

## **CHAPTER 3: ASSESSMENT OF COMPREHENSIVE PLAN ELEMENTS**

### **1. Introduction**

The State of Florida requires all local governments (counties and municipalities) to adopt Local Government Comprehensive Plans that guide future growth and development. Such plans have been required since the adoption in 1985 of Florida's Local Government Comprehensive Planning and Land Development Regulation Act, also called the Community Planning Act (Chapter 163, Part II, F.S.).

Subsequent to its adoption in 1993, the *Monroe County 2010 Comprehensive Plan* was challenged and amended pursuant to the existing Rule 9J-14.022, F.A.C. and Rule 28-20.100, F.A.C. The final Plan was adopted in 1995. The Growth Management Division is the administrative entity that implements the goals, objectives and policies (GOPs), as set forth in the Plan.

The statutory mandates for the Plan extend beyond those established in Chapter 163 F.S., including the following provisions:

- As an Area of Critical State Concern, any local comprehensive plan enacted, amended or rescinded by the County is effective only after review of the proposed plan, amendment or recession by the Department of Economic Opportunity (DEO), formerly known as the Department of Community Affairs (DCA) to determine whether the proposed plan, amendment or recession is in compliance with the “Principles for Guiding Development” found in Chapter 380, F.S.
- After the Plan was challenged in 1995, subsequent legal proceedings prompted a Final Order and Recommendations by the Administration Commission. The effect of the Final Order was that 95 percent of the Plan became effective but the disputed provisions required further action. Rule 28-20.100, F.A.C. established the “Five Year Work Program” (the “Program”), which was expanded to 10 years. The Program outlines the actions the County must achieve every year and identifies the various agencies involved.

Due to these actions, development and growth in the County is governed by a unique set of rules, laws and principles for planning.

### **2. Assessment of Existing Plan Elements**

The following assessment of successes and shortcomings reviews the implementation status of the fifteen (15) elements currently included within the existing 2010 Plan. This assessment primarily focuses on the County's efforts since the 2004 EAR.

In addition to the following reviews, and for clarification of the entire Comprehensive Plan, the County should consider adding a Definitions/Glossary section.

### **A. Future Land Use Element**

#### Overview

The primary purpose of the Future Land Use Element (FLUE) is to provide for an effective and efficient balance of the County's anticipated growth demands with its goals for hurricane evacuation, economic development, maintaining community character and protecting its natural resources. It is one of the most important elements as it lays the foundation upon which the rest of the Plan is built.

This element consists of five goals, addressed through 41 objectives and 106 policy statements. The objectives and policies within the FLUE facilitate its goals through provisions for growth management; concurrency; natural resource protection; hurricane evacuation; redevelopment; nonconformities; historic resources; land use categories, including airport and military facilities; and availability of land for affordable housing and public school facilities.

The FLUE designates the proposed future general distribution, location and extent of the uses of land and includes standards for the densities and intensities of each land use category. The element contains both a series of maps depicting the Existing and Future Land Use pattern and a section of GOPs.

The following are the major achievements, successes, shortcomings and recommendations for the element:

#### Successes, Shortcomings and Recommendations

Overall, since the last EAR (2004), the County has successfully implemented the FLUE GOPs of the Plan, which were designed to accommodate the County's limited growth without jeopardizing its natural or cultural resources or compromising the community's safety or quality of life.

- The FLUE GOPs (Objective 101.1 and associated policies) have been successful in promoting orderly and economical development through its Concurrency Management System by ensuring that public facilities and services, including roads, sanitary sewer, solid waste, drainage, potable water, parks and recreation and schools be available concurrent with the impacts of development as was required by Rule 9J-5, F.A.C.

- The FLUE includes Objective 101.2 and associated policies relating to reducing hurricane evacuation clearance time to 24 hours by 2010. The majority of these policies have been successfully implemented, including revisions to the Permit Allocation System for residential development, and participating in efforts to monitor and reduce hurricane evacuation clearance times; and efforts to evaluate hurricane evacuation models. To comply with the requirements outlined in Rule 28-20.110, F.A.C. and to comport with Objective 101.2 in the Plan, in 2010, the *Florida Keys Hurricane Evacuation Study* “The Miller Model” was updated to include phased evacuation; the Florida Department of Transportation’s *5-Year Work Program* roadway projects; and updated participation rate and traffic flow rate assumptions to determine projected clearance time results.
- Policy 101.2.6 prohibits new transient residential units. This prohibition is periodically reviewed and extended. This Policy should be evaluated and amended, as appropriate, to address transient residential units.
- The Work Program currently included in the existing FLUE Policy 101.2.13 includes tasks and activities through Year Ten (July 12, 2007). The County has successfully implemented the majority of the tasks included in the original Work Program.
  - Remaining tasks include completion of the Tier Overlay mapping and specific actions related to hurricane evacuation, land acquisition, wastewater treatment and disposal, and stormwater improvements. The County addressed habitat protection with the implementation of the Tier Designation Review Committee and subsequent review and recommendations for parcels previously challenged in an administrative proceeding. Wastewater facilities have been delayed due to funding shortfalls. Senate Bill 550 extended the deadline from 2010 to 2015 for the upgrade of wastewater treatment facilities to advanced treatment standards in the Florida Keys.
  - Rule 28-20.140, F.A.C., amended Policy 101.2.13. The Comprehensive Plan should include additional or revised tasks or activities as may be necessary, such as those outlined in the *Monroe County 30-Day Report, 2010*, issued by the Administration Commission, including recent statutory deadlines for wastewater improvements.
  - The BOCC adopted a tier zoning overlay designation for approximately 3,093 parcels in May 2011. The future land use and tier maps will need to be reviewed and amended as appropriate to reflect the results of the County’s review.

