not only see the various green concepts utilized within the buildings, but get a sense of the satisfaction knowing that we are playing a part in promoting energy conservation.

#### Economic Development Office

- The Economic Development Office will be creating educational programs and opportunities that will highlight “green” project activities as they are developed county wide through the use of the U.S. Department of Energy’s Energy Efficiency Conservation Block Grant Program.
- The Economic Development Office will share information, collaborate on lessons learned and successes in resource technologies as well as other energy matters with the Florida Energy and Climate Commission for the U.S. Department of Energy’s Energy Efficiency Conservation Block Grant Program.

#### Tourist Development Council

- There are currently 36 hotels and lodging facilities in Palm Beach County that are “Green” certified.
- Held first meeting with attractions, hotels and others to set up north county eco-cluster.
- New \$296,500 Eco-tourism marketing campaign largely on the internet.

#### Information System Services

- Recommending to management that consolidated data centers be utilized rather than multiple stand-alone data centers which require more floor space (air conditioning, lighting), more servers, printers, and other devices (energy usage and equipment duplication), as well as staffing costs.
- Use of double-sided copying and printing, when practical.

### Environmental Resources Management

- Provides awareness events and workshops for elected officials and public that include "green" concepts related to various environmental matters.
- Provides quarterly newsletters, brochures, technical presentations, speaker's requests, awareness through the website, press releases and participation at numerous events annually on multiple environmental issues.
- Provides environmental and Geographical Information System (GIS) data through the website, state database, number of interactive applications, or through public records request.

### Planning Zoning and Building

- Infill Redevelopment Overlay promotes green site planning principles (Zoning).
- Where the Building Code allows a green concept, we encourage builders to use it.
- The Building Division provided a "Green Building" information display at our annual "Building Safety Week" activity, and participates in the green building public expos of other agencies.
- The Building Division is working through the Building Code Advisory Board and the PBC Building Official's Association of Florida to encourage education of its members and code amendments to address the new technology.
- Our website offers information on green building practices and resources.

### Parks and Recreation

- Investigating the use of green light technology for athletic fields and parking lots.
- Given presentations on Natural Areas Management issues (i.e. fire ecology/prescribed burns; ecosystem diversity, restoration, reclamation, maintenance and exotic plant control) to schools, Earth Clubs, summer camp attendees and the general public. Assisted Eagle scouts with various planting projects.
- The department promotes green concepts by researching and development of innovative materials that will extend usage while saving the environment.

### Palm Tran

- Transportation plans promote alternative modes for travel and included in public outreach efforts.

### Engineering and Public Works

- Public outreach and education through contact with homeowner groups.
- The dredge section moves sand to clear inlets and reestablish beaches.
- Active involvement and support of Keep Palm Beach County Beautiful, Inc. and its programs and environmental stewardship initiatives.
- Adopt A-Road program implemented to clean up right-of-ways.

### Solid Waste Authority

- Extensive public education program through the mainstream media and in the schools (Recycling Department).
- Active Employee Suggestion Program that rewards employees for ideas to save money, reduce waste or improve safety (Executive).
- SWA's Environmental Management System (Chief Administrative Officer).
- Supports commercial and residential recycling through waste audits, onsite tours and presentations (Recycling Department).



#### Water Utilities

- Provide free water conservation and leak detection kits.
- Created and distribute "Water Wisely" brochure.
- Recycle old uniforms and jeans into quilts.
- Maintain created wetlands in Wakodahatchee and Green Cay using reclaimed wastewater.
- Holds a wetlands day every year for the public to educate them on wetlands and wildlife.
- Website that links the viewer to water conservation information.
- Channel 20 expose on the Wakodahatchee Wetland and the Water Cycle.
- Water Quality report distributed annually to Water Utility customers that includes water conservation information.
- Recycling and utilizing recycled paper.

#### Health Department

- Educate communities through the Protocol for Assessment of Community Excellence Environmental health (PACE EH) program in the benefit of practicing green concepts and programs implementing these practices.
- Visits to schools to give classes on this subject
- EPA staff presented a workshop to local agency representatives on different ways of address reduction of green house gas emissions.
- Seminar in green building concepts for staff of county agencies and arrived at a summary of action plan was provided.
- Outreach events promoting green cleaning and green practices in buildings.
- Introduced and promote the state's anti-idling policy.

