

3. History of Sustainability and Climate-Related Efforts to Date

The Village has been committed to protecting and upgrading its infrastructure, natural systems and quality of life. All of these goals provide a base for this effort. In recent years, Islamorada initiated several climate and sustainability-related efforts to help meet these goals, including:

- Clean Marina Program (beginning in 2004);
- Village-wide wastewater collection and transmission system was completed in December 2015;
- Environmental Sustainability Plan (2007 – 2015; updated annually);
- Canal Restoration Projects (initiated in 2014); and
- Other efforts (including water quality improvements; open space, parks and recreation enhancements; infrastructure projects; and disaster preparedness and hazard mitigation efforts).

A) Environmental Sustainability Plan

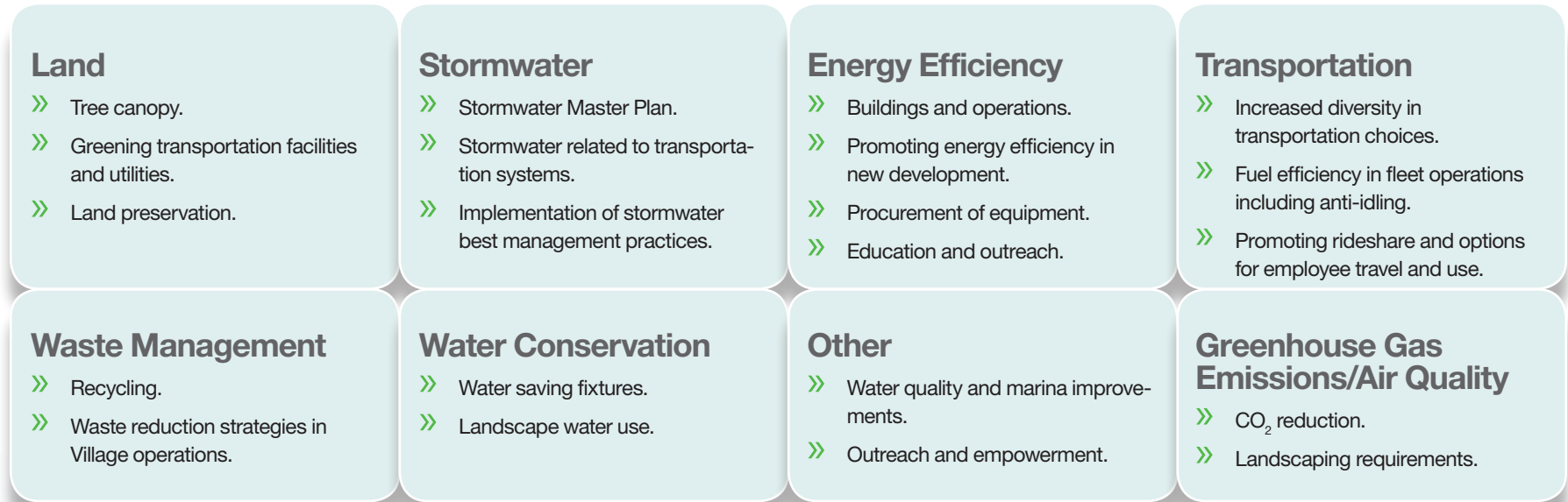
In 2007, Islamorada initiated a public input process and adopted its Environmental Sustainability Plan (“Sustainability Plan”). The Sustainability Plan has eight (8) major focus areas, the most comprehensive of which include energy efficiency and land conservation. The Sustainability Plan:

- Includes actions for implementation and goals for future implementation;
- Is intended to be utilized as a tool to monitor and review sustainability actions that have been achieved and to create a timeline for prioritizing future goals; and
- Is designed to be reviewed annually based on accomplishments, modify goals as necessary, and identify potential new goals that could be considered for implementation.