- An analysis of the resulting Tier mapping indicates that a substantial amount of vacant land in Tier 1 has a Mixed Use land use designation. The County should review the land use designations for these parcels.
- Objective 101.4 and the associated polices establish the Future Land Use Map categories and the density and intensity standards for each category. These policies should be evaluated to determine if: 1) the existing density and intensity standards recognize and encourage the unique development/redevelopment patterns within the County; 2) if the floor area ratio maximums promote compatibility in each of the Future Land Use categories; 3) if the density standards under maximum net density should be modified or eliminated; and 4) if open space ratios should be adopted into the Comprehensive Plan. Additionally, the County should review and clarify the uses permitted under the Conservation category, consider the creation of a Preservation category for publically owned lands, and establish a Commercial category.
  - The County should consider creating a light industrial zoning district under the Industrial and Mixed Use / Commercial FLUM designations.
  - Since each land use category has vesting language for uses that were allowed before 1996, it makes research very complicated. The County should consider making the vesting language an appendix to the Comprehensive Plan.
- The FLUE contains several GOPs related to maintaining and enhancing water quality (Objective 101.9 and 102.5). To implement these policies, the County adopted Sanitary Wastewater and Stormwater Master Plans and expended limited financial resources to address existing wastewater and stormwater issues. Additionally, the County assigns positive points for proposed developments that will be connected to a central wastewater system to direct growth to areas with sewers. Water quality improvements continue to remain a top priority for the County.
- The County has adopted a Stormwater Management Ordinance and prepared a Manual of Stormwater Management Practices which provides information on acceptable forms of Best Management Practices (BMPs), e.g. rate control structures, catch basins with skimmers and baffles, and wet and dry detention/retention facilities. The County continues to address wastewater issues.
  - Although originally planned to provide compliance by July of 2010, the *Monroe County Sanitary Wastewater Master Plan* (the “Master Plan”) has fallen short mainly due to a gap in funding. Although many tasks identified in the Master Plan remain incomplete, all are being addressed. The remaining

tasks consist mainly of costly capital improvement projects for which funding remains the key issue to implementation.

- Policy 101.3.1 requires the maintenance of a balance between residential and non-residential growth by limiting the square footage of non-residential development to maintain a ratio of approximately 239 square feet of new non-residential development for each new residential unit permitted through the Residential Permit Allocation System. This ratio may be modified from time to time through amendments to the land development regulations based upon market and other relevant studies as required by policy 101.3.5. Further, Policy 101.3.5 requires the County to conduct a market demand analysis and economic assessment to determine the demand for future non-residential development in the County. As part of the 2010-2030 update of the Technical Document for the new Plan, an economic assessment will be completed; however, a market demand analysis component has not been scheduled.
  - The County should review historical non-residential growth and demand trends and the results of the economic assessment to determine if revisions to Policy 101.3.1 and Policy 101.5.5 are necessary to allow the expansion and growth of existing businesses.
  - Additionally, the County should make the appropriate amendments to strengthen economic development strategies to support a balanced, diversified, and robust economy.
- Policy 101.4.7 states the principal purpose of the Industrial land use category is to provide for the development of industrial, manufacturing, and warehouse and distribution uses, with other commercial, public, residential, and commercial fishing uses also allowed. The County should consider limiting residential uses.
- Policy 101.4.15 states the principal purpose of the Conservation land use category is to provide for publicly owned lands held primarily for the preservation of natural and historic resources and compatible passive recreational uses. The County should consider a Preservation FLUM that does not allow recreational uses.
- Policy 101.4.16 states the principal purpose of the Airport District land use category is to prohibit the development of residential, educational or other uses which are characterized by the regular presence of large numbers of people within the hazard areas of civil and military airports. The County should consider revising this policy to reflect the existing legal opinion that the County FLUM designation applies to the airports owned by the County within the cities of Key West and Marathon, and that the County is to review all permit applications.