### ***8) List other County efforts by which Environmental Sustainability is achieved.***

#### Cooperative Extension

- Agricultural sustainability is paramount to the continuation of the industry. Best Management Practices (BMP) and Integrated Pest Management (IPM) make sense economically and environmentally. These concepts are routinely taught and embraced by the industry. These concepts are practiced in the Mounts Botanical Garden. Children embrace sustainability concepts through experimental learning projects through the 4-H Youth Development Program.

#### Economic Development Office

- The Economic Development Office will measure greenhouse gas emissions and energy reduction for project activities supported by the U.S. Department of Energy's Energy Efficiency Conservation Block Grant Program.
- Active participation in and coordination of the Palm Beach Energy County/Cities Collaborative.

#### Tourist Development Council

- Working to encourage more hotel and lodgings to become "Green" certified.
- Collaboration with the Department of Environmental Resources Management to promote Eco-marketing with eye to sustainability and growth.

#### Fire Rescue

- Future rebuild of Station 31 will be a LEED certified building.
- All stations are currently undergoing energy audits by FPL to determine areas of improvement.

- Participation in the Florida Power and Light “On Call” program for electricity conservation.

#### Facility Development and Operation

- Renovation projects are performed to current energy star ratings, Federal Energy Management Program (FEMP) and code guidelines.
- Working closely with FPL to participate and benefit from their many incentive programs.

#### Information System Services

- Establishing an energy awareness program to educate and mobilize employees to generate ideas and institute practices that save energy. (Planned – may require assistance of energy consultant – e.g., Florida Power and Light.)
- Requesting separate metering of 4<sup>th</sup> floor data center in the Governmental Center to measure electricity usage and establish a baseline for future improvements.

#### Environmental Resources Management

- Supports task forces and advisory boards, such as the Green Task Force, Natural Areas Management Advisory Committee, Land Use Advisory Board, and Artificial Reef and Estuarine Enhancement Committee, Lake Worth Lagoon Initiative, and Groundwater Natural Resources Protection Board.
- Active participation and serving as an officer for Florida Local Environmental Resources Agencies (FLERA).
- Active steering committee member for Palm Beach County National Pollution Discharge Elimination System.
- Monitoring and commenting on State of Florida legislative environmental issues.
- Participation in Pollution Prevention Coalition activities for clean air, water and energy conservation.
- Regulatory programs also promote “Best Management Practices” to business and development communities.
- Ecotourism promotion through participation with the Tourist Development Council and coordination with tourism agencies in Palm Beach County.
- Conducts projects identified in approved management plans such as exotic removal on natural areas and muck removal in the C-51 Canal.
- Seeks grants for design and construction of public use facilities, natural areas restoration and implementation of management plans.
- Managing the Lake Worth Lagoon Partnership Grant Program to fund municipal storm water and septic retrofit projects.

#### Parks and Recreation

- Minimizes the use of raw materials to fabricate various park amenities (i.e., Single Rail fences versus Double Rail fences).
- Purchases items that have a longer life span and therefore reduce waste (i.e., fiberglass versus metal doors which hold up much better in South Florida climate).
- The Department of Environmental Resources Management and the Parks & Recreation Department worked together to complete a large restoration project at John Prince Park (Square Lake and Lake Osborne shorelines). After the work was completed aquatic plant/litter control floating barriers were installed to help control the amount of floating vegetation and debris from the L-14 canal to the restoration site. This improvement resulted in increased water quality and a more balanced ecosystem. An added benefit was recycled material was used to fabricate the barriers.

- Experimenting with a product called Terra-Sorb. It is a super-absorbent, potassium-based copolymer gel that significantly increases the water-holding capacity of soil. It absorbs up to 200 times its weight in water and slowly releases it to nearby plant roots. Terra-Sorb will repeatedly absorb and release water for several years (Natural Resources section).

#### Palm Tran

- Public transportation reduces the nations carbon emissions by 37 million metric tons annually, just be running our system we are helping keep the air clean.

