GREEN TASK FORCE REPORT
&
RECOMMENDATIONS
Presented to
The City of Delray Beach
City Commission
January 2009

Prepared by the
City of Delray Beach Green Task Force

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This Entire Report and References is Available Online at www.SustainableDelray.org

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GLOSSARY OF GREEN TERMS & ACRONYMS

GLOSSARY OF GREEN TERMS

Alternative Fuel Vehicles (AFV). Vehicles that use low-polluting, non-gasoline fuels such as electricity, hydrogen, propane or compressed natural gas, liquid natural gas, methanol, and ethanol. Efficient gas-electric hybrid vehicles are included in this group for LEED purposes.

Carbon Dioxide (CO2). CO2 is the chemical compound of one carbon and two oxygen atoms. It is a greenhouse gas that is a considerable contributor to climate change. It is produced primarily by the combustion of fossil fuels (most widely used for transportation and power generation). It is the source of the term “carbon footprint.”

Carbon Footprint. See Greenhouse Gas Inventory.

Compact Fluerescent (CFL). This is a type of fluorescent lighting fixture. Fluorescent fixtures are use considerably less energy than incandescent ones. Many CFLs are designed to replace an incandescent lamp and can fit in the existing light fixtures formerly used for incandescents.

Energy Star. Energy Star is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency. The program qualifies products such as appliances, as well as buildings, providing consumers with a guide to energy efficient purchasing.

Floor Area Ratio (FAR). Floor area is the total square footage of all levels included within the outside walls of a building or portion thereof, but excluding courts, garages, attics and crawl spaces. This Floor Area is then divided by the Lot Size measured in Square Feet, which results in a Floor Area Ratio that is a measure of building “intensity”.

Forest Stewardship Council (FSC). FSC certified wood and paper products are accredited and abide by criteria that ensure responsible management of the world’s forests. Such products must be clearly indicated in the Building Specs and documentation required from the General Contractor.

Green Building. Green building is the practice of increasing the efficiency with which buildings use resources — energy, water, and materials — while reducing building impacts on human health and the environment during the building's lifecycle, through better siting, design, construction, operation, maintenance, and removal.

Greenhouse Effect. The Greenhouse Effect is a natural and manmade warming process of the earth. When the sun's energy reaches the earth, some of it is reflected back to space and the rest is absorbed. The amount of absorbed energy that is partially trapped by greenhouse gases

such as carbon dioxide, methane and water vapor causes the temperature of the earth to rise is proportional to the concentration of greenhouse gases in the atmosphere.

Greenhouse Gases (GHG). Some greenhouse gases occur naturally in the atmosphere, while others result from human activities. Naturally occurring greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxide, and ozone. Certain human activities, however, add to the levels of most of these naturally occurring gases. Carbon dioxide is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), and wood and wood products are burned. Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic wastes in municipal solid waste landfills, and the raising of livestock. Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels. Very powerful greenhouse gases that are not naturally occurring include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6), which are generated in a variety of industrial processes.

Greenhouse Gas Inventory. A GHG Inventory is a comprehensive count of the greenhouse gas emissions emitted in a certain area, by a certain activity, or by a certain company or entity. Companies, events, and governments often calculate the amount of greenhouse gas emissions for which they are responsible, and seek to offset these emissions through targeted reductions and / or the purchasing of Renewable Energy Credits. This is often also called a Carbon Footprint.

Graywater (or Greywater). Defined as any wastewater produced from baths and showers, clothes washers, and lavatories in a home (this does NOT include water mixed with human waste, commonly referred to as blackwater). This water can be used for irrigation or for supplying water to the building's toilets.

Home Energy Rating System Index (HERS Index). A rating system where an index of 100 represents the energy use of the "American Standard Building" and an index of zero indicates that the Proposed Building uses no net purchased energy (a Zero Energy Building).

Indoor Air Quality (IAQ). According to the U.S. Environmental Protection Agency and National Institute of Occupational Safety and Health, the definition of good indoor air quality includes (1) introduction and distribution of adequate ventilation air; (2) control of airborne contaminants; and (3) maintenance of acceptable temperature and relative humidity.

Integrated Pest Management (IPM). Integrated Pest Management is a pest control strategy that uses an array of complementary methods: mechanical devices, physical devices, genetic, biological, legal, cultural management, and chemical management. These methods are done in three stages: prevention, observation, and intervention. It is an ecological approach with a main goal of significantly reducing or eliminating the use of pesticides.

Light-Emitting Diode (LED). A type of very energy efficient lighting that is seeing a rapid increase in use for major lighting installations such as streelights, traffic lights, and building lighting systems.

Leadership in Energy and Environmental Design (LEED). A building environmental certification program developed and operated by the U.S. Green Building Council. LEED has a variety of applications including LEED-NC for new commercial buildings; LEED-H for Homes; LEED-ND for neighborhood developments; LEED-CI for commercial interiors; and LEED-CS for core and shell projects.

Life Cycle Costing. A way of comparing the entire cost of a building over its useful life including the cost to construct, operate, maintain, and renovate or deconstruct the building at the end of its useful life.

PV System or PV Electric System. A system of generating electricity using Photovoltaic (PV) Modules, which create direct current (DC) electricity, and convert this to alternating current (AC) to supply some or all of a building's electrical needs. The system can be connected to the local power grid (grid tied) and have no electric storage capacity for nighttime use, relying instead on the power grid for this. This system will shut down in a power failure (such as after a hurricane). The system can also be designed to have a battery bank to power the building during the evening and on cloudy days, which will be fully useable after a hurricane.

Remodel. An interior reconfiguration or upgrade of an existing structure wherein the work required to complete the reconfiguration or upgrade requires a building permit.

Renewable Energy. Renewable energy is an energy resource that is replaced rapidly by natural processes. Some examples of renewable energy resources are sunlight, wind, geothermal, micro scale hydropower, and wood.

Residential Energy Services Network (RESNET). An organization that sets the standards of quality, increases the opportunity for ownership of energy efficient buildings, and ensures the success of the building energy performance certification industry.

Solar. This is a reference to energy derived from the sun and can apply to solar electric panels (photovoltaic panels) or solar hot water panels (solar thermal). Buildings can be heated and cooled through passive solar design strategies.

Sustainability. In an ecological context, sustainability is defined as the ability of an ecosystem to maintain ecological processes, functions, biodiversity and productivity into the future. In a social context, sustainability is expressed as meeting the needs of the present without compromising the ability of future generations to meet their own needs. When applied in an economic context, a business is sustainable if it has adapted its practices for the use of renewable resources and is accountable for the environmental impacts of its activities.

Sustainable Development. Sustainable Development is a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also in the indefinite future. The most often-quoted definition of sustainable development has become development that "meets the needs of the present without compromising the ability of future generations to meet their own needs."

Xeriscape. Xeriscaping is derived from the Greek word "xeros" meaning "dry" and combined with "landscape." Xeriscape means to create a lawn and / or garden that requires no less than average water to maintain.

Note: This Glossary is based in part on the City of Boulder, CO "Green Points Program Guide" and the "Green Building Dictionary"

ACRONYMS

ASHRAE - American Society of Heating, Refrigerating, and Air Conditioning Engineers

BIG – Build it Green

CFL – compact fluorescent lamp

COC - Chamber of Commerce

CRA - Community Redevelopment Agency

DDA - Downtown Development Authority

DMC - Downtown Marketing Cooperative

EPA - Environmental Protection Agency

ESCO – Energy Savings Company

ESD – Environmental Services Department

FAR - Floor Area Ratio

FEO – Florida Energy Office

FGBC - Florida Green Building Coalition

FSEC - Florida Solar Energy Center

GHG - greenhouse gases

ICLEI - International Council for Local Environmental Initiatives

LDRs – Land Development Regulations

LED – light-emitting diode

LEED - Leadership in Energy and Environmental Design

MMTD – Multi-Modal Transportation District

MROC – Mixed Residential Office Commercial (District)

NPDES – National Pollution Discharge Elimination System

OSS - Old School Square

PHAER – Pesticide Hazard and Exposure Reduction (zone)

PV - photovoltaic

ROI – Return on Investment

PGAD - Pineapple Grove Arts District

SBC - Sustainable Building Coalition

SFWMD – South Florida Water Management District

TDM – Transportation Demand Management

USGBC - United States Green Building Council

WARC - West Atlantic Redevelopment Agency

INTRODUCTION: ABOUT THIS REPORT

STRUCTURING THE REPORT

This report represents another milestone in Delray Beach's journey to sustainable economic and environmental development. It is the culmination of over eleven months of effort by a dedicated Green Task Force of seven city residents with environmental expertise, and reflects the opinions of these task force members as well as a broader set of Delray Beach citizens.

The primary goal of the report is to make recommendations that result in action. If action takes place based on the suggestions within its pages, then the report and the task force that created it, have succeeded. If action does not take place, or just a handful of the report's recommendations are deemed feasible, then the report and Green Task Force represent an intellectual exercise - with no meaningful outcome.

To minimize this risk, and ensure that this report does more than sit on city shelves, the Delray Beach Green Task Force structured the report to simplify the path from recommendation to action. We answered six key questions that are essential to moving ideas from thought to reality:

1. *Why* should something be done? "Why" creates the impetus for change – helping trigger a shift from the status quo.
2. *What objective* will the action help achieve? Objectives set direction and set the framework for action.
3. *How* will success be measured? Metrics can be used to gauge progress toward the objective, and serve as indicators to determine if meaningful activity is taking place.
4. *Who* will do something? "Who" is a key question because nothing occurs without a person or team agreeing that they have control of a specific action, and that they will do it.
5. *What* will they do? "What" focuses on specific actions that align to the broader goals
6. *How* much effort or resources will be required? In these economically constrained times, it is vital to allocate human and financial resources efficiently.

The sequence of these questions is as important as the questions themselves, and as such, the Green Task Force has structured this report to answer the questions in order:

"Why Green Delray Beach" forms the second part of this introduction. We debunk the myth that environmental actions always result in higher economic costs, and we illustrate the environmental and political benefits that can arise by taking leadership steps to go green.

The Executive Summary & Overview of Objectives provides a short background on the Delray Beach Green Task Force and summarizes 10 key objectives that the recommendations in the report will help achieve. The Executive Summary forms a bridge between the 10 high level objectives and 136 detailed recommendations in the body of the report. The Executive Summary also provides a number of Environmental & Economic Metrics that can be used to track progress. These are labeled as Environmental and Economic metrics because we believe that for nearly every recommendation, improvement in environmental performance will result in short, medium or long term economic benefits as well.

Section A, "Context" includes: an explanation of why to green Delray Beach; an outline and explanation of the City's environmental commitments; and a detailed explanation of the Green Task Force's mission and methodology. This section presents an overview of how "green" has moved from the fringes to the center of government, in part because leading governments are finding that environmental programs can often deliver real economic and political benefits. Using specific federal, state, and city examples we show how the context has changed, and that green government is a new political reality. We argue that a new barometer for success of a government body at any level is its response to this new green reality.

Sections B, C and D are the core of the report. In Section B, the Green Task Force lists its City-Wide recommendations. In Section C, we provide recommendations for each city department, in accordance with the City's latest organizational chart, and finally in Section D we make recommendations to city-supported civic entities like the Community Redevelopment Agency and Chamber of Commerce.

Within each chapter of Sections B, C and D, we follow an identical five-step approach to our recommendations:

1. Introduction to the department: we describe the main functions of the department to which our recommendations are directed
2. Current Delray Beach Best Practices: We showcase a few examples of environmental leadership steps the city, department, or civic entity has already taken
3. Best Practices Examples Beyond Delray Beach: We highlight two to four environmental programs implemented in other jurisdictions related to the recommendations in the section.
4. Quick Wins / Low Cost Green Recommendations: We provide recommendations that will help Delray Beach go green at little to no cost and relatively little effort.
5. Strategic / Longer Term Recommendations: We make a smaller number of strategic recommendations that will require greater commitment of time, resources and funding. In the majority of cases, we recommend programs that will deliver long term economic returns to the City.

The final 136 recommendations in the report stem from three main sources: the Florida Green Building Coalition Green Local Government Checklist, additional ideas discussed and approved by the Green Task Force, and suggestions from a highly interactive Public Input Workshop held in October 2008.

Recommended Audiences for Sections of this Document

While interested parties are encouraged to read the report in its entirety, certain sections are more relevant to certain audiences:

City Commission

Entire Report
Detailed Appendices

City Department Heads

Executive Summary & Overview of Objectives
City Wide Recommendations
Department Specific Chapter
Detailed Appendices

- References for Department Specific Chapter
- Links to Best Practices

City Department Line Managers / Designated Implementation Staff

Executive Summary & Overview of Objectives
City Wide Recommendations
Department Specific Chapters
Detailed Appendices

- References for Department Specific Chapter
- Links to Best Practices

General Public

Executive Summary & Overview of Objectives
Specific Chapters as Desired

Other Government Officials Outside Delray Beach

Executive Summary & Overview of Objectives
Specific Chapters as Desired

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

This report is the final product of the Delray Beach Green Task Force, a body created by City Commission to provide recommendations on implementing an environmental program.
The Executive Summary provides a short overview of the Complete Report, and includes an initial section that describes the Context in which the Task Force completed its work. We describe Delray Beach's existing green commitments - such as joining the Sierra Club's Cool Cities program and signing the US Mayors Climate Protection Agreement - and summarize what it means for the City to have made these public commitments. We also outline the mission and methodology followed by the Task Force.

The bulk of the Executive Summary provides a snapshot of the recommendations we have made, per our mandate from City Commission. In addition to our recommendations, we propose Delray Beach pursue 10 major objectives in a 10 Point Green Plan starting aggressively in 2010.

Please note that this Executive Summary contains live links to many of the referenced documents. In addition, this Summary, the complete Task Force Report, and all associated references and appendices are available online at http://www.SustainableDelray.org/report.htm.

SUMMARY OF CONTEXT SECTION

Existing Environmental Commitments

Delray Beach has already made a number of major commitments to a greener future. This includes steps such as joining the Sierra Club Cool Cities program; signing the U.S. Mayors Climate Protection Agreement; and committing to become a certified community under the Florida Green Building Coalition's Green Local Government Standard. These commitments prove the City is on a greener path and imply, among other things, that Delray Beach will:

- Conduct an inventory of global warming emissions
- Make energy efficiency a priority through code improvements, retrofitting city facilities etc.
- Practice and promote sustainable building practices, using the LEED program or a similar system

Why Green Delray Beach?

We believe that by accelerating the speed to implement actions in line with these commitments, Delray Beach will gain benefits of three main types: economic, environmental and political.

Economic: There is a perception that environmental programs always result in higher costs. But this ignores three truths about going green that cities across the US have found: green efforts make communities less wasteful, more efficient, and healthier; inefficient habits cost money; and there is a green cost continuum: some green actions may cost more, but others cost less.

Environmental: As Delray Beach grows, the environmental impact of its citizens and businesses will grow with it. However by implementing many of the green recommendations in this report, the City can meaningfully reduce its environmental impacts.

Political: In the current political context, no government body can ignore environmental issues – particularly those related to energy, climate change and green building. There is a new green political reality where green issues have risen to the top of the Federal, State and Local agendas.

- Federal: Key green elements of an Obama environmental plan include: energy efficiency, renewable energy, grid modernization and mass transit. Obama's focus on these areas signals a major increase in funding available for green initiatives.
- State: Governor Charlie Crist has also signed a number of climate change related Executive Orders in Florida. These focus the State's efforts on dramatically reducing greenhouse gas emissions, and mandating the implementation of green building design and certification.
- Local: By the end November 2008 over 900 US Mayors had signed the U.S. Mayors Climate Protection Agreement. Delray Beach was one of the early signatories, agreeing to "reduce global warming pollution by taking action in the City's own operations and communities".

Green Task Force Mission & Methodology

Within this contextual background, the Green Task Force was given a mandate to make recommendations to City Commission regarding:

1. Ways to improve the sustainability of City programs, services, equipment and facilities.
2. Strategies for improving environmental sustainability of the community
3. Incentives for residents, businesses, and organizations to practice conservation
4. Proposed means to enhance water and energy conservation.
5. Ideas for promotion of tree planting and xeriscaping.
6. Best Practices for implementation in Delray Beach, including long-term strategies.

The first step of the Green Task Force's 12 step methodology was to review the commitments the City had already made. Given the significance of these commitments, the Task Force chose

to use them as the framework around which to complete its work, and as such, adopted the following as a mission statement:

"To determine an actionable set of recommendations that enables Delray Beach to implement its current environmental commitments in a timely, cost-effective, and citizen-centric manner, as well as explore new opportunities for sustainability."

The remaining steps of our 12-step roadmap and methodology were followed to fulfill our mandate and provide our recommendations. This process is described in detail in Chapter 3.

1. Review Existing Commitments & Establish Mission
2. Conduct Green Government Research
3. Audit Current Green Practices
4. Leverage Florida Green Building Coalition Local Green Governments Standards Checklist as Initial Potential Recommendations
5. Brainstorm Additional Recommendations
6. Host Public Input Workshop
7. Obtain City Staff Input
8. Prioritize and Consolidate Recommendations
9. Identify City Departments with Control of Implementation
10. Finalize Recommendations & Align with Objectives
11. Establish Potential Performance Metrics
12. Complete Report

PROPOSED OBJECTIVES & HIGH-LEVEL RECOMMENDATIONS

Most recommendations the Green Task Force identified were made to the specific City Department who we believe has most control over implementation of the recommendation. However, some recommendations span departments and impact the entire City. The following summarizes the three broad steps that will ensure success in the greening of Delray Beach:

1. Adopt Clear Objectives and Create Financial Framework
2. Set the Foundation and Track Progress
3. Ensure Implementation

Our first three City-Wide recommendations are critical to the success of all others. We define "Quick Wins" as ideas that can be adopted quickly without major expense. Longer Term / Strategic Recommendations will require more of an investment in time and resources.

Adopt Clear Objectives and Create Financial Framework

Our first major recommendation, City-Wide Quick Win #1, is that Delray Beach:

Adopt a set of Ten Objectives as Part of a Ten Point Green Plan

We propose that City Commission adopt these in 2009 on approval of the Task Force report. The full timeline for implementation of this plan would be 2010 to 2015. Our proposed 10 objectives or "10 Point Plan" is as follows:

Proposed Objectives of Delray Beach Ten Point Green Plan

1. *Track & Deliver Economic Benefits from Environmental Programs*
2. *Set Foundation, Drive Implementation & Communicate Progress*
3. *Incorporate Sustainability into Urban Planning & Design*
4. *Encourage Water Efficiency & Conservation*
5. *Reduce Greenhouse Gases through Energy Efficiency & Green Building*
6. *Reduce Greenhouse Gases through Fuel Efficiency & Transportation*
7. *Implement Green Purchasing*
8. *Reduce Waste & Increase Recycling*
9. *Encourage Green Economic Development*
10. *Improve Indoor & Outdoor Environmental Quality*

The first of our 10 proposed objectives, *Track & Deliver Economic Benefits from Environmental Programs,* is one of the most important. This stems from our research, which showed Cities that measure benefits of environmental programs often find economic benefits. The important thing is to ensure programs are set up in a way that benefits are considered and tracked. To ensure this best practice is implemented in Delray Beach, we recommend: Finance Quick Win #1 (Supported by City Commission):

Create a Budgeting, Funding and Suggested Return on Investment (ROI) Framework for Higher Cost Environmental Programs

Implementing this recommendation implies evaluating the higher cost environmental recommendations using a disciplined financial process in which direct and indirect costs and benefits are understood, total costs and benefits considered (irrespective of which City department incurs the costs or obtains the benefits) and a quantified ROI (Return on Investment) established for the plan as a whole. Some programs will cost more, others less, but the total plan must deliver economic benefits.

For this ROI framework to be defensible, it would best be developed in partnership between City Commission and the Department of Finance. Standard capital and operating budgeting policies would be reviewed in light of potential tax benefits, State and Federal grants, and long term cost or revenue impacts of environmental programs. The new framework would fix some of the disincentives inherent in many budget planning processes. For example currently many

departments are concerned only their own budget. A new framework would identify opportunities for one department to invest operating or capital budget into an idea that actually delivers economic benefits to a separate department, but still works towards the overall goal of the City. This recommendation is especially important given the current economic climate. Environmental issues are often discarded to the bottom of the agenda when economic conditions are tough, but as stated by Governor Crist, *"The wonderful news about addressing climate change is…it may spur the greatest economic boon in the history of the planet."*

Set the Foundation and Track Progress

The second of our 10 proposed objectives, *Set Foundation, Drive Implementation & Communicate Progress* stems from our green city best practice research that found that green efforts are most likely to be successful if they are supported by a solid foundation, are implemented using a good project management discipline (including defining accountability), and incorporate regular communication of progress, especially from the Mayor. We believe these three critical success factors will be enabled with our proposed City-Wide Quick Win #2:

Adopt, Track and Annually Report a Set of Economic & Environmental Performance Metrics using a new Economic & Environmental Scorecard

We do not expect the City to implement actions that do not make long-term sense economically. To show how following our recommendations will deliver both economic AND environmental benefits, we created an Economic & Environmental Scorecard, which the City can use to conduct a baseline analysis and quantify and publicly report how implementation of our recommendations is driving cost savings and environmental improvements.
This scorecard includes: nine metrics to track Economic Benefits to the City, 10 metrics to track Environmental Performance based on the City's internal operations and five metrics to track Environmental Performance based on action by citizens and businesses.

We label this a Quick Win because the City can adopt and announce this quickly and with no expense, then start creating baseline data for 2009 and tracking the data every year henceforth. If any of the data points in the scorecard are too complex to track, we suggest using proxies or alternative metrics based on appropriate alternatives that help track progress against the objectives. Please see the Economic & Environmental Scorecard on the following page.

Proposed Economic & Environmental Scorecard

#	Objective		Economic Benefit Metric	Results		Environmental Performance Metric	Results		Environmental Performance Metric	Results	
				2009	2010 etc.	Primarily City-Controlled Environmental Metric [If Applicable]	2009	2010 etc.	Primarily Citizen/Business-Controlled Environmental Metric [If Applicable]	2009	2010 etc.
1	**Track & Deliver Economic Benefits from Environmental Programs**	→	Average % Return on Environmental Investments			# of Environmental Budget Requests Approved			N/A [Primarily in City's control]		
2	**Set Foundation, Drive Implementation & Communicate Progress**	→	Total Economic Benefit from Environmental Programs Implemented In Support of FGBC Local Green Government Certification			Achieve Florida Green Building Coalition Local Green Government Designation. Target "Gold" Certification.			N/A [Primarily in City's control]		
3	**Incorporate Sustainability into Urban Planning & Design**	→	N/A [Sustainable urban planning will drive long term economic benefits in Transportation, Building and Green Economic Development Areas]			Percent of Approved Projects having Completed the City's Sustainable Land Use Checklist [To be developed] [Joint City / Citizen-Business Metric]			Percent of Approved Projects having Completed the City's Sustainable Land Use Checklist [To be developed] [Joint City / Citizen-Business Metric]		
4	**Encourage Water Efficiency & Conservation**	→	Estimated Total Dollar Savings from Water Efficiency & Conservation Efforts			Estimated Gallons of Water Used in Delray Beach City Operations			Estimated Gallons of Water Used by Delray Beach Citizens & Businesses		
5	**Reduce Greenhouse Gases through Energy Efficiency & Green Building**	→	Estimated Total Energy Costs Avoided through Energy Efficiency & Green Building Efforts in City Government Buildings in Delray Beach			Estimated Metric Tons of Carbon Dioxide Equivalent (mtCO2e) Generated from City Gov't Buildings in Delray Beach			Estimated Metric Tons of Carbon Dioxide Equivalent (mtCO2e) Generated from Commercial & Residential Buildings in Delray Beach		
6	**Reduce Greenhouse Gases through Fuel Efficiency & Transportation**	→	Estimated Total Fuel Costs Avoided through Fuel Efficiency & Green Fleet Efforts in City-Owned Vehicles			Estimated Metric Tons of Carbon Dioxide Equivalent (mtCO2e) Generated from City-Owned Vehicles			Estimated Metric Tons of Carbon Dioxide Equivalent (mtCO2e) Generated from Commercial & Residential Vehicles in Delray Beach		
7	**Implement Green Purchasing**	→	Total Estimated Savings from Direct Spend, Indirect Spend and Operations based on Environmentally Preferable Purchasing and Practices			Percent of Spend in Compliance with Delray Beach Environmental Purchasing Policy			N/A [Primarily in City's control]		
8	**Reduce Waste & Increase Recycling**	→	Net Economic Benefit (Cost) of Reducing Landfill and Increasing Composting / Recycling			Percent of City-Generated Waste Materials Recycled or Composted vs. Landfilled			Percent of Commercial & Residential Waste Materials Recycled or Composted vs. Landfilled		
9	**Encourage Green Economic Development**	→	Estimated Total Economic Impact of Green Economic Development			Dollar Value of Investment in Green Economic Development			Number of "Green Jobs" in Delray Beach		
10	**Improve Indoor & Outdoor Environmental Quality**	→	Savings from Reduced Cost of Air & Water Quality Remediation [Previous Year's Est. Cost of Air/Water Quality Remediation minus Current Year Est. Cost of Air/Water Quality Remediation]			# of Air or Water Quality Complaints [Joint City / Citizen-Business Metric]			# of Air or Water Quality Complaints [Joint City / Citizen-Business Metric]		

Ensure Implementation

Progress against this scorecard and towards the objectives will only be possible if our recommendations are actually implemented. To help ensure implementation, we highly recommend the City pursue City-Wide Quick Win #3:

Create an Internal "Green Team" by designating a Point-Person from Each Department to Evaluate and Implement Report Recommendations

This is the first step in ensuring that the people involved in implementation of our recommendations feel involved and engaged in the decisions following the release of the Green Task Force report.