- Policy 101.4.21 provides the Future Land Use Densities and Intensities table. The County should consider revisions to the table to add the minimum open space ratios by future land use category.
- Policy 101.4.24 states that in order to preserve the existing community character and natural environment, the County shall limit the height of structures, including landfills to 35 feet. Exceptions will be allowed for appurtenances to buildings, transmission towers and other similar structures. The County should amend this policy to be consistent with the recent Land Development Code amendment to Section 130-187 regarding maximum height, and Section 101-1 which defines "grade" and "height" (Ordinance 003-2011).
- Policy 101.5.4 pertains to the residential Permit Allocation and Point System. The County should evaluate the existing ROGO points for potential amendments (e.g. add points for solar or other criteria to encourage green standards); and the County should further define the availability criteria for the Central Wastewater System.
- Policy 101.5.5 states the County shall implement the non-residential Permit Allocation and Point System based primarily on the Tier System, and the points are to be applied cumulatively.
- Policy 101.5.8 states that Monroe County may develop a program, called Transfer of ROGO Exemption (TRE) that would allow for the transfer off-site of units to another site in the same ROGO sub-area. The County should revise this policy to establish meaningful and predictable criteria for issuing ROGO exemptions and to provide guidelines for the content of land development regulations. Additionally, a policy should be created to allow the transfer of ROGO allocations or exemptions from Tier I, II, and III-A to Tier III.
- Objective 101.7 pertains to the County evaluating redevelopment areas and the preparation of redevelopment plans. The County should evaluate whether or not this objective and its associated policies are needed.
- Policy 101.8 and its associated policies pertain to eliminating or reducing the frequency of uses which are inconsistent with the applicable provisions of land development regulations and the FLU Map, and structure which are inconsistent with applicable codes and land development regulations. The County should evaluate its policies relative to non-conforming structures for fairness to assure that during redevelopment the community character is preserved.
- Objective 101.13 pertains to the adoption of innovative Land Development Code which implements the GOPs of the Plan, including Permit Allocation System for residential and non-residential and the existing Transferable Development Rights

- (TDR) regulations. The County should consider revamping its TDR system to allow the relocation of density within subareas that are being moved from Tier I, II, II-A to Tier III (in all cases) and from wetlands to other Tier III areas.
- Policy 101.13.5 requires that the County map potential Transferable Development Rights (TDRs) sender and receiver sites and map parcels from which development rights have been transferred. While the County has maps of the various habitat types identified as “sender sites” in Policy 101.13.4, the County maps currently do not track the movement of TDRs. The County should review this policy and determine the most appropriate way to track the transfer of TDRs.
    - The County will determine if policies need to be revised to provide further detail and guidance for the development of implementing land development regulations.
  - The FLUE directs the development of comprehensive land acquisition program (Objective 101.6 and 102.4.1) and smart growth initiatives (Goal 105) in conjunction with its Livable CommuniKeys Program (Objective 101.20) to protect natural habitat and facilitate balanced and sustainable development.

These GOPs have been successfully implemented through:

- The development and implementation of the Tier System and revisions to the Permit Allocation System. In 2006, the County adopted a Tier System to direct growth to acceptable areas and encouraging conservation in areas with environmental sensitivity. The tier boundaries are depicted on the Tier Overlay District Map.
- A Land Acquisition and Management Master Plan was developed in August of 2006. The plan includes a detailed funding plan, identifying both current and future funding sources and an implementation strategy for acquisition. The plan also discusses the land needs associated with affordable housing development and identifies potential funding for the program.
- Adopting Policy 101.6.6 requiring that administrative relief, in the form of the issuance a of building permit, is not allowed for lands with the Florida Forever targeted acquisition or Tier 1 lands unless certain conditions are met.
- The adoption of Livable CommuniKeys Plans (LCP) for Key Largo, Stock Island/Key Haven, Big Pine Key/No Name Key and Tavernier.
- The County has transmitted the Lower Keys LCP to DEO and expects adoption in August 2012.

- Objective 101.7 and 101.8 direct the preparation of redevelopment standards and Land Development Code (LDC) amendments to address the large number of non-conforming commercial structures that are non-compliant as to on-site parking, shoreline setbacks, stormwater management, landscaping, and buffers; and provide incentives for redevelopment and permit the continuance of businesses while moving towards an integrated streetscape. The current Plan recognizes the large number of non-conforming commercial structures and through implementation of Policy 105.1.4 and the implementing LDC, the County has reduced the number of existing nonconformities.
  
- Objective 101.7 requires the County to “...evaluate potential redevelopment areas and prepare redevelopment plans for areas determined to be in need of redevelopment.” Pursuant to Objective 101.20 and its associated policies, each of the Livable CommuniKeys Plans provides a framework for future development and redevelopment, an assessment related to the physical and socio-economic conditions, identifies implementation strategies, capital improvement needs and site and building guidelines within the areas served by each of the LCPs. Each of these plans consistently encourages redevelopment over new development.
  - While the Plan does not directly incentivize redevelopment, the County’s growth limitations and the ROGO and NROGO processes, could in theory, act as a catalyst, for redevelopment, providing that planning objectives and strategies, such as those outlined within the Livable CommuniKeys Plans, are better articulated, supported and incentivized within the Plan.
  
- The FLUE policies are structured to direct development away from the County’s natural resources (Objective 101.11 and Goal 102) and areas within high risk special flood hazard zones (Objective 101.14), while preserving property rights. The County continues to implement these policies through on-going coordination with the Federal and State’s oversight agencies including: the Federal Emergency Management Agency, DEO, Department of Environmental Protection, the Florida Fish and Wildlife Conservation Commission, the Florida Park Service, the SFWMD and the U.S. Army Corps of Engineers.
  - With respect to Policy 101.14, the County should evaluate and potentially revise the CHHA related policies to reflect the recent statutory changes.
  - Pursuant to Goal 102 of the Plan, the Habitat Conservation Plan (HCP) for Big Pine Key and No Name Key was implemented in 2006 to protect the Florida Key deer as well as other protected species, including the Lower Keys marsh rabbit and the eastern indigo snake. The HCP outlines the planned growth patterns and rate as well as the anticipated impact that growth will have on the species.