#### Solid Waste Authority

- Maintains an exotic vegetation management program.
- Converting closed landfills into parks and recreational facilities.

#### Water Utilities

- Tiered water conservation rates where those using more water pay a higher cost.
- Provide reclaimed water to customers in established Mandatory Reclaimed Water Service Areas.
- Internal motorpool fleet composed primarily of hybrid vehicles.
- Radio control water meters are being installed, reducing automobile fuel consumption.
- Providing reclaimed water to Florida Power and Light (FPL) for cooling at the FPL Western Energy Service Center.

#### Health Department

- Member of the Southeast Diesel Collaborative, an initiative to reduce diesel emissions.
- Worked with industry to install a test membrane filter (Permeator) equipment to capture gasoline being evaporated into the atmosphere from the storage tanks. The evaporating gas was captured and sent back into the storage tank for reuse. This test study was so successful for stage II vapor recovery gas stations that it is being implemented by other gas stations.
- Work with local municipalities to apply for grants supporting green initiatives.
- Moving into a new energy efficient building.
- Member of the Southeast Greenhouse Gas reduction task force.
- Member of the U.S. Green Building Coalition of the Southeast Greenhouse Gas reduction task force.

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Water Utilities: *“PURPLE PIPES = Reclaimed water”*  
Government, industry & academia work together to *Prevent Pollution*



Environmental Resources Management: *“Preserving sensitive lands and protecting our natural resources”*



Palm Tran: *“Try riding a hybrid bus, bring a bike if you like!”*  
Health Department: *Partnering with business to capture gasoline vapors.*

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## Appendix A

### Palm Beach County Florida Green Local Government

JULY 8, 2009 PRELIMINARY INVENTORY

#### A- County Administration

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Local government environmental commitment</b>		<b>5</b>				
a)	Write or re-write mission statement to include the local government's commitment to the environment	2				2
b)	Incorporate the mission statement into the local government's comprehensive plan	3	3			
<b>Credit 2: Conservation planning</b>		<b>12</b>				
a)	Monitor and track local government energy use	1				1
b)	Develop a local government energy reduction plan	1				1
c)	Monitor and track local government water use	1				1
d)	Develop a local government water reduction plan	1				1
e)	Monitor and track local government solid waste generation/recycling rates	1				1
f)	Develop a local government solid/hazardous waste reduction plan	1				1
g)	Develop and EPP program for the local government	1				1
h)	Encourage EPP program implementation	5				5
<b>Credit 3: Reduce Green House Gas Emissions</b>		<b>4</b>				
a)	Participate in Cities for Climate Protection Campaign	1				1
b)	Alternative Fuel vehicle purchase	3	3			
<b>Credit 4: Build, renovate, and maintain green government buildings</b>		<b>17</b>				
a)	Become a member of FGBC	1				1
b)	Become a member of USGBC	1				1
c)	Construct LEED or FGBC certified buildings or renovate for LEED EB or CI	10		10		
d)	Employee green cleaning and maintenance procedures	5	5			

<b>Credit 5: Dedicate Personnel to green County process</b>		<b>3</b>				
a)	Develop and maintain an office, person, or group to coordinate current and future green County activities	3				3
<b>Credit 6: Green local government building ordinance</b>		<b>16</b>				
a)	Adopt an FGBC or LEED standard as official minimum criteria for new local government buildings	10				10
b)	Adopt green cleaning/maintenance practices available from FL DEP	5				5
c)	Enact green landscaping ordinance for local government buildings	1				1
<b>Credit 7: Community Education</b>		<b>1</b>				
a)	Budget for public County/education related to the local government's commitment to the Florida Green Local Government Standard	1				1
<b>Credit 8: Staff education</b>		<b>1</b>				
a)	Organize green building education for local government staff	1				1
<b>Total Credits</b>		<b>59</b>	<b>11</b>	<b>10</b>	<b>0</b>	<b>38</b>