Plantation Yacht Harbor, Islamorada, FL
Photo Source: Project Team

The Environmental Sustainability Plan's eight (8) major focus areas are:



Since adoption of the original Sustainability Plan in 2007, Islamorada has made steady and continued progress implementing its goals/actions, including completing the annual review and update process. To date, eight (8) updates have been completed (Appendix A) and nineteen (19) new goals and actions added, with two (2) goals updated and four (4) goals removed. This process has captured new information related to climate change challenges, new best practices related to sustainability and new technology. Prior to implementation of the Sustainability Plan, Islamorada also developed several sustainable practices, including incorporating energy savings standards for new construction within the Village's Code of Ordinances ("Code"); the use of low energy lighting and water saving features in parks; a tree canopy expansion program; Code regulations for additional landscaping and buffers for projects requiring development orders; a Stormwater Master Plan; and receiving a Clean Marina designation.

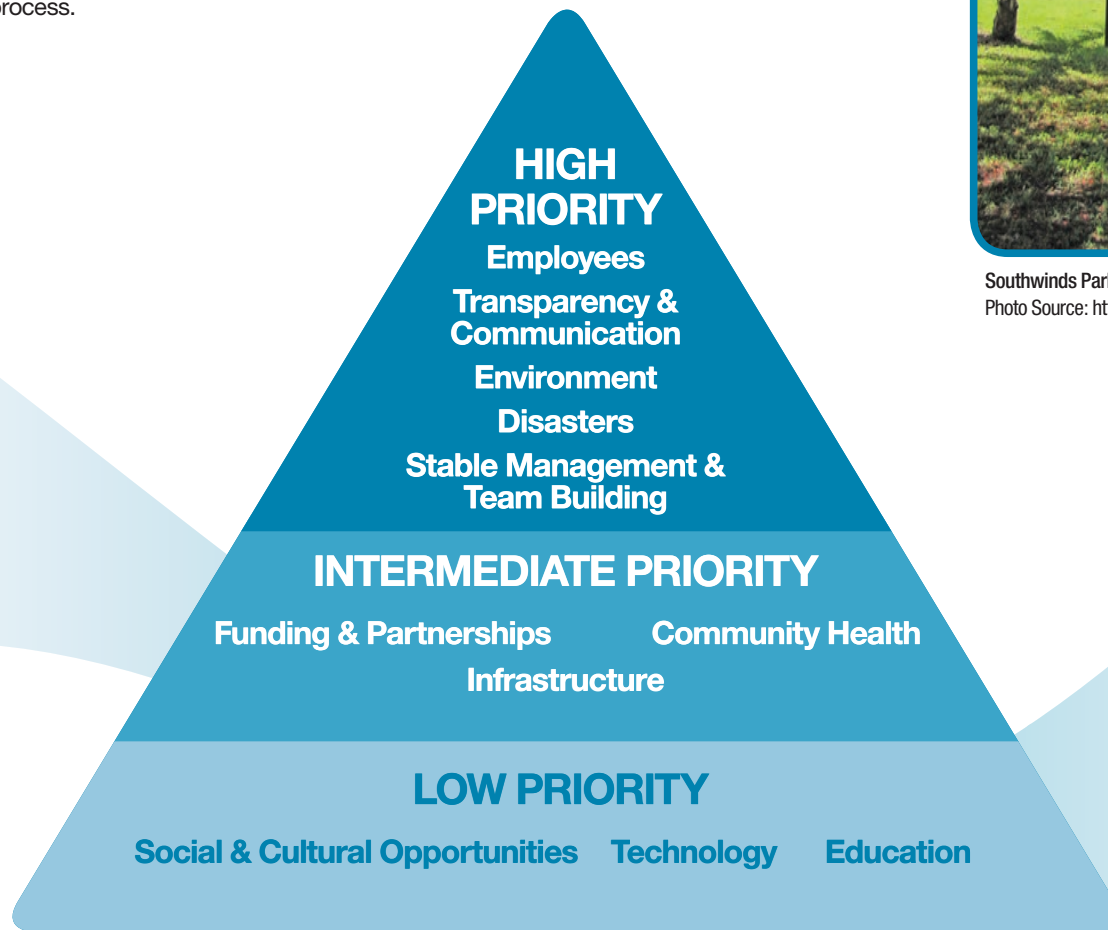
Appendix A provides a brief overview of Islamorada's major accomplishments and new, modified or eliminated goals from the Sustainability Plan since its original implementation. Although many of the actions and accomplishments below are ongoing, they may only be noted once.