- The FLUE has protected the community’s desired character by restricting building height, administering the existing Sign Ordinance, encouraging compact development, limiting new development and redevelopment to uses that are compatible with the future land use designations, and providing consideration to the compatibility with the surrounding area (Policies 101.4.24, 101.5 and 101.15.1).
- Objective 101.15 states the County should enforce and update the existing Sign Ordinance in order to maintain and improve the visual character of the County and protect adjacent land uses. The County should consider deleting this Objective and deferring to the LDC to control signage.
- As required by Objective 101.17, the County has established and maintains a Geographic Information System.
  - Policy 101.17.4 requires that the Growth Management Division coordinate with the Property Appraisers’ Office to ensure existing land uses and density and intensities of use are accurately depicted in their GIS. In 2010, the County developed a GIS data set for an Existing Land Use Map series, utilizing the Property Appraisers GIS data, in particular the Property Classification (PC) codes, to assign a generalized land use designation. There are certain limitations and discrepancies in utilizing Property Appraisers GIS data. County staff continues to refine the data and resolve, to the greatest extent practical, the differences between data sets.
  - Since this appears to be an administrative action, the County should consider deleting Objective 101.17 and related policies from the Plan.
- Policy 101.18.2 pertains to vested rights. The County should evaluate this policy.
- Policy 101.19 recognizes that significant excess platted residential subdivision lots exist, relative to the County’s carrying capacity based upon hurricane evacuation, traffic circulation, water quality and marine resources. The County should evaluate the limits for platting due to the lot splits and other subdivisions of land that are creating surface water issues.
- Objective 102.4 pertains to a Land Acquisition Master Plan. The County should consider evaluating and determining if the Land Acquisition Master Plan needs to be updated.
- The FLUE contains Goal 104 and associated objectives and policies related to the preservation and protection of the historic districts. The County has over 600 sites and structures that have been designated locally or nationally historically significant. The County should consider evaluating its objectives and policies to

assure that historic preservation efforts such as those established through the Tavernier Historic Overlay District are consistent and extended to other historic sites and structures throughout the County.

- Goal 105 states that Monroe County shall undertake a comprehensive land acquisition program and smart growth initiatives in conjunction with its Livable CommuniKeys Program in a manner that recognizes the finite capacity for new development in the Florida Keys by providing economic and housing opportunities for residents without compromising the biodiversity of the natural environment and the continued ability of the natural and man-made systems to sustain livable communities in the Florida Keys for future generations. The County should consider revisions to add a provision, or other policy, that the criteria of the Comprehensive Plan and Land Development Code are utilized to evaluate and designate parcels within the Tier System.
- The County should determine if policies need to be revised to provide additional strategies for protecting and preserving water dependent uses and provide further detail and guidance for the development of implementing land development regulations.
- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3-Date Certain Policy Assessment Matrix**, and should be reviewed closely and revised or deleted accordingly.

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## **B. Conservation and Coastal Management**

### Overview

The purpose of the Conservation and Coastal Management Element is to promote the conservation, use, and protection of natural resources and to plan for, and where appropriate, restrict development activities where such activities would damage or destroy coastal resources and threatened and endangered species habitat; and protect human life and limit public expenditures in areas that are subject to destruction by natural disaster.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes, Shortcomings and Recommendations

Overall, since the last EAR (2004), the County has successfully implemented the Conservation and Coastal Management Element GOPs of the Plan. The protection of the environment has been the focus of much of the land use planning effort since the adoption of the existing Plan.

- Goal 202 directs Monroe County to maintain and enhance nearshore water quality and the associated marine resources. To implement these policies, Monroe County adopted Sanitary Wastewater and Stormwater Master Plans and utilized the County's limited financial resources to address existing wastewater and stormwater issues. The County participates in the Water Quality Protection Program and continues to coordinate with the State and federal agencies, and nonprofit organizations on the health and integrity of environmentally sensitive lands and marine resources.
  - The County should review and revise, as appropriate, the existing stormwater regulations to further reduce pollutant discharges into ground and surface waters from stormwater runoff.
- The GOPs direct the County to address liveaboards (Objective 202.4), marina siting (Objective 202.5), boating impacts management (Objective 202.7), and the protection of marine resources. The County prepared reports in 2001 (*Project Proposal for a Keys-Wide Mooring Field System*) and 2002 (*Keys-Wide Mooring Field System Preliminary Planning Document*) which addressed impacts associated with liveaboard anchorages and made recommendations for the siting of mooring fields. The County codified regulations for the establishment and management of mooring fields in Chapter 26 of the Code of Ordinances, and created its first liveaboard mooring field in Boot Key Harbor. The County has codified a prohibition on mooring or docking of 'liveaboard vessels' in manmade

canals and basins. The County created several no discharge zones which in 2002 were encompassed by the federal No Discharge Zone that included all state waters of the Florida Keys National Marine Sanctuary (Sanctuary). In 2010, that zone was expanded to include all the waters, both state and federal of the Sanctuary. In 2007, the County completed the *Monroe County Marina Siting Plan*; however, it received objections from DEO, formerly known as DCA, and has not been adopted by the BOCC. Additionally, the County continues to maintain a system of aids to navigation and boating regulatory zones and disposes of derelict and abandoned vessels in coordination with the Florida Fish and Wildlife Conservation Commission.