**B. County Cooperative Extension**

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Florida friendly government owned landscapes</b>		<b>10</b>				
a)	Certified Florida friendly landscapes within the County	10	10			
<b>Credit 2: Community Incentives</b>		<b>6</b>				
a)	Offer free or discounted green products to the public	6	6			
<b>Credit 3: Promotion of organic farming</b>		<b>5</b>				
a)	Offer incentives to maintain/create certified organic farms within the County or to incorporate sustainable and water efficient agriculture	5	5			
<b>Credit 4: Community education</b>		<b>4</b>				
a)	Offer green building or green local government education to the community	1	1			
b)	Provide green building or green local government educational materials	1	1			



c)	Maintain an active FY&N program or other builder/developer homeowner outreach program	1	1			
d)	Active teacher/student education program	1		1		
<b>Credit 5: Industry education</b>		<b>2</b>				
a)	Offer promotion and education of water conservation within the agriculture sector	1	1			
b)	Offer education on principles and applications of organic farming, permaculture and sustainable agriculture	1	1			
<b>Total Credits</b>		<b>27</b>	<b>26</b>	<b>1</b>	<b>0</b>	<b>0</b>

### C. Facilities Development and Operations

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Monitor and track green building within the County</b>		<b>10</b>				
a)	Create and maintain an electronic database of all building energy code compliance	5				5
b)	Create and maintain an electronic database of all green and energy ratings conducted on all buildings and land developments within the County	5				5
<b>Credit 2: County green building program with incentives</b>		<b>14</b>				
a)	Adopt FGBC or LEED green standards as officially recognized green standards of the County	2				2
b)	Offer incentive(s) for FGBC or LEED certified commercial and institutional buildings	4				4
c)	Offer incentive(s) for FGBC or Energy Star certified green homes	4				4
d)	Offer incentive(s) for FGBC certified green developments	4				4
<b>Credit 3: Preserve/enhance native habitat and natural resources</b>		<b>8</b>				
a)	Require mitigation for consumption of natural habitat or resources	5				5
b)	Enact and enforce a tree preservation or land-clearing ordinance	1				1
c)	Regulate impervious parking surfaces	1				1
d)	Enact a septic system replacement ordinance	1				1
<b>Credit 4: Conserve water resources</b>		<b>2</b>				
a)	Enact a rain sensor ordinance applicable to all functioning automatic irrigation systems	1				1

b)	Enact a landscaping ordinance for new construction	1				1
<b>Credit 5: Staff Education</b>		<b>1</b>				
a)	Require all inspectors, reviewers, and supervisors to complete four hours of CEU approved course in green building on a bi-annual basis	1				1
<b>Credit 6: Industry education</b>		<b>3</b>				
a)	Department offers classes to industry professionals that detail any green incentives or regulations present	1				1
b)	Department advertises and offers incentives for local construction industry professionals to attend green building classes offered by others	1				1
c)	Conduct a green building awards program	1				1
<b>Credit 7: Community education</b>		<b>1</b>				
a)	Public County and case studies for green buildings	1				1
<b>Total Credits</b>		<b>39</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>39</b>

**D - Economic Development and Tourist Development Council**

	Total Points	Achieved	Planned	Not planned	Not applicable	
<b>Credit 1: Green building to spur economic development</b>	<b>2</b>					
a)	1	1				
b)	1		1			
<b>Credit 2: Green building through historic preservation/downtown revitalization</b>	<b>1</b>					
a)	1		1			
<b>Credit 3: Local business incentives</b>	<b>2</b>					
a)	1	1				
b)	1	1				
<b>Credit 4: Revitalize distressed areas</b>	<b>2</b>					
a)	2	2				
<b>Credit 5: Historic Preservation</b>	<b>2</b>					
a)	1	1				
b)	1	1				
<b>Total Credits</b>		<b>9</b>	<b>7</b>	<b>2</b>	<b>0</b>	<b>0</b>