B) Other Planning, Climate and Sustainability-Related Efforts

Outside of the Sustainability Plan's documented achievements, over the past few years Islamorada has completed, or has budgeted for, several other capital projects and planning efforts that can be characterized as furthering its sustainability goals.

Strategic Planning. On April 4, 2014, the Islamorada Village Council and Islamorada Department Heads participated in a Strategic Planning Workshop ("Workshop") to discuss the strengths and weaknesses of Village processes and policies. The ultimate goal of this Workshop was to develop solutions and goals to be implemented in the near and long term.

Since the Workshop, Islamorada has been using the strategic planning goals and sustainability plan goals to guide the annual budgeting process.



Southwinds Park, Islamorada, FL
Photo Source: <http://www.flkeystoday.com>

During the Workshop, the Council and staff prioritized several issues into high-, intermediate- and low-priority issues, as summarized in Table 1 below. The process and implementation of the Strategic Planning Workshop dovetails with the Islamorada Matters planning process, as reflected in the table below.

Table 1: Village Strategic Planning Goals & Priorities Related to Islamorada Matters Plan

Priority Level	Strategic Planning Workshop Goals and Priorities	Relationship to Islamorada Matters Plan
High	<p>Transparency/Communication: Disseminate information in a more transparent and timely manner to public.</p> <p>Environment: Protect and enhance the environment (water quality and natural resources) through policy.</p> <p>Disasters: Minimize vulnerability to natural disasters.</p>	<p>The planning process for the Islamorada Matters Plan involves public input, using online and in person outreach tools, surveys, public meetings, and community events.</p> <p>The Islamorada Matters Plan recommends adaptation policies covering environmental strategies.</p> <p>The Islamorada Matters Plan helps Islamorada create a community that is more resilient to natural disasters and sea level rise.</p>
Intermediate	<p>Funding/Partnerships: Build partnerships to secure funding, reduce unfunded mandates and cooperate with Monroe County on environmental issues.</p> <p>Community Health: Encourage health and wellness programs for the community.</p> <p>Infrastructure: Address infrastructure needs to include Council Chambers and Public Works facilities (funding sources must be addressed).</p>	<p>The Islamorada Matters Plan is created in collaboration with Monroe County, efficiently building upon information already being collected for that planning process, and is consistent with Monroe County's GreenKeys! project. Potential grant funds are also identified in the Plan.</p> <p>The Islamorada Matters Plan is comprehensive and will strengthen community health, safety and resiliency.</p> <p>The Islamorada Matters Plan identifies public infrastructure vulnerability and adaptation prioritization which will be incorporated into Islamorada's Capital Improvements Plan.</p>
Lower	<p>Social/Cultural: Create social and cultural opportunities beyond drinking and fishing.</p> <p>Technology: Utilize technology to provide more efficient and cost-effective services that improve quality of life without impacting quiet enjoyment of life.</p> <p>Education: Encourage educational outreach opportunities.</p>	<p>The Islamorada Matters Plan identifies social and cultural opportunities, through the STAR Community Rating System, where Islamorada could become more sustainable.</p> <p>The Islamorada Matters Plan recommends increased resource efficiency and access to human services, both of which would be benefitted by better technology within Islamorada.</p> <p>The planning process for the Islamorada Matters Plan involves significant educational outreach opportunities, including the use of electronic outreach and surveying tools, public meetings and event attendance.</p>
Other	<p>Islamorada Center/Community Character: Create an Islamorada "Center" that embraces and enhances community character while managing growth and conserving the environment.</p> <p>Wastewater: Complete wastewater projects to improve the condition of Islamorada, environmentally and aesthetically.</p>	<p>The Islamorada Matters Plan, through the STAR Community Rating System, recommends improvements to community connectivity, all of which will assist in improving community character and connectedness.</p> <p>The Islamorada Matters Plan makes numerous recommendations regarding improvements to infrastructure.</p>

Habitat, Natural Systems and Green Infrastructure. Islamorada addresses habitat, natural systems and green infrastructure improvements within policies related to protection of environmentally-sensitive areas and restoration of natural areas.

The Public Works Department continually removes invasive vegetation along the U.S. Highway 1 corridor and enhances landscaping throughout the Village's rights-of-way to facilitate the community's engagement with the natural areas. Through an Operating Agreement with Islamorada and with support from the Village Council, the Islamorada Foundation has made significant progress toward the build out project for the Southwinds Park, a passive community park of 1.1 acres on the Overseas Highway at Mile Marker 82.1 which was formerly the site of the Southwinds Motel. This effort was made possible through a 2004 Florida Communities Trust Property Acquisition Grant. The added vegetation and open space helps to improve drainage and water quality for the nearshore areas surrounding Islamorada.



Islamorada, FL
Photo Source: Project Team

In FY 2008-2009, Islamorada entered into a grant contract with the Florida Communities Trust to acquire nine (9) acres known as the Key Tree Cactus Preserve, and entered into a management plan to operate, manage and maintain the preserve. Islamorada received a donation of \$200,000 for an endowment to help pay for maintenance and other costs related to meeting the requirements of the Management Plan. Finance activities related to the Key Tree Cactus Property are also accounted for in the Capital Projects Fund. These natural areas are just two examples of Islamorada's dedication to the protection of the natural environment. The Village has acquired a total of five (5) natural areas through the Florida Communities Trust Property Acquisition Grant in addition to parcels donated by members of the public and purchased on behalf of the Village by the Monroe County Land Authority. Including the Florida Communities Trust parcels, the Village owns and manages over 170 acres of park and conservation property.

Infrastructure and Built Environment. Islamorada has made great strides towards the completion of important infrastructure projects including the wastewater disposal, canal restoration, and housing affordability projects. Historically, Islamorada was on septic systems and still had wastewater outfalls into the ocean creating sanitary and nearshore water quality issues. Islamorada, along with the County and other municipalities, was required to undertake a massive effort to design, fund and build centralized wastewater facilities and connect developed areas to sanitary sewer service. To fund the \$160 million wastewater project, Islamorada obtained a \$1.3 million reimbursement from the U.S. Army Corps of Engineers ("USACE") and a 2013 Small Cities Community Development Block Grant ("CDBG") of \$700,000 to specifically assist low- to moderate-income homeowners with sewer connection. The Village also received funds originally approved by the State Legislature in 2008 and set aside for wastewater projects through the Save Our Everglades Trust Fund ("Mayfield Grants"). Through these Mayfield Grants, the Village received \$18.7 million in FY 2012-13, \$19.5 million in FY 2013-14, and \$7 million in FY 2014-15. Islamorada recently finalized the extension of sanitary sewer service to its incorporated islands of Plantation Key (North and South Plantation Key), Windley Key, and Upper and Lower Matecumbe Keys. Completion of the project met the State of Florida mandated deadline of December 1, 2015, with substantial completion by November 20, 2015. The project furthers efforts to comply with the elimination of septic systems and discharges to nearshore waters. Wastewater is now collected from residential and commercial areas and conveyed to the Key Largo Wastewater Treatment Facility.

Islamorada continues to seek other funding sources for stormwater and canal restoration projects and continues to develop policies and programs to improve their existing canal system. The Village recently implemented amendments to the Comprehensive Plan and Land Development Regulations (“LDRs”) addressing bulkheads, seawalls and other hardened vertical shoreline structures to provide clarification and remedy inconsistencies with the Code, the Florida Statutes and the Florida Administrative Code. These amendments are intended to improve the drainage capabilities of the existing canal network. As the sea level rises, canals will become an increasingly important component in drainage of developed areas. Updates to the Environmental Regulations section of the LDRs are in the works for the coming year to further this effort for future development and redevelopment.



Amphitheatre, Islamorada, FL
Photo Source: Project Team

Islamorada has also made significant strides in addressing housing affordability. Islamorada’s Affordable Housing Fund was established in FY 2007-2008 for the purposes of planning, subsidizing and developing affordable housing. This Fund derives revenues from ‘in lieu of’ fees charged on building permits and from an allocation of interest earnings based upon monthly unused cash balances. The Achievable Housing Citizens Advisory Committee, formed in 2004, makes recommendations to the Village Council on ways to best utilize annual revenues and committed fund balances for affordable housing. Recommendations have included assistance to affordable housing property owners with costs related to wastewater projects and donations of land and money to Habitat for Humanity of the Upper Keys, Inc. to support the construction of single-family residences to be sold or transferred to low-income or moderate-income persons. Islamorada partnered with the Middle Keys Community Land Trust to complete a 16-unit townhouse project in 2008 for sale to low- and moderate-income households. The Village also partnered with Gorman & Company, Inc. to complete a 32-unit affordable rental housing project in 2013.

In 2013, Islamorada adopted new Comprehensive Plan and LDRs to increase the amount of square footage for the Nonresidential Building Permit Allocation System (“BPAS”) to 15,000 square feet per year. This increase was intended to alleviate stress on the BPAS system and resulted in 535 square feet of new nonresidential floor area allocated per new residential dwelling unit. Islamorada’s BPAS was originally created in 2002 (Ordinance 02-17) to facilitate implementation of Comprehensive Plan goals, objectives and policies; regulate the rate of growth in order to deter deterioration of public facility service levels, environmental degradation and potential land use conflicts; and encourage redevelopment of residential and nonresidential areas and affordable housing. Additionally, amendments to the Transfer of Development Rights (“TDRs”) ordinance (Ordinance 09-20) were adopted in 2009 to provide flexibility for the redistribution of residential dwelling units and decrease overall development, which helps remove barriers to adaptation planning.

Sustainability, Climate and Energy, Health & Safety. As part of state planning efforts for natural disaster mitigation and preparedness, Islamorada is a member of, and has actively participated in, regional plans including the 2010 Local Mitigation Strategy (“LMS”) for Monroe County and its Municipalities (and 2015 Update); the 2012 Hurricane Evacuation Management Plan and Interlocal Agreement (“ILA”) between the County, Municipalities and the state; and the 2015 Islamorada Pilot Project in order to participate in the Federal Emergency Management Agency’s (“FEMA’s”) Community Rating System (“CRS”).

» 2010 LMS for Monroe County and its Municipalities⁶ – One of the early steps for Islamorada and the County to improve resiliency to natural hazards. The LMS was prepared in accordance with FEMA Guidelines and the Florida Division of Emergency Management (“FDEM”). The LMS serves several purposes, including strategies for long-term resilience to natural hazards through actions that reduce exposure of people and property, and in doing so, LMS projects are eligible for certain state and federal grants. The LMS has been updated and was approved by the Islamorada Village Council on December 3, 2015. The LMS Update includes the Village’s identified damage reduction activities.

» Prior to 2005, the Village completed several activities including renovations to Fire Station #20 to include an emergency operations center and the Lower and Upper Matecumbe Stormwater Improvement Projects which provided drainage infrastructure for flood mitigation and the protection of sections of the islands particularly vulnerable to heavy flooding during mild rain events. From 2005-2014, the Village completed a new Village Hall and Fire Station #21 and Sheriff’s Substation, North Plantation Key Wastewater Treatment Plant, Lower Matecumbe Key Fire Station #19, Tollgate Shorts Stormwater Improvement Project, a study on the vulnerability of U.S. Highway 1 to storm surge at Sea Oats Beach, permanent installation of emergency generators in Coral Shores High School, adoption of a staged evacuation plan coordinated with the County and others, and acquisition of computer weather equipment for hurricane tracking purposes. Projects planned or currently underway include new Light Detection and Ranging (“LIDAR”) mapping of the Village to update flood base and storm surge vulnerability information, installation of emergency generators at Island Christian School, and the Islamorada Matters planning project.

Monroe County and Incorporated Municipalities

Key West, Marathon, Key Colony Beach, Layton,
and Islamorada Village of Islands

Local Mitigation Strategy 2015 Update



Florida Keys 1935 Hurricane Memorial

Monroe County LMS 2015 Update

Additionally, the Village is committed to the continued inspection of enclosures below elevated lowest floors and the continued identification and implementation of hazard mitigation projects for critical infrastructure. The projects completed by the Village as part of the LMS align well with the recommendations in this Plan. Efforts to mitigate against flooding and storm surge, increase emergency response capabilities, and improve stormwater treatment all serve to increase the overall sustainability and resiliency of the Village.