- The County should revise and update the *Monroe County Marina Siting Plan*.
- Policy 202.11.1 requires the County to coordinate a, “...review of application guidelines for aerial pesticide spraying and alternatives to aerial applications of pesticide.” The final report, “Aerial and Tidal Transport of Mosquito Control Pesticides into the Florida Keys National Marine Sanctuary” (Pierce, et al) was issued in 2005.
- Goal 204 and associated objectives and policies direct Monroe County to protect and enhance marine and freshwater wetlands. Policy 204.1.1 requires the County to “...participate in the Florida Keys Advance Identification of Wetlands (ADID) Program.” The ADID program was a joint effort of the USEPA, USACE, and the County, utilizing federal wetland delineation methods. The Florida Keys ADID project included mapping of marine and freshwater wetlands throughout the Keys. The ADID project mapped marine and freshwater wetlands throughout the Keys (within approximately 65,000 acres of highway-connected islands) and conducted a functional evaluation of these wetlands. The map series produced for the ADID program was produced on hand-drawn maps that were then digitized. The ADID project included the development of a functional assessment methodology called the Keys Wetland Evaluation Procedure (KEYWEP). In conjunction with the ADID, the assessment team scored many wetlands throughout the County using the KEYWEP. For wetland regulatory purposes, the County utilizes scores assigned during the ADID through KEYWEP to determine the appropriate level of protection or suitability for development of wetlands. The Florida Department of Environmental Protection and the water management districts utilize the Uniform Mitigation Assessment Method (UMAM – see Section 373.414(18), F.S. and Rule 62-345, F.A.C.) for wetland regulatory purposes. UMAM is a standardized procedure for assessing the functions provided by wetlands and other surface waters, the amount that those functions are reduced by a proposed impact, and the amount of mitigation necessary to offset that loss.
- While the ADID mapping was completed, the process did not involve the State of Florida wetland delineation method (Section 373.421, F.S.). The

County should evaluate the state methodology and coordinate with state and federal agencies to ensure the County is making determinations that are consistent with Chapter 373, F.S. The County should review and compare both the KEYWEP and UMAM procedures to determine if revisions are necessary for the County and ensure consistency with Chapter 373, F.S.

- Goal 205 directs Monroe County to protect and enhance native upland vegetation and protect and conserve existing wildlife and wildlife habitats. These GOPs have been successfully implemented through:
  - The development and implementation of the Tier System (Policy 205.1.1) and revisions to the Permit Allocation System. In 2006, the County adopted a Tier System to direct growth to acceptable areas and encouraging conservation in areas with environmental sensitivity. The tier boundaries are depicted on the Tier Overlay District Map.
  - The development of a Land Acquisition and Management Master Plan in August of 2006. The plan includes a detailed funding plan, identifying both current and future funding sources and an implementation strategy for acquisition. The plan also discusses the land needs associated with affordable housing development and identifies potential funding for the program.
    - 1) Conservation land acquisitions have included freshwater wetlands, freshwater ponds, buffer areas, and critical recharge areas of the groundwater lenses which sustain freshwater flows into the wetland habitat areas.
  - Since 2005, the Monroe County Land Steward is a partner with the Florida Keys Invasive Exotics Task Force and has undertaken numerous exotic plant removal projects in County-owned parcels, using annual grant funding from the Florida Fish and Wildlife Conservation Commission Invasive Plant Management Section.
    - 1) The policies in the current Plan prohibit the planting of highly invasive exotic plants throughout the County. The County provides education to the public of the need to remove invasive plant materials from existing developed areas.
- The GOPs (Objective 203.3, Goal 207 and associated objectives and policies) direct the County to protect wildlife habitats and threatened and endangered species. The County developed and adopted a Livable Communities Plan and Habitat Conservation Plan (HCP) for Big Pine Key and No Name Key. The HCP was implemented in 2006 to protect the Florida key deer as well as other