## E. Fire Rescue

	Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Reduce greenhouse gas emissions</b>	<b>2</b>				
a) Use of AFV and /or bicycle patrol for urban/neighborhood areas	1				1
b) Use renewable energy as backup/emergency power	1		1		
<b>Credit 2: Reduce solid and hazardous waste</b>	<b>5</b>				
a) Maintain green fleets	3				3
b) Firing ranges utilize non-lead bullets or trap and collect fragments	1				1
c) Minimize photo-processing waste	1	1			
<b>Credit 3: Conserve water</b>	<b>1</b>				
a) Fire departments review training operations and conserve water where appropriate	1	1			
<b>Credit 4: Enhance durability of built environment</b>	<b>1</b>				
a) Incentives for disaster mitigation	1				1
<b>Credit 5: Community education</b>	<b>2</b>				
a) Offer mitigation audits to homes, businesses, and local government buildings	1				1
b) Create an education campaign for mitigation (shelters point out features with signs, etc.)	1				1
<b>Credit 6: Staff training</b>	<b>2</b>				
a) Police trained in crime prevention through environmental design	1				1
b) Public safety staff attends training on healthy street design	1				1
	<b>13</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>10</b>

## F - Energy Utility (Not applicable)

	Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Reduce greenhouse gas emissions through renewable energy and energy efficiency</b>	<b>4</b>				
a) Offer green power	1				
b) Certify renewable electric products under Center for Resource	1				

	Solutions					
c)	Voluntary funding of green power through customer billing	1				
d)	Become an Energy Star ally	1				
<b>Credit 2: Reduce waste</b>		<b>3</b>				
a)	Actively promote fly ash/blast furnace slag source	1				
b)	Utilize recycled billing envelopes	1				
c)	Enable customer service to make online bill payments	1				
<b>Credit 3: Incentives to reduce energy use</b>		<b>5</b>				
a)	Offer distributed generation incentives	1				
b)	Offer energy audits	1				
c)	Commercial building incentives	1				
d)	Residential building incentives	1				
e)	Rate structures based on consumption	1				
<b>Credit 4: Community education</b>		<b>4</b>				
a)	Informative billing	1				
b)	Take part in any speaker's bureau or sponsor workshops	1				
c)	Emissions info posted on website	1				
d)	Enable customers to track and analyze their usage via the internet	1				
<b>Credit 5: Staff education</b>		<b>2</b>				
a)	Send appropriate staff for training related to distributed generation	1				
b)	Send appropriate staff for energy audit training	1				
<b>Total Credits</b>		<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

G - Housing and Community Development

	Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Provide green, affordable housing to the community</b>	<b>20</b>				
a) Construct/renovate green buildings	20				20
<b>Credit 2: Increase the affordability of affordable housing</b>	<b>3</b>				

a)	Affordable housing constructed by County and other parties mandated green	1				1
b)	Offer incentives for construction of green affordable housing	1				1
c)	Offer incentives for location efficient affordable housing	1	1			
<b>Credit 3: Improve current stock of affordable housing</b>		<b>1</b>				
a)	Remodeling of affordable housing mandated green	1				1
<b>Credit 4: Community education</b>		<b>1</b>				
a)	offer orientation classes for residents of affordable housing or refer to existing courses	1				1
<b>Credit 5: Staff education</b>		<b>1</b>				
a)	All applicable staff to complete equivalent of four hours of CEU approved course in green building on a bi-annual basis	1				1
<b>Total Credits</b>		<b>26</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>25</b>

**H - Human Resources**

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Reduce greenhouse gas emissions</b>		<b>2</b>				
a)	Alternative commuting incentives for local government employees	2		2		
<b>Credit 2: Reduce solid and hazardous waste</b>		<b>1</b>				
a)	Provide reusable mug/water bottle to all employees	1				1
<b>Credit 3: Staff education</b>		<b>6</b>				
a)	New employee orientation includes general local government commitment to environment	3				3
b)	Conduct or refer to special training on one or more green local government program	3				3
<b>Total Credits</b>		<b>9</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>7</b>

**I - Information Systems Services**

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Reduce solid and hazardous waste</b>		<b>2</b>				
a)	Operate local government computer and equipment reuse center	1	1			

b)	Recycling of end-of-life electronic equipment	1	1			
<b>Credit 2: Conserve energy and resources through policy</b>		<b>2</b>				
a)	Enact local government policy whereby all computer/ancillary equipment is turned off when not in use	1				1
b)	Enact policy whereby all computer/ancillary electronic equipment purchased has conservation features such as standby modes and double sided printing capability	1				1
<b>Credit 3: Community education</b>		<b>2</b>				
a)	Operate website dedicated to the green local government program	1				1
b)	Develop environmental education content for County websites, TV programs etc.	1	1			
<b>Credit 4: Staff education</b>		<b>1</b>				
a)	Conduct regular education on energy use/energy savings modes for in-house computers and ancillary equipment	1				1
<b>Total Credits</b>		<b>7</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>4</b>