- » 2012 Hurricane Evacuation Plan/ILA between County, Municipalities and the State – In 2010, Islamorada, along with the County and other municipalities, the Florida Department of Economic Opportunity (“DEO”) and FDEM entered into a planning process to update the Hurricane Evacuation Model for the region. Pursuant to Section 380.0552, Fla. Stat., evacuation of all permanent residents of the Florida Keys must not exceed 24 hours. As a result, limited additional residential and commercial development is permitted in the Florida Keys for the next ten (10) years, and an updated evacuation plan was executed. This is memorialized in the 2012 Hurricane Evacuation Management Plan and ILA.
- » 2015 Islamorada Pilot Project – In 2014, Islamorada completed the requirements for compliance with the FEMA mandated “Islamorada Pilot Project” as required by 44 CFR §59.30 which is an inspection procedure. FEMA requires all communities in Monroe County to correct all deficiencies identified from the Pilot Program in order to participate in the National Flood Insurance Program (“NFIP”). The purpose of this Pilot Program was to provide communities with an additional means to identify whether structures built in Special Flood Hazard Areas (“SFHAs”) after the effective date of the initial Flood Insurance Rate Map (“FIRM”) comply with the community’s floodplain management regulations. The Pilot Program also assisted FEMA in verifying that structures insured under the NFIP’s Standard Flood Insurance Policy were properly rated. With successful completion of the Pilot Program, Islamorada has been accepted to FEMA’s CRS Program with a Class 7 rating and effective date of October 1, 2015.



The purpose of the CRS program is to provide incentives for community activities and programs that go above and beyond the minimum requirements for participation in the NFIP. While the NFIP typically regulates to the 100-year flood event or “base flood,” a community that participates in the CRS and works to reduce flood damage to existing buildings, manages development in areas not mapped by NFIP, protects new buildings beyond the minimum NFIP protection level, and preserves and restores natural functions of floodplains helps insurance agents obtain flood data and people to obtain discounts on flood insurance premiums. With the Village’s Class 7 rating, residents can expect to see NFIP premium reductions from 5-15%, with 5% for non-SFHA properties and 15% for SFHA properties.

In order to improve the health and safety of Village residents, Islamorada made several recent accomplishments and commitments including:

- Policy amendments regarding ordinances to address guidelines for noise pollution;
- Enforcement of “No Discharge” and other water quality regulations in the nearshore waters;
- Quarterly shoreline cleanups with Islamorada residents;
- Continued support of the Islamorada Community Emergency Response Team (“CERT”) during an emergency or disaster recovery with assistance from volunteers from the community; and
- Implemented staff training including licensing of the Building Inspector as Building Plans Examiner, Single Family Dwelling Inspector and Coastal Construction Inspector while the Permit clerk will obtain International Code Council certification, as a permit technician.

Education. An essential key to a community's health and safety success can be found in its school system. Islamorada's close-knit, family-friendly culture lays the foundation for the outstanding education offered by four (4) top-notch schools within the boundaries of Islamorada. On Plantation Key are two (2) of the top rated public schools in Florida: Coral Shores High School and Plantation Key Elementary School. Each of these schools traditionally and consistently receives an "A" rating and offers state-of-the-art programs and facilities for the families of the Upper Keys.

The Islamorada Matters Plan enhances and supports the original Sustainability Plan and other sustainability efforts implemented by Islamorada in recent years. As highlighted above, the most recent annual review process for the Sustainability Plan was conducted in September 2014 after the April 2014 Strategic Planning Workshop. The goals and priorities identified in the Workshop, many of which reflect Sustainability Plan goals, were used to influence the FY 2014-2015 and FY 2015-2016 budget process.

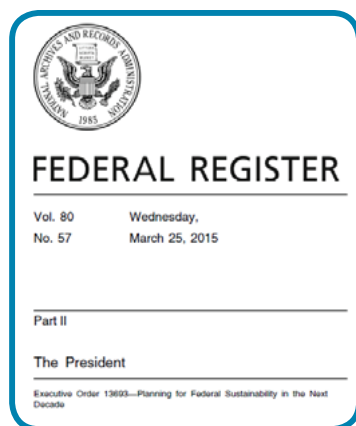


C) Policy and Regulatory Overview on Sea Level Rise, Sustainability and Climate Planning

Several policies have been implemented at the Federal level to address the potential impacts from climate change. While not binding at the local government level, they do provide guidance on where Federal agencies are becoming more efficient and resilient in their operations which can serve as an example for other levels of government. A Federal Executive Order signed in 2009 created the Interagency Climate Change Adaptation Task Force (“Task Force”).⁷ Eight (8) Guiding Principles were developed by the Task Force for consideration by governments, communities and private sector organizations when designing and implementing sustainability measures and climate change adaptation policies. The Council on Environmental Quality (“CEQ”) expanded the policies and incorporated them into the planning requirements for all Federal agencies. These principles include:



- 1 Adaptation of an integrated sustainability approach into the core policies, planning and practices of the agencies;
- 2 Prioritizing planning approaches for the most vulnerable people, places and infrastructure;
- 3 Using best available science when implementing adaptation protocols even though there will always be risk of uncertainty;
- 4 Building strong partnerships by coordinating among geographical scales and levels of government based on the varying and unique risks of the locality and region;
- 5 Applying standard risk management tools that most governments already have in place to aid in critical decisions for potential consequences of inaction as well as options for risk reduction;
- 6 Maximizing mutual benefits by coordinating with and supporting other climate or environmental initiatives such as disaster preparedness, resource management, and cost-effective technologies to reduce greenhouse gases (“GHGs”);
- 7 Applying ecosystem-based approaches by integrating biodiversity and ecosystem services into adaptation strategies; and
- 8 Continuously evaluating performance by measuring goals and metrics to evaluate whether adaptive measures are achieving goals.⁸



Executive Order 13693

Similarly, Federal Executive Order 13693⁹ was signed in March 2015 and takes the planning concepts a step further by enumerating twelve (12) specific sustainability goals for Federal agencies. It also encourages parallel changes “across the federal supply chain.” Some of these new goals include setting building efficiency targets for renewable or alternative energy use, reducing energy intensity in Federal buildings by certain percentages, and establishing alternative energy acquisition in government procurement policies. While these more specific goals are not met with regulatory compliance consequences, the goals are a step towards establishing identifiable sustainability metrics and again serve as a great example for other levels of government seeking to “formalize” sustainability and climate policies and initiatives.

Several policies have also been implemented at the state level over the past decade to address GHG mitigation and climate change. In 2006, the Florida Renewable Energy Technologies and Energy Efficiency Act (“Florida Energy Act”)¹⁰ was passed which created the Florida Energy Commission (“FEC”), renewable energy grants and a solar rebate program. In 2007, a series of executive orders were signed aimed at reducing GHG emissions.¹¹ Other 2007 legislation¹² directed the Florida Building Commission to create a model green building ordinance. In 2008, legislation was passed directing local governments to include GHG reduction strategies into the Local Government Comprehensive Plans.¹³ That same year, legislation also required municipal governments and state agencies to construct new buildings to a recognized green third party rating system standard, such as the U.S. Green Building Council’s Leadership in Energy & Environmental Design (“LEED”) or Florida Green Building Coalition standards.¹⁴ This still applies today for any government buildings constructed after 2008.

In 2011, Chapter 163, Fla. Stat. was revised to include the concept of “adaptation action areas” (“AAAs”).¹⁵ Adaptation action areas are a permissive option for local governments to address sea level rise adaption as part of the Coastal Management Element in their Comprehensive Plan. Adaptation action areas or “adaptation areas” are defined as:

...a designation in the coastal management element of a local government’s comprehensive plan which identifies one or more areas that experience coastal flooding due to extreme high tides and storm surge, and that are vulnerable to the related impacts of rising sea levels for the purposes of prioritizing funding for infrastructure needs and adaptation planning.¹⁶

Most recently, legislation passed in 2015 amending Section 163.3178, Fla. Stat.,¹⁷ expanded the requirements in the redevelopment component of Coastal Management Element of a local government’s Comprehensive Plan. Effective July 1, 2015, all required Coastal Management Elements must include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea level rise. This amendment is significant in that for the first time Comprehensive Plans must consider the impacts of sea level rise in long-range comprehensive planning efforts.



Islamorada, FL
Photo Source: Project Team