- protected species, including the lower keys marsh rabbit and the eastern indigo snake.
- Policy 207.1.1 requires an EIA for major development. However, “major development” is not defined. The County should include a definition within this policy.
  - Policy 207.2.1 states: The Monroe County Biologist, in coordination with DNR, FGFWFC, and the FWS, shall prepare management guidelines for wildlife species designated as threatened and endangered by the state and federal governments. To the maximum extent possible, the County shall rely on guidelines and public educational materials prepared by the state and federal governments. The guidelines have not been completed. The County should coordinate with these agencies in their development of such guidelines.
  - Pursuant to the requirement of Objective 206.3, beach management plans are recommended to address the problems of erosion and invasive plants.
  - The Objective 208.2 and its associated policies direct the County to establish standards for mining activities and the reclamation of abandoned mining sites. Policy 208.4.2 requires the County to inventory abandoned mining sites. As of December, 2010, there is no complete inventory of abandoned mining sites. The County should inventory abandoned mining sites.
  - Goal 210 of Plan calls for an ongoing restoration program for public lands. The County undertakes projects based on management or maintenance needs or by public request. The County uses a combination of local, State, and federal funds to implement specific projects. Local funding comes from the Monroe County Environmental Land Management and Restoration Fund, which receives monies paid to the County as fines or penalties for environmental crimes, or as payments in lieu of replacement of native vegetation destroyed during the land development process.
  - Goal 212 of the Plan requires the prioritization of the County’s shoreline development. In 2005 the County retained the South Florida Regional Planning Council (SFRPC) to develop the *Monroe County Marine Management Strategic Plan* which included strategies for protecting and preserving water dependent uses (specifically working waterfront uses). In 2007 the County again retained the SFRPC to develop the *Monroe County Working Waterfronts Master Plan* which included recommended Plan and Land Development Regulation amendments designed to prevent the conversion of water dependent facilities and services to non-water dependent development. These amendments have not been adopted.

- The County should evaluate existing policies regarding the protection and preservation of water dependent uses and provide further detail for the development of implementing land development regulations.
- Policies 212.2.1 and 212.2.3 establish the shoreline setbacks for principle and accessory structures. The County should evaluate the setback requirements for consistency with community character of existing structures and, as appropriate, revise the setback standards.
- Policy 213.1.1 requires the County to prepare a “Public Access Plan” by December 31, 2006. Although this plan has not been completed, the recently completed (June 2011) update of the Technical Document provides an inventory and estimated need for public access points, marina, boat ramps, etc. The County should determine if further studies are necessary.
- Goal 216 and its associated objectives and policies direct the County to reduce hurricane evacuation clearance time to 24 hours by the year 2010. In 2010, the *Florida Keys Hurricane Evacuation Study* (The Miller Model) was updated to include phased evacuation; the Florida Department of Transportation’s (FDOTs) *5-Year Work Program* roadway projects; and updated participation rate and traffic flow rate assumptions to determine projected clearance time results. The County continues to participate in efforts to update evacuation model assumptions.
- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## C. Traffic Circulation Element

### Overview

The purpose of the Traffic Circulation Element is to provide a safe, convenient, efficient, and environmentally-compatible motorized and non-motorized transportation system for the movement of people and goods in the County.

The FDOT is responsible for maintaining and improving U.S. 1 and South Roosevelt Boulevard/S.R. A1A. SR A1A begins at the intersection of Bertha Street and Roosevelt Boulevard as a four lane undivided roadway, extending eastward past the Key West International Airport (KWIA) before terminating at the intersection with U.S. 1 at the east end of the island.

The Monroe County Division of Public Works is responsible for maintaining and improving County roads. The Division of Engineering is responsible for planning County road and bridge improvements and overseeing and administering contracted road and bridge repair projects.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, since the last EAR (2004), the County has successfully implemented the Traffic Element GOPs of the Plan.

- The Traffic Circulation Element currently promotes orderly and economic development through the Concurrency Management System by ensuring that public facilities and services, including roads be available concurrent with the impacts of development (Objective 301.2).
- The GOPs direct the County to ensure all roads have sufficient capacity to serve development at the adopted Level of Service (LOS) standards. Further, Policy 301.2.1 requires the County to use the methodology developed by the US-1 Task Force to monitor peak season traffic volumes and, "...determine the cumulative impact of development and through traffic." An annual arterial travel time and delay study is conducted by FDOT. The results are used in conjunction with the Methodology to determine US-1 LOS.
  - The County maintains an inventory of their major maintained roads and bridges, respectively, including CR-905 through North Key Largo and Card Sound Road (CR-905A), which, when combined, provide an alternate route to the mainland.

- In accordance with Objective 301.6, the FDOT's Five Year Work Program, which is updated annually and incorporated into the County's Capital Improvement Schedule, provides a schedule of major roadway improvements.
- Pursuant to Policy 301.3.1, the Monroe County Engineering Division prepares a *Seven Year Roadway/Bicycle Path Plan*, which is updated periodically. Proposed roadway improvements are evaluated and prioritized based on a point system developed by the County.

*Recommendations*

- Coordination with the FDOT is vital in the Florida Keys. While the County provides for FDOT representation at the County's Development Review Committee, unfortunately FDOT representation is not consistent. The potential for better coordination is vital due to the significance of U.S. 1 in the County and the implementation of the Livable CommuniKeys Plans.
- The County should consider developing a Transportation Strategy Master Plan.
- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## **D. Mass Transit**

### Overview

The purpose of the Mass Transit Element is to provide a coordinated surface transportation system for transportation disadvantaged people with the County and to encourage such as system for all residents and guests.

The County is currently served by two main public transit systems:

- Miami-Dade Transit in the northern region of the County with two routes (Dade-Monroe Express and Card Sound Express) serving the County from Key Largo to the City of Marathon; and
- The City of Key West Department of Transportation which operates:
  - Key West Transit with four fixed-route bus routes serving the City of Key West and Stock Island;
  - The Lower Keys Shuttle providing service in the southern portion of the County from the City of Marathon to the City of Key West; and
  - The Key West Park-N-Ride at The Old Town Garage.
- Other transit related services providing limited service in the County include:
  - Monroe County Transit’s Paratransit Service;
  - Guidance Clinic of the Middle Keys; and
  - Greyhound Bus Line.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, since the last EAR (2004), the County has successfully implemented the Mass Transit Element GOPs of the Plan.