**J - Environmental Resources Management**

	Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Preserve/enhance habitat</b>	<b>5</b>				
a) Become a designated Waterfronts Florida Community	1				1
b) Become an Audubon Sustainable Community	1				1
c) Create an endangered lands conservation/purchasing program	1	1			
d) Certify community under National Wildlife Federation Wildlife Habitat program	1				1
e) Develop and implement a plan for invasive species removal throughout public lands in the County	1	1			
<b>Credit 2: Engage and learn from other similar departments</b>	<b>1</b>				
a) Become a member of FLERA	1	1			
<b>Credit 3: Minimize greenhouse gas emissions and preserve air quality</b>	<b>4</b>				
a) Offer local tax based or other AFV incentives	1				1
b) Enact automobile emission regulations for vehicles registered in	1				1

	county					
c)	Require vapor controls at all gas stations	1	1			
d)	Enact open burning regulations	1				1
<b>Credit 4: Preserve/enhance habitat</b>		<b>3</b>				
a)	Coastal areas to enact sea turtle ordinance	1	1			
b)	Enact a manatee protection plan	1	1			
c)	Develop a boat facility siting plan	1				1
<b>Credit 5: Conserve water</b>		<b>2</b>				
a)	Enact car wash standards	1				1
b)	Enact fountain/water feature standards	1				1
<b>Credit 6: Community education</b>		<b>4</b>				
a)	Pertinent local GIS and other data on County website	1	1			
b)	Air quality index on website	1				1
c)	Results from water quality testing on website	1	1			
d)	Operate an environmental demonstration/learning center	1				1
<b>Total Credits</b>		<b>19</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>11</b>

## K - Parks and Recreation

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Green public amenities</b>		<b>14</b>				
a)	Maintain organic community gardens	1		1		
b)	Minimize chlorine in community swimming pools	1	1			
c)	Install appropriate bicycle security at all public amenities	1	1			
d)	Public golf courses are Audubon certified	2	2			
e)	Apply green landscaping and irrigation standards, proper waterfront considerations, and integrated pest management to public amenities	1	1			
f)	Minimize heat island effect/storm water runoff of recreational areas through trees, highly reflective materials, or impervious surface	1	1			
g)	Public beaches adhere to Blue Wave Campaign criteria	5	5			

h)	Implement recycling stations for plastic, glass, and aluminum beverage containers at all recreational areas	1	1			
i)	Implement energy efficient lighting and controls for outdoor stadiums, courts, parks, and playfields	1	1			
<b>Credit 2: Staff education</b>		<b>1</b>				
a)	Each staff member trained in an area related to their function on a bi-annual basis	1	1			
<b>Credit 3: Community education</b>		<b>1</b>				
a)	Place informative signs and/or brochures at green features of public amenities that detail their benefits	1	1			
<b>Total Credits</b>		<b>16</b>	<b>15</b>	<b>1</b>	<b>0</b>	<b>0</b>

L - Planning, Zoning and Building

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Monitor and track green building within the County</b>		<b>7</b>				
a)	Develop a system of sustainable community indicators related to local government planning	1				1
b)	Link indicators to a GIS system	1				1
c)	Assist other departments with the tracking of indicators related to their function	5				5
<b>Credit 2: Preserve/enhance pedestrian travel within the County to reduce green house gas</b>		<b>3</b>				
a)	Maintain a bicycle/pedestrian coordinator on staff	1				1
b)	Implement FDOT "12 Steps Towards Walk able Communities" into planning process	1	1			
c)	Healthy street design is official local government policy	1	1			
<b>Credit 3: Green building incorporated into County planning process</b>		<b>3</b>				
a)	Develop urban area boundaries	1	1			
b)	Encourage mixed-use zoning / development	1	1			
c)	Maintain or reduce net impervious area through zoning decisions	1		1		
<b>Credit 4: Staff education</b>		<b>1</b>				



a)	Organize green building seminars and/or training sessions for staff and elected officials to attend on a bi-annual basis, or send staff to external courses	1		1		
<b>Total Credits</b>		<b>14</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>8</b>

M - Ports and Marinas - (Not at this time)

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Preserve aquatic habitat</b>		<b>2</b>				
a)	Take part in Florida Clean Marina program	1				
b)	Implement advanced stormwater controls and waterfront considerations	1				
<b>Credit 2: Preserve aquatic habitat</b>		<b>1</b>				
a)	Offer low pollution engine incentives	1				
<b>Credit 3: Boater education</b>		<b>1</b>				
a)	Host boater education classes	1				
<b>Total Credits</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

N - Property Appraiser/Tax Collector (Not at this time)

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Monitor and track green buildings</b>		<b>2</b>				
a)	Include green features/ratings of home in database	2				
<b>Credit 2: Incentives for green buildings</b>		<b>4</b>				
a)	Tax incentives for certified green properties	2				
b)	Tax incentives for lands qualifying as historic, high water recharge, greenbelt, etc.	2				
<b>Credit 3: Industry education</b>		<b>1</b>				
a)	Green education to local lending/real estate industry	1				
<b>Total Credits</b>		<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**O. Public Transportation - Palm Tran & Metropolitan Planning Organization**

	Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Reduce green house gas emissions</b>	<b>5</b>				
a) Utilize alternative fuels for fleet	2	2			
b) Institute a bicycle commuter assistance program	1	1			
c) Make amends for vehicles to accommodate bicycles	1	1			
d) Engage in carpool/vanpool assistance	1	1			
<b>Credit 2: Monitor and track green building progress</b>	<b>1</b>				
a) Analyze public transportation route system to determine connectivity to bicycle and pedestrian network	1	1			
<b>Credit 3: Reduce solid and hazardous waste</b>	<b>1</b>				
a) Operate a green fleet	1	1			
<b>Credit 4: Community education</b>	<b>2</b>				
a) Provide public transportation route searching via the internet	1	1			
b) Provide information about alternative commuting on website	1	1			
<b>Total Credits</b>	<b>9</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>

**P - Engineering and Public Works**

	Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Minimize solid and hazardous waste through recycling and reuse</b>	<b>10</b>				
a) Develop a construction project waste management/recycling plan	3	3			
b) Operate a local government material/chemical reuse/redistribution center	1				1
c) Operate a community tool lending library	1				1
d) Maintain a green fleet program for department or entire local government	4				4
e) Utilize integrated pest management	1				1
<b>Credit 2: Minimize greenhouse gas emissions</b>	<b>2</b>				
a) Operate local government alternative fueling station	1				1

b)	Earn waste reduction credit through the production of clean-burning fuels	1				1
<b>Credit 3: Minimize local government energy use</b>		<b>3</b>				
a)	Use LED traffic lights	1	1			
b)	Utilize solar or other energy efficient streetlights	1	1			
c)	Operate a Rebuild America program for the local government	1				1
<b>Credit 4: Enhance stormwater control and water conservation</b>		<b>3</b>				
a)	Street sweeping	1	1			
b)	Routine maintenance plan for maintenance of storm sewers	1	1			
c)	Employ green landscaping procedures for local government facilities	1				1
<b>Credit 5: Preserve/enhance street tree coverage</b>		<b>1</b>				
a)	Become a tree County USA	1				1
<b>Credit 6: Reward innovation</b>		<b>1</b>				
a)	Develop a reward/incentive program for employee environmental innovation in public works	1				1
<b>Credit 7: Staff education</b>		<b>2</b>				
a)	Offer green fleet management training to all applicable departments	1				1
a)	Train and certify select staff as certified arborists	1				1
<b>Credit 8: Community education</b>		<b>1</b>				
a)	Community stormwater education campaign	1				1
<b>Total Credits</b>		<b>23</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>16</b>

Q - School Board (Not applicable)

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Reduce greenhouse gas</b>		<b>2</b>				
a)	Utilize alternative fuel for school buses	2				
<b>Credit 2: Preserve/enhance habitat</b>		<b>5</b>				
a)	School grounds certified by environmental program	5				
<b>Credit 3: Reduce solid waste</b>		<b>3</b>				

a)	School system utilizes a pollution prevention/EPP program	1				
b)	School equipment reuse program/swap shop	1				
c)	Operate and maintain a green fleet program	1				
<b>Credit 4: Construct and maintain green buildings</b>		<b>11</b>				
a)	Green operation and maintenance of buildings	1				
b)	Construct/renovate green schools	10				
<b>Credit 5: Green building becomes official policy</b>		<b>4</b>				
a)	Mandates for green buildings/green cleaning and maintenance	4				
<b>Credit 6: Student education</b>		<b>4</b>				
a)	Involve students in green projects within the school	2				
b)	Involve students in green projects outside the school	2				
<b>Credit 7: Staff education</b>		<b>2</b>				
a)	Incentives for environmental training of teachers over the summer	2				
<b>Total Credits</b>		<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

R - Solid Waste Authority

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Reduce local government solid waste</b>		<b>7</b>				
a)	Become a partner in the EPA waste wise program	1				1
b)	County wide chemical/hazardous waste collection	1	1			
c)	Operate public reuse store/swap shop	1	1			
d)	C&D separation for recycling at landfill (wood pallets, metals, cardboard, carpet padding, bic , cement, etc.)	1	1			
e)	Offer recycled paint back to community	1	1			
f)	Landfill gas recovery	1	1			
g)	Develop a disaster waste management plan	1	1			
<b>Credit 2: Monitor and track green building</b>		<b>2</b>				
a)	Curbside recycling for homes and businesses	1	1			
b)	Monitor types and amounts of material entering landfill	1	1			

<b>Credit 3: Preserve/Enhance habitat</b>		<b>1</b>				
a)	Closed landfill management	1	1			
<b>Credit 4: Local business incentives/regulations</b>		<b>2</b>				
a)	Incentives for local businesses who utilize EPP or other solid waste reduction strategy	1	1			
b)	Mandatory recycling of typical recyclables and C&D debris for homes and businesses.	1				1
<b>Credit 5: Minimize solid waste generation</b>		<b>2</b>				
a)	Volume based on special rates for solid waste collection	1				1
b)	Offer mulched yard waste to community	1	1			
<b>Credit 6: Community education</b>		<b>2</b>				
a)	Teach EPP/recycling to local businesses	1	1			
b)	Develop education program for solid waste management	1	1			
<b>Credit 7: Staff education</b>		<b>1</b>				
a)	Conduct a customer waste survey	1	1			
<b>Total Credits</b>		<b>17</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>3</b>

## S - Water Utilities

		Total Points	Achieved	Planned	Not planned	Not applicable
<b>Credit 1: Plant operations aimed at environmental performance</b>		<b>4</b>				
a)	Seek FLDEP plant operations excellence award	2	2			
b)	Create a reclaimed water infrastructure	2	2			
<b>Credit 2: Reduce energy use</b>		<b>2</b>				
a)	Conduct energy audit of treatment facilities	1	1			
b)	Use cogeneration	1	1			
<b>Credit 3: Reduce solid and hazardous waste</b>		<b>1</b>				
a)	Use recycled bill envelopes	1	1			
<b>Credit 4: Reduce water use</b>		<b>4</b>				
a)	utilize rate structures based on consumption	1	1			
b)	Low flow fixture rebates	1		1		

c)	Enforce watering restrictions during meter reads	1	1			
d)	Require metering of shallow aquifer removal and sub-metering of multi-family housing	1	1			
<b>Credit 5: Community education</b>		<b>7</b>				
a)	Utilize informative billing	1	1			
b)	Distribute printed material or create internet content detailing water wastewater source, quality, treatment process	1	1			
c)	Create an education campaign for water use reduction (xeriscape, rainwater, etc.)	1		1		
d)	Maintain an on-call water quality program	1	1			
e)	Become part of groundwater guardian program	1	1			
f)	Offer home and business audits	1				1
g)	Enable customers to track and analyze their usage via the internet	1	1			
<b>Total Credits</b>		<b>18</b>	<b>15</b>	<b>2</b>	<b>0</b>	<b>1</b>

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