The second major step to ensure implementation of our recommendations is to start the process for City-Wide Long Term / Strategic Recommendation #1, to:

Create a Sustainability Officer Position and Fund this Hire with Energy Savings they Enable

In this economy, it may sound infeasible to hire new staff. We believe, based on evidence from other cities, that a full-time Sustainability Officer would deliver major economic benefits to the City within a two-year period, and cost savings would be able to pay for that person's salary.

RECOMMENDATION SUMMARIES

The rest of this Executive Summary shows all of our recommendations, including high-level ones from above, aligned to the 10 Objectives we propose for Delray Beach's 10 Point Green Plan. These are available in a single table: Green Objectives and Recommendations. More detail on the recommendations, and best practices can be found in the Complete Report and an implementation checklist is provided in Green Recommendations by City Department.

Recommendations Summary:

[1] Track & Deliver Economic Benefits

One of the most important concerns, especially in our tight economy, is the cost and benefits of green programs. Repeatedly, governments and other organizations have proven that these programs are cost effective and provide long-term financial benefits. However, this can only be verified if the costs are analyzed. There is only one recommendation in this important category.

#	Objective
1	Track & Deliver Economic Benefits from Environmental Programs

#	Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win/ Strategic Recommendation		Report Chapter
			Quick Wins	Strategic	
0	Finance (Supported by City Commission)	Create a Budgeting, Funding and Suggested Return on Investment (ROI) Framework for Environmental Programs	x		6

[2] Set Foundation, Drive Implementation & Communicate Progress

To properly track benefits, set the foundation drive implementation and communicate progress, we are making 27 important recommendations, primarily to City Commission and City Manager but also to the heads of a number of departments. A focus on these recommendations in 2009 will help the City prepare to effectively launch the 10 Point Plan we propose starting early 2010.

#	Objective	#	Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win/ Strategic Recommendation		Report Chapter
					Quick Wins	Strategic	
2	Set Foundation, Drive Implementation & Communicate Progress	1	City Commission (City-Wide Recommendation)	Adopt a set of Ten Objectives as Part of a Ten Point Green Plan.	x		4
		2	City Commission (City-Wide Recommendation)	Adopt, Track and Annually Report a Set of Economic & Environmental Performance Metrics using a new Economic & Environmental Scorecard	x		4
		3	City Commission (City-Wide Recommendation)	Create an Internal "Green Team" by designating a Person from Each Department to Evaluate and Implement Report Recommendations	x		4
		4	City Commission (City-Wide Recommendation)	Create a Permanent Green Advisory Board Made up of Delray Beach Community Members	x		4
		5	City Commission (City-Wide Recommendation)	Issue City Commission / Mayoral Proclamations related to Green Building Construction and Operations	x		4
		6	City Commission (City-Wide Recommendation)	Establish Standard Green Office Practices in All City Offices	x		4
		7	City Commission (City-Wide Recommendation)	Create a Sustainability Officer Position and Fund this Position through Cost Savings		x	4
		8	City Commission (City-Wide Recommendation)	Complete Green House Gas Inventory and Create Reduction Plan		x	4
		9	City Manager / City Clerk's Office	Coordinate City Green Efforts with Neighboring Jurisdictions	x		5
		10	City Manager / City Clerk's Office	Complete the FGBC Green Local Government Certification Checklist and Apply for Certification	x		5
		11	City Manager / City Clerk's Office	Implement Internet Based Electronic Bulletin Board for City Board Workshop Meetings	x		5
		12	City Manager / City Clerk's Office	Incorporate Green Practices into Golf Course Management		x	5
		13	City Manager / City Clerk's Office	Adopt Green Management Policy for Tennis Facility		x	5
		14	Finance Department (Including IT/Purchasing/Utility Billing)	Create, launch and operate a website dedicated to Delray Beach's green efforts	x		6
		15	Finance Department (Including IT/Purchasing/Utility Billing)	Research Green Grants Opportunities		x	6
		16	Police Department	Assist in Enforcement of Green Codes	x		7
		17	Community Improvement Department	Create a Green Building Awards Program		x	9
		18	Parks & Recreation Department	Place Signs Describing Green Features of Public Parks & Amenities	x		11
		19	Human Resources Department	Create Job Description for a Sustainability Officer	x		13
		20	Human Resources Department	Create a Human Resources Sustainability Education and Best Practices Education Program	x		13
		21	Community Redevelopment Agency	Provide a CRA representative for a New (Potential) Permanent Green Advisory Board	x		14
		22	Housing Authority	Create a Green Funding and Partners Resource List	x		15
		23	Housing Authority	Create a Green Education Outreach Program	x		15
		24	Housing Authority	Revise the Housing Authority's Mission Statement to Include Green Principles		x	15
		25	Downtown Development Authority / Downtown Marketing Cooperative	Create a Volunteer Green Team	x		16
		26	Downtown Development Authority / Downtown Marketing Cooperative	Provide a DDA representative for a New (Potential) Permanent Green Advisory Board	x		16
		27	Chamber of Commerce	Create a Green Awards Program	x		17

Recommendations Summary:

[3] Incorporate Sustainability Into Urban Planning & Design

To incorporate Sustainability into Urban Planning and Design, we have 10 recommendations, primarily for Planning and Zoning, with one important recommendation to the CRA.

#	Objective	#	Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win/ Strategic Recommendation		Report Chapter
					Quick Wins	Strategic	
3	Incorporate Sustainability into Urban Planning & Design	1	Planning & Zoning Department	Conduct a Green Audit of the Current Land Development Regulations and Comprehensive Plan	x		10
		2	Planning & Zoning Department	Develop and Apply a Sustainable Land Use Checklist	x		10
		3	Planning & Zoning Department	Mandate Environmentally Friendly Landscaping	x		10
		4	Planning & Zoning Department	Re-evaluate Parking Planning and Design	x		10
		5	Planning & Zoning Department	Develop a Multi-Modal Transportation District (MMTD)		x	10
		6	Planning & Zoning Department	Re-evaluate Parking Requirements for Mixed Residential Office & Commercial (MROC) District		x	10
		7	Planning & Zoning Department	Create & Promote a Green Neighborhoods Program, Incorporate Principles into Land Development Regulations & Comprehensive Plan		x	10
		8	Planning & Zoning Department	Adopt and Implement the Existing Bike and Pedestrian Task Team Final Report		x	10
		9	Planning & Zoning Department	Study Potential Zoning Decisions that Could Encourage Businesses to Service Residents		x	10
		10	Planning & Zoning Department	Develop a Sustainable Vision and Incorporate into City Planning Documents		x	10
		11	Community Redevelopment Agency	Implement Long-Term Sustainable Redevelopment Planning		x	14

Recommendations Summary:

[4] Encourage Water Efficiency & Conservation

To encourage water efficiency and conservation, we are making 6 recommendations, four focused on use of water in City operations where water is heavily used for operations or vehicle cleaning (Police, Fire, Environmental Services) and two focused on encouraging City businesses and residents to adopt water efficiency measures.

#	Objective	#	Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win/ Strategic Recommendation		Report Chapter
					Quick Wins	Strategic	
4	Encourage Water Efficiency & Conservation	1	Police Department	Use Reclaimed Rainwater to Wash Police Vehicles		x	7
		2	Fire Department	Use Reclaimed Rainwater to Wash Fire-Related Vehicles		x	8
		3	Planning & Zoning Department	Provide Incentives to Encourage Rainwater Harvesting	x		10
		4	Parks & Recreation Department	Implement Water-Efficient Landscaping Protocols		x	11
		5	Environmental Services Department	Adopt a Series of "Quick Win" Water Efficiency Measures for City Buildings	x		12
		6	Environmental Services Department	Re-evaluate the Current Tiered Rate Structure for Water Billing		x	12

Recommendations Summary:

[5] Reduce Greenhouse Gases through Energy Efficiency & Green Building

To reduce greenhouse gases, we have 26 recommendations that will also reduce energy costs for City buildings. Some recommendations will help the City align to Florida's HB 7135 that mandates green building. We also suggest incentives for private green building development.

#	Objective
5	Reduce Greenhouse Gases through Energy Efficiency & Green Building

#	Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win/ Strategic Recommendation		Report Chapter
			Quick Wins	Strategic	
1	City Commission (City-Wide Recommendation)	Adopt a Green Building Ordinance		x	4
2	Finance Department (Including IT/Purchasing/ Utility Billing)	Implement Power Saving features in all City Computers & Printers	x		6
3	Finance Department (Including IT/Purchasing/ Utility Billing)	Develop Incentives for Green Redevelopment		x	6
4	Community Improvement Department	Create a "Green Building Basics" Public Information Campaign	x		9
5	Community Improvement Department	Create "Green Building & Recycling Basics" Public Information Campaign for Children	x		9
6	Community Improvement Department	Require Energy Star Appliances in all Building Applications	x		9
7	Community Improvement Department	Mandate Cool Roofs	x		9
8	Community Improvement Department	Encourage Installation of Solar Hot Water & Solar Electric by Streamlining Permitting Process	x		9
9	Community Improvement Department	Require Green Benchmarking for New Buildings / Substantial Renovations		x	9
10	Parks & Recreation Department	Implement Energy Efficient Lighting & Controls for Outdoor Courts, Parks, and Playfields		x	11
11	Environmental Services Department	Adopt a Series of "Quick Win" Energy Efficiency Measures for City Buildings	x		12
12	Environmental Services Department	Adopt LEED Silver as the Official Goal for All New Municipal Buildings and Major Renovations, with a Target of Gold or Higher for at Least ONE Building	x		12
13	Environmental Services Department	Register City Hall for LEED for Existing Buildings, and Start Pursuing Certification	x		12
14	Environmental Services Department	Paint the Interior of Parking Garages White as Part of Routine Maintenance to Maximize Lighting Efficiency	x		12
15	Environmental Services Department	Install High Efficiency Lighting for Streetlights	x		12
16	Environmental Services Department	Perform an Energy Audit on All City Facilities		x	12
17	Environmental Services Department	Adopt LEED for Existing Buildings in the Future for City Buildings		x	12
18	Community Redevelopment Agency	Provide a Green / Energy Efficiency Grant and Revolving Loan Fund	x		14
19	Community Redevelopment Agency	Pursue Green Building Certification for the Old Library / Hotel Redevelopment Project	x		14
20	Community Redevelopment Agency	Pursue Green Building Principles for the Current Parking Lot Redevelopment Project	x		14
21	Community Redevelopment Agency	Pursue Green Building Certification for All CRA Projects		x	14
22	Housing Authority	Provide a Green Home Improvement Funding Resources	x		15
23	Housing Authority	Pursue Green Building Certification at the Villages at Delray	x		15
24	Housing Authority	Pursue Green Building Certification for All New Developments		x	15
25	Chamber of Commerce	Pursue Green Building Certification for New Office		x	17
26	Chamber of Commerce	Support the Florida Chamber of Commerce's Green Efforts		x	17

Recommendations Summary:

[6] Reduce Greenhouse Gases through Fuel Efficiency & Transportation

To reduce greenhouse gases from transportation, we have 27 recommendations that will also reduce fuel costs for departments that manage many City vehicles (police, fire, ESD). Some recommendations help maximize the potential of the Roundabout and supplement this positive program with other ideas for public transit and transportation flow improvement in the City.

#	Objective	#	Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win/ Strategic Recommendation		Report Chapter
					Quick Wins	Strategic	
6	Reduce Greenhouse Gases through Fuel Efficiency & Transportation	1	City Commission (City-Wide Recommendation)	Promote Fuel Efficient Driving by All City Employees and communicate widely	x		4
		2	City Commission (City-Wide Recommendation)	Adopt and actively enforce an Anti-Idling Ordinance	x		4
		3	Police Department	Increase Use of Existing Alternative Fuel Vehicle and Bicycles	x		7
		4	Police Department	Implement shared vehicle patrols	x		7
		5	Police Department	Minimize Trips for Minor Incidents	x		7
		6	Police Department	Reduce Non-Duty Related Vehicle Use	x		7
		7	Police Department	Quantify Overall Fuel Consumption and Establish Reduction Targets	x		7
		8	Police Department	Remove Unneeded Weight on Vehicles for Fuel Economy	x		7
		9	Police Department	Encourage Routine Fleet Maintenance	x		7
		10	Police Department	Purchase More Fuel-Efficient Vehicles / Alternative Fuel Vehicles		x	7
		11	Police Department	Implement GPS Routing Software		x	7
		12	Fire Department	Dispatch Optimal Number of Vehicles on Calls	x		8
		13	Fire Department	Restrict Vehicle Usage to Official Use Only	x		8
		14	Fire Department	Encourage Routine Fleet Maintenance	x		8
		15	Fire Department	Optimize Fire Hydrant Inspection Procedures	x		8
		16	Fire Department	Restrict Staff from Driving Vehicles Home Unless On Call	x		8
		17	Fire Department	Educate Staff on Fuel-Efficient Driving Habits (reference Miami Fire Dept Best Practices)	x		8
		18	Fire Department	Upgrade Fleet		x	8
		19	Fire Department	Implement GPS Routing Software		x	8
		20	Environmental Services Department	Expand Roundabout Shuttle Routes and Schedules	x		12
		21	Environmental Services Department	Convert Roundabout Shuttle to Alternative Fuel and Utilize an Open Air Rubber Wheel Trolley		x	12
		22	Human Resources Department	Coordinate Roundabout Shuttle with Employee Commuter Schedule	x		13
		23	Human Resources Department	Educate City Employees About Public Transit Federal Tax Incentives	x		13
		24	Human Resources Department	Reduce the Work Week to Four Days		x	13
		25	Downtown Development Authority / Downtown Marketing Cooperative	Promote “Car Free" Zones	x		16
		26	Downtown Development Authority / Downtown Marketing Cooperative	Explore and Potentially Propose a Permanent Car-Free / Pedestrian Zone in the Downtown Core		x	16
		27	Downtown Development Authority / Downtown Marketing Cooperative	Promote Alternative Vehicles / Bikes for Tourists		x	16

Recommendations Summary:
[7] Implement Green Purchasing

To implement green purchasing, we have 11 recommendations, with the major one for the Finance / Purchasing Department to develop an Environmentally Preferable Purchasing Policy.

#	Objective	#	Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win/ Strategic Recommendation		Report Chapter
					Quick Wins	Strategic	
7	Implement Green Purchasing	1	Finance Department (Including IT/Purchasing/Utility Billing)	Develop & Implement a Environmental Purchasing Policy (EPP) covering, at minimum: supplies, printing, furniture, technology, vehicles	x		6
		2	Finance Department (Including IT/Purchasing/Utility Billing)	Enact an Energy Efficient Computer Purchasing & Operation Policy	x		6
		3	Finance Department (Including IT/Purchasing/Utility Billing)	Purchase Energy Efficient Light-bulbs	x		6
		4	Finance Department (Including IT/Purchasing/Utility Billing)	Employ Green Cleaning and Maintenance	x		6
		5	Police Department	Explore Greener Cleaning Options for Uniforms (e.g. Washing or Non-Perc Dry Cleaning)	x		7
		6	Community Redevelopment Agency	Adopt the City's Standard Green Office Practices	x		14
		7	Housing Authority	Adopt the City's Standard Green Office Practices	x		15
		8	Downtown Development Authority / Downtown Marketing Cooperative	Adopt the City's Standard Green Office Practices	x		16
		9	Downtown Development Authority / Downtown Marketing Cooperative	Switch to Recycled or FSC-certified Paper for all DDA Publications	x		16
		10	Chamber of Commerce	Adopt the City's Standard Green Office Practices	x		17
		11	Chamber of Commerce	Switch to Recycled or FSC-certified Paper for all DDA Publications	x		17

Recommendations Summary:
[8] Reduce Waste & Increase Recycling

To help reduce waste and increase recycling, we have 11 recommendations for the departments and agencies that have most control over the City's waste stream. Our main recommendation is to the Community Improvement Department to support city businesses by enabling convenient commercial recycling.

#	Objective	#	Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win/ Strategic Recommendation		Report Chapter
					Quick Wins	Strategic	
8	Reduce Waste & Increase Recycling	1	City Manager / City Clerk's Office	Revise Special Event Permit Application and Special Event Policy	x		5
		2	City Manager / City Clerk's Office	Go Paperless for Public Information Requests		x	5
		3	Police Department	Implement Electronic Citation System		x	7
		4	Fire Department	Eliminate Disposable Dishware in Fire Stations	x		8
		5	Community Improvement Department	Enable Commercial Recycling by Allowing Pick-Up of Recyclable Material (Cardboard, Paper, Glass, Metal) by Qualified Recyclers	x		9
		6	Community Improvement Department	Adopt Paperless "Online" Building Permit Applications	x		9
		7	Parks & Recreation Department	Mulch and/or Compost a Range of Materials Collected from City Parks, Communicate Availability of this Material	x		11
		8	Human Resources Department	Provide Re-usable Mug and Water Bottle to Employees	x		13
		9	Downtown Development Authority / Downtown Marketing Cooperative	Implement a Recycling Program for the DDA/DNC Offices	x		16
		10	Chamber of Commerce	Implement Recycling in Chamber Office	x		17
		11	Chamber of Commerce	Pursue Green Event Planning at 2009 and All Future Delray Affair Events	x		17

Recommendations Summary:

[9] Encourage Green Economic Development

To take advantage of new funding for green efforts and to establish a reputation in a new area of civic leadership, we propose 7 recommendations related to Green Economic Development.

#	Objective	#	Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win/ Strategic Recommendation		Report Chapter
					Quick Wins	Strategic	
9	Encourage Green Economic Development	1	City Commission (City-Wide Recommendation)	Develop and Implement a Plan to Promote Green Economic Development		x	4
		2	Finance Department (Including IT/Purchasing/Utility Billing)	Develop Incentives for Location of Green Businesses within the City		x	6
		3	Planning & Zoning Department	Create a Green Business Overlay Zone		x	10
		4	Downtown Development Authority / Downtown Marketing Cooperative	Develop a Plan to Attract More Green Events	x		16
		5	Downtown Development Authority / Downtown Marketing Cooperative	Develop and Implement Green Merchant Marketing Program		x	16
		6	Downtown Development Authority / Downtown Marketing Cooperative	Promote Green Tourism		x	16
		7	Chamber of Commerce	Identify "Green Businesses" and Designate them Separately on Chamber Websites		x	17

Recommendations Summary:

[10] Improve Indoor and Outdoor Environmental Quality

To lower risk and costs of harsh chemicals and other wastes in the City's air and water, we have 10 recommendations to maintain health and beauty of the Delray Beach's land, water and residents.

#	Objective	#	Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win/ Strategic Recommendation		Report Chapter
					Quick Wins	Strategic	
10	Improve Indoor & Outdoor Environmental Quality	1	City Commission (City-Wide Recommendation)	Establish an Environmentally Sensitive Leaf-Blowing Ordinance		x	4
		2	Police Department	Phase Out Percholorate Flares		x	7
		3	Fire Department	Install Air Scrubbers at all Fire Houses		x	8
		4	Planning & Zoning Department	Revise LDRs to Make Pervious Pavement the Standard		x	10
		5	Parks & Recreation Department	Recertify the Delray Municipal Beach as a Blue Wave Certified Beach	x		11
		6	Parks & Recreation Department	Maintain or Support Organic Community Gardens	x		11
		7	Parks & Recreation Department	Create a Pesticide Hazard and Exposure Reduction (PHAER) Zone Program		x	11
		8	Parks & Recreation Department	Minimize Chlorine in Community Swimming Pools		x	11
		9	Environmental Services Department	Establish Environmentally Sensitive Landscaping Practices	x		12
		10	Environmental Services Department	Install Stormwater Treatment Devices at All Runoff Outfall Discharges and Promote Stormwater Infiltration		x	12

CONCLUSION

We believe that if the City implements a large number of our recommendations, and improves performance against the metrics we suggest, Delray Beach can position itself not only as a leading small green city in Florida and the US, but as one of the leading small green cities in the world.

Note: The Complete Green Task Force Report is available online at http://www.SustainableDelray.org/report.htm. The electronic version of the Full Report contains clickable links throughout to all references.

SUMMARY OF RECOMMENDATIONS BY CITY DEPARTMENT

Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win / Longer Term Strategic Recommend-ation Number	Reminder: This Helps Meet this Major Objective	To Complete Yellow Cells Below: Implementation Planning & Progress				
				Have we started this? [Yes / No]	Will we do more? [If Y, put 2009/2010 etc. in N, put N]	What specific actions will we take?	Who is accountable for results? [individual person's name]	When will they report substantial progress? [e.g. Q3 2009]
City Commission (City-Wide Recommendation)	Adopt a set of Ten Objectives as Part of a Ten Pont Green Plan.	QW 1	Set Foundation, Drive Implementation & Communicate Progress					
City Commission (City-Wide Recommendation)	Adopt, Track and Annually Report a Set of Economic & Environmental Performance Metrics using a new Economic & Environmental Scorecard	QW 2	Set Foundation, Drive Implementation & Communicate Progress					
City Commission (City-Wide Recommendation)	Create an Internal "Green Team" by designating a Person from Each Department to Evaluate and Implement Report Recommendations	QW 3	Set Foundation, Drive Implementation & Communicate Progress					
City Commission (City-Wide Recommendation)	Create a Permanent Green Advisory Board Made up of Delray Beach Community Members	QW 4	Set Foundation, Drive Implementation & Communicate Progress					
City Commission (City-Wide Recommendation)	Promote Fuel Efficient Driving by All City Employees and communicate widely	QW 5	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
City Commission (City-Wide Recommendation)	Adopt and actively enforce an Anti-Idling Ordinance	QW 6	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
City Commission (City-Wide Recommendation)	Establish Standard Green Office Practices in All City Offices	QW 7	Set Foundation, Drive Implementation & Communicate Progress					
City Commission (City-Wide Recommendation)	Issue City Commission / Mayoral Proclamations related to Green Building Construction and Operations	QW 8	Set Foundation, Drive Implementation & Communicate Progress					
City Commission (City-Wide Recommendation)	Create a Sustainability Officer Position and Fund this Position through Cost Savings	LT/S 1	Set Foundation, Drive Implementation & Communicate Progress					
City Commission (City-Wide Recommendation)	Complete Green House Gas Inventory and Create Reduction Plan	LT/S 2	Set Foundation, Drive Implementation & Communicate Progress					
City Commission (City-Wide Recommendation)	Adopt a Green Building Ordinance	LT/S 3	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
City Commission (City-Wide Recommendation)	Establish an Environmentally Sensitive Leaf-Blowing Ordinance	LT/S 4	Improve Indoor & Outdoor Environmental Quality					
City Commission (City-Wide Recommendation)	Develop and Implement a Plan to Promote Green Economic Development	LT/S 5	Encourage Green Economic Development					
City Manager / City Clerk's Office	Revise Special Event Permit Application and Special Event Policy	QW 1	Reduce Waste & Increase Recycling					
City Manager / City Clerk's Office	Coordinate City Green Efforts with Neighboring Jurisdictions	QW 2	Set Foundation, Drive Implementation & Communicate Progress					
City Manager / City Clerk's Office	Complete the FGBC Green Local Government Certification Checklist and Apply for Certification	QW 3	Set Foundation, Drive Implementation & Communicate Progress					
City Manager / City Clerk's Office	Implement Internet Based Electronic Bulletin Board for City Board Workshop Meetings	QW 4	Set Foundation, Drive Implementation & Communicate Progress					
City Manager / City Clerk's Office	Adopt Green Management Policy for Tennis Facility	LT/S 1	Set Foundation, Drive Implementation & Communicate Progress					
City Manager / City Clerk's Office	Incorporate Green Practices into Golf Course Management	LT/S 2	Set Foundation, Drive Implementation & Communicate Progress					
City Manager / City Clerk's Office	Go Paperless for Public Information Requests	LT/S 3	Reduce Waste & Increase Recycling					

SUMMARY OF RECOMMENDATIONS BY CITY DEPARTMENT

Department/s with Most Control of Implementation of Recommendation	Recommendation	Quick Win / Longer Term Strategic Recommend-ation Number	Reminder: This Helps Meet this Major Objective	To Complete Yellow Cells Below: Implementation Planning & Progress				
				Have we started this? [Yes / No]	Will we do more? [If Y, put 2009/2010 etc. in N, put N]	What specific actions will we take?	Who is accountable for results? [individual person's name]	When will they report substantial progress? [e.g. Q3 2009]
Finance (Supported by City Commission)	Create a Budgeting, Funding and Suggested Return on Investment (ROI) Framework for Environmental Programs	QW 1	Track & Deliver Economic Benefits from Environmental Programs					
Finance Department (Including IT/Purchasing/ Utility Billing)	Implement Power Saving Features in all City Computers & Printers	QW 2	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Finance Department (Including IT/Purchasing/Utility Billing)	Enact an Energy Efficient Computer Purchasing & Operation Policy	QW 3	Implement Green Purchasing					
Finance Department (Including IT/Purchasing/Utility Billing)	Develop & Implement a Environmental Purchasing Policy (EPP) covering, at minimum: supplies, printing, furniture, technology, vehicles	QW 4	Implement Green Purchasing					
Finance Department (Including IT/Purchasing/Utility Billing)	Employ Green Cleaning and Maintenance	QW 5	Implement Green Purchasing					
Finance Department (Including IT/Purchasing/Utility Billing)	Purchase Energy Efficient Light-bulbs	QW 6	Implement Green Purchasing					
Finance Department (Including IT/Purchasing/Utility Billing)	Create, launch and operate a website dedicated to Delray Beach's green efforts	QW 7	Set Foundation, Drive Implementation & Communicate Progress					
Finance Department (Including IT/Purchasing/ Utility Billing)	Develop Incentives for Green Redevelopment	LT/S 1	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Finance Department (Including IT/Purchasing/Utility Billing)	Develop Incentives for Location of Green Businesses within the City	LT/S 2	Encourage Green Economic Development					
Finance Department (Including IT/Purchasing/Utility Billing)	Research Green Grants Opportunities	LT/S 3	Set Foundation, Drive Implementation & Communicate Progress					

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Police Department	Increase Use of Existing Alternative Fuel Vehicle and Bicycles	QW 1	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Police Department	Implement shared vehicle patrols	QW 2	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Police Department	Minimize Trips for Minor Incidents	QW 3	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Police Department	Reduce Non-Duty Related Vehicle Use	QW 4	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Police Department	Quantify Overall Fuel Consumption and Establish Reduction Targets	QW 5	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Police Department	Remove Unneeded Weight on Vehicles for Fuel Economy	QW 6	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Police Department	Encourage Routine Fleet Maintenance	QW 7	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Police Department	Assist in Enforcement of Green Codes	QW 8	Set Foundation, Drive Implementation & Communicate Progress					
Police Department	Explore Greener Cleaning Options for Uniforms (e.g. Washing or Non-Perc Dry Cleaning)	QW 9	Implement Green Purchasing					
Police Department	Purchase More Fuel-Efficient Vehicles / Alternative Fuel Vehicles	LT/S 1	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Police Department	Implement Electronic Citation System	LT/S 2	Reduce Waste & Increase Recycling					
Police Department	Use Reclaimed Rainwater to Wash Police Vehicles	LT/S 3	Encourage Water Efficiency & Conservation					
Police Department	Implement GPS Routing Software	LT/S 4	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Police Department	Phase Out Percholorate Flares	LT/S 5	Improve Indoor & Outdoor Environmental Quality					

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Fire Department	Dispatch Optimal Number of Vehicles on Calls	QW 1	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Fire Department	Restrict Vehicle Usage to Official Use Only	QW 2	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Fire Department	Encourage Routine Fleet Maintenance	QW 3	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Fire Department	Optimize Fire Hydrant Inspection Procedures	QW 4	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Fire Department	Restrict Staff from Driving Vehicles Home Unless On Call	QW 5	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Fire Department	Educate Staff on Fuel-Efficient Driving Habits (reference Miami Fire Dept Best Practices)	QW 6	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Fire Department	Eliminate Disposable Dishware in Fire Stations	QW 7	Reduce Waste & Increase Recycling					
Fire Department	Upgrade Fleet	LT/S 1	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Fire Department	Use Reclaimed Water for Washing Fire-Related Vehicles	LT/S 2	Encourage Water Efficiency & Conservation					
Fire Department	Install Air Scrubbers at all Fire Houses	LT/S 3	Improve Indoor & Outdoor Environmental Quality					
Fire Department	Implement GPS Routing Software	LT/S 4	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					

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Community Improvement Department	Enable Commercial Recycling by Allowing Pick-Up of Recyclable Material (Cardboard, Paper, Glass, Metal) by Qualified Recyclers	QW 1	Reduce Waste & Increase Recycling					
Community Improvement Department	Adopt Paperless "Online" Building Permit Applications	QW 2	Reduce Waste & Increase Recycling					
Community Improvement Department	Create a "Green Building Basics" Public Information Campaign	QW 3	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Community Improvement Department	Create "Green Building & Recycling Basics" Public Information Campaign for Children	QW 4	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Community Improvement Department	Require Energy Star Appliances in all Building Applications	QW 5	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Community Improvement Department	Mandate Cool Roofs	QW 6	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Community Improvement Department	Encourage Installation of Solar Hot Water & Solar Electric by Streamlining Permitting Process	QW 7	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Community Improvement Department	Require Green Benchmarking for New Buildings / Substantial Renovations	LT/S 1	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Community Improvement Department	Create a Green Building Awards Program	LT/S 2	Set Foundation, Drive Implementation & Communicate Progress					

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Planning & Zoning Department	Conduct a Green Audit of the Current Land Development Regulations and Comprehensive Plan	QW 1	Incorporate Sustainability into Urban Planning & Design					
Planning & Zoning Department	Develop and Apply a Sustainable Land Use Checklist	QW 2	Incorporate Sustainability into Urban Planning & Design					
Planning & Zoning Department	Mandate Environmentally Friendly Landscaping	QW 3	Incorporate Sustainability into Urban Planning & Design					
Planning & Zoning Department	Provide Incentives to Encourage Rainwater Harvesting	QW 4	Encourage Water Efficiency & Conservation					
Planning & Zoning Department	Re-evaluate Parking Planning and Design	QW 5	Incorporate Sustainability into Urban Planning & Design					
Planning & Zoning Department	Revise LDRs to Make Pervious Pavement the Standard	LT/S 1	Improve Indoor & Outdoor Environmental Quality					
Planning & Zoning Department	Create a Green Business Overlay Zone	LT/S 2	Encourage Green Economic Development					
Planning & Zoning Department	Develop a Multi-Modal Transportation District (MMTD)	LT/S 3	Incorporate Sustainability into Urban Planning & Design					
Planning & Zoning Department	Re-evaluate Parking Requirements for Mixed Residential Office & Commercial (MROC) District	LT/S 4	Incorporate Sustainability into Urban Planning & Design					
Planning & Zoning Department	Create & Promote a Green Neighborhoods Program, Incorporate Principles into Land Development Regulations & Comprehensive Plan	LT/S 5	Incorporate Sustainability into Urban Planning & Design					
Planning & Zoning Department	Adopt and Implement the Existing Bike and Pedestrian Task Team Final Report	LT/S 6	Incorporate Sustainability into Urban Planning & Design					
Planning & Zoning Department	Study Potential Zoning Decisions that Could Encourage Businesses to Service Residents	LT/S 7	Incorporate Sustainability into Urban Planning & Design					
Planning & Zoning Department	Develop a Sustainable Vision and Incorporate into City Planning Documents	LT/S 8	Incorporate Sustainability into Urban Planning & Design					

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Parks & Recreation Department	Recertify the Delray Municipal Beach as a Blue Wave Certified Beach	QW 1	Improve Indoor & Outdoor Environmental Quality					
Parks & Recreation Department	Maintain or Support Organic Community Gardens	QW 2	Improve Indoor & Outdoor Environmental Quality					
Parks & Recreation Department	Mulch and/or Compost a Range of Materials Collected from City Parks, Communicate Availability of this Material	QW 3	Reduce Waste & Increase Recycling					
Parks & Recreation Department	Place Signs Describing Green Features of Public Parks & Amenities	QW 4	Set Foundation, Drive Implementation & Communicate Progress					
Parks & Recreation Department	Create a Pesticide Hazard and Exposure Reduction (PHAER) Zone Program	LT/S 1	Improve Indoor & Outdoor Environmental Quality					
Parks & Recreation Department	Implement Water-Efficient Landscaping Protocols	LT/S 2	Encourage Water Efficiency & Conservation					
Parks & Recreation Department	Minimize Chlorine in Community Swimming Pools	LT/S 3	Improve Indoor & Outdoor Environmental Quality					
Parks & Recreation Department	Implement Energy Efficient Lighting & Controls for Outdoor Courts, Parks, and Playfields	LT/S 4	Reduce Greenhouse Gases through Energy Efficiency & Green Building					

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Environmental Services Department	Adopt a Series of "Quick Win" Water Efficiency Measures for City Buildings	QW 1	Encourage Water Efficiency & Conservation					
Environmental Services Department	Adopt LEED Silver as the Official Goal for All New Municipal Buildings and Major Renovations, with a Target of Gold or Higher for at Least ONE Building	QW 2	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Environmental Services Department	Register City Hall for LEED for Existing Buildings, and Start Pursuing Certification	QW 3	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Environmental Services Department	Paint the Interior of Parking Garages White as Part of Routine Maintenance to Maximize Lighting Efficiency	QW 4	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Environmental Services Department	Install High Efficiency Lighting for Streetlights	QW 5	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Environmental Services Department	Establish Environmentally Sensitive Landscaping Practices	QW 6	Improve Indoor & Outdoor Environmental Quality					
Environmental Services Department	Expand Roundabout Shuttle Routes and Schedules	QW 7	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Environmental Services Department	Adopt a Series of "Quick Win" Energy Efficiency Measures for City Buildings	QW 8	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Environmental Services Department	Perform an Energy Audit on All City Facilities	LT/S 1	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Environmental Services Department	Convert Roundabout Shuttle to Alternative Fuel and Utilize an Open Air Rubber Wheel Trolley	LT/S 2	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Environmental Services Department	Install Stormwater Treatment Devices at All Runoff Outfall Discharges and Promote Stormwater Infiltration	LT/S 3	Improve Indoor & Outdoor Environmental Quality					
Environmental Services Department	Re-evaluate the Current Tiered Rate Structure for Water Billing	LT/S 4	Encourage Water Efficiency & Conservation					
Environmental Services Department	Adopt LEED for Existing Buildings in the Future for City Buildings	LT/S 5	Reduce Greenhouse Gases through Energy Efficiency & Green Building					

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Human Resources Department	Create Job Description for a Sustainability Officer	QW 1	Set Foundation, Drive Implementation & Communicate Progress					
Human Resources Department	Create a Human Resources Sustainability Education and Best Practices Education Program	QW 2	Set Foundation, Drive Implementation & Communicate Progress					
Human Resources Department	Coordinate Roundabout Shuttle with Employee Commuter Schedule	QW 3	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Human Resources Department	Educate City Employees About Public Transit Federal Tax Incentives	QW 4	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Human Resources Department	Provide Re-usable Mug and Water Bottle to Employees	QW 5	Reduce Waste & Increase Recycling					
Human Resources Department	Reduce the Work Week to Four Days	LT/S 1	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					

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Community Redevelopment Agency	Provide a CRA representative for a New (Potential) Permanent Green Advisory Board	QW 1	Set Foundation, Drive Implementation & Communicate Progress					
Community Redevelopment Agency	Adopt the City's Standard Green Office Practices	QW 2	Implement Green Purchasing					
Community Redevelopment Agency	Provide a Green / Energy Efficiency Grant and Revolving Loan Fund	QW 3	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Community Redevelopment Agency	Pursue Green Building Certification for the Old Library / Hotel Redevelopment Project	QW 4	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Community Redevelopment Agency	Pursue Green Building Principles for the Current Parking Lot Redevelopment Project	QW 5	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Community Redevelopment Agency	Pursue Green Building Certification for All CRA Projects	LT/S 1	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Community Redevelopment Agency	Implement Long-Term Sustainable Redevelopment Planning	LT/S 2	Incorporate Sustainability into Urban Planning & Design					

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Housing Authority	Create a Green Funding and Partners Resource List	QW 1	Set Foundation, Drive Implementation & Communicate Progress					
Housing Authority	Provide a Green Home Improvement Funding Resources	QW 2	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Housing Authority	Create a Green Education Outreach Program	QW 3	Set Foundation, Drive Implementation & Communicate Progress					
Housing Authority	Pursue Green Building Certification at the Villages at Delray	QW 4	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Housing Authority	Adopt the City's Standard Green Office Practices	QW 5	Implement Green Purchasing					
Housing Authority	Pursue Green Building Certification for All New Developments	LT/S 1	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Housing Authority	Revise the Housing Authority's Mission Statement to Include Green Principles	LT/S 2	Set Foundation, Drive Implementation & Communicate Progress					

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Downtown Development Authority / Downtown Marketing Cooperative	Adopt the City's Standard Green Office Practices	QW 1	Implement Green Purchasing					
Downtown Development Authority / Downtown Marketing Cooperative	Switch to Recycled or FSC-certified Paper for all DDA Publications	QW 2	Implement Green Purchasing					
Downtown Development Authority / Downtown Marketing Cooperative	Implement a Recycling Program for the DDA/DNC Offices	QW 3	Reduce Waste & Increase Recycling					
Downtown Development Authority / Downtown Marketing Cooperative	Create a Volunteer Green Team	QW 4	Set Foundation, Drive Implementation & Communicate Progress					
Downtown Development Authority / Downtown Marketing Cooperative	Provide a DDA representative for a New (Potential) Permanent Green Advisory Board	QW 5	Set Foundation, Drive Implementation & Communicate Progress					
Downtown Development Authority / Downtown Marketing Cooperative	Promote “Car Free" Zones	QW 6	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Downtown Development Authority / Downtown Marketing Cooperative	Develop a Plan to Attract More Green Events	QW 7	Encourage Green Economic Development					
Downtown Development Authority / Downtown Marketing Cooperative	Develop and Implement Green Merchant Marketing Program	LT/S 1	Encourage Green Economic Development					
Downtown Development Authority / Downtown Marketing Cooperative	Promote Green Tourism	LT/S 2	Encourage Green Economic Development					
Downtown Development Authority / Downtown Marketing Cooperative	Promote Alternative Vehicles / Bikes for Tourists	LT/S 3	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					
Downtown Development Authority / Downtown Marketing Cooperative	Explore and Potentially Propose a Permanent Car-Free / Pedestrian Zone in the Downtown Core	LT/S 4	Reduce Greenhouse Gases through Fuel Efficiency & Transportation					

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Chamber of Commerce	Adopt the City's Standard Green Office Practices	QW 1	Implement Green Purchasing					
Chamber of Commerce	Switch to Recycled or FSC-certified Paper for all DDA Publications	QW 2	Implement Green Purchasing					
Chamber of Commerce	Implement Recycling in Chamber Office	QW 3	Reduce Waste & Increase Recycling					
Chamber of Commerce	Create a Green Awards Program	QW 4	Set Foundation, Drive Implementation & Communicate Progress					
Chamber of Commerce	Pursue Green Event Planning at 2009 and All Future Delray Affair Events	QW 5	Reduce Waste & Increase Recycling					
Chamber of Commerce	Pursue LEED for Commercial Interiors Certification for New Office	LT/S 1	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Chamber of Commerce	Support the Florida Chamber of Commerce's Green Efforts	LT/S 3	Reduce Greenhouse Gases through Energy Efficiency & Green Building					
Chamber of Commerce	Identify "Green Businesses" and Designate them Separately on Chamber Websites	LT/S 2	Encourage Green Economic Development					

SECTION A:

CONTEXT

CHAPTER 1: WHY GREEN DELRAY BEACH

Delray Beach has already made a number of major commitments to a greener future. This includes leadership steps such as signing the U.S. Mayors Climate Protection Agreement, joining the Sierra Club Cool Cities program and making a commitment to become a certified community under the Florida Green Building Coalition's Green Local Government Standard.

Since these high level commitments have already been made, it may not seem relevant to ask the question "why". The City's leadership has put the city on a greener path and in some respects, actions simply need to be taken in line with those commitments. However, to expedite the journey from intention to action, the question "why" needs to be asked again.

There are three main reasons for a City such as Delray Beach to pursue a greener direction: economic reasons, environmental reasons and political reasons. Each of these is explored briefly below:

ECONOMIC REASONS

There is a deep-rooted perception in many individuals and organizations that environmental programs always result in higher costs. But this perception ignores three fundamental truths about going green:

1. By definition, environmental programs make communities less wasteful, more efficient, and healthier. Cities across the State of Florida and in every part of the United States have repeatedly found this can be less expensive than becoming more wasteful, less efficient and less healthy.
2. Inefficient habits cost money: Many organizational practices result from habit and the belief that "this is how we do things here". Yet exploring these habits can reveal surprising cost savings. Two simple examples are purchasing more fuel efficient vehicles, or switching to energy efficient technology. These simple changes can save millions of dollars in operating costs for Cities, large and small.
3. There is a green cost continuum: Some green actions may cost more, but others may be less costly immediately (such as purchase of remanufactured printer cartridges), or may require upfront investments with lower operating costs over time (such as retrofitting lights to more energy efficient versions), or be more expensive upfront but result in lower repurchase costs (such as buying durable goods instead of disposable)

Cities across the nation have found that well structured green programs have helped save millions of dollars, particularly in the area of energy efficiency and greenhouse gas reduction.

Examples include:

- In 2007, the first year of its energy management program, Fayetteville, Ark., saved $300,000 in energy costs due to emphasis on energy conservation. One of its initiatives was the installation of thermostats that cost about $100 and paid for themselves in the month. (See Ref 1.1)
- The City of Ann Arbor, Mich., received a $630,000 grant from the Ann Arbor Downtown Development Authority to fund LED retrofits for 1,400 downtown lights. The energy-saving installations will save the city over $100,000 per year.
- In Nashua, N.H., officials replaced light fixtures to improve energy efficiency at Street and Traffic Buildings for an annual saving of $42,000. In addition, lighting upgrades and motion sensors at City Hall delivered an annual savings of $6,500. New windows and frames in City Clerk offices alone lowered annual energy costs by 30%.

(See Ref 1.2 for ICLEI website)

ENVIRONMENTAL REASONS

As Delray Beach grows, the environmental impact of its citizens and businesses may grow with it. However by implementing many of the green recommendations in this report, the City can meaningfully reduce its environmental impacts while improving citizen livability and reducing long term risks. The majority of environmental recommendations in this report all help achieve one or more of the following environmental objectives:

- *Incorporate Sustainability into Urban Planning & Design*
- *Encourage Water Efficiency & Conservation*
- *Reduce Greenhouse Gases through Energy Efficiency & Green Building*
- *Reduce Greenhouse Gases through Fuel Efficiency & Transportation*
- *Implement Green Purchasing*
- *Reduce Waste & Increase Recycling*
- *Encourage Green Economic Development*
- *Improve Indoor & Outdoor Environmental Quality*

A more *sustainable urban planning and design* strategy will reduce pressure on land resources and higher urban density, resulting in lower local air and noise pollution from transportation and lower greenhouse gases overall.

A focus on *water efficiency and conservation* will reduce demands on water resources and wetlands that are threatened in Florida due to development and population growth.

A focus on *reducing greenhouse gases through energy efficiency and green building* will reduce Delray Beach's use of fossil fuel energy in the power plants that create electricity for our use. This reduction in fossil fuel use will reduce particulate air emissions and also limit the creation of greenhouse gases responsible for global warming and climate change. Climate change is a particularly critical environmental concern for Delray Beach since the sea-level rise associated with global warming has potentially very serious consequences for low-lying coastal cities such as ours.

A focus on *reducing greenhouse gases through fuel efficiency and transportation* will reduce local air pollution and greenhouse gases. It can also improve citizen livability through use of innovative vehicles and convenient public transportation options. Reducing greenhouse gases will help Delray Beach mitigate the potential impacts from climate change including hurricanes and sea level rise. (See Ref 1.3)

A transition to *green purchasing* can help reduce pressure on forests through recycled content purchases, reduce energy and greenhouse gases through energy efficient product purchases, and reduce City employee and citizen exposure to harsh chemicals by purchasing less toxic product alternatives.

A *reduction in waste and increase in recycling* can help reduce Delray Beach's contribution to the landfills operated by Palm Beach County's Solid Waste Authority. By increasing recycling rates, the City can also help enable recovery and reuse of valuable raw materials rather than letting them disappear into the landfills.

A plan for *Green Economic Development* can spur innovation, job creation and differentiation. As the City continues to evolve and grow, the creation of a green economic development plan can help the Delray Beach stand out as an innovator in this new area of civic and political leadership.

Improving Indoor & Outdoor Environmental Quality can help reduce air pollution and release of pesticides and harsh chemicals into our community.

POLITICAL REASONS

In the current political context, no government body can ignore environmental issues – particularly those related to energy, climate change and green building. There is a new green political reality where green issues have risen toward the top of the agenda.

On November 4th 2008, President-Elect Obama stated that one of the major challenges to our future included a "planet in peril". As such, the Obama Administration has acted quickly to bring environmental issues to the top of the political agenda. Key green elements of an Obama environmental plan that is already being circulated include:

- *Energy Efficiency*. Major increases in funding to improve the efficiency of government, commercial, and residential buildings as well as the industrial sector.
- *Renewable Energy*. Broad support for new development of both small-and large-scale projects in solar, wind, geothermal, advanced biofuels, etc.
- *Grid Modernization*. From upgrades to our transmission and distribution system to installation of smart energy meters for households and businesses.
- *Mass Transit*. Funding "ready-to-go" projects, such as the $16 billion in projects that could break ground in 2009, according to the American Public Transportation Association. This will include a range of programs to accelerate transition to low-emissions personal and commercial vehicles including electric and plug-in hybrids.

(See Ref 1.4)

Prior to the elevation of political interest in green issues at the national level with Obama's election, in 2007 Governor Charlie Crist signed three climate change related Executive Orders in Florida (See Ref 1.5):

- Executive Order 07-126 set greenhouse gas reduction targets for state agencies and departments and adopted the U.S. Green Building Council's LEED standards for all new state government facilities and all existing buildings owned by the Department of Management Services.
- Executive Order 07-126 required state-owned vehicles to be more fuel efficient and to use ethanol and biodiesel fuels when available.
- Executive Order 07-127 requests that the Florida Public Service Commission initiate rulemaking to 1) require that utilities produce at least 20 percent of their electricity from renewable sources and 2) authorize statewide net metering.
- Executive Order 07-128 creates the Florida Governor's Action Team on Energy and Climate Change to develop an Energy and Climate Change Action Plan to recommend ways to meet the new greenhouse gas reduction targets

At the City Level, by end November 2008 over 900 U.S. mayors had signed the U.S. Mayors Climate Protection Agreement. Delray Beach was one of the early signatories to this agreement, and as such had publicly agreed, in 2006, to "reduce global warming pollution by taking actions in the City's own operations and communities". (See Ref 1.6)

If Delray Beach makes the transition to greater implementation of green initiatives it has started, and follows the commitments it has already made, substantial political and economic benefits are likely to be achieved. This report is designed to help the City achieve those benefits, by accelerating the shift from green commitment to green action.

REFERENCES

Ref 1.1 - Fayetteville, Arkansas Sustainability Position
Ref 1.2 - ICLEI
Ref 1.3 - NASA Research on Climate Change
Ref 1.4 - The Green Stimulus Plan
Ref 1.5 - Florida Executive Orders
Ref 1.6 – U.S. Mayors Climate Protection Agreement

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 2: DELRAY BEACH EXISTING ENVIRONMENTAL COMMITMENTS

Prior to the decision to appoint a Green Task Force, the City of Delray Beach had actually already made a series of commitments to pursue green initiatives. It is important to understand the Task Force's work within the context of the City's prior commitments.

SIERRA CLUB COOL CITIES

In October of 2006, then Mayor Jeff Perlman committed Delray Beach to the Sierra Club Cool Cities Program (Ref 2.1). This committed Delray Beach to join other local municipalities nationwide in reducing at a local level, through local city action, the emissions that cause climate change. The four primary steps to becoming a Cool City are as follows:

1. **Take the Cool Cities Pledge** by signing the U.S. Mayors Climate Protection Agreement. This agreement sets the goal of reducing city wide global warming CO2 pollution to 7% below 1990 levels by 2012.

2. **Conduct a Global Warming Emissions Inventory** that will identify the City's major greenhouse gas sources and provide a baseline to evaluate the City's progress. Technical assistance is available by joining ICLEI.

3. **Create a Solutions Plan** that includes three important strategies: green vehicle fleets, energy efficiency, and renewable energy.

4. **Implement and Monitor Progress** by putting the plan into action by implementing steps and monitoring progress.

U.S. MAYORS CLIMATE PROTECTION AGREEMENT

On October 26, 2006, as part of the Sierra Club Cool Cities initiative, Delray Beach became one of the first small cities to sign the U.S. Mayors Climate Protection Agreement (Ref 2.2), which to date has been signed by over 900 other cities nationwide.

The actions the City committed to when signing the Mayors agreement align almost directly with many of the recommendations in this report (bullets below referenced from U.S. Mayors Climate Protection Agreement):

1. Conducting an inventory of global warming emissions in City operations and in the community, setting reduction targets and creating an action plan;

2. Adopting and enforcing land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities;

3. Promoting transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit;

4. Making energy efficiency a priority through code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money;

5. Purchasing only Energy Star equipment and appliances for City use;

6. Practicing and promoting sustainable building practices using the U.S. Green Building Council's LEED program or a similar system;

7. Increasing the average fuel efficiency of municipal fleet vehicles; reducing the number of vehicles; launch an employee education program including anti-idling messages;

8. Increasing recycling rates in City operations and in the community;

9. Maintaining healthy urban forests and promoting tree planting;

10. Helping educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

FLORIDA GREEN BUILDING COALITION GREEN LOCAL GOVERNMENT STANDARD

On December 6, 2007, the City Commission passed Resolution 71-07 (Ref 2.3) committing the City to "pursue measures to become a Green Local Government using the Green Local Government Standard (Ref 2.4) developed by the Florida Green Building Coalition." Below are the steps to which Delray Beach has committed. The Green Task Force found that the City was already implementing a number of the items on the FGBC checklist. In addition, numerous recommendations throughout this document further contribute toward the achievement of FGBC certification.

Steps to Becoming an FGBC Green Local Government

1. **Learn about the Florida Green Local Government Standard.** Contact the Florida Green Building Coalition, Inc. (FGBC) who operates and maintains the standard.

2. **Designate an office, department, or individual as Project Coordinator.** The Project Coordinator will be the main link between the local government and FGBC. A project evaluator will be assigned to the City's team by FGBC.

3. **Determine what criteria apply to the local government.** Since the standard's criteria are organized in terms of generic local government functions, the coordinator will perform an exercise to determine what criteria will apply to the local government. For example, if there is no public electric utility, certain criteria will not apply. The exercise will enable the Project Coordinator to determine the *Maximum Applicable Points Total*. The Project Coordinator will also determine which department is likely to perform each function, in order to distribute criteria effectively.

4. **Conduct a local government assessment review in cooperation with departments.** After criteria has been distributed to appropriate departments, individual departments review the criteria and indicate what has been done or is planned for implementation, and also indicate what is likely to be considered in the interest of achieving the standard, and for the benefit of the local government.

5. **Conduct a local government evaluation.** The Project Coordinator collects all departmental information, and determines where the local government currently falls in reference to the suggested levels of compliance. The Project Coordinator then prepares a summary report that is sent to all applicable local government departments.

6. **Schedule implementation meeting to outline path towards qualification.** The coordinator then assembles a meeting of departmental representatives to discuss the status in reference to the standard. An interactive process then begins whereby areas of cooperation are explored, potential sustainable and green improvements are identified, and a plan is outlined with the intent of bringing the city/county towards compliance with the standard. Designation Levels are awarded based on achieving percentages of the *Maximum Applicable Points* Total.

7. **Submit application and all necessary documentation to FGBC, Inc. for evaluation.** At which time the local government believes they have met the minimum requirements of the standard, a submittal is provided to FGBC with necessary documentation such that the efforts can be reviewed, and the designation awarded.

REFERENCES

Ref 2.1 - Sierra Club Cool Cities Program
Ref 2.2 - U.S Mayor's Climate Protection Agreement
Ref 2.3 - Delray Beach City Commission Resolution 71-07
Ref 2.4 - FGBC Green Local Government Standard

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 3: GREEN TASK FORCE MISSION AND METHODOLOGY

HISTORY OF THE TASK FORCE

On November 20, 2007, the Delray Beach City Commission authorized the appointment of a Green Task Force in Resolution 67-07 (Ref 3.1). In this Resolution, the Commission asked the Task Force to make recommendations in the following areas:

1. Ways to improve the environmental Sustainability of City programs, services, and equipment facilities.
2. Strategies for improving environmental sustainability of the community.
3. Incentives for residents, businesses, and organizations to practice environmental conservation including recycling.
4. Proposed means to enhance water and energy conservation.
5. Ideas for promotion of tree planting and xeriscaping.
6. Best Practices for implementation in Delray Beach, including long-term strategies.

MEMBERS

The City Commission appointed the following individuals from the Delray Beach community to serve on the Green Task Force:

Nancy Schneider was elected Chair of the Task Force. Ms. Schneider is a consultant with Earth People, based in Dallas, TX. She has served as a planning technician for the South Florida Regional Planning Council, is a member of the Florida Green Building Coalition Local Green Government Standards Committee and a Collins Center Sustainable Florida Associate. Nancy helped initially conceptualize the Green Task Force. Nancy has an MBA from Keller Graduate School and a Master's in Geography from Florida Atlantic University.

Dan Sloan was elected Vice-Chair of the Green Task Force. Mr. Sloan is a principal in Sloan Building & Design, a Local Design/Build firm. He is a certifying agent for the FGBC and is a founding sponsor of the Treasure Coast Chapter of the USGBC. He has a Master's in Architecture and a MS in Historic Preservation.

John Koenig is President of Total Restoration Services located in Delray Beach. Mr. Koenig's company is a member of the USGBC and the FGBC, and specializes in reconstruction and remodel with an emphasis on green building. Mr. Koenig is currently assisting in research and implementation of electrical solar panels and other technologies, as well as coordination of Miami Dade High Wind Velocity requirements for attachment of panels and code acceptance.

Ana Carmen V. DeMelo holds a Master's Degree in Civil and Environmental Engineering from the University of Rhode Island and is a licensed Professional Engineer in the state of Florida. As Senior Project Manager for Camp Dresser & McKee Inc. (CDM) and since 1994, Ms. DeMelo has worked on a number of engineering projects that focused on environmental issues. CDM is a member of the U. S. Green Building Council (USGBC), and sustainability has been part of the CDM philosophy since its foundation in 1947. Ms. DeMelo is also President of the American Society of Civil Engineers (ASCE) Palm Beach branch.

Sarah Martin, after obtaining her Bachelors of Arts in Fine Art with a concentration in Sculpture and a Minor in Business from Florida Atlantic University in Boca Raton, FL, began working as a public art consultant for the Pineapple Grove Arts District in downtown Delray Beach and then worked in many other South Florida Cities as a Public Arts / Events Consultant. In her current position at the Delray Beach Downtown Marketing Cooperative, Ms. Martin is now responsible for marketing and planning of events for Downtown Delray Beach, including Art and Jazz on the Avenue, July Fourth Celebration, 100-Foot Christmas Tree and First Night- New Year's Eve Celebration.

Yalmaz Siddiqui is the Director of Environmental Strategy for Office Depot. He is responsible for designing environmental programs under the Fortune 500 company's global strategy to "increasingly buy green, be green and sell green". Mr. Siddiqui is a frequent speaker at National and International conferences focused on the environment and has a Master's Degree in Environment & Development from the University of Cambridge.

Joe Snider is the Founder and President of Building Green Generations, Inc. He is a licensed architect in Florida and has been a LEED Accredited Professional since 2003. Mr. Snider has studied and implemented green solutions for 10 years. He is a past chair of the U.S. Green Building Council's National Emerging Green Builders Committee, and served on the USGBC's National Chapter Steering Committee. He regularly gives presentations and writes about green issues, including a monthly green column for Atlantic Avenue magazine.

MISSION

The Task Force considered it important to recognize the City for the major environmental commitments it had already made, including joining the Sierra Club Cool Cities (Ref 3.2) program, signing the U.S. Mayors Climate Protection Agreement (Ref 3.3), and resolving to become a Green Local Government under the Florida Green Building Coalition Green Local Government Standard (Ref 3.4). The Task Force chose to use these programs as the framework around which to proceed in its work, beginning with the adoption of the following mission statement:

"To determine an actionable set of recommendations that enables Delray Beach to implement its current environmental commitments in a timely, cost-effective, and citizen-centric manner, as well as explore new opportunities for sustainability."

GREEN TASK FORCE ACTIONS AND RECOMMENDATIONS TO DATE

During its work effort, the Green Task Force, provided the City Commission guidance on a number of issues, made a number of recommendations and implemented specific actions:

Website

An initial step the Task Force took was to create a website, http://www.sustainabledelray.org/ (Ref 3.5). The website was intended primarily as a place to collect resources as the Task Force researched a variety of subjects. The secondary purpose was to provide some information for the Delray Beach community on the Task Force's activities. Finally, the Task Force hoped that the compiling of resources in a public domain would be a valuable resource for neighboring communities such as Boynton Beach and Boca Raton that were exploring the same topics.

Recycling Report

Very early on in the Task Force's tenure, the City Commission requested a recommendation regarding a possible switch from dual stream to single stream recycling. The Task Force ultimately drafted a report that addressed not only the residential recycling, but many other aspects of recycling efforts in the City (Recycling Report, Ref 3.6). Some of those conclusions are addressed in this Final report as well.

ICLEI

In reviewing the initial Cool Cities and the Mayors Climate Protection commitments, it became clear that the City would need to perform a baseline green house gas inventory. The Task Force determined that the International Council for Local Environmental Initiatives (ICLEI) (Ref 3.7) was the best organization to assist with this effort. The Task Force also felt that joining ICLEI and creating a baseline greenhouse gas inventory was important enough to begin immediately, without waiting for the final Green Task Force report. The Task Force recommended in May 2008 that the Commission authorize the City to join the organization, which they did. The City then purchased ICLEI greenhouse gas inventory software and is working to hire student interns to perform a comprehensive green house gas audit for the City.

Performing such an inventory is important for a variety of reasons. First, the Task Force felt it would help to identify areas in City Government operations that could be targeted for energy reduction (which in turn reduces operating expenses). Second, Delray Beach had committed to reducing its overall carbon footprint by signing the Cool Cities and Mayors Climate Protection Agreements. One cannot quantify a reduction of green house gases until one knows the current level, or baseline. Finally, with the growing market in carbon credits, there is potential to

generate revenue for the City by selling "credits" that are calculated based on quantified reduction in emissions. To earn this revenue, one has to quantify a reduction from an established baseline.

Public Workshop

The Task Force felt that public input from Delray Beach stakeholders was an important part of the greening of Delray Beach. On October 4, 2008, the Task Force facilitated a public workshop to give the public an opportunity to generate ideas for recommendations. The workshop was attended by over 40 residents who generated an extensive list of over 100 ideas, which was narrowed down through a voting process to a "Top 20."

METHODOLOGY OF THE GREEN TASK FORCE

The Task Force followed a 10 step roadmap and rigorous methodology to fulfill its mandate:

1. Review Existing Commitments

The Task Force's first task was to review all existing commitments to understand what Delray Beach had committed from an environmental standpoint.

2. Conduct Green Government Research

The Task Force knew that many governments had already worked extensively to develop and implement sustainability plans. The Task Force assigned specific environmental themes or objectives (such as green building, transportation, or water) to each member and different members researched other government documents, ordinances, policies, etc. A number of these best practices were noted for further reference and potential inclusion in the Final Report.

3. Audit Current Green Practices

The Task Force then wanted to verify what the City was already doing to go green. Given the City's commitment to becoming a Florida Green Building Coalition (FGBC) Green Local Government, the checklist for this program was deemed a useful tool for conducting this initial audit. A survey based on the FGBC's extensive list of green actions a government can take was given to the various city departments. The Green Task Force Initial FGBC Audit Responses (Ref 3.8) responses revealed that the City had already implemented a number of the recommendations within the FGBC checklist, and was well placed to seek certification if it documented current actions and implemented a number of new actions based on Green Task Force recommendations.

4. Leverage Florida Green Building Checklist as Initial Potential Recommendations

The FGBC checklist also provided a starting point to develop the list of potential recommendations from the Task Force to the City. Actions the City had *not* already taken were explored in depth and assigned two scores – one based on difficulty of implementation and another based on potential resources required. By multiplying difficulty of implementation with resources required, an initial score was established to help guide further prioritization.

5. Brainstorm Additional Recommendations

The Task Force then supplemented the FGBC list with its own recommendations based on personal perspectives and best practice research. Each Task Force member added potential recommendations that were then reviewed as a group. Approved ideas were added to the master list of potential recommendations.

6. Host Public Input Workshop

The Task Force felt that it was important to ask the Delray Beach Community for their input. A public workshop was announced and hosted on October 4, 2008. One Task Force member facilitated the workshop and the others facilitated discussion groups focused on a number of environmental objectives:

1. Sustainable Urban Design
2. Water Efficiency & Conservation
3. Energy Efficiency & Greenhouse Gas Reduction from Buildings
4. Fuel Efficiency & Greenhouse Gas Reduction from Transport
5. Waste Reduction & Recycling
6. Indoor & Outdoor Environmental Quality

Over 40 members of the public attended and provided over 100 recommendations. The complete list of workshop ideas (Ref 3.9) and the list of attendees (Ref 3.10) are available in the Appendices. Each participant was also asked to vote for their top priorities to narrow down the potential recommendations. The Public recommendations with the most votes were added to the master list of potential recommendations.

7. Obtain City Staff Input

The Task Force also invited Delray Beach staff to make suggestions. These ideas were also incorporated into the final list of potential recommendations. (Employee Suggestions, Ref 3.11)

8. Prioritize and Consolidate Recommendations

By combining FGBC, Task Force Member, Public Input and Staff recommendations into one master list, the Task Force now had over 400 potential recommendations to consider. The next step was to reduce the number of recommendations to a manageable list. Some ideas

were de-prioritized because they were controlled by Palm Beach County or mandated by the State of Florida. Other ideas were de-prioritized because implementation was seen as too complex or expensive and some ideas were consolidated into broader programs. The remaining ideas were split into Quick Wins or Longer Term/Strategic Recommendations.

9. Identify City Departments with Control of Implementation

The Task Force has always been focused on maximizing the likelihood that its recommendations are implemented. As such, much consideration was given to "who has control of implementation if the recommendation is accepted." As such, the recommendations were aligned with the department considered to have the most control over the recommended actions.

10. Finalize Recommendations & Align with Objectives

The next step was to create the master list of recommendations and align these to the environmental objectives researched during step 2 and used to structure the Public work-shop. This was done by defining which objective was most affected by the recommendation.

11. Establish Potential Performance Metrics

Performance metrics were defined for each objective, with consideration given to whether improved performance is driven by the City internally, or Citizens and Businesses in Delray Beach.

12. Complete Report

After creating the master list of potential recommendations (Ref 3.12), the Task Force drafted the final report. The detailed report was organized by City Department because the department with control will ultimately implement the recommendations selected. The Task Force felt that many other similar reports had complicated the path from recommendation to action by not considering where accountability for implementation should lie. By trying to define the City department with most control of our recommendation, we chose to provide not only a set of recommendations, but also the most likely department for implementation. To simplify the task for the department to select ideas, each recommendation was identified as a "Quick Win" or a Longer Term/Strategic Recommendation within the body of the report.

REFERENCES

Ref 3.1 - Delray Beach City Commission Resolution 67-07
Ref 3.2 - Sierra Club Cool Cities
Ref 3.3 - U.S. Mayors Climate Protection Agreement
Ref 3.4 - Florida Green Building Coalition Green Local Government Standard
Ref 3.5 - Green Task Force SustainableDelray.org Website
Ref 3.6 - Green Task Force Recycling Report
Ref 3.7 - International Council for Local Environmental Initiatives (ICLEI)
Ref 3.8 - Green Task Force Initial FGBC Audit
Ref 3.9 - Complete List of Public Workshop Ideas
Ref 3.10 - Workshop Attendees
Ref 3.11 - Employee Suggestions
Ref 3.12 - Final List of All Potential Recommendations

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

SECTION B:

CITY WIDE RECOMMENDATIONS

CHAPTER 4: CITY-WIDE RECOMMENDATIONS

While much of this Report centers on recommendations that are specific to City Departments, there are a number of areas that span departments and impact the entire City. This chapter contains those recommendations that would be administered throughout the entire city government.

CURRENT DELRAY BEACH BEST PRACTICES

Existing Environmental Commitments

As noted in previous sections of this document, the City has made considerable commitments through the U.S. Mayors Climate Protection Agreement, the Sierra Club Cool Cities Program, and the Florida Green Building Coalition Green Local Government Program.

Green Task Force

By appointing this Green Task Force, the City took a major step to accelerate the transition from commitment to action.

BEST PRACTICE EXAMPLES BEYOND DELRAY BEACH

Portland, OR

The City of Portland is acknowledged as one of the greenest cities in North America and the world. In 2000, Portland set up its Office of Sustainable Development, which now has a staff of over 50 people working in Programs from the Office of Sustainable Development, Climate Protection Strategy, Sustainable City Government, Waste Prevention and Recycling, Energy Efficiency and Renewable Energy, Green Building, Economic Development and Green Jobs, Sustainable Food, Sustainable Development Commission. (See Ref 4.1)

In 1993, Portland became the first city in the nation to adopt a plan to reduce local greenhouse gas (GHG) emissions. In 2001, it announced a plan to reduce local GHG emissions to 10 percent below 1990 levels by 2010, a more aggressive goal than what the international Kyoto Protocol called for the United States to achieve. By 2007 Portland's local GHG emissions were at the same levels as 1990, despite population growth of 18 percent over that time period, which means that per capita emissions have decreased by 17 percent since 1990. (By comparison, total GHG emissions for the entire United States are about 15 percent above 1990 levels.)

A Climate Group report (*Carbon Down, Profits Up*) shows Portland having saved more money through carbon reduction than any other major City it studied: over $300 million saved by the city and its residents through its carbon reduction efforts. (See Ref 4.2 for complete report)

Miami-Dade County, FL

One aspect of a carbon reduction strategy is climate adaptation: how coastal areas will survive not only physically as seas rise and weather changes, but also as coastal areas potentially suffer economically. Miami-Dade, in an effort to position itself to react quickly to problems, has launched a specific effort to study how the County can adapt to these potential changes. (See Ref 4.3 for overall best practices and Ref 4.4 for description of the Climate Adaptation study)

Sarasota, FL

The City of Sarasota has established a set of "Green Goals" and communicates its achievements against these goals, including:

- U.S. Mayors Climate Protection Agreement Signatory
- Expedite Permits for Green Development and Green Building
- Transportation Chapter of City Comp Plan includes "multi-modal" approach
- Coastal Island Protection Chapter in the Comp Plan
- Green Canopy Partnership Program
- Greenhouse Gas Inventory
- City Wide Carbon Emission Reductions
- Commercial and Business Recycling Program

(See Ref 4.5 Sarasota website)

Palm Beach County, FL

Palm Beach County has implemented a green strategy for much of its fleet. This program has received numerous awards and been recognized throughout the country for its innovative strategies and conservation efforts. The program has repeatedly proven that its strategies are not only greener, but have saved the County money. (See Ref 7.6)

Minneapolis, MN

The City of Minneapolis has established a set of Sustainability Indicators and produces an annual report that shows progress against those indicators. An Annual GreenPrint Report is presented to the City Council on Earth Day of each year. The report is developed through the Environmental Coordinating Team and focuses on the previous year's activities, and progress. Decision-makers and citizens look to this information to measure the City's performance as well as to determine how the City will move forward on its sustainability goals. (See Ref 4.6, Minneapolis sustainability website, and see Ref 4.7 for Minneapolis' Sustainability Indicators)

Charlotte, NC

A collaborative proactive program addressing air quality in an eight-county, two-state non-attainment area, Clean Air Works! engages businesses in educating and motivating employees

to utilize alternative methods of commuting and helps businesses change operations and practices to improve air quality.

Clean Air Works! is a public-private initiative that changes private sector practices without regulatory mandates – a goal of both the business leaders and elected officials involved. Because employers are well positioned to educate and empower their employees to make changes in commuting habits, Clean Air Works! provides free, one-on-one staff assistance to design and implement customized air quality improvement programs. Services provided to employer partners, who are of varying sizes and represent a variety of industry sectors, include worksite assessments, on-site events and transportation fairs, and a variety of turnkey tools for successful marketing to employees. (See Ref 4.8)

QUICK WINS / LOW-COST GREEN RECOMMENDATIONS

Recommendation 1: Adopt a Set of Ten Objectives as Part of a Ten Point Green Plan.

We propose that the City adopt and announce a **Ten Point Green Plan** shortly after reviewing and discussing the Green Task Force's Report. We propose the following ten major objectives as the foundation of the Ten Point Plan.

Proposed Objectives of Delray Beach Ten Point Green Plan

1. *Track & Deliver Economic Benefits from Environmental Programs*
2. *Set Foundation, Drive Implementation & Communicate Progress*
3. *Incorporate Sustainability into Urban Planning & Design*
4. *Encourage Water Efficiency & Conservation*
5. *Reduce Greenhouse Gases through Energy Efficiency & Green Building*
6. *Reduce Greenhouse Gases through Fuel Efficiency & Transportation*
7. *Implement Green Purchasing*
8. *Reduce Waste & Increase Recycling*
9. *Encourage Green Economic Development*
10. *Improve Indoor & Outdoor Environmental Quality*

The Ten Point Green Plan can be a powerful "announceable" that the Mayor can make on Earth Day (April 22nd 2009). The timeline for implementation of this plan could be 2010 to 2015.

Recommendation 2: Adopt, Track and Annually Report a Set of Economic & Environmental Performance Metrics using a new Economic & Environmental Scorecard

Related to the 10 objectives, we recommend the City create a scorecard with up to 25 metrics to measure progress against the plan. This could include:

- Nine metrics to track Economic Benefits to the City
- Ten metrics to track Environmental Performance based on the City's internal operations
- Five metrics to track Environmental Performance based on action by Citizens & Businesses

After the Mayor's announcement on Earth Day 2009, City departments can start creating baseline data for 2009 and tracking the data every year henceforth. If any of the data points in the scorecard are too complex to track, we suggest using proxies or alternative metrics based on appropriate alternatives that help track progress against the objectives. Please see the following page for the Proposed Economic & Environmental Scorecard.

Proposed Economic & Environmental Scorecard

#	Objective		Economic Benefit Metric	Results		Environmental Performance Metric	Results		Environmental Performance Metric	Results	
				2009	2010 etc.	Primarily City-Controlled Environmental Metric [If Applicable]	2009	2010 etc.	Primarily Citizen/Business-Controlled Environmental Metric [If Applicable]	2009	2010 etc.
1	**Track & Deliver Economic Benefits from Environmental Programs**	→	Average % Return on Environmental Investments			# of Environmental Budget Requests Approved			N/A [Primarily in City's control]		
2	**Set Foundation, Drive Implementation & Communicate Progress**	→	Total Economic Benefit from Environmental Programs Implemented In Support of FGBC Local Green Government Certification			Achieve Florida Green Building Coalition Local Green Government Designation. Target "Gold" Certification.			N/A [Primarily in City's control]		
3	**Incorporate Sustainability into Urban Planning & Design**	→	N/A [Sustainable urban planning will drive long term economic benefits in Transportation, Building and Green Economic Development Areas]			Percent of Approved Projects having Completed the City's Sustainable Land Use Checklist [To be developed] [Joint City / Citizen-Business Metric]			Percent of Approved Projects having Completed the City's Sustainable Land Use Checklist [To be developed] [Joint City / Citizen-Business Metric]		
4	**Encourage Water Efficiency & Conservation**	→	Estimated Total Dollar Savings from Water Efficiency & Conservation Efforts			Estimated Gallons of Water Used in Delray Beach City Operations			Estimated Gallons of Water Used by Delray Beach Citizens & Businesses		
5	**Reduce Greenhouse Gases through Energy Efficiency & Green Building**	→	Estimated Total Energy Costs Avoided through Energy Efficiency & Green Building Efforts in City Government Buildings in Delray Beach			Estimated Metric Tons of Carbon Dioxide Equivalent (mtCO2e) Generated from City Gov't Buildings in Delray Beach			Estimated Metric Tons of Carbon Dioxide Equivalent (mtCO2e) Generated from Commercial & Residential Buildings in Delray Beach		
6	**Reduce Greenhouse Gases through Fuel Efficiency & Transportation**	→	Estimated Total Fuel Costs Avoided through Fuel Efficiency & Green Fleet Efforts in City-Owned Vehicles			Estimated Metric Tons of Carbon Dioxide Equivalent (mtCO2e) Generated from City-Owned Vehicles			Estimated Metric Tons of Carbon Dioxide Equivalent (mtCO2e) Generated from Commercial & Residential Vehicles in Delray Beach		
7	**Implement Green Purchasing**	→	Total Estimated Savings from Direct Spend, Indirect Spend and Operations based on Environmentally Preferable Purchasing and Practices			Percent of Spend in Compliance with Delray Beach Environmental Purchasing Policy			N/A [Primarily in City's control]		
8	**Reduce Waste & Increase Recycling**	→	Net Economic Benefit (Cost) of Reducing Landfill and Increasing Composting / Recycling			Percent of City-Generated Waste Materials Recycled or Composted vs. Landfilled			Percent of Commercial & Residential Waste Materials Recycled or Composted vs. Landfilled		
9	**Encourage Green Economic Development**	→	Estimated Total Economic Impact of Green Economic Development			Dollar Value of Investment in Green Economic Development			Number of "Green Jobs" in Delray Beach		
10	**Improve Indoor & Outdoor Environmental Quality**	→	Savings from Reduced Cost of Air & Water Quality Remediation [Previous Year's Est. Cost of Air/Water Quality Remediation minus Current Year Est. Cost of Air/Water Quality Remediation]			# of Air or Water Quality Complaints [Joint City / Citizen-Business Metric]			# of Air or Water Quality Complaints [Joint City / Citizen-Business Metric]		

Recommendation 3: Create an Internal "Green Team" by designating a Point-Person from Each Department to Evaluate and Implement Report Recommendations

Upon adoption of this Report, the City Commission is encouraged to direct the City Manager to select, in concert with each Department Head, a "Point Person", to develop an implementation calendar and cost analysis for both the "Quick Wins" and the "Longer Term Implementation" items which pertain to that specific department.

This is the first step in ensuring that people responsible for implementation of the recommendations feel involved and engaged in the decisions following the release of the Green Task Force report.

Recommendation 4: Create a Permanent Green Advisory Board Made up of Delray Beach Community Members

This Report is the final result of this Green Task Force's efforts. However to implement the many concepts in the most effective fashion, the Task Force feels that a Permanent Green Advisory Board should be created. This Board would continue to review City operations and policies towards achieving Delray Beach's green goals.

This Board would be made up of City stakeholders such as citizens and business representatives, and can also include representatives from the Community Redevelopment Agency (CRA) and the Chamber of Commerce.

The Green Task Force further recommends that this Green Advisory Board have a Climate Adaptation Committee to study the future implications of climate Change on the City and its residents in a similar fashion to that mentioned above under the Miami-Dade County Best Practice. Many cities, especially in coastal areas such as Florida and California, are beginning to explore the impacts of climate change on their regions.

Recommendation 5: Promote Fuel Efficient Driving by All City Employees and Communicate Widely

Fuel conservation is one of the quickest ways the City can both save money and reduce its own green house gas emissions. Driving habits have proven to be a significant factor in fuel conservation. The Task Force recommends promoting a policy and educating all city staff in best practices to conserve fuel. (See Ref 4.9 for resources on fuel-efficient driving habits)

Recommendation 6: Adopt and Actively Enforce an Anti-Idling Ordinance

To supplement the City's existing policy for employees, adopt an anti-idling policy for the city at-large. The goal of the "Anti-Idling" is to reduce air pollution and wasted energy by limiting the amount of time a non-moving vehicle idles. Various exceptions for public safety, etc. are proposed and would need to be further discussed and refined prior to formally drafting the

ordinance. (Please See Appendix 11 Titled "City of Delray Beach Anti-Idling Ordinance" for potential wording of such an ordinance).

Recommendation 7: Establish Standard Green Operating Practices in All City Offices

The Task Force recommends creating a city-wide green operating best practices policy for the following potential areas:

- Green Purchasing of Office Supplies, Furniture and Technology
- Use of Green Cleaning products
- Recycling of common office waste materials
- Paper Reduction (e.g. dual sided printing / copying, electronic documents etc.)
- Energy conservation best practices (e.g. turning off computers, monitors, lights etc.)
- Other green office guidelines as determined by the City

This will be most successful as a coordinated effort across city departments, perhaps launched as a challenge to encourage city offices to compete to see who can become the "greenest office in Delray Beach".

Recommendation 8: Issue City Commission / Mayor Proclamations Related to Green Building Construction and Operations

There is an opportunity for the City Commission and Mayor to issue a number of proclamations that would solidify Delray Beach's commitment, as well as set into place the framework for realizing its green goals. These could be announced at the same time as announcing the 10 Point Plan, or on separate occasions.

- By Proclamation adopt LEED for Existing Buildings as the Official Goal for all existing city buildings, starting with City Hall.
- By Proclamation adopt LEED Silver as the Official Goal for all new municipal buildings and substantial renovations, with a target of Gold or higher for at least ONE building.
- By Proclamation target LEED Gold or higher for at least ONE new city supported residential building project (such as the upcoming restoration of the "Franklin House" by the Delray Beach Preservation Trust, or the Delray Beach High School Eagle's Nest II project).

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Create a Sustainability Officer Position and Fund this Position through Cost Savings

It is recommended that the City Commission direct the City Manager to create and hire a "Sustainability Officer" to coordinate efforts by departmental Green Team "Point Persons", and

to prepare quarterly progress reports and a more comprehensive annual green report with yearly metrics, milestones, achievements, and goals for the coming year. As a transition to a long-term hire this person could be an existing staff person willing to take on this added responsibility, but with the ultimate goal being a stand-alone position. (A Best Practice for this is noted in Chapter 13, Human Resources – Please see Ref 13.1)

Recommendation 2: Complete Green House Gas Inventory and Create Reduction Plan

As noted, the City has already begun the commitment to inventory its current green house gas emissions as part of its Sierra Club Cool Cities and U.S. Mayors Climate Protection Agreement commitments. Completing this inventory is paramount. In continuation of this effort, the Task Force wants to emphasize the importance of completing this inventory, and then determining a reduction plan. There is potential to significantly reduce energy usage and therefore city cost. In addition, there is a growing carbon credit market, and organizations that can show a reduction in their carbon credits can sell those reductions in the public market as offsets. Thus, not only is there potential to reduce costs, but also there is possibly the potential to generate additional revenue by selling offsets.

The Task Force previously recommended working with ICLEI for this effort, and recommends continuing the process. ICLEI regularly has Pilot Programs in which cities can participate. The Task Force encourages the City to contact ICLEI regarding such opportunities.

Recommendation 3: Adopt a Green Building Ordinance

Many jurisdictions have chosen to adopt a comprehensive green building ordinance to promote sustainable design and construction. The major components of such an ordinance might include incentives that have been implemented in many other jurisdictions such as:

- Expedited permit processing.
- Reduced permit fees on a sliding scale. (i.e. the higher the certification level, the lower the permit fee charged)
- Density bonuses, rebates, and impact fee reductions
- Marketing support and the establishment of an Annual Green Awards Program

Numerous jurisdictions throughout the country have adopted incentives. See Chapter 9: Community Improvement Department and Chapter 10: Planning & Zoning for more information in this area. Of note are Ref 9.7 and Ref 9.8, which outline extensive green building ordinance Best Practices throughout Florida and the rest of the country. In addition, the Green Task Force has drafted a potential ordinance that is available in the Appendix 10.

Recommendation 4: Establish Environmentally Sensitive Leaf-Blowing Ordinance

Grass clippings and small particulate debris from lawn mowing operations blown into roads and carried by storm water runoff are environmental hazards. Adopting a landscaping ordinance that bans this practice in favor of environmentally friendly alternatives (such as collection and bagging of clippings) would help to reduce a chronic environmental problem.

Recommendation 5: Develop and Implement a Plan to Promote Green Economic Development

It is widely believed that the sustainability sector is one of the fastest growing areas of the economy. "Green Collar Jobs" have begun to replace the buzz of the tech boom of last decade. There is tremendous opportunity to promote Delray Beach as a hub of green economic development to host a growing sector of businesses that work in green tourism, renewable energy, green building, green clothing, organic foods etc. The Task Force recommends establishing a specific process to develop a plan to attract this type of business. Such an effort would not only meet Delray Beach's goals of becoming a greener city, but would also help to bring businesses and jobs to Delray Beach.

REFERENCES

Ref 4.1 - City of Portland Office of Sustainable Development
Ref 4.2 - Carbon Down, Profits Up Report
Ref 4.3 - Miami Earth Dade Website
Ref 4.4 - Miami Dade County Climate Adaptation Task Force
Ref 4.5 - Sarasota City Green Website
Ref 4.6 - Minneapolis City Sustainability Website
Ref 4.7 - Minneapolis Sustainability Inidcators
Ref 4.8 - Clean Air Works Campaign
Ref 4.9 - Information on Fuel-Efficient Driving

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

SECTION C:

DEPARTMENT SPECIFIC RECOMMENDATIONS

CHAPTER 5: CITY MANAGER / CITY CLERK'S OFFICE

The City Manager is appointed by the City Commission and serves as Chief Executive Officer, reporting directly to the City Commission. The City Manager provides professional leadership and administrative support to the Mayor and the Commission in the administration and the execution of policies. The City Manager appoints the Assistant City Manager and ten department heads, supervising all departmental functions.

The City Clerk's office is recognized as the hub of local government and provides contact between the citizens and government. This department is responsible for the maintenance of all official records in compliance with state regulations. The City Clerk acts as the official custodian of the seal of the city and attests to all contracts, agreements, leases, or other documents to which the City is a party. The City Clerk's office serves as secretariat for the City Commission through the preparation of agenda documents as well as taking and transcribing minutes of proceedings. Staff provides support to advisory boards and committees, including applicant tracking, monitoring appointments and rotation sequence. In addition, staff is responsible for coordinating municipal elections, as well as employee elections for the Civil Service Board. Preparation of proclamations, ordinances, resolutions, and maintaining the Code of Ordinances for the City of Delray Beach are also among the many duties performed by this department.

CURRENT DELRAY BEACH BEST PRACTICES

The City Manager's Office/City Clerk's Office currently:

- Has adopted a mission statement that includes an environmental commitment in conjunction with the Sierra Club/Cool Cities Climate Protection Campaign. The commitment has been incorporated into the City's comprehensive plan as well.
- Continues to staff a dedicated person who coordinates litter prevention.
- No longer prints out separate packages for each Commissioner. They now present all agendas and supporting documents to the City Commission by email.
- Citizen Service Requests are now available online and tracked throughout the City's hierarchy of staff electronically.

BEST PRACTICE EXAMPLES BEYOND DELRAY BEACH

St. Petersburg, FL

The City of St. Petersburg has enacted an accord in which the City plans on incorporating a variety of environmental programs. Their executive orders are to be considered the model of how to become a Green City. In addition, their Green City Accord has been endorsed by the

Florida League of Cities, Sierra Club, Audubon Society and will soon be discussed in an upcoming international exchange with China. (See Ref 5.1)

Boca Raton, FL

The City of Boca Raton has incorporated into their general policy green initiatives that are to be adopted by the City departments as a whole. The City also continues to educate the public on how to incorporate green initiatives into the resident's daily lives. (See Ref 5.2)

QUICK WINS / LOW-COST GREEN RECOMMENDATIONS

Recommendation 1: Revise Special Event Permit Application and Special Event Policy

It is recommended that the City Manager/City Clerk's Office incorporate into the current Special Event Permit a question that addresses what steps the event organizer is taking to be more environmentally conscious. In addition, it is recommended that the current Special Event Policy suggest various ways to include green initiatives into Special Events. (See Ref 5.3)

Recommendation 2: Coordinate City Green Efforts with Neighboring Jurisdictions

The Green Task Force recommends that the City Manager take the lead on coordination between the Cities of Delray Beach, Boca Raton, Boynton Beach and Palm Beach County's Green Programs and efforts through an info-share program or regular forum. (See Ref 5.4 for green information sharing forum in Denver.)

Recommendation 3: Complete FGBC Green Local Government Certification Checklist and Apply for Certification

Per the City Commission's initiative, The City of Delray Beach is seeking certification as a "Florida Green Building Coalition Green Local Government." Initial scoring by the Green Task Force indicated that the City was already scoring in the high Silver to low-Gold range. The City Manager's office can spearhead the initiative to complete the certification process, with a target of Gold. (See Ref. 5.5 for information on becoming certified.)

Recommendation 4: Implement Internet Based Electronic Bulletin Board for City Board Workshop Meetings

With an electronic bulletin board system where Boards can "meet" over the Internet, boards can host public meetings electronically. This saves board members and members of the public driving to meetings, saves on printing of agendas and related items, and could even reduce staff time to support such in-person meetings.

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Adopt Green Management Policy for Tennis Facility

Incorporate green principles including recycling, energy efficiency, water usage, and integrated pest management into Tennis Center Management Contract, currently held with JCD Sports Group.

Recommendation 2: Incorporate Green Practices into Golf Course Management

Include in the golf course's current contract, also held with JCD Sports Group, environmental initiatives such as composting, recycling, water reclamation, energy usage, with a goal to pursuing municipal golf courses Audubon Certification. (See Ref 5.6 and Ref 5.7)

Recommendation 3: Go Paperless for Public Information Requests

Deliver records management public information requests to customers in PDF format or by e-mail.

REFERENCES

Ref 5.1 - City of St. Petersburg Presentation
Ref 5.2 - City of Boca Raton website
Ref 5.3 - Special Event Policy
Ref 5.4 – Green Info Sharing in Denver
Ref 5.5 - How to become a FGBC Green Local Government
Ref 5.6 – Audubon Golf Courses
Ref 5.7 – Marriott Golf Courses and Audubon

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 6: FINANCE DEPARTMENT (INCLUDING IT / PURCHASING / UTILITY BILLING)

The Delray Beach Finance Department consists of 45 employees in 3 Divisions as follows:

Finance Administration: 18 employees working in Administration, Accounts Receivable, Accounts Payable, General Accounting, Cash and Debt Administration, Fixed Assets, Operating and Capital Budgeting, Payroll, Financial Reporting, Purchasing and On-Line Bidding

Information Technology (IT): 11 employees working in System Administration, Systems Development/Programming, Local Area Network Administration, Help Desk, Office Automation Services

Utilities Customer Service: 16 employees working in Water Meter Reading, Utility Billing, Cashier Function, Customer Service, Beach Parking Permitting

CURRENT DELRAY BEACH BEST PRACTICES

The Finance Department has already implemented a number of measures to help green the city. These include:

Finance

- Maintaining a City Beautification Trust fund, with a relatively healthy reserve of $1.1 million at end of Fiscal Year 2007.
- Maintaining a Beach Restoration Fund for Beach Surveys, Sea Turtle Monitoring, Dune Re-vegetation and funding for sand restoration projects.
- Maintaining a Sanitation fund for external contracting for waste management, recycling, litter removal and graffiti clean up.

IT

- Implementing e-government best practices to minimize paper waste and increase citizen access to city information. This resulted in Delray Beach receiving first place winner award in the Digital Cities Survey 2005.
- Investing in energy efficiency best practices in the City's IT department, including localized air-conditioning for servers, energy efficient data center design etc.

Purchasing

- Implementing a "DemandStar" online bidding system for purchasing contracts that

enables vendors to maintain their vendor file, download bid packages and submit responses to bid invitations via the Internet.

- Encouraging use of recycled paper in the purchasing department.
- Using recycled content office supplies such as filing and binding in the department.
- Supporting the purchase of energy efficient technology and lighting for several city departments.

Utilities Customer Service

- Enabling customers to make online bill payments.
- Utilize informative billing that helps utility and water users better understand their consumption patterns.

Best Practice Examples Beyond Delray Beach

Many of Delray Beach's current activities may be considered environmental best practice – particularly relating to digital city efforts and creation of a healthy beautification fund. Best practice examples in other areas that the City could learn from and potentially adopt include:

Portland, OR

Portland, OR has developed a dedicated fund for city-wide green initiatives.

The City of Portland's Green Investment Fund (GIF) is a competitive grant program that supports innovative green building projects in Portland. In the current round of funding, a total of $425,000 is available and the maximum grant amount for any project is $425,000. Industrial, multi-family residential, commercial, and mixed-use public and private organizations may apply.

The primary intent of the GIF is to support early building and site-related project activities that examine the potential and identify the means to realize an exemplary, comprehensive green building project. GIF grants are secondarily intended to help offset the incremental hard costs of the green building measures or strategies that most strongly contribute to the building's ability to meet the GIF goals and priorities.

(See Ref 6.1 and Ref 6.2)

Seattle, WA

Some other governments have implemented the best practice of developing and implementing a comprehensive Environmental Purchasing Policy, with metrics to track implementation across all City departments.

The City of Seattle has a Green Purchasing Program (GPP) through which it promotes environmental stewardship and reduction of greenhouse gas emissions when buying goods,

materials, services, and capital improvements. The GPP is a cooperative effort among City departments, hosted by Seattle's Purchasing Department. One example of the City of Seattle's efforts is the use of 100% Post Consumer Recycled paper as a city standard.

In order to measure progress, the City publishes a Green Purchasing Report.

(Visit www.seattle.gov and search "green purchasing" for further details.

Sarasota County, FL

Sarasota County has adopted a Green Housekeeping Policy to improve the heath and safety of building occupants, visitors and maintenance worker by requiring the use of effective and environmentally preferable cleaning products. (See Ref 6.3)

State of Florida

The State of Florida has developed a Florida Climate Friendly Products database. This lists thousands of products that meet or exceed the green standards set by a range of independent organizations. (See Ref 6.4)

Los Angles County, CA

Los Angeles County has developed a comprehensive, very detailed Green Purchasing Policy with strict enforcement guidelines. LA County expressly desires that other government jurisdictions refer to its policy and adopt similar language and practices. The County has mandated that City departments:

- Institute practices that reduce waste by increasing product efficiency and effectiveness;
- Purchase products that minimize environmental impacts, toxics, pollution, and hazards to worker and community safety to the greatest extent practicable, and to
- Purchase products that include recycled content, are durable and long-lasting, conserve energy and water, use agricultural fibers and residues, reduce greenhouse gas emissions, use unbleached or chlorine free manufacturing processes, and use wood from sustainable harvested forests.

(See Ref 6.5)

QUICK WINS / LOW-COST GREEN RECOMMENDATIONS

The Delray Beach Green Task Force recommends that the City's Finance Department implement the following "quick wins" to further enhance the City's Green Leadership:

Recommendation 1: Create a Budgeting, Funding and Suggested Return on Investment (ROI) Framework for Higher Cost Environmental Programs

Implementing the recommendations in this report implies evaluating potential high cost programs in the environmental plan using a disciplined financial process in which direct and indirect costs and benefits are understood, total costs and benefits considered (irrespective of which City department incurs the costs or obtains the benefits) and a quantified ROI (Return on Investment) established for the plan as a whole. Some programs will cost more, others less, but the total plan must deliver economic benefits.

For this ROI framework to be usable and defensible, it would best be developed in partnership between the Department of Finance and City Commission. The task would be to take standard capital and operating budgeting policies and review them in light of potential tax benefits, State and Federal grant possibilities, and long term cost or revenue improvement possibilities enabled by environmental programs. The new framework would fix some of the disincentives inherent in many budget planning processes - for example causing one department to invest operating or capital budget into programs that deliver economic benefits to another department.

Developing this new funding framework for environmental programs will allow financing of many green recommendations made by the Task Force that may not pass the City's current Hurdle Rate for Capital or Operating Investment. This is not because environmental programs do not deliver economic results, but because typical budget analysis frameworks fail to address how their benefits may be realized across different departments or require capital investments that deliver operational benefits over the medium to long term. Totals costs, total lifecycle benefits and City-wide ROI of environmental programs seeking funding would be evaluated and ROI reported for all approved projects.

This recommendation is especially important given the current economic climate. Environmental issues are often discarded to the bottom of the agenda when economic conditions are tough but as stated by Governor Charlie Crist, *"The wonderful news about addressing climate change is…it may spur the greatest economic boon in the history of the planet."*

Recommendation 2: Implement Power Saving Features in all City Computers & Printers

Enact a local government policy so all computer/ancillary equipment is off when not in use. This will help avoid energy waste and immediately enable cost savings for the City. Software patches that are implemented by IT can be scheduled for specific days of the week or month.

Recommendation 3: Enact an Energy Efficient Computer Purchasing Policy

Enact a local policy so all computer electronic equipment purchased has conservation features. This will help the City benefit from Energy Star features on existing equipment and will enable immediate cost savings.

Recommendation 4: Develop an Environmental Purchasing Policy

Develop an Environmental Purchasing Policy, encourage and track implementation. The goal of this policy is to help reduce total costs over the basket of goods and services the City purchases – some purchase categories may have higher costs, others lower. The green purchasing policy can be created in line with the US Green Building Council's policy guidelines, focusing first on ongoing consumables, technology and furniture and then expanding to other categories of purchases.

(See Ref 6.6 for proposed wording of this policy.)

Recommendation 5: Employ Green Cleaning and Maintenance

This will help improve the health of City buildings and potentially reduce the incidence of asthma and allergic reactions among city staff and visitors to City buildings. (See Ref 6.7 for proposed wording of this policy.)

Recommendation 6: Purchase Energy Efficient Light-bulbs

Purchase compact fluorescent light bulbs to replace all incandescent bulbs in City operations and T5 or T8 energy efficient lights for commercial lighting applications. Switching to CFLs and T5/T8 lights will dramatically reduce the City's expenditure on electricity while reducing maintenance costs related to replacing bulbs. A lighting retrofit of this type will also significantly help reduce the City's overall carbon emissions. According to Energy Star, investing just $4,000 to install 1,000 CFL's at $4/unit can help save over $70,000 by reducing electricity costs and avoiding replacement of burned-out bulbs. T5 and T8 lights are up to 40% more efficient than similar commercial lights but are avilable at almost the same price as less efficient lights.

Recommendation 7: Create, Launch, and Operate a Website Dedicated to Delray Beach's Green Efforts

Operate a website dedicated to communicating Delray Beach's green programs. This will help communicate the City's existing environmental programs and serve as a logical extension of the Delray Beach's Digital City efforts. Both Boca Raton, FL and Boynton Beach, FL have started such pages, linking from the City's home page.

LONG-TERM GREEN RECOMMENDATIONS

Recommendation 1: Develop Incentives for Green Redevelopment

These can be in the form of tax incentives or a Green Investment Fund. This will help simplify access to funds for green building and green retrofit programs and can be specifically designed to fund high ROI green programs such as high-performance building construction or energy efficiency retrofits.

Recommendation 2: Develop Incentives for Location of Green Businesses within the City

This can be in the form of a dedicated economic zone with special funding allocation, tax incentives and dedicated outreach through the Planning & Zoning Department. This will help establish Delray Beach as a global leader in the emerging Green Jobs movement and enable a unique, low-cost differentiation opportunity and focus area for economic development efforts.

Recommendation 3: Research Green Grants Opportunities

Utilize the City's grant researching program to apply for "Green" grants for special projects, events, programs or staff. This will allow the City to access the large and growing pool of State and Federal Funds available for green programs (likely to be dramatically increased under the incoming Obama Administration). By conducting a dedicated research effort to find relevant "green grants," there is the very real possibility that Delray Beach can access funds to implement a large number of the recommendations within this report.

REFERENCES

Ref 6.1 – Portland Green Investment Fund Overview
Ref 6.2 – Portland Green Investment Fund FAQ
Ref 6.3 – Sarasota Green Housekeeping Policy
Ref 6.4 – State of Florida Climate Friendly Products List
Ref 6.5 – LA County Green Purchasing Policy
Ref 6.6 – Green Purchasing Policies
Ref 6.7 – Green Cleaning Policy

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 7: POLICE DEPARTMENT

The Delray Beach Police Department Mission reads as follows: "The Delray Beach Police Department is committed to protecting life, property and the rights of all people; resolving issues and promoting peace in our community through ongoing partnerships; and ensuring the continuous professional development of our organization and its members."

CURRENT DELRAY BEACH BEST PRACTICES

The Department currently:

- Uses lead free bullets and collecting fragments at firing ranges.
- Minimizes photo-processing waste through the use of digital photography.
- Uses transportation that is more fuel efficient, such as using AFV and bicycle patrols in urban neighborhood areas.
- Has adopted / is adhering to a new state mandated anti-idling ordinance.
- Has implemented recycling.
- Trains staff in and practicing crime prevention through environmental design.

CURRENT BEST PRACTICES BEYOND DELRAY BEACH

Sarasota, FL

Police Department has installed video surveillance cameras at busy intersections to help catch motorists that run red lights. Violations result in a $125.00 fine (special city ordinance). This program results in fuel savings by avoiding having staff in running police cars monitoring red lights. (See Ref 7.1)

The cameras also assist in traffic light synchronization, which decreases congestion, and consequently fuel consumption. (See Ref 7.2)

Port St. Lucie County, FL

Sheriff officials are using a couple of fuel saving gadgets in agency vehicles, including the Hydro-4000, which claims to increase fuel efficiency 20% to 60%. Short term testing has proven to be effective. The County has 350 vehicle candidates that could use the product, potentially saving a tremendous amount of gasoline. (See Ref 7.3)

Gainesville, FL

In an effort to save fuel Gainesville, FL Beach Police have initiated daily, random patrols with two police officers in one vehicle during daytime hours. Generally, patrols are done with a single officer in one vehicle. Under the program, one officer parks his vehicle in a highly visible area and rides with the other officer, thus saving half the fuel. The location of the parked vehicle is constantly changed and is mainly used to deter speeders in common areas. (See Ref 7.4)

Palm Beach County, FL

Palm Beach County has been recognized nationally for its fleet management best practices, including fuel efficiency measures, purchasing of hybrid vehicles, and comprehensive cost analysis of green fleet efforts. (See Ref 7.6)

QUICK WINS / LOW-COST GREEN RECOMMENDATIONS

Recommendation 1: Increase Use of Existing Alternative Fuel Vehicles and Bicycles

Increase the use of AFV and / or bicycle patrol for urban/neighborhood areas.

Recommendation 2: Implement Shared Vehicle Patrols

As noted in the Gainesville Best Practice above, one office can park a vehicle in a highly visible spot to deter speeders, while accompanying another office in his/her vehicle.

Recommendation 3: Minimize Trips for Minor Incidents

Take minor traffic or other incident reports over phone when appropriate.

Recommendation 4: Reduce Non-Duty Related Vehicle Use

Restrict officers from taking cars home, except when on call or where otherwise appropriate. Restrictions placed on car use for police supervisors, including, sergeants and lieutenants.

Recommendation 5: Quantify Overall Fuel Consumption and Establish Reduction Targets

Quantify the fuel consumption for the department city-wide, and establish targets for reduction by encouraging approaches, such as not idling, not over accelerating, and avoiding constant braking. (See Ref 7.5)

Recommendation 6: Remove Unneeded Weight on Vehicles for Fuel Economy

Educate officer to assess every item in the vehicle and remove any unneeded items to maximize fuel efficiency.

Recommendation 7: Encourage Routine Fleet Maintenance

Conduct routine maintenance tests on all police vehicles, and establish best practice guidelines for fuel-efficient operation.

Recommendation 8: Assist in Enforcement of Green Codes

Assist with code enforcement whenever possible to report water restriction violations and idling (if an idling reduction ordinance is adopted).

Recommendation 9: Explore Greener Options for Cleaning Uniforms (e.g. washing or non-perc Dry Cleaning)

Investigate environmentally preferable options for the cleaning of uniforms as opposed to dry cleaning. This could be a lower cost option.

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Purchase More Fuel-Efficient Vehicles / Alternative Fuel Vehicles

Maximize the purchase of fuel-efficient / alternative fuel / hybrid vehicles. Cost studies by fleet managers such as Palm Beach County's have shown long term cost savings for alternative vehicles. (See Ref 7.6, p. 12)

Recommendation 2: Implement Electronic Citation System

Systems such as the Zebra Electronic Citation System incorporate an electronic media approach to handling citations from the police department through the court system, reducing paper and streamlining the process in general. (See Ref 7.7)

Recommendation 3: Use Reclaimed Rainwater to Wash Police Vehicles

Retrofit facilities with rain collection equipment and initiate water reclamation practices for washing police vehicles.

Recommendation 4: Implement GPS Routing Software

GPS software can often help save fuel by identifying the shortest route to a destination.

Recommendation 5: Phase Out Perchlorate Flares

Purchase electronic flares to replace the use of perchlorate flares. Perchlorate flares pose a threat to safety and well being of the environment. Burning and residue from these flares create contamination both in airborne and on surface areas. San Jose, CA has implemented such a program. (See Ref 7.8)

REFERENCES

Ref 7.1 - Sarasota Light Camera
Ref 7.2 - Traffic Light Synchronization
Ref 7.3 - Port St. Lucie Installation
Ref 7.4 - Gainesville Fuel Conservation
Ref 7.5 - Fuel Conservation Report
Ref 7.6 - Palm Beach County Fleet Management
Ref 7.7 - Zebra Electronic Citation System
Ref 7.8 - San Jose Flares

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 8: FIRE-RESCUE DEPARTMENT

The Fire-Rescue Department performs a number of functions related to public safety including:

Emergency Management
Activities of this program include preparation for, response to, recovery from and mitigation of any and all conditions, which threaten or adversely affect the public health, safety and/or security of the citizens and visitors of the City of Delray Beach.

Emergency Medical Services
The EMS division is responsible for providing pre-hospital emergency medical care and transportation for ill and injured residents and visitors in the City of Delray Beach. This is accomplished through well-trained Paramedics and EMT's, using state of the art equipment and medical protocols.

Fire Safety
The Fire Safety Program provides proactive, educational and protective services to reduce fire losses and fire related injuries, and other accident prevention awareness programs throughout the community.

Operations
The activities of the Operations Division include: providing advanced or basic life support and transportation for medical emergencies; confining and extinguishing structure, vehicle, brush and trash fires; and special operations such as hazardous materials incident control, underwater search and rescue, confined space rescue, vehicle extrication and technical rescue. The Division also performs inspections of the municipal water supply system and provides public education in CPR, drowning prevention, fire safety and hazardous material training.

CURRENT DELRAY BEACH BEST PRACTICES

The Fire-Rescue Department currently:

- Separates all waste materials at the firehouse to be recycled appropriately.
- Automates all fire reports (i.e. they are paperless) with the exception of medical reports.
- Operates the back-up generators on either propane or natural gas at all stations.
- Coordinates fluorescent light bulbs recycling through an outside contractor.
- Uses absorbent materials at a vehicle crash site to recapture contaminated fuels. The materials are then placed inside the damaged car and properly disposed of at a

proper waste site. Water from the ladder trucks does not wash the surface effluent into the drainage or ground areas.

- Administers map tests to drivers on a regular basis to test their knowledge about the quickest and safest routes to respond to calls within the city limits.
- Optimizes vehicle usage by using vehicles as intended. Specific truck usage is considered on each call.
- Maintains EMS vehicles that transport patients at an acceptable temperature (+/- 70 degrees) when sitting idle at the firehouse. This is done by use of a portable A/C unit. This prohibits cooling down time once the vehicle is in a position to carry a patient, which in turn reduces engine run time. For example, a heart attack patient cannot be transported in an EMS vehicle when the interior temperature is above acceptable levels (i.e. +/- 70 degrees).
- Has adopted and is abiding by the newly mandated idling policies.
- Uses portable on-board generators on larger fire tucks to power certain electrical demands when appropriate, reducing the amount of fuel used by the larger diesel motors.
- Has constructed the new Fire Station #4 with some green building elements, including: recycling of old firehouse construction debris; energy saving devices including lightning and motion sensor switching; air scrubbers in the garage bays that filter carbon monoxide fumes from the truck motors while they are running in the bays.

CURRENT BEST PRACTICES BEYOND DELRAY BEACH

Gainesville, FL

The Gainesville, FL Fire Department uses a small pick-up truck as opposed to normal large fire trucks when conducting semi-annual inspections of fire hydrants. This results in substantial savings of fuel used for such purpose.

Raleigh, NC

The Raleigh, NC Fire Department is using rainwater collected in barrels to wash vehicles at the fire stations around the city. Each location has placed two 250 gallon converted rain barrels positioned behind each station. These barrels collect water from the gutter system. A sump pump is used to provide water pressure for washing the vehicles. It has proven to be very successful. (See Ref 8.1)

Charlottesville, VA

The Charlottesville, VA Fire Department has added hybrid vehicles to its fleet. (See Ref 8.2)

Newton, NC

The City of Newton, NC Fire Department is taking steps to optimize fuel economy of their fleet. A training program has been implemented for all driving personnel. Of all the factors that affect fuel economy, drivers have the most influence. Vehicle operators typically influence the overall fuel economy by as much as 35%. Some of these recommendations are as follows:

- Avoid unnecessary idling.
- Minimize accessory load. (A/C fan etc)
- Keep RPM's low and running in the "sweet spot".
- Optimize shift points.
- Avoid hard braking and fast acceleration.
- Do not carry unnecessary excess weight.
- Practice diligent maintenance.

(See Ref 8.3)

Quick Wins / Low-Cost Green Recommendations

Recommendation 1: Optimize Staff Transportation on Calls

Recommend that all administrative staff ride to emergencies on one of the fire engines, rather then taking an additional vehicle.

Recommendation 2: Restrict Vehicle Usage to Official Use Only

Limit use of vehicles for official use only, eliminating errand trips to restaurants, grocery stores, etc.

Recommendation 3: Encourage Routine Fleet Maintenance

Regular fleet maintenance assures optimal fuel economy.

Recommendation 4: Optimize Fire Hydrant Inspection Procedures

Bi-annual fire hydrant inspections could be accomplished using two individuals sharing a more energy efficient vehicle (e.g. The use of a pick-up truck as opposed to a ladder truck.).

Recommendation 5: Restrict Staff from Driving Vehicles Home Unless On Call

The Task Force encourages limiting administrative staff personal vehicle use by not driving city vehicles home unless they are on call.

Recommendation 6: Educate Staff on Fuel-Efficient Driving Habits

Implement fuel efficient driving standards, educate the staff, and encourage adoption. (See Ref 8.3)

Recommendation 7: Eliminate Disposable Dishware in Fire Stations

Phase out disposable kitchenware in favor of washable / reusable items.

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Upgrade Fleet

Replace old fire transportation vehicles with appropriate size, emissions and energy efficient latest technology. Please note the Charlottesville, VA Best Practice noted above.

Recommendation 2: Use Reclaimed Water for Washing Fire Vehicles

Retrofit facilities with rain collection equipment and initiate water reclamation practices for washing fire vehicles. (See Ref 8.1)

Recommendation 3: Install Air Scrubbers at all Fire Houses

Install negative air scrubbers in all firehouse garage bays. Please note as well that the Delray Beach Fire Department requested this.

Recommendation 4: Implement GPS Routing Software

GPS Software can often help save fuel by identifying the shortest route to a destination. (See Ref 8.4)

REFERENCES

Ref 8.1 - Rainwater for Vehicle Washing
Ref 8.2 - Charlottesville Green Fleet
Ref 8.3 - Newton Fire Department Saves Gas
Ref 8.4 - GPS Software

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 9: COMMUNITY IMPROVEMENT DEPARTMENT

The Community Improvement Department performs the following functions; Permits, Inspections, Signs, Code Enforcement, Business Tax Receipts, Landscaping, Litter Prevention, Animal Control, Neighborhood Services.

CURRENT DELRAY BEACH BEST PRACTICES

Presently the Community Improvement Department has several areas where it works to preserve/enhance native habitat and natural resources including:

- Requires mitigation for consumption of natural habitat or resources.
- Has enforced a tree preservation ordinance and requires the planting of native canopy trees in landscape plans.
- Regulates impervious parking surfaces by limiting the percentage of the site that can be covered with impervious area.
- Has enforced a septic system replacement ordinance.

Additionally the Community Improvement Department has several areas where it works to Conserve Water Resources and Facilitate Recycling:

- Requires automatic rain sensors on landscape sprinkler systems that prevents the sprinkler system from running if the landscape has received adequate rain. This saves substantial potable water resources.
- Requires a professionally prepared Landscape Plan requiring a substantial percentage of native/drought tolerant plants (xeriscaping), which again saves substantial potable water.
- Co-ordinates Recycling Services, which are performed under contract by Waste Management. The city has a recycling program in place with good community participation rates.
- Lastly, the Department's Neighborhood Services Division has a Litter Prevention & Community Recycling Education Coordinator, Ms. Jennifer Buce, who in charge of outreach and education.
- Has an Adopt-A-Street Program where Organizations, individuals, and businesses "adopt" a minimum of one half mile stretch of a City street and agree to pick up litter at least four times a year.

BEST PRACTICE EXAMPLES BEYOND DELRAY BEACH

Gainesville, FL

Gainesville has been an early leader in green building in the State of Florida. Gainesville's efforts have been a model for many other ordinances. They have adopted a green building ordinance that includes fast track permitting for building permits, and a 50% reduction in building permit fee. To receive these incentives, an independent third party must certify the building as a green building. The city government also provides marketing incentives including erection of building signs at the site, placing participants on city Web site and press releases. Finally, a Green Building Award from the City of Gainesville recognizes one participant each year that demonstrates commitment to the program. (See Ref 9.1)

Sarasota, FL

Sarasota County created a "Green Building Ordinance" which is a virtual clone of the Gainesville ordinance, with some minor adjustments. The Ordinance Provides for permit fee reductions, fast track permit processing, public relations / marketing for green projects, and a yearly "Green Award" program. (See Ref 9.2)

Sarasota County, FL

Sarasota has long been a Florida Epicenter of Green Building, and has several LEED Gold County Buildings including a Library and a County Office Building. A Whole Foods Market has been awarded a LEED Silver rating. The Sarasota Girl Scout Headquarters, Kanaya Condominium Tower, & Kimel Lumber have all been awarded various LEED ratings. These and others are the result in part of the stimulating effect of their Green Building Ordinance. The City of Sarasota has expedited permitting based on projects utilizing the Florida Green Building Coalition checklists and programs. See (See Ref 9.3)

University of Florida

The University of Florida in Gainesville is also in the forefront of green building and requires all new buildings to be built to LEED Silver standards. With an electric bill for the campus of over $130 million a year, there is a tremendous incentive to construct efficient and environmentally responsible buildings. (See Ref 9.4)

The University notes, "In 2001, the university adopted LEED criteria for design and construction for all major new construction and renovation projects to deliver high performance and sustainable buildings. At that time LEED was at its infancy, but we truly believed then and now even more that green buildings minimize the negative impact of buildings on the environment, contribute to saving energy and enhance the occupants' health and comfort. FPC is the first in the state of Florida to require a LEED accredited professional on staff to ensure LEED criteria

incorporated in design and construction on all our major projects. Our LEED accredited professional works with the project design teams to obtain the highest level of LEED certification for all projects." (See Ref 9.5)

Menlo Park, CA

Menlo Park's "Green Ribbon Committee", analogous to the Green Task Force, recently submitted a detailed report that recommended that the city adopt policies and ordinances in the area of Green Building. The report suggests that the City promote sustainable building practices by instituting checklists that are based on standards established and maintained by "green building" programs such as LEED and BIG (Build It Green), and by providing an over-achievement incentive in the form of expedited building permit approvals. (See Ref 9.6)

Additional Examples

Additional information on other green building programs is available in the Appendix Section Titled "Summary of Green Building & Recycling Programs in Selected Cities in Florida & Nationwide". This Summary includes, in addition to those mentioned above, reviews of the following programs: Miami-Dade County, FL; Tallahassee, FL; Coconut Creek, FL; Palo Alto, CA; Pasadena, CA; San Jose / Silicon Valley, CA; Santa Monica, CA; Santa Barbara, CA; San Francisco, CA; Boulder, CO; Boulder County, CO; Seattle, WA; and Portland, OR. (See Ref 9.7). In addition, the USGBC provides a current listing of green building programs nationwide. (See Ref 9.8)

QUICK WINS / LOW-COST GREEN RECOMMENDATIONS

Recommendation 1: Enable Commercial Recycling by Allowing Pick-up of Recyclable Material (Cardboard, Paper, Glass, Metal) by Qualified Recyclers

Currently, there appear to be hurdles to commercial recycling for offices and merchants in Delray Beach. Recycling pick-up is provided for residences, and as of May of this year, the market for construction and waste debris was opened up to other qualified haulers (in effect, expanding the number of companies providing construction waste recycling). However, recycling is not available for restaurants, merchants, and offices. There is an opportunity to expand the market for recycling for this constituency. The Green Task Force repeatedly heard from citizens requesting this and heard many stories of downtown merchants going to great efforts, including hauling recyclables home to be deposited in residential containers, just to make sure waste was recycled because they had tried, and failed to get recycling at their place of business.

Recommendation 2: Adopt Paperless "Online" Building Permit Applications

Presently Building Permits & Sub-permits plus Zoning Applications are printed and applicants

manually print or type up the forms and submit drawings and maybe hundreds of pages of Product Approval Sheets, along with a check for the initial application fee, to a Permit Clerk or Zoning Technician who types key info into a computer. An online submittal process would save many thousands of pages of paper, all of the energy to print the application, and labor to organize and type in the information by an intake clerk. Also the Application and supporting documents would not need to be microfilmed, only the plan sheets themselves (and Plans could be required to be submitted in PDF Format as well, if desired). This could potentially save hundreds of man-hours of microfilming and associated costs.

Recommendation 3: Create a "Green Building Basics" Public Information Campaign

Create a series of short, easily-digestible "Green Building Basics" brochures to describe and promote the city's green building initiatives, and how residents and builders can "Build Green" in short, easily digestible, monographs.

Recommendation 4: Create "Green Building & Recycling Basics" Public Information Campaign for Children

Create a Series of Informative "Green Building & Recycling Basics" brochures for kids to describe and promote green building and proper recycling among school age children. The Litter Prevention & Community Recycling Education Coordinator could incorporate these into presentations at area schools, and these could be available for download from the City's website by area teachers. This idea was ranked in the top 5 at the Task Force Public Citizen workshop.

Recommendation 5: Require Energy Star Appliances in all Building Applications

Require "Energy Star Appliances" as part of the building permit submission process for single family & multi-family residential projects and applicable commercial projects. Without stipulating any specific brand, require Energy Star rated appliances including refrigerators, dishwashers, built in microwave / hoods, clothes washers (clothes dryers are not rated). A link to the Energy Star Website can be included on the City's website. A simple schedule of proposed appliances could be included on the cover page of plans submitted for permit, and checked off as part of the final building inspection. (See Ref 9.9)

Recommendation 6: Mandate Cool Roofs

Mandate cool roofs, cool pavements, and shade trees. Roofs and paved surfaces that soak up heat and radiate back to the environment increase the need for air conditioning, and raise ambient local temperatures, creating additional environmental micro-climate problems. Lighter colored surfaces and roofs, such as Energy Star roofing products, and shade tress help to mitigate this problem. One thousand (1000) ft^2 of a white roof, replacing a dark roof, offsets the emission of 10 tons of CO2. (See Ref 9.10)

Recommendation 7: Encourage Installation of Solar Hot Water and / or Solar Electric by

Streamlining Permitting Process

Encourage the installation of solar water heaters and solar electric (photovoltaic or PV) systems on single family, multi-family residential, and commercial buildings. This can be accomplished by streamlining the application process:

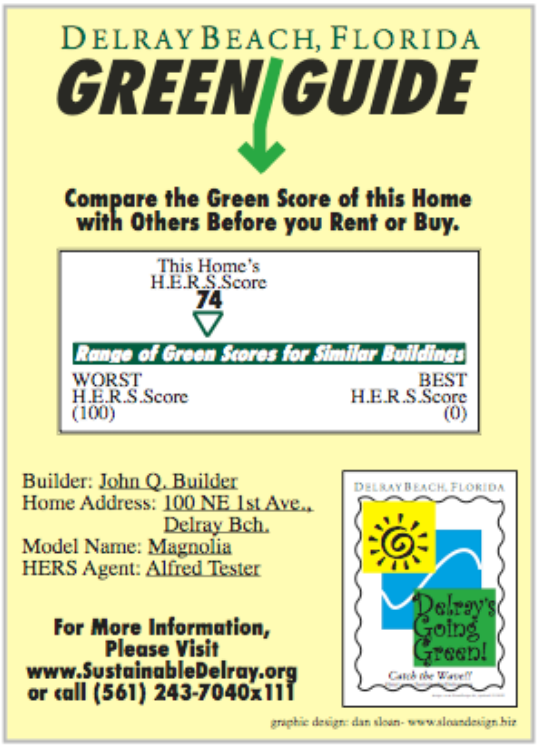
- Have standardized, pre-approved, pre-engineered designs developed by staff or by a future Green Advisory Board. A link to the plans and specifications could be included on the City's website.
- Have $0 permit fees, and 1-day permit turnaround, if the standardized design is used. Set up simple online permit application process to minimize staff labor cost for these permits. If grants are available, have low interest loans available to support the program.

By developing simple, standardized, pre-approved designs, which can be permitted in one day, and charging a $0 permit fee widespread adoption of these technologies can be "jumpstarted". Solar water heaters and small scale PV systems both offer the homeowner or building owner a very good financial investment in conjunction with Federal tax credits and Florida's solar rebate program. *Taking the Red Tape out of Green Power* is a report that focuses specifically on the issue of renewable energy and the local permitting process. (See Ref 9.11)

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Require Green Benchmarking for New Buildings / Substantial Renovations

Consider a benchmarking system so that consumers can see the energy performance of a building, similar to those available for vehicles and appliances. To minimize staff time and consumer confusion of multiple rating systems, the program could use existing programs such as the Home Energy Rating System (HERS), LEED, or Energy Star. Building permit applicants could use a standard graphic that is modeled on the yellow energy efficiency sticker on all new appliances. Applicants could use a simple online form with data entry fields to generate the form automatically as a PDF, which could be emailed to them and submitted along with the building permit application. The form / graphic would also be required to be posted adjacent to the entry door to sales and leasing centers for larger projects or by the entry door for individual homes. See below for a mockup of the proposed form for residences (a similar form could be developed for commercial buildings).



Recommendation 2: Create a Green Building Awards Program

Create an annual "Green Building Award" Program to award the green building project undertaken in Delray Beach in the prior year. Categories might Include Small Commercial, Large Commercial, Non-Profit, Small Residential, Green Residential Remodel, Green Historic Preservation Project etc. The winners could be awarded in conjunction with other annual design and construction awards, or at a City Commission meeting with a plaque, etc. and information about the winners posted on the City's Website.

In addition, winning entries could become "Case Studies" made available to the public, detailing the unique features of the project, plus photos, etc. These valuable "Case Studies" would also be available for download to inspire and inform others to "push the green envelope" in terms of design and construction on a local level.

REFERENCES

Ref 9.1 - Gainesville, FL Green Building Program Ordinance
Ref 9.2 - Sarasota County, FL Green Building Ordinance

Ref 9.3 - Natural Capitalism - Sarasota, FL
Ref 9.4 - University of Florida Green Building Report
Ref 9.5 - University of Florida Facilities LEED Program
Ref 9.6 - Menlo Park, CA Climate Action & Recommendations Report
Ref 9.7 - Summary of Green Building & Recycling Programs
Ref 9.8 - USGBC List of Government Initiatives
Ref 9.9 - Energy Star Appliances
Ref 9.10 - Heat Island and Reflective Surfaces
Ref 9.11 – Taking the Red Tape out of Green Power

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 10: PLANNING AND ZONING DEPARTMENT

The Planning & Zoning Department has a unique role within the organizational structure of City government. The Department's primary responsibility is that of guiding and directing the City's future growth while ensuring the preservation of its unique attributes.

The Mission of the Planning and Zoning Department is to guide the Physical development of the City in a manner that will preserve its unique characteristics and enhance the quality of life for the City's present and future residents.

This will be accomplished by reviewing development proposals for consistency with the goals, objectives, and policies of the City's Comprehensive Plan; through the preparation of special studies, plans and reports addressing development and growth related issues; and by periodic updates to the Comprehensive Plan in order to ensure that it continues to reflect the needs and desires of the community.

CURRENT DELRAY BEACH BEST PRACTICES

The City's Planning and Zoning Department (P&Z) has planned and implemented sustainability even before "sustainability" became a household word. By following Smart Growth Principles of designing a walkable community, increased density, mixed use, and non-traditional approaches to parking, Delray Beach's downtown is far more "green" and "sustainable" than surrounding communities.

At this time, the City has done the following:

- Implemented FDOT "12 Steps Towards Walkable Communities" into the planning process.
- Developed urban area boundaries.
- Encouraged mixed-use zoning/development.
- Participated in external courses on green building seminars.

BEST PRACTICE EXAMPLES BEYOND DELRAY BEACH

Sustainable development continues to grow in importance in cities throughout Florida and the country, and a number of programs have been implemented in various jurisdictions.

Monroe County, IN

The Rain Garden Initiative is a progressive effort of Monroe County to take proactive steps to

improve water quality through unique and effective solutions. Rain gardens are a cost effective and community beneficial option to improve water quality. Rain gardens can serve a dual purpose by improving water quality and aesthetic views at the same time. The program indicates the County's commitment to long-term sustainable design planning and zoning strategies. (See Ref 10.1 and Ref 10.2)

Sarasota County, FL

The county is providing a fast-track building permit incentive and a 50% reduction in the cost of building permit fees for private contractors who use LEED. On August 22, 2006, the County approved a Green Development Incentive Resolution (#2006-174) that provides fast track permitting for residential and commercial green developments. Incentives apply to projects pursuing LEED for Neighborhood Developments or Florida Green Building Coalition Green Development Standards. (See Ref 10.3)

Miami Lakes, FL

On July 10, 2007, the Miami Lakes Town Council adopted Ordinance #07-92, establishing a Green Building Program that requires all future buildings built by the town to meet at least 50 percent of LEED requirements. The program also allows for expedited permitting and possible fee reductions or rebates for private developers who build to the Green Building Program's standard. (See Ref 10.4)

Nashville, TN

On Feb. 22, 2007, the Nashville Planning Commission approved a density bonus for applying LEED to construction projects in certain neighborhood districts. In the downtown area, development in the Central Business District is eligible to increase the Floor Area Ratio (FAR) cap from 15 to 17 if the project achieves LEED Silver, and from 15 to 19 if the project achieves LEED Gold. In the SoBro neighborhoods, developments are eligible to increase the FAR cap from 5 to 7 if the project achieves LEED Silver, and from 5 to 9 if LEED Gold is achieved. (See Ref 10.5)

Portland, OR

In a pilot project, Portland, Oregon, recently incorporated storm water retention into corner bulges on a residential street. This experiment successfully improved storm water management, while reducing traffic speeds and creating a greener, more attractive street environment. (See Ref 10.6; for more information on the EPA's Stormwater Best Practices and other Case studies, see Ref 10.7)

Palm Beach County, FL

In its guidelines for the Urban Redevelopment Area (URA), Palm Beach County is currently finalizing a one to two story density bonus for buildings, with the amount dependent upon the level of green certification. (See Ref 10.8)

Miami, FL

In an effort to meet its commitment to the U.S. Mayors Climate Protection Agreement, Miami has adopted a City-Wide Tree Master Plan with the goal of enhancing the City's tree canopy coverage to 30%. This extensive plan targets tree canopy as an important solution to climate change. (See Ref 10.9)

Environmental Protection Agency

The EPA Green Communities is a web-based toolkit and planning guide designed to help communities access the tools and information to help them become more sustainable, Green Communities. (See Ref 10.10)

Additional Information

Please see the Delray Beach Green Task Force created Summary of Green Building Programs (see Ref 10.11) and the U.S. Green Building Council listing of government initiatives (see Ref 10.12) for further extensive information on green building programs and incentives implemented by a variety of municipalities and counties.

QUICK WINS / LOW-COST GREEN RECOMMENDATIONS

Recommendation 1: Conduct a Green Audit of Current Land Development Regulations and Comprehensive Plan

The Task Force recommends a comprehensive review of the current Land Development Regulations (LDRs) and Comprehensive Plan by a qualified consultant to look for potential unperceived and unintended barriers to sustainable development, as well as opportunities for more sustainable practices.

Recommendation 2: Develop and Apply a Sustainable Land Use Checklist

Review existing land use conditions and practices to identify opportunities to promote sustainable development. Develop a checklist of key existing land use conditions that relate to sustainability. The City may develop a simple, general checklist that applies to all existing development and/or it may develop more detailed checklists for specific uses or neighborhoods. The checklist may include, but not be limited to, some or all of the following conditions relating to the natural environment, economic vitality, and human needs:

- Inventory the amount of impervious surfaces with GIS mapping and develop a list of applicable alternatives like green roofs and pervious pavements, and Measure storm water quality based on runoff from impervious surfaces
- Measure the Heat Island Index including light colored roofs, cool pavements, trees, green space

- Reduce conventional automobile dependency and relationship to appropriate transit
- Assess walking / biking conditions ("Walkscore")
- Measure distance to public transit

(Please see Ref 10.13 for an extended list of potential ideas).

Recommendation 3: Mandate Environmentally Friendly Landscaping

Mandate for new or major redevelopment the use of native landscaping and low maintenance landscaping that reduces the need for chemical fertilizers, pesticides, and herbicides. Promote integrated pest management techniques as an alternative to chemicals. See Ref. 10.14 for a Pembroke Pines Best Practice where 50% xeriscaping is required on all new landscaping materials, and Ref 10.15, the Florida Native Plant Society website.

Recommendation 4: Provide Incentives to Encourage Rainwater Harvesting

Remove any Code barriers and explore water-pricing incentives to encourage integration of rainwater harvesting into the development of land as well as existing development, including above and below ground water tanks and rain barrels. Please see Ref 10.16 for information on Emeryville, CA's development Handbook recommending stormwater strategies.

Recommendation 5: Re-evaluate Parking Planning and Design

Evaluate parking from not just a standpoint of supply and convenience, but also as a finite resource, a source of revenue, and as an opportunity to improve current systems and design. Parking lots, whether surface or structured, are expensive; contribute to water pollution, run off and the heat island effect; indirectly contribute to air pollution by promoting driving; contribute to dead zones; and are often perceived as ugly. Please see Ref 10.17, Ref 10.18, and Ref 10.19 for additional information on parking and parking lots, as well as a Best Practice in San Buenaventura, CA.

Longer-Term / Strategic Recommendations

Recommendation 1: Revise Land Development Regulations to Make Pervious Pavement the Standard

Pervious pavements, pavers, and other surfaces that allow water to penetrate at the point of contact reduce water pollution, runoff, the need for stormwater infrastructure and flooding. (See Ref 10.20 and Ref 10.21 for extended data on pavement and alternative strategies.)

Recommendation 2: Create a Green Business Overlay Zone

In order to support sustainable, green businesses, a Green Business Overlay Zone could be created and applied to the Mixed Residential Office and Commercial (MROC) and / or West Atlantic districts. A green district would provide an opportunity for similar minded businesses to

support each other as well as give “green minded” citizens from Delray Beach and elsewhere a Green Commercial Business District. In addition, alternative transit supportive measures could be put into place (e.g. bike paths, additional bike parking), as well as no parking minimums, variances in standard LDRs and Code requirements to support Green Building. (See Ref 10.22 for City of Toronto Best Practice)

Recommendation 3: Develop a Multi-Modal Transportation District (MMTD)

The City of Boca Raton is the first city in South Florida working to create a citywide Multi-Modal Transportation District, or MMTD. The MMTD is a long-term plan to reduce traffic congestion, reduce auto emission and address other environmental concerns. A primary element of the MMTD is the strengthening of alternative transportation such as the rail system and shuttle buses. The City is planning additional shuttle bus routes throughout the City. Safe, comfortable and attractive pedestrian and bike paths are also part of the MMTD. (See Ref 10.23)

Recommendation 4: Re-evaluate Parking Requirements for Mixed Residential Office and Commercial (MROC) District

Parking is an important issue in Transit Oriented Districs such as the MROC District. The Green Task Force recommends an evaluation of the current parking parameters for the MROC District and the redefining of such standards. See Ref 10.24 and Ref 10.25 for detailed parking and other recommendations for the MROC District.

Recommendation 5: Create and Promote a Green Neighborhoods Program and Incorporate Principles into Land Development Regulations and Comprehensive Plan

Promoting green neighborhoods helps to create many green solutions, from energy to transportation to recycling. It has become a core strategy for many cities to meet their U.S. Mayors Climate Protection goals. A consortium of more than 20 local governments, non-profit organizations, government agencies, and utilities have produced the first phase of the Green Playbook to help promote the goals set out in the U.S. Conference of Mayors Climate Protection Agreement. (See Ref 10.26)

The Design Centre for Sustainability (DCS) is located in the School of Architecture and Landscape Architecture at The University of British Columbia. It is an academic leader in applying sustainability concepts to the development of land, cities, and community. Through interdisciplinary approaches, the DCS is capable of demonstrating to the development community, to municipalities, and to citizens how to shift community-based planning and design toward on-going consideration of sustainability as a matter of course rather than exception. (See Ref 10.27)

Recommendation 6: Adopt and Implement the Existing Bike and Pedestrian Task Team Final Report

In 2001, the National Household Travel Study, conducted by the U.S. Department of

Transportation, found that 28 percent of all suburban journeys are less than a mile (a 20-minute walk) and yet only 20 percent of these journeys are undertaken on foot. Compact, mixed-use development increases walking, but good pedestrian design is equally important. Downtown Delray Beach is an excellent example of good pedestrian design. The Task Force recommends a re-evaluation of the Delray Beach Downtown Restaurant Transportation Survey to incorporate information that is currently applicable. (See Ref 10.28)

Recommendation 7: Study Potential Zoning Decisions that Could Encourage Businesses to Service Residents

Promote zoning for downtown businesses supported by local and year round residents. As a precaution against a decline in tourism and to provide basic services to local residences (reducing auto use), zoning can be evaluated for opportunities to suppport local-centric businesses. The U.S. Green Building Council's LEED system incorporates this concept into one of its Sustainable Sites credits, noting that basic services within walking distance of residents is a sustainable practice. This recommendation was requested by local residents.

Recommendation 8: Develop a Sustainable Vision and Incorporate into City Planning Documents

To the extent feasible, the Task Force recommends that the City incorporate long-term sustainable land use practices into the City's Comprehensive Plan as well as the City's other land use planning documents including the Master Plan and LDRs. The following approaches to help ensure that land is used in a sustainable manner are recommended:

- Host **public charrettes** to create a shared vision of a sustainable Delray Beach.
- **Remove obstacles** that discourage or prevent sustainable land use practices (e.g. excessive parking requirements, limits on renewable energy installations, excessive road widths, localized agriculture etc.).
- **Explore incentive programs** to encourage sustainable land use practices.
- **Require some practices** that will continue to move Delray Beach in a sustainable direction, where appropriate.

The Rocky Mountain Land Use Institute is developing a Sustainable Community Development Code that offers numerous concepts of large scale sustainable planning. (See Ref 10.29)

REFERENCES

Ref 10.1 - Monroe County Rain Garden Brochure
Ref 10.2 - Monroe County Rain Garden Program
Ref 10.3 - Sarasota County Resolution 2006-174

Ref 10.4 - Miami Lakes Ordinance 07-92
Ref 10.5 - Nashville Incentive Program
Ref 10.6 - Portland Green Street Case Study
Ref 10.7 - EPA Stormwater Best Practices
Ref 10.8 - Palm Beach County URA
Ref 10.9 - Miami Tree Master Plan
Ref 10.10 - EPA Green Communities
Ref 10.11 - Summary of Green Building & Recycling Programs
Ref 10.12 - USGBC List of Government Initiatives
Ref 10.13 - Extended List of Ideas for a Checklist
Ref 10.14 - Pembroke Pines Xeriscaping
Ref 10.15 - Florida Native Plant Society
Ref 10.16 - Emeryville Handbook Presentation
Ref 10.17 - Role of Parking
Ref 10.18 - Parking Lots and Runoff
Ref 10.19 - San Buenaventura Parking Management Plan
Ref 10.20 - Pavement Busters Guide
Ref 10.21 - Building a Green Parking Lot
Ref 10.22 - Toronto Green Development Standards
Ref 10.23 - Boca Multimodal Transportation District
Ref 10.24 - Parking and Other Recommendations for MROC
Ref 10.25 – Parking Toolbox
Ref 10.26 - Green Playbook
Ref 10.27 - Design Centre for Sustainability
Ref 10.28 – Pedestrian / Bike Final Report
Ref 10.29 - Sustainable Community Development Code

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 11: PARKS & RECREATION DEPARTMENT

The City of Delray Beach has a Parks & Recreation Department with over 150 employees including part time staff. The department is split into four main divisions: Aquatics, Ocean Rescue, Parks Maintenance, Recreation.

CURRENT DELRAY BEACH BEST PRACTICES

In many ways, Delray Beach has established an environmental leadership position in terms of a parks and recreation program. The city has a large amount of open space per capita for cities of its size and maintains a very large clean municipal beach. Examples of City best practices include:

- The City's beach was certified as a Blue Wave Beach in 2004 by the Clean Beaches Council, an organization that runs the most comprehensive, national environmental and public safety beach certification in the country.
- The parks maintenance department used to mow grass at all city locations once a week. Recently the cycle was adjusted to a 10 day cycle for all but a handful of buildings.
- All hardwood trims are used to generate mulch that is made available free to the public
- The city has an "Adopt a Park" program by which citizens sponsor the clean up efforts at parks

In addition the Parks & Recreation department is running a series of pilots to reduce environmental impacts associated with its operations and services. For example:

- There is currently a recycling pilot through which bins for plastic, glass and metals have been placed at all ball fields (baseball, soccer etc.). If successful, this may be rolled out widely.
- There is currently a pilot through which organic fertilizer is used to stimulate root growth in specific fields. If successful, this may be rolled out widely.
- The department is reviewing its lighting with the intention to potentially install energy efficient lights

BEST PRACTICE EXAMPLES BEYOND DELRAY BEACH

Sarasota County, FL

Sarasota County has passed a number of ordinances and implemented many programs to

reduce water use, limit chemical fertilizers and encourage community organic gardens. One example is a water efficient irrigation ordinance that requires all new landscaping to employ efficient irrigation and site adaptive plants including limiting irrigated sod to no more than 50%. (See Ref 11.1 and Ref 11.2)

County of Santa Barbara, CA

The County of Santa Barbara has implemented a very successful Pesticide Reduction program through which a phased approach was used to reduce chemical pesticides, focusing first on locations with high potential exposure to children. The County has been able to measure costs and benefits of this program and engage citizens through clear communication and park markings. (See Ref 11.3)

Quick Wins / Low-Cost Green Recommendations

Recommendation 1: Recertify the Delray Beach Municipal Beach as a Blue Wave Certified Beach

The Blue Wave Certification applies for one year only, and while the city did achieve this recognition in 2004, it is not clear whether the Delray Beach still meets all the criteria for this program. Certification provides third party recognition and accountability of best practices. Maintaining this certification on an annual basis would show long term commitment to beach best practices.

Recommendation 2: Maintain or Support Organic Community Gardens

Organic community gardens could serve as a focal point for engaging children and the community in deeper awareness of lower-chemical alternatives to nutrition and food growth. By partnering with local churches and schools, a collaborative program could be developed that provides education and enables citizen engagement in parks activities.

Recommendation 3: Mulch and/or Compost a Range of Materials Collected from City Parks; Communicate Availability of this Material

While the City does mulch and compost hardwood clippings, a wider range of materials could be mulched and or composted. It is recommended that the City investigate purchasing an “in-vessel composter that could be used to rapidly convert landscape and food trimmings into high-value fertilizer. (See Ref 11.4)

Recommendation 4: Place Signs Describing Green Features of Public Parks and Amenities

An important and often neglected part of environmental programs is ensuring public awareness and recognition. It is recommended that the Parks and Recreation Department dedicate a percentage of program budgets to communicate environmental aspects of public parks and

amenities.

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Create a Pesticide Hazard and Exposure Reduction (PHAER) Zone Program

The Task Force recommends that the City of Delray Beach investigate creating a Pesticide Hazard and Exposure Reduction program. This implies using a rigorous process to investigate current use of pesticides to determine how that application results in chemical exposure to children and other citizens. A phased approach can then be used to implement Integrated Pest Management and chemical pesticide avoidance principles, rather than rely exclusively on harsh chemical pesticides. (See Ref 11.3)

Recommendation 2: Implement Water-Efficient Landscaping Protocols

By proclamation, create a water efficient irrigation ordinance that requires new landscaping in Delray Beach to employ efficient irrigation and use native Florida plants in all City parks.

Recommendation 3: Minimize Chlorine in Community Swimming Pools

The Task Force recommends that the City of Delray Beach investigate the costs and benefits of converting from chlorine to saltwater pools in municipal pools. This practice is already being implemented in private pools in Delray Beach, including both the Sundy House and the Colony Hotel.

Recommendation 4: Implement Energy Efficient Lighting & Controls for Outdoor Courts, Parks, and Playfields

Using energy efficient lighting for city parks, courts and playfields is projected to deliver cost savings within a 3-year period, and high return on investment.

REFERENCES

Ref - 11.1 Sarasota Sustainability Report
Ref - 11.2 Sarasota Water Efficient Landscape Ordinance
Ref - 11.3 PHAER program - Santa Barbara
Ref - 11.4 South Dade In Vessel Composters

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

SECTION 12: ENVIRONMENTAL SERVICES DEPARTMENT

The City of Delray Beach's Environmental Services Department is comprised of four (4) Divisions: Public Utilities; Public Works; Engineering; and Construction.

Public Utilities: Public Utilities Division operates, maintains and conducts monitoring for compliance with all state and federal requirements of the City's water and sewer utility systems. The Public Works Division also maintains the City's storm water pump stations.

Public Works: The Public Works Division comprises of eight (8) organizational units: Administration; Building Maintenance; City Garage; Parking Facilities; Storm Water Maintenance; Street Lighting; Street Maintenance; and Traffic Operations. The administration unit mainly oversees the other seven (7) units and represents the Division at the City Commission meetings, provides oversight and prepares the budget for the Division, among other functions.

Engineering: The Engineering Division operates and maintains the City's infrastructure. The Engineering Division provides project design review, construction inspection, infrastructure inventory, maintenance and operation for the City's facilities and buildings. The Engineering Division also manages the Storm Water Utility and the City's storm water drainage systems insuring compliance with internal policies as well as with the National Pollution Discharge Elimination System (NPDES) permit requirements.

Construction: The Construction Division provides in house capabilities for small underground utilities construction projects.

CURRENT DELRAY BEACH BEST PRACTICES

The Environmental Services Department currently:

- Enhances storm water quality by street sweeping.
- Enhances storm water quality by routine maintenance of storm sewers, roadside swales and storm water pipes.
- Community education by conducting storm water education campaign;
- Community education by utilizing informative billing; and
- Wastewater plant operations aimed at environmental performance by creating and developing a reclaimed water infrastructure.

The Environmental Services Department has taken the initiative to incorporate other green practices. These additional practices are only partially implemented at this time:

- Acquisition of two hybrid vehicles for the Community Improvement and Environmental Services Department. Additional hybrid vehicles are planned for future purchases.
- Expanding the implementation of reclaimed water for irrigation and expanding reclaimed water transmission lines to additional areas of high use of treated water for irrigation.

CURRENT BEST PRACTICES BEYOND DELRAY BEACH

Local, State, and Federal

Literally hundreds of government bodies from the State of California to the Ohio Public Schools system have chosen to build their facilities to green standards to reduce long term operating costs and provide healthier work environments for their employees. The U.S. Green Building Council keeps a running list of the many governments that have adopted this practice. (See Ref 12.1)

Sarasota, FL

Water and wastewater facilities on average are the second highest consumer of energy and producer of green house gases compared with other facilities within the City. City buildings (discussed under Section 9 of this report) are usually the single largest consumer of energy as stated in Burnsville Sustainable Plan, (See Ref. 12.2).

An energy audit will provide the current energy use and identify specific enhancements and projects to the facilities that will maximize energy savings improvements. The services of an Energy Savings Company (ESCO) provides the resources to conduct an energy audit and develop, design, install, maintain and arrange financing for projects designed to improve energy efficiency and reduce maintenance costs. It is expected that the implementation of proposed energy efficient projects will provide sufficient cost savings to pay for its design, implementation and maintenance cost over the term of the contract. Refer to Energy Performance Contracting Manual prepared for the Florida Energy Office (FEO) of the Department of Community Affairs (Ref. 12.3). See Ref 12.4 for more detailed information on Energy Performance Contracting.

The City of Sarasota solicited a Request for Qualification (RFQ) for an Energy/Utility Reduction Performance Contracting Services. Generally, the RFQ scope of services required an ESCO to perform an energy audit, develop and design energy saving projects, financial analysis, construct, implement, commissioning, monitor, report and guarantee the services. (See Ref 12.5)

Miami Beach, FL

Similar to Sarasota, the City of Miami Beach published a RFQ in November 2007 for Establishing a Guaranteed Energy Savings Performance-Based Contract. In addition to the RFQ, there were four (4) RFQ addenda that provided answers to Request for Additional Information (RFI) posed by the potential bidders. The answers clarify many typical questions related to an energy savings performance-based audit, and thus have been included in this report as a reference. (See Ref 12.6)

Anchorage, AK

Anchorage, in conjunction with LED maker Cree, will replace 16,000 light fixtures, about one-fourth of the town's streetlights, with LEDs. The swap should save the city about $360,000 annually in energy costs based on current energy prices. The city will likely save a similar amount of money in lower maintenance costs. LEDs last longer than traditional sodium lights so fewer maintenance crews are required. (See Ref 12.7)

St. Louis County, MN

St. Louis County painted the interior of a parking garage white as part of routine maintenance, and subsequently turned off one half of the lights and dimmed the rest. This practice saved $20,000 on energy bills in one year. (See Ref 12.8)

Chicago, IL

Chicago's Green Alley Program incorporates stormwater management, heat reduction, material recycling, energy conservation, and glare reduction. While this program is not a Planning & Zoning policy in particular, it illustrates the City's overall commitment to sustainable planning strategies. (See Ref 12.9)

South Florida Water Management District

The South Florida Water Management District (SFWMD) developed and adopted a new Comprehensive Water Conservation Program for South Florida in mid 2008. The program was published in September 2008. This South Florida Water Management District's conservation program focus in three main initiatives: regulatory, voluntary, and incentive-based, education and marketing. Each major initiative provides implementation strategy for accomplishing the goals to establish a proactive water conservation program. (See Ref 12.10)

The proposed Year-Round Landscape Irrigation Measure is designed to reduce water use while developing a lasting water conservation ethic throughout South Florida. Outdoor irrigation accounts for up to 50 percent of water use in Florida, and up to 50 percent of the water applied to lawns is lost to evapotranspiration (the sum of evaporation and plant transpiration from the earth's land surface to atmosphere). Water conservation can cost as little as 6 cents to 72 cents per 1,000 gallons of water saved, while the cost of constructing alternative water supply facilities can range from $5 to $7 per 1,000 gallons of water created. This comprehensive program in

conjunction with the other SWMD initiatives ensures an adequate and reliable supply of water.

Clearwater, FL / Lynchburg, VA / Naperville, IL

Fuel conservation within City operations can be attained by internal cooperation via trip planning, sharing rides, removal of excess of cargo to reduce weight and other initiatives. Clearwater, FL joined Lynchburg, VA and Naperville, IL in establishing a series of measures that once implemented, significantly reduced fuel consumption and cost. (See Ref 12.11)

QUICK WINS / LOW-COST GREEN RECOMMENDATIONS

Recommendation 1: Adopt a Series of "Quick Win" Energy Efficiency Measures for City Buildings

Beginning with City Hall, the City can identify a series of quick win energy and water conservation measures with a targeted payback of 3 to 6 years. Such measures for energy conservation might include:

- Change all light bulbs to compact fluorescent units; change all Exit lights to LED, change all fluorescent ceiling fixtures to T-8 electronic ballasts.
- Where possible, power all components from a switched plug strip (or UPS) and turn it off at night. Install motion switches to turn off lights when room is unoccupied.
- Install programmable thermostats in all locations.
- Set electric water heaters down to 120 degrees and install a time to turn it off during nighttime hours (e.g.11 pm to 6 am).
- Install solar hot water heaters where water heaters are utilized. (These have a very good return on investment.)
- Add a solar powered attic exhaust fan(s) to reduce attic air temperature.
- Check attic insulation levels to ensure old insulation has not settled and lost insulation value. Add new Insulation to bring the total attic insulation level up to 12" thick.
- If grant or other funding is available, install a small scale photovoltaic electric system at City Hall as a demonstration model (with the understanding that the economic return on investment is not as great as some of the above ideas, but is very good public relations tool).
- Replacement refrigerators, clothes washers or dishwashers, can be specified to be the highest rated Energy Star Model for overall balance of water savings and electrical savings (see Energy Star website). This would apply to appliances in the City Hall kitchenette, fire stations, police department, etc.

Recommendation 2: Adopt LEED Silver as the Official Goal for All New Municipal Buildings and Substantial Renovations, with a Target of Gold or Higher for at Least ONE Building

The State of Florida, in HB 7135, has already mandated that all new municipal buildings be green certified as of July 1, 2008. Given this mandate, the Task Force felt it important to move ahead quickly in this direction to become proficient, as the ease and cost of building green can be decreased with experience. The city can develop language to include in all RFPs / RFQs issued to architects and engineers for future building projects that stipulates LEED silver (or equivalent in another green building program) as the target goal in the design and construction process. Given the existing State mandate, the Green Task Force did not feel that raising the bar to Silver would present a significant burden and could result in additional cost savings in building operation costs.

Recommendation 3: Register City Hall for LEED for Existing Buildings and Start Pursuing Certification

The LEED for Existing Building Standard deals as much with "Green" Operations as it does the physical building. City Hall could provide a great case study and learning exercise for implementation of green operations in facilities including energy conservation, water conservation, green purchasing etc. In addition, leading by example is an important aspect to the City's overall green initiative.

Recommendation 4: Paint the Interior of Parking Garages White as Part of Routine Maintenance to Maximize Lighting Efficiency

Painting the interior of parking garages white as part of routine maintenance, and subsequently turning off one half of the lights and dimming the rest has proven to be a significant energy and therefore cost saving measure, as noted in the Saint Louis County, MN best practice above.

Recommendation 5: Install High Efficiency Lighting for Streetlights

The Green Task Force recommends pursuing LED lighting for streetlights. (See Ref 12.7)

Recommendation 6: Establish Environmentally Sensitive Landscaping Practices

Grass clippings and small particulate debris from lawn mowing operations blown into roads and carried by storm water runoff are an environmental hazard. Adopting a landscaping policy that prohibits this practice in favor of environmentally friendly alternatives (such as collection and bagging of clippings) would help to reduce a chronic environmental problem.

Recommendation 7: Expand Roundabout Shuttle Routes and Schedules

The Task Force had discussions about the intended use of the Roundabout Shuttle. If indeed it is intended to be a form of public transportation for Delray Beach residents and visitors, the Task Force felt, along with a large majority of the Public Workshop participants, that the Shuttle needs to have expanded routes and a more reliable schedule. Under the current program, the

Shuttle does not work as a public transportation alternative to driving because its schedule is not reliable enough or coordinated enough with the Tri-Rail and other transportation that people will be transferring to. The potential is very great to make this a truly valuable tool to offer residents and visitors an alternative to driving.

Recommendation 8: Adopt a Series of "Quick Win" Water Efficiency Measures for City Buildings

Such measures for water conservation might include:

- Check to verify that rain sensors are working properly on lawn irrigation systems.
- Change some or all of toilets to dual flush models (.8-gallon / 1.6 gallon-per-flush) and consider waterless urinals (0 gallon-per-flush).
- Change all faucets to low-flow models, and in public restrooms use models that sense hands being present to turn on and off.
- If its time for a new clothes washer or dishwasher, choose the highest rated Energy Star Model for overall balance of water savings and electrical savings (see Energy Star website). This would apply to appliances in the City Hall kitchenette, fire stations, police department, etc.

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Perform an Energy Audit on All City Facilities

As part of the City's larger commitment to reduce its green house gas emissions, an energy audit on all City facilities needs to be performed. This can be done in conjunction with the City's overall efforts to quantify and reduce green-house gas emissions using the ICLEI program that is already in process.

An energy audit will provide the current energy use and identify specific enhancements and projects to the facilities that will maximize energy savings improvements. Consider an Energy Service Company (ESCO) as one option that would develop, design, install, maintain, and arrange financing for projects designed to improve energy efficiency and reduce maintenance costs.

Recommendation 2: Convert Roundabout Shuttle to Alternative Fuel and Utilize an Open Air Rubber Wheel Trolley

There are many alternatives to traditional fuel for bus systems. *The Bus Futures – New Technology for Greener Cities Report* and the *Assessment of the Potential to Reduce Emissions From Road Transportation* provides an evaluation of a number of different options for public busses. (See Ref 12.12 and Ref 12.13)

Recommendation 3: Install Stormwater Treatment Devices at All Runoff Outfall Discharges and Promote Stormwater Infiltration

Effective treatment of stormwater before it reaches the Intracoastal Waterway and other natural bodies will enhance water quality. Installing treatment devices at runoff outfall discharges, as well as promoting strategies that allow stormwater to infiltrate back into the ground will help to improve water quality.

Recommendation 4: Re-evaluate the Current Tiered Rate Structure for Water Billing

Water utilities can reduce per capita water use and maintain revenues by using water-conserving rate structures. Fixed charges do not encourage conservation. Creation of a tiered rate structure that is more sensitive to conservation efforts can promote water conservation among users. Allowing categories for smaller amounts of usage will reward those who use less, while at the same time encouraging larger consumers to conserve more. Customers could be provided with more pricing and water use information on their bills, such as how their use compares to the utility's average residential use. (See Ref. 12.14)

Recommendation 5: Adopt LEED for Existing Buildings in the Future for City Buildings

LEED for Existing Buildings is a program that is a practical step towards meeting many of the City's green goals, from green purchasing to energy conservation to water conservation. Adopting this as the standard as the City moves forward into the future is a way to quantify and benchmark its successes in these areas.

REFERENCES

Ref 12.1 - USGBC List of Government Initiatives
Ref 12.2 - Burnsville, MN Draft Sustainability Plan
Ref 12.3 - Energy Performance Contracting Manual
Ref 12.4 - Energy Performance Contracting Information
Ref 12.5 - Sarasota Energy Performance Contracting
Ref 12.6 - Miami Lakes RFP
Ref 12.7 - Anchorage Street Lights
Ref 12.8 - St. Louis County Parking Garage
Ref 12.9 - Chicago Green Alley Handbook
Ref 12.10 - SFWMD Water Conservation Plan
Ref 12.11 - Fuel Conservation Report
Ref 12.12 - Bus Futures Report
Ref 12.13 - Transportation Assessment Report
Ref 12.14 - Florida Water Rates

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 13: HUMAN RESOURCES DEPARTMENT

The City notes that the Human Resources Department is responsible for the following:

Advancement of Qualified Employees; Advertisement and Posting Open Positions; Civil Service Administration; Classification and Pay Plan; Collective Bargaining Agreements; Employee Development and Training; Employee Incentive Program; Employee Relations; Employee Suggestion Award Program; Employee Tuition Program; Equal Employment Opportunities; Internal and External Pay Equities; Labor Relations; Orientation and Exit Interview; Policies and Procedures; Recruitment and Selection; Special Projects; and State and Federal Compliance & Reporting.

CURRENT DELRAY BEACH BEST PRACTICES

Human Resources has already implemented or is currently exploring a number of green initiatives, including:

- Participating in the Tri-rail EDP (Employee Discount Program), that offers employees a reduced rate on Tri-rail tickets. (REF)
- Looking at ways to reduce paper, including electronically distribution of the Employee Newsletter, and working with the computer department to implement an internal network to facilitate paperless communications.
- Drafting a policy to increase workplace flexibility.
- Offering a Wellness & Fitness program.

BEST PRACTICE EXAMPLES BEYOND DELRAY BEACH

Best practice examples in other areas that the City could learn from and potentially adopt include:

Boynton Beach, FL

In order to create a staff person with sustainability responsibilities, Boynton Beach is expanding the existing Assistant Director of Development position to include the responsibilities and title of Sustainable Development Coordinator.

City of Durham, NC

Durham, NC passed a City resolution to hire a Sustainability Coordinator for the City as one of the tools to meet its environmental commitments. (See Ref 13.1)

Vanderbilt University

Vanderbilt University announced recently an HR-led effort called "Don't Take Our Advice," encouraging employees to suppress the printing of their pay advices, an effort that could save significant personnel resources while saving a forest of trees. In a press release, it stated that "the goal of eliminating 10,000 pay advices per month could potentially save 8,000 pounds of wood and almost 7,000 pounds of greenhouse gas emissions per year just from reduced paper use, not including transportation or printing impact." (See Ref 13.2)

Richardson, TX

Richardson, TX has implemented the successful Transportation Demand Management (TDM) program to reduce driving miles. The City's TDM database calculates each individual employee's monthly vehicle miles, gallons of fuel, and pounds of pollution saved from being emitted to the atmosphere. Employees average a total of more than 500,000 miles of savings each year through car and vanpooling made possible by a database of employee addresses.

In addition, many employees participate in an employee reduced public transportation fare program. The City subsidizes 50 to 60 percent of the cost of the employee Dallas Area Rapid Transit (DART) passes. In addition, employees often use free DART passes for City business in downtown Dallas. Costs of the City's TDM program are low, requiring one-quarter of an employee's time and $24,000 for promotions and incentives. The Environmental Protection Agency recently recognized the City as a "Best Workplace for Commuters" award. (See Ref 13.3 for a guide to marketing commuter benefits to employees)

Quick Wins / Low-Cost Green Recommendations

Recommendation 1: Create Job Description for a Sustainability Officer

The issues of sustainability across the Delray Beach city government, as well as coordination with other initiatives in neighboring cities, the county, the State, and Federal government, require extensive attention that merits the full-time attention of a staff person.

Recommendation 2: Create a Human Resources Sustainability Education and Best Practices Education Program

Human Resources can communicate and be an active contributor to sustainable practices of Delray Beach by creating a HR Sustainability Program to educate employees on best practices in their daily habits while at work at the City and in their homes. This program can coordinate with other City green goals such as green purchasing and energy conservation. This might include areas such as Communications, Transportation, Waste Reduction, Green Cleaning, Water Conservation, and Energy Conservation. Also as part of an HR Sustainability Program,

similar to the Wellness Program, monthly or quarterly education forums and “green” programs can be set up to educate staff on sustainable or green practices at home and in the workplace. *(FGBC Points)*

Recommendation 3: Coordinate Roundabout Shuttle with Employee Commuter Schedule

Through the IT Department and GIS, map City employees’ residences to develop an AM and PM route for the Roundabout Shuttle to develop ridership for employees going to and from work.

Recommendation 4: Educate City Employees About Public Transit Federal Tax Incentives

The Federal tax code allows tax-free transportation fringe benefits of up to $105 per month per employee for transit or vanpool expenses and up to $205 per month for parking. The employer can cover the cost of the tax-free transportation fringe benefit, allowing employees to reserve income on a pre-tax basis to cover the cost, or share the cost. This program can save payroll taxes for employers and potentially replace or reduce salary increases. (See Ref 13.4)

Recommendation 5: Provide Re-usable Mug and Water Bottle to Employees

In conjunction with Purchasing, provide reusable mug/water bottle to all employees or encourage employees to bring their own. This can be a part of green employee training functions and / or given as a part of a new employee package.

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Reduce the Work Week to Four Days

Many cities and organizations (Coconut Creek, North Miami, Margate and Delray Beach Housing Authority) have moved to a four-day workweek. Delray Beach could reduce workweek to four days (7 am to 6 pm) similar to Coconut Creek. This reduces energy use in City buildings and emissions from employees driving to work. It also reduces employee gasoline usage (and therefore cost). In conjunction, employees could sign a "pledge" to drive less on the day off than they would if they were driving to work. There are often concerns that citizens will feel disenfranchised by offices being closed one day per week, but many municipalities that have done this have found that citizens like it better because they can visit City offices after their own work hours if the office is open until 6 or 7 in the evening.

REFERENCES

Ref 13.1 - Durham Sustainability Coordinator
Ref 13.2 - Vanderbilt University HR Program
Ref 13.3 – Marketing Commuter Benefits to Employees
Ref 13.4 - Transportation Tax Benefits

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

SECTION D:

CITY SUPPORTED / OTHER CIVIC ENTITIES RECOMMENDATIONS

CHAPTER 14: COMMUNITY REDEVELOPMENT AGENCY (CRA)

The CRA's website notes: "The purpose of the CRA is to revitalize the physical environment and the economy of the Community Redevelopment Area. The CRA's activities are designed to solve the underlying problems of slum and blighted conditions through planning, redevelopment, historic preservation, economic development and affordable housing so that the tax base can be protected and enhanced by these mutually supportive activities."

CURRENT DELRAY BEACH BEST PRACTICES

The CRA currently:

- Has tried to incorporated energy saving items (Energy Star appliances, tankless water heaters etc.) into some of its projects.
- Is helping to finance the Atlantic High School Eagle's Nest II project, which will be pursuing LEED Certification this year.
- Operates during the Green Market in winter months, which promotes local and organic produce as well as other local crafts.

BEST PRACTICE EXAMPLES BEYOND DELRAY BEACH

Boynton Beach, FL CRA

The Boynton Beach CRA is currently:

- Pursuing financial incentives for LEED certified construction.
- Pursuing LEED certification for its projects
- Participating on the City's Green Task Force
- Implementing numerous conservation efforts in its office

(See Ref 14.1)

Lake Worth, FL CRA

The Lake Worth CRA offers grants for green buildings as part of its Façade Grant and Commercial Tenant Improvement grants. (See Ref 14.2)

West Palm Beach, FL CRA

The West Palm Beach CRA collaborated with the West Palm Beach Housing Authority, Florida Housing Finance Corporation and other public / private partners to build Merry Place, an FGBC green certified workforce housing development. (See Ref 14.3)

Coconut Creek, FL

In December 2004, Coconut Creek adopted the MainStreet Design Standards document, which establishes the vision for a mixed-use, downtown development in the center of Coconut Creek. The document requires all buildings to be "green and sustainable", and be certified by the U.S. Green Building Council or the Florida Green Building Coalition, Inc. The City's goal is to be the first City in the State and perhaps the Country, to have a contiguous certified green building project. (See Ref 14.4)

QUICK WINS / LOW-COST GREEN RECOMMENDATIONS

Recommendation 1: Provide a CRA Representative for a New (Potential) Permanent Green Advisory Board

If a citizen and business Green Advisory Board is established, it is recommended that a CRA representative participate in the Board..

Recommendation 2: Adopt the City's Standard Green Office Practices

The CRA is encouraged to adopt the City's green operating practices for the following potential areas: purchasing; green cleaning; recycling; paper reduction (e.g. dual sided printing / copying, electronic documents etc.); Energy conservation employee best practices (e.g. turning off computers, monitors, lights etc.), and other green operational guidelines as determined by the City.

Recommendation 3: Provide a Green / Energy Efficiency Grant and Revolving Loan Fund

As other CRA's have done, there is an opportunity to encourage green and energy efficient upgrades by incorporating such opportunities into the grant process. This could be done by revising an existing grant (e.g. Lake Worth), or creating a new energy efficiency grant opportunity.

Recommendation 4: Pursue Green Building Certification for the Old Library / Hotel Redevelopment Project

The CRA is encouraged to pursue green certification for the current Old Library / New Hotel redevelopment project (per the State of Florida's definition of green certified in HB 7135).

Recommendation 5: Pursue Green Building Principles for the Current Parking Lot Redevelopment Project

When redeveloping the current parking lot project at NE 3rd Street and NE 3rd Avenue, use it as a best practice example for promoting sustainable parking lots.

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Pursue Green Building Certification for All CRA Projects

Require that the CRA's own projects achieve green / LEED Certification (per State of Florida HB 7135 green certification), targeting Silver and Gold Certification (or equivalent from another green building rating system), requiring this in the Request for Proposal (RFP). (Boynton Beach Best Practice, Ref 14.1)

Recommendation 2: Implement Long-Term Sustainable Redevelopment Planning

Collaborate with the City to incorporate long term strategies to promote sustainable development, green building, and green economic development into future City redevelopment planning documents such as master plans, neighborhood plans, design guidelines, and other studies.

REFERENCES

Ref 14.1 - Boynton Beach Green Task Force Recommendations (2/7/08)
Ref 14.2 - Lake Worth CRA Grant Brochure
Ref 14.3 - West Palm Beach Merry Place Workforce Housing
Ref 14.4 – Coconut Creek Main Street

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 15: DELRAY BEACH HOUSING AUTHORITY

The Housing Authority is "dedicated to improving the quality of life for low and moderate income families, and providing the opportunity for self-sufficiency by guaranteeing safe, quality housing" (DBHA website). The Housing Authority administers programs for affordable rental housing, as well as affordable home purchasing. The Housing Authority also participates in public / private partnerships to construct affordable housing, such as Village at Delray Revitalization Initiative to redevelop the old Carver Estates site.

CURRENT DELRAY BEACH BEST PRACTICES

The Task Force is not currently aware of any green best practices being implemented by the Housing Authority.

BEST PRACTICE EXAMPLES BEYOND DELRAY BEACH

West Palm Beach, FL

West Palm Beach Housing Authority partnered with other public and private entities to create Merry Place, an award-winning FGBC certified workforce housing development. (See Ref 15.1)

Bonita Springs , FL

The Bonita Springs Area Housing Development Corporation constructed Renaissance at Rosemary Park, a 39-unit affordable project with a number of green features including: solar hot water heaters, better insulation, and energy efficient lighting. (See Ref 15.2)

North Miami, FL

The Mayor of North Miami, FL initiated the adoption of the City's "Housing Rehabilitation Specifications Guidelines" which require that 100 percent of Federal Community Development Block Grant and Home Ownership Opportunities Program funds and Florida's State Housing Initiatives Program funds must be used for rehabilitation, redevelopment and construction projects that contribute to the greening of the City. (See Ref 15.3, page 51)

Florida Community Loan Fund

The Florida Community Loan Fund provides a number of green lending and grant funding for affordable housing initiatives, working directly with Housing Authorities in the State, including a recently announce Green Building Pool with aggressive financing options for green affordable projects. (See Ref 15.4)

Green Communities Online

There are numerous examples of green affordable housing projects and partnerships nationwide available at Green Communities Online. (See Ref 15.5)

State of Vermont

The State of Vermont has for many years incorporated energy efficiency into its low income housing as a benefit for low-income occupants. Such practices include assisting in energy improvements, energy audits, and reduced interest rate mortgages for first time homebuyers purchasing energy efficient homes. (See Ref 15.6)

QUICK WINS / LOW-COST GREEN RECOMMENDATIONS

It is generally agreed that green housing helps to achieve the mission of affordability by reducing utility bills for the already economically challenged occupants.

Recommendation 1: Create Green Funding and Partners Resource List

Compile a list of green affordable funding options and partnership opportunities through organizations (such as Florida Community Loan Fund, Enterprise Foundation, USGBC, Home Depot etc.). There are many examples, such as those above, of creative ways to provide green housing that can be an added economic break to affordable housing occupants.

Recommendation 2: Provide Green Home Improvement Funding Resources

Provide resources for home improvement such as financing for energy and water efficiency improvements. In many cases, affordable housing occupants may not be able to afford up front costs for some items that would likely reduce their financial burden in the long run.

Recommendation 3: Create Green Education Outreach Program

Create an educational outreach program for its clientele to educate about ways to conserve energy and water to reduce utility bills, as well as other green living tips. Simple education could go a long way to helping reduce the burden of energy and water bills.

Recommendation 4: Pursue Green Building Certification at the Villages at Delray

Incorporate an environmental mission into the current Villages at Delray initiative, including green building, green economic / jobs training and development, and long-term sustainability operations for the site. This project shows great potential, as it is more than just housing. There is great opportunity to create a sustainable mission, get the occupants exited about their residences, and promote green jobs in this growing sector.

Recommendation 5: Adopt the City's Standard Green Office Practices

The Housing Authority is encouraged to adopt the City's green operating practices for the following potential areas: purchasing; green cleaning; recycling; paper reduction (e.g. dual sided printing / copying, electronic documents etc.); energy conservation employee best practices (e.g. turning off computers, monitors, lights etc.), and other green operational guidelines as determined by the City.

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Pursue Green Building Certification for All New Developments

Commit to building all new developments and homes to green certified standards. As the public and private sector continue to move in this direction, such a policy would make a significant statement about Delray Beach's commitment to providing a healthier city and residences. Many green organizations such as the USGBC will waive fees for non-profits.

Recommendation 2: Revise the Housing Authority's Mission Statement to Include Green Principles

Revise the current mission statement to include the economic and health benefits that green building and development offer to affordable housing occupants.

REFERENCES

Ref 15.1 - West Palm Beach Housing Authority Merry Place Article
Ref 15.2 - Bonita Sprinsgs, FL Renaissance Rosemary Project
Ref 15.3 - US Mayors Climate Best Practices, Page 51
Ref 15.4 - Florida Community Loan Fund
Ref 15.5 - Green Communities Online
Ref 15.6 - State of Vermont Program

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 16: DELRAY BEACH DOWNTOWN DEVELOPMENT AUTHORITY (DDA) /DELRAY BEACH DOWNTOWN MARKETING COOPERATIVE (DMC)

The DDA ‘s main area of involvement includes supporting the DMC in their marketing of the downtown area as well as advertising and promoting Atlantic Avenue from I-95 to Swinton Avenue. The Authority is responsible in part for downtown lighting, street banners, pedestrian way-finding sign systems and business mix studies.

The Delray Beach Downtown Marketing Cooperative mission is to create, organize and manage programs and events to enhance the economic prosperity of downtown, and to assist in marketing and promotion of the downtown. The DMC is a partnership between the City of Delray Beach, the Community Redevelopment Agency, the Chamber of Commerce and the Downtown Development Authority.

CURRENT DELRAY BEACH BEST PRACTICES

The DMC currently:

- Partners with the local Delray Beach Historical Society to produce a historic walking and bike tour brochure.

The DMC and DDA currently:

- Incorporate a Green Tip of the Month into each monthly Calendar.
- Have brought green initiatives into their events policies, such as the “greening” of the 100-ft. Christmas tree. This effort switched out over 15,500 bulbs to LED bulbs greatly reducing energy consumption.
- Through the Visitor Information Center, the Chamber disseminates information regarding our Downtown Roundabout and local Public Transportation options.

BEST PRACTICE EXAMPLES BEYOND DELRAY BEACH

Santa Fe, NM

In Santa Fe, local merchants have joined together to form Locals Care. It is a program where

local shoppers can join and earn points to be redeemed to purchase qualifying goods at Local Care merchants. Merchants contribute a small percentage of the qualifying purchases to support the network, with the assumption that the increase in business will outweigh their costs. Shopping locally not only supports these downtown merchants, but is more environmentally conscious as it reduces driving to suburban malls, and in many cases, local shops carry locally made products that have not consumed energy in transport to the store. (See Ref 16.1)

QUICK WINS / LOW-COST GREEN RECOMMENDATIONS

Recommendation 1: Adopt the City's Standard Green Office Practices

Adopt the City of Delray Beach's Green Purchasing plan for all cleaning and office supplies.

Recommendation 2: Switch to Recycled or FSC-Certified Paper for all DDA Publications

Print all brochures double sided on FSC Certified Paper with environmentally friendly inks.

Recommendation 3: Implement a Recycling Program for the DDA Office

Recommendation 4: Create Volunteer Green Team

Incorporate into the current volunteer database a separate list of volunteers who are interested in eco-friendly events and initiatives.

Recommendation 5: Provide a DDA Representative for New (Potential) Permanent Green Advisory Board

Recommendation 6: Promote "Car Free Zones"

Advertise "Car Free Zones" during events that have the streets closed off to vehicular traffic.

Recommendation 7: Develop a Plan to Attract More Green Events

Collaborate with the Palm Beach County Convention Visitors Bureau in lobbying for "Green Conferences."

LONGER-TERM / STRATEGIC RECOMMENDATIONS

Recommendation 1: Develop and Implement Green Merchant Marketing Program

Create a marketing program, similar to the aforementioned Santa Fe merchant program, for the DDA District in which a logo would be created to distinguish merchants who abide by green practices. This program can be facilitated through other certifying organizations. Incorporate the program into current business listings throughout all collateral as future listings on websites, brochures, etc.

Recommendation 2: Promote Green Tourism

Incorporate into the annual marketing plan a Sustainable Tourism effort that would utilize the www.downtowndelraybeach.com website, various collateral and print ads. This Sustainable Tourism effort would highlight local green hotels, environmentally friendly and sustainable activities such as biking, local shopping and food choices, and travel choices (possible partnership with Amtrak/Tri Rail) (See Ref 16.2 and Ref 16.3)

Recommendation 3: Promote Alternative Vehicles / Bikes for Tourists

Attract an electric car rental operator to run a business targeting Tourists. Incorporate into the streetscape a more accessible bicycle rental kiosk directly on Atlantic Avenue. (See Ref 16.4)

Recommendation 4: Explore and Potentially Propose a Permanent Car-Free / Pedestrian Zone in the Downtown Core

Evaluate possible streets or city blocks to convert from thoroughfares or parking to a permanent pedestrian zone with no on-site parking or vehicular access. Such areas often become vibrant spaces for citizens and businesses and can become a focal point for city life. This was the number one recommendation to emerge from the Task Force Public Input Workshop.

REFERENCES

Ref 16.1 - Santa Fe Locals Care Program
Ref 16.2 - Car Free Vacationing in Santa Barbara
Ref 16.3 - Top 10 Ways to Go Green in Philadelphia
Ref 16.4 - Washington DC Bike Rental

Note: All references are available as clickable links within this electronic document and available online at http://www.SustainableDelray.org/report.htm

CHAPTER 17: GREATER DELRAY BEACH CHAMBER OF COMMERCE

The Greater Delray Beach Chamber of Commerce is primarily an organization of business and professional men and women who have joined together to work for the solution of their mutual problems - both business and community problems. The Chamber is over 1200 businesses and professional firms working together to make the Delray Beach area a better place to live and work. The organization hosts events, networking groups, provides information for residents and visitors, as well as many other community and local business related activities.

CURRENT DELRAY BEACH BEST PRACTICES

The Task Force is not currently aware of any green best practices being implemented by the Housing Authority.

BEST PRACTICE EXAMPLES BEYOND DELRAY BEACH

The Following is a brief synopsis of green activities and policies by other Chamber of Commerce Organizations in other cities in Florida.

Florida

The Florida Chamber of Commerce has recently adopted a Green lobbying policy in which they will be encouraging businesses to assume basic green practices for the purposes of reducing greenhouse gases. In addition, the Chamber has endorsed green initiatives at the State level including the comprehensive House Bill 7135 passed by the State of Florida in June 2008 (See Ref 17.1)

New York, NY

The Manhattan Chamber of Commerce has launched a Green Business Initiative to help small to mid-size businesses grow while "doing the right thing for the City and for the global environment." (See Ref 17.2)

Indianapolis, IN

The Indianapolis Chamber of Commerce has launched a similar Green Business Initiative. (See Ref 17.3)

Quick Wins / Low-Cost Green Recommendations

Recommendation 1: Adopt the City's Standard Green Office Practices

Adopt the City of Delray Beach's Green Purchasing plan for all cleaning and office supplies.

Recommendation 2: Switch to Recycled or FSC-certified Paper for all DDA Publications

Print all brochures and other collateral on FSC Certified Paper with environmentally friendly inks.

Recommendation 3: Implement Recycling in Chamber Office

Implement a basic recycling practice for the office for glass, plastic, paper, and cardboard.

Recommendation 4: Create a Green Awards Program

Create a Green Awards program in which the most successful Green Projects / Buildings / Businesses are recognized for their contributions. This award program is recommended to occur on an annual basis.

Recommendation 5: Pursue Green Event Planning for 2009 and All Future Delray Affair Events

Incorporate Green Initiatives into the Delray Affair.

Longer-Term / Strategic Recommendations

Recommendation 1: Pursue LEED for Commercial Interiors Certification for New Office

With the Chamber's new office currently in the planning stages, there is an opportunity to have the project green certified.

Recommendation 2: Identify "Green Businesses" and Designate Them Separately on Chamber Website

Create a search feature on www.delraybeach.com for green business listings and / or a separate section on the website and in Chamber directories for green businesses, per the Best Practices noted above in Manhattan and Indianapolis. "Green" businesses would include those that primarily provide environmentally friendly products or green services.

Recommendation 3: Support the Florida Chamber of Commerce's Green Efforts

Support the Florida Chamber of Commerce in their Energy Solutions Coalition, which lobbies for Florida businesses to have reliable, affordable and environmentally responsible energy to continue to drive Florida's economy and create jobs for Floridians. Rising energy costs, like rising healthcare costs, threaten Florida's economy and our ability to strengthen our business

climate in a global marketplace. The entire explanation of this program can be researched within the House Bill 7135.

REFERENCES

Ref 17.1 – Chamber Energy Solutions Coalition
Ref 17.2 – Manhattan Chamber of Commerce Green Initiative
Ref 17.3 – Indianapolis Chamber of Commerce Green Business Initiative

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SECTION E:

APPENDICES

APPENDICES

Appendix 1: Summary Table of Green Objectives and All Recommendations (Excel)

Appendix 2: Summary Table of All Recommendations by City Department (Excel)

Appendix 3: Economic & Environmental Scorecard (Excel)

Appendix 4: Weblinks for Further Information

Appendix 5: Final List of All Potential Recommendations, Sorted and Evaluated

Appendix 6: Summary of Green Building & Recycling Programs in Selected Cities and Nationwide

- Ref App 6.1 - Gainesville, FL PV Rebate Program (PDF)
- Ref App 6.2 - Gainesville, FL Solar Water Heater Rebate Program (PDF)
- Ref App 6.3 - Gainesville, FL Low Interest Energy Efficiency Loan Program (PDF)
- Ref App 6.4 - Gainesville, FL Green Building Program Ordinance (PDF)
- Ref App 6.5 - Gainesville, FL Recycling Ordinance (PDF)
- Ref App 6.6 - University of Florida Green Building Report (PDF)
- Ref App 6.7 - University of Florida Facilities LEED Program (PDF)
- Ref App 6.8 - Sarasota County, FL Green Building Ordinance (PDF)
- Ref App 6.9 - Natural Capitalism - Sarasota, FL (website)
- Ref App 6.10 - Miami-Dade County, FL Sustainability Initiatives (website)
- Ref App 6.11 - Maimi-Dade County, FL Green Building Resolution (PDF)
- Ref App 6.12 - Miami-Dade County, FL Recycling Program (website)
- Ref App 6.13 - Tallahassee, FL Energy Smart Plus Program (PDF)
- Ref App 6.14 - Coconut Creek, FL Green Main Street Article (PDF)
- Ref App 6.15 - Menlo Park, CA Climate Action & Recommendations Report (PDF)
- Ref App 6.16 - Palo Alto, CA Sustainability Information (website)
- Ref App 6.17 - Palo Alto, CA Build It Green Checklist (PDF)
- Ref App 6.18 - Pasadena, CA Green Building Program (PDF)
- Ref App 6.19 - San Jose, CA Green Vision Document (PDF)
- Ref App 6.20 - Santa Monica, CA Sustainable City Plan (PDF)
- Ref App 6.21 - Santa Monica, CA Green Building Program (website)
- Ref App 6.22 - Santa Monica, CA Green Building Program, Required Practices (website)
- Ref App 6.23 - Built Green Santa Barbara, CA (website)
- Ref App 6.24 - City and County of San Francisco, CA Green Building Report (PDF)
- Ref App 6.25 - San Francisco, CA Green Building Ordinance Summary (PDF)
- Ref App 6.26 - Boulder, CO Green Building and Green Points Guideline Booklet (PDF)
- Ref App 6.27 - Boulder County, CO Green Building Program (PDF)
- Ref App 6.28 - Seattle, WA Climate Action Plan (PDF)
- Ref App 6.29 - Portland, OR Office of Sustainable Development (website)
- Ref App 6.30 - Portland, OR Recycling Guide (PDF)
- Ref App 6.31 - Portland, OR Office of Sustainable Development - Green Building Program (website)
- Ref App 6.32 - Portland, OR Office of Sustainable Development - Green Guides (website)

Appendix 7: ICLEI Software Overview

Appendix 8: Public Input Workshop Documents

Appendix 9: Summary of Inititial Survey of Delray Beach City Department Current Green Initiatives

Appendix 10: Proposed Green Building Ordinance

Appendix 11: Proposed Anti-Idling Ordinance

Appendix 12: Summary of Green Grant Opportunities

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