- Objective 401.1 seeks to, “...encourage the provision of transit service for all residents to major trip generators.” As noted above, public transit services are available: the Dade-Monroe Express (MDT #301) in the northern region between Florida City, Key Largo and Marathon; the Card Sound Express (MDT #302) between Florida City and Ocean Reef Club (Key Largo); and the Lower Keys Shuttle in the southern region of the County between Key West and Marathon.

- While there is no official transfer station for the aforementioned transit services, the bus stop at U.S. 1 and Sombrero Beach Road (MM 50) does serve as a midway point at which riders can transfer to/from the Lower Keys Shuttle and the Miami-Dade Express #301 route.

*Recommendations*

- The County should continue to develop strategies to reduce trips on U.S. 1.
- The County should continue to coordinate with the municipalities to further facilitate mass transit in the Florida Keys. Coordination and actions may be taken to:
  - Establish coordination agreements with Key West Transit and other transit operators.
  - Provide signage alerting passengers to the location of the “transfer” stop at MM 50.
  - Developing an inventory of designated bus stops and shelters.
  - Providing additional designated bus stops and shelters (signed, with or without amenities) throughout the U.S. 1 Corridor. This is especially significant north of Marathon.
  - Develop park-and-go facilities.
- The County should consider developing a Transportation Strategy Master Plan.
- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## **E. Ports, Aviation and Related Facilities**

### Overview

The purpose of the Ports, Aviation and Related Facilities Element is to provide a safe, convenient, efficient, and environmentally-compatible motorized and non-motorized transportation system for the movement of people and goods in the County.

Within the County, there are eight airport facilities. The Key West International Airport (KWIA) provides commercial flights to the community. The Florida Keys Marathon Airport (FKMA) provides mainly general aviation services. There are also four private airports or airstrips, one seaplane facility, and one military aviation facility: the U.S. Naval Air Station Key West (NAS KW). The KWIA and the Naval Air Station are situated in the Lower Keys. The FKMA is located in the Middle Keys. The seaplane facility is located on Stock Island. The four private airstrips are located throughout the Florida Keys.

Naval Air Station Key West (NAS KW) consists of approximately 5,800 acres with facilities located in 13 different areas of the lower Florida Keys. Boca Chica Field, NAS Key West's primary site and airfield, is located on Boca Chica Key. Boca Chica Field is approximately three miles east of the City of Key West and consists of approximately 4,700 acres encompassing nearly the entire key. In the 1970s and 1980s, the Navy implemented an Air Installations Compatible Use Zones (AICUZ) program at NAS Key West (Boca Chica Field) to encourage, through local cooperation, compatible development in and around the Navy airfield in the County.

While there is an abundance of coastline in the County, only two areas are considered port facilities. The Port of Key West, which consists of cruise ship berths and passenger ferries; while the privately owned Stock Island port is considered to be the only truly industrial, deep water port in the County.

Additionally, HB 7207, which amended Chapter 163, F.S., had numerous changes related to the compatibility of development with military installations and how local governments and military installations exchange information.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, since the last EAR (2004), the County has successfully implemented the Ports, Aviation and Related Facilities Element GOPs of the Plan.

- The GOPs (Objective 501.1) direct the County to preserve existing airports, airstrips, and related activities; and to coordinate surface transportation access to existing and new public airport facilities. The County continues to implement these GOPs. Recently, the County built a 400-space parking garage located on the south side of the Terminal at the Key West Airport. This garage provides 95 short-term spaces, 150 long-term spaces, and 155 parking spaces for car rentals. A total of 13 curb spaces are provided for taxis.
  
- Pursuant to the requirement of Policy 501.2.2 related to the updated airport master plan, recent additions to Florida Keys Marathon Airport include the following:
  - Monroe County Sheriff’s hangar and apron;
  - Expansion of the Grant Air (FBO) apron and hangar;
  - Construction of 32 “T-Hangars;”
  - Coast (FBO) apron;
  - Antique Air Hangar;
  - Relocated four-bay shade hangars to the northeast sector;
  - Construction of the Mosquito Control Facility at the east end of the airport; and
  - New Airport Rescue and Fire Fighting (AARF) Building.
  
- Goal 502 and its associated objectives and policies direct the County to preserve and enhance existing ports and port related activities. In 2006, the County developed a Livable CommuniKeys Plan for Stock Island/Key Haven which addressed ports and port related uses in this planning area.
  
- The County has included a liaison from NASKW as a non-voting member of the Planning Commission.
  
- The County continues to notify the commanding officer of NASKW of proposed changes to the Plan and land development regulations that would affect the land use adjacent to the military base.

Recommendations

- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

## F. Housing Element

### Overview

The Housing Element is intended to provide guidance for the development of plans and policies to meet housing deficits and summarize existing and future housing needs.

The Housing Element includes:

- An assessment of existing housing conditions and characteristics.
- A future housing needs assessment based on population projections.
- A determination of available vacant land for residential development purposes.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, since the last EAR (2004), the County has successfully implemented the Housing Element GOPs of the Plan.

- The County developed the Land Acquisition and Management Master Plan in August of 2006 as required by Policy 601.1.6. The plan includes a detailed funding plan, identifying both current and future funding sources and an implementation strategy for acquisition. The plan also discusses the land needs associated with affordable housing development and identifies potential funding for the program.
- To implement Policy 601.1.12, the County has adopted Land Development Code to provide incentives to promote the development of affordable housing. While the County has provided a variety of incentives to encourage the development of affordable housing, affordable housing continues to be an issue in the County.
- As required by Policy 601.1.1, in 2007, the *Monroe County Housing Needs Assessment* was prepared by Florida International University. The purpose of the assessment was to, “provide a quantitative housing needs assessment that can serve as a baseline for understanding the County’s housing supply and demand relationship by sub-region.”
- The establishment of the Tavernier Historic District provides a mechanism for protection of significant housing as required by Policy 601.3.4.

Recommendations

- The County has developed a variety of incentives to encourage the development of affordable housing; however, due to the high cost of land, limited subsidies and limited available ROGO allocations, the availability of affordable housing continues to be an issue in the County. The County should continue to coordinate with the municipalities and the DEO regarding affordable housing.
- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## **G. Potable Water Element**

### Overview

The purpose of the Potable Water Element is to support the Florida Keys Aqueduct Authority (FKAA) in the fulfillment of their statutory obligation and authority to provide for a safe, high quality and adequate supply, treatment, distribution, and conservation of potable water to meet the needs of present and future residents.

There are no significant sources of fresh surface water in the populated Florida Keys portions of the County. Today, the FKAA remains the sole supplier of centralized potable water to the Keys, and the vast majority of the County residents receive their potable water, supply and distribution, from the FKAA system. Therefore, the County, being a retail customer of FKAA, does not have any local responsibility for potable water supply or distribution to its citizens. The primary source of water to the Keys is from the FKAA's Florida City wellfield, which pumps water from the Biscayne Aquifer and the Floridan Aquifer System in southeastern Miami-Dade County.

There are alternative potable and non-potable water supplies in use in the Keys; such as: private cisterns, private wells (See Natural Groundwater Aquifer Recharge element for listing), home desalinization systems, and bottled water. Most users of these alternative sources rely on them only as supplements to the FKAA water. Cistern and well water, are often reserved for irrigation and other non-potable uses. A few residents of mainland Monroe County are served by private wells and cisterns.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, since the last EAR (2004), the County has successfully implemented the Potable Water Element GOPs of the Plan.

- As required by Objective 701.1, Policy 701.1.3 and Policy 701.1.4, the Potable Water Element currently promotes orderly and economical development through the Concurrency Management System by ensuring that public facilities and services, including potable water be available concurrent with the impacts of development.
- Objective 701.4 seeks to assure cooperation between the County and Miami-Dade County to, "...protect the recharge area of the Florida City Wellfield from potential sources of groundwater contamination." Protection of the FKAA Florida City Wellfield is accomplished through the provisions of the Miami-Dade County Potable Water Supply Well Protection Ordinance (Miami-Dade County Code 24-

- 43). This Code contains the following provisions regarding the protection of the County's water supply service: Septic Tanks, Sanitary Sewers, Stormwater Disposal Methods, Prohibition of Hazardous Materials within Wellfield Protection Areas, Excavation, Pipelines for Hazardous Materials and Prohibition of Resource Recovery and Management Facilities with Wellfield Protection Areas.
- Objective 701.8 addresses the capacity issue relating to fire flows. The FKAA and the County entered into an agreement in September 2007, for installation and maintenance of fire hydrants in unincorporated Monroe County. This agreement acknowledges that the majority of the water distribution system is not designed to provide fire flow and FKAA does not guarantee fire flow. The purpose of fire hydrants are to provide various locations for the filling of fire-fighting apparatus. The agreement also states that the County Fire Rescue will recommend fire hydrant locations for proposed plans on the distribution system, while FKAA will evaluate the technical and economic feasibility of the recommended locations. The agreement continues to define funding and maintenance fee responsibilities between the County and the FKAA.
  - To further Objective 701.9, the County has water efficiency standards to augment the South Florida Water Management District (SFWMD) and FKAA programs as defined in the 2007 Florida Building Code.
  - As required by Policy 701.9.1, the County adopted Section 114-102 of the LDC which requires that 70 percent of the plant materials used to satisfy landscaping requirements for new development will be native species which require little irrigation.
  - The County has a water conservation component of the NROGO (Section 138-47, of the LDC as required under Policy 701.9.7. The intent of this ordinance is to encourage the planting of native vegetation and promote water conservation. The graded scale (points) are assigned to the project based on the percentage of native landscape plants on the property beyond what is required within landscaped bufferyards and parking areas.
  - To implement Objective 701.9, the County developed a 10-year Water Supply Work Plan that identifies alternative water supply projects, traditional water supply projects, conservation, and reuse necessