

**City of Key West
Sustainability Program**

**A Plan for the Environmental
Stewardship of Key West**

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Introduction

The quality of the environment in and around Key West is vital to the social and economic well being of both the residential and the business communities. Key West and its surrounding waters and wildlife attract tourists from all over the United States and internationally. Residents take delight in their year long tropical setting and associated waterside recreational activities.

The habitat of Key West, ranging from the mangroves, to hardwood hammocks to our yards and street side trees all contribute to an environment that continues to draw birds from all parts of North America. Our island is home to many species of threatened or endangered species that continue to thrive here. Keys foliage is some of the most varied in the state. The waters surrounding Key West are teeming with wildlife. Our seagrass flats are home to the worlds most fertile fisheries with hundreds of species of fish. As stewards of this land and water the City Commission has resolved to ensure we leave a legacy of enhancement for future generations.

In recent years the importance of reducing carbon emissions has come to the forefront of environmental discussions across the planet. “Global Warming” and “Climate Change” are now common terminology in many households and recognized as a serious threat to many United States towns and cities. The City of Key West’s Sustainability Program intends to inform citizens and visitors of the steps we are taking to combat this threat through extensive consultation, policy development, program management and the adoption of robust evaluation techniques.

Key West would be adversely impacted by even a minimal sea level rise caused by global warming. Current high tides already creep into a significant number of our streets backing up our stormwater drainage system resulting in economic damage to businesses and increased costs of vehicle repair from salt water corrosion. Support for environmental stewardship has emerged throughout the community during recent years and especially in community conversations in 2007. The City of Key West is determined that we should take a leadership role and encourage good stewardship of our islands and the earth.

Plan Development

The Sustainability Program is the City's environmental stewardship policy document. Using this policy we will develop a strategic plan in consultation with citizens and professionals to address identified environmental issues that pose a threat to our environment if left unmonitored. The Sustainability Plan is based on resolutions, plans and goals already established by the City of Key West or the State of Florida. Seven documents were considered in the development of this plan; they are listed here with brief descriptions to increase awareness and to provoke conversation on the broader issues:

- 1 The City of Key West 2005 Strategic Plan;
- 2 U.S. Conference of Mayors Climate Protection Agreement, ratified by the City Commission (Resolution 07-273) August 7, 2007;
- 3 Kyoto Protocol, ratified by the City Commission (Resolution 07-160) May 2, 2007;
- 4 Sarasota Roadmap, ratified by the City Commission (Resolution 07-160) May 2, 2007;
- 5 Governor's Executive Orders on Climate Change 07-126, 07-127, 07-128;
- 6 National Pollutant Discharge Elimination System's (NPDES) Municipal Separate Storm Sewer System (MS-4) City of Key West 5-year plan; and
- 7 The City of Key West Comprehensive Plan – the City's primary planning document authorized by the City Commission authorized by the City Commission August 10, 1993.

1. City of Key West Strategic Plan

The City of Key West Strategic Plan established priorities and concerns based on input from its citizens. The 2005 planning document sought to complete its initiatives in 5 years. The initiatives are grouped into seven detailed elements:

- A Community Enhancement
- B Economic Development
- C Environmental Management
- D Infrastructure
- E Mobility
- F Organizational Excellence
- G Social Services

The environmental elements of the City of Key West Strategic Plan include those elements that are environmental in a scientific manner, as in pollution reduction, as well as elements that enhance our quality of life, like clearing sidewalks to encourage pedestrian use and a related reduction in vehicle usage. The elements that were selected for use in this planning document are:

- A Community Enhancement
 - Aggressive enforcement of sidewalk obstruction
 - Creation of neighborhood organizations
 - Enhance the web site to promote a greater understanding of the city codes

- C Environmental Management
 - Continue work in sewer/stormwater
 - Create management plan for habitats
 - Improved maintenance/security at parks and beaches
 - Enhanced art in public places
 - Prompt code enforcement and fine collection
 - Clean up obscenity from T-shirt shop windows
 - Increased public education about environmental concerns (stormwater, tree commission, code awareness)
- D Infrastructure
 - Continuation of stormwater project
 - Improve safety of sidewalks and streets
 - Development of Truman Waterfront Park
- E Mobility
 - Increased bicycle and pedestrian usage
- F Organizational Excellence
 - Establish and commit to a strategic plan and fund it
 - Improve public confidence in city government

The remaining elements of the strategic plan were not considered applicable to the development of an environmental plan.

2. U.S. Mayors Climate Protection Agreement

The City's resolution to support the U.S. Conference of Mayors U.S. Mayors Climate Protection Agreement (CPA) requires the City to strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and community.

Five milestones exist to:

- A Conduct a greenhouse gas emissions inventory and forecast to determine the source and quantity of greenhouse gas emissions in the jurisdiction;
- B Establish a greenhouse gas emissions reduction target;
- C Develop an action plan with both existing and future actions which, when implemented, will meet the local greenhouse gas reduction target;
- D Implement the action plan; and
- E Monitor and report progress through the International Council for Local Environmental Initiatives (ICLEI).

The CPA's recommended actions to reduce greenhouse gas emissions are almost all complimentary to the creation of the City's environmental strategic plan. They include recommendations to:

- Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan;

- Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create a compact, walk-able community;
- Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit;
- Increase the use of clean, alternative energy by, for example, investing in “green tags”, advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology;
- Make energy efficiency a priority through building code improvements, retrofitting City facilities with energy efficient lighting and urging employees to conserve energy and save money;
- Purchase only Energy Star equipment and appliances for City use;
- Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system;
- Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles;
- Launch an employee education program including anti-idling messages;
- Convert diesel vehicles to bio-diesel;
- Evaluate opportunities to increase pump efficiency wastewater systems; recover wastewater treatment methane for energy production;
- Increase recycling rates in City operations and in the community;
- Maintain healthy urban forests by promoting tree planting to increase shading and to absorb CO₂; and
- Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

3. Kyoto Protocol

On February 16, 2005, the Kyoto Protocol, an international agreement to address climate change, went into effect in 174 countries that ratified it to date; 38 of those countries are now legally required to reduce greenhouse gas emissions on average 5.2 percent below 1990 levels by 2012. Although the United States did not ratify the agreement, many U.S. cities are adopting elements of the Kyoto Protocol and making commitments that even the federal government has chosen not to adopt.

4. Sarasota Roadmap to Sustainability

Florida's Sarasota County's comprehensive plan is dedicated to establishing a sustainable self-sufficient community. They found that compartmentalized sustainability alone was not sufficient to make a measurable and durable change in the community so a roadmap was developed to take a more holistic route to sustainability. The goals extracted from the roadmap that may be adopted by Key West are:

- Become carbon neutral;
- Use environmentally preferred procurement;
- Embrace “Natural Capitalism”: meaning increase resource productivity, eliminate waste and enjoy no toxicity;
- Invest in natural and human capital; and

- Carefully weigh costs and benefits.

5. Florida's Governor Christ's Executive Orders

Acknowledging the devastating effects unchecked global warming would have on Florida, Governor Charlie Christ issued Executive Orders to take immediate actions to reduce greenhouse gas emissions, establish climate change leadership by requiring the Public Service Commission to open the market to clean, renewable energy technologies; to establish an Action Team on Energy and Climate Change, and to develop a comprehensive energy and climate change action plan. The orders that are applicable to city government recommend or require:

- Reduction of greenhouse gas emissions to 1990 levels by 2050;
- Adoption of California motor vehicle emission standards;
- Adoption of a diesel engine idle reduction standard;
- Increase energy conservation standards;
- Assessment of current energy used to quantify the associated greenhouse gas emissions;
- Adopt LEED standards;
- Develop energy conservation measures and guidelines;
- Analysis of vehicle fuel economy;
- Procurement of only those vehicles with the greatest fuel efficiency in its class;
- Use of ethanol and bio-fuels; and
- Tracking and reporting of the emissions and financial savings resulting from the orders.

6. City of Key West MS4 Permit

City of Key West is required to operate our stormwater system in compliance with the National Pollutant Discharge Elimination System (NPDES). The goal of the program, which stems from the Clean Water Act (1972), is to eliminate pollutant discharges into American waters. We have a state environmental permit, entitled *Municipal Separate Storm Sewer System* permit (MS-4), which contains a five-year plan indicating how the city will comply with the NPDES. The permit has stringent goals designed to reduce pollution. There is a strong emphasis on education and public participation throughout the initial five years of the permit.

Our permit has 6 elements each of which have best management practices, measurable goals and a schedule of deliverables. The six elements are:

- Public education and outreach concerning stormwater pollution;
- Public participation in stormwater ordinance revisions and community clean-ups;
- Detection and elimination of illicit discharges through inspection and codes;
- A construction site best management practice ordinance and inspections;
- Private property infrastructure inspection and maintenance requirements; and
- Municipal operation pollution prevention and good housekeeping.

7. City of Key West Comprehensive Plan

The Comprehensive Plan is, as named, the most comprehensive plan of action for our city government. It is thorough, specific and mandated. The plan is a living document required to be updated periodically to match our capital plan and changing culture. It is authorized by the City Commission and approved by the State.

Elements of the comprehensive plan that provide direction to our environmental program are:

- Coastal Management Element;
- Conservation Element
- Public Facilities Element

The Objectives of the elements that were considered in this plan are:

- Protect coastal marine resources, habitat and wildlife
- Protect and enhance the shoreline;
- Manage the impact of development on tidal flushing and salt ponds
- No new point source pollution

Sustainability Program

Defining sustainability is creates the platform for program development. Sustainability here is defined as stewardship of local and imported resources in balance with the needs of the community so that there is no resultant net environmental loss for future generations.

Specific information was extrapolated from the above documents and used to inform and develop a *Sustainability Program* as well as the start of a management plan. An environmental strategic plan is emerging which can be divided into six major categories, or goals:

1. Enhancement of bicycle, pedestrian and public transit;
2. Reduction in runoff/stormwater pollutants into near shore waters;
3. Reduction of pollutants from marine users at docks and off shore;
4. Reduction in greenhouse gasses;
5. Community enhancement to increase carbon biomass and encourage dedication to our environment; and
6. Support natural habitats and indigenous wildlife.

Each category is further divided into specific objectives. These objectives will be analyzed by action teams, urgent benchmark teams, and cluster benchmark teams to develop strategies to meet goals. The teams will be made up of a cross section of city staff and community members as required. The programs will be managed by the City Manager or his designee.

1. Enhancement of Bicycle, Pedestrian and Public Transit

An increase in “clean” alternative transportation use reduces the need for fossil fuels and may reduce traffic congestion. Initiatives include:

- a. Maintenance of clean clear sidewalks free of cars, trees, and trash;
- b. Maintenance and improvement of bike paths and lanes;
- c. Increasing the mileage of bike paths and lanes;
- d. Educating and then enforcing codes/laws regarding sight triangles, Right of Ways, sidewalks, etc;
- e. Increasing shade trees, benches, water fountains and chargeable bathrooms to encourage a walk-able community; and
- f. Improve access for disabled persons

2. Reduce Polluted Runoff/Stormwater Into Near Shore Waters

Pollutants not only effect our immediate environment, but a higher quality environment will help encourage people to take better care of our city. Initiatives are:

- a. Develop an anti-pollution education campaign;
- b. Develop a comprehensive street sweeping plan;
- c. Install sediment traps throughout the city and on all outfalls;
- d. Cleaning and maintenance of sediment traps, inlets and piping;

- e. Develop a 10 year long range plan for stormwater improvements in compliance with engineering and environmental standards;
- f. Enforce codes concerning pet waste, trash, dumping and illicit discharge;
- g. Ensure beaches are cleaned to best management practices (BMP's); and
- h. Educate and encourage property owners to use BMP's.

3. Reduction of Pollutants from Marine Users at Docks and Off Shore

An extremely large percentage of the city is used for ports and marinas. This brings a management responsibility greater than most cities our size. The following initiatives seek to reduce negative impacts on the local environment and on the global environment.

- a. Encourage all vessels to use pump outs;
- b. Encourage cleaner burning fuel and more efficient engines;
- c. Education campaign to reduce trash in water and personal responsibility to pick up trash;
- d. Support the State's "Clean Marina" program at all marinas in the city;
- e. Reduce waiting time for boats idling while returning to trailers or storage; and
- f. Encourage anti-idling education.

4. Reduction of Greenhouse Gasses

To reduce greenhouse gasses, we must reduce the amount of carbon based fuels used. The following goals will help in the reduction:

- a. Conduct greenhouse gas emission inventory;
- b. Establish a greenhouse gas emission target;
- c. Develop plan to reduce greenhouse gas emissions in City facilities;
- d. Reduce energy use in the city's fleet;
- e. Construct all city facilities with LEED, or similar standards;
- f. Use only Energy Star products;
- g. Develop land use policies that improve the long term storage of carbon bio-mass;
- h. Recycle at a greater rate; and
- i. Educate businesses to reduce carbon emissions.

5. Community Enhancement

To increase carbon biomass and encourage dedication to our environment we will:

- a. Increase the number of trees in the city;
- b. Maintain a clean city;
- c. Improve esthetics and landscaping of city facilities;
- d. Support "Clean Key West" and Love Your Island" programs; and
- e. Develop a 10-year long range facilities plan.

6. Support Natural Habitats and Indigenous Wildlife

- a. Create management plans for all natural areas of the city.

Conclusion

With its determination to continue to take a leadership role in high quality stewardship of the environment, the City of Key West has created its Sustainability Program to announce its environmental policy.

With this policy in place the City will work with citizens and professionals to collaborate and develop partnerships to implement plans, solutions and operational policies. This holistic approach will use our collective energies to develop reasonable solutions. Our efforts will themselves be sustained by using sound program management techniques with built in evaluation of results to measure progress against key milestones. Outcomes of the evaluation will contribute to future policy and programs. We will strive to keep abreast of all broader issues and impacts both within and beyond the city.

Appendix

Sustainability Program Milestones

1. Enhancement of Bicycle, Pedestrian and Public Transit - Create plan to address each issue by October, 2008.

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- e. Increasing shade trees, benches, water fountains and chargeable bathrooms to encourage a walk-able community; and
- f. Improve access for disabled persons

2. Reduce Polluted Runoff/Stormwater Into Near Shore Waters - Create plan to address each issue by October, 2009.

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- e. Reduce waiting time for boats idling while returning to trailers or storage; and
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**4. Reduction of Greenhouse Gasses - Complete items a, b, c, and f by October, 2008.
Create plan to address d, e, g, h by December 2008.**

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- h. Recycle at a greater rate; and
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**5. Community Enhancement - Create plan to address each issue by October, 2008.
Complete item e by October, 2008.**

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- d. Support "Clean Key West" and Love Your Island" programs; and
- e. Develop a 10-year long range facilities plan.

**6. Support Natural Habitats and Indigenous Wildlife - Create management plan for
each area by October, 2010.**

- a. Create management plans for all natural areas of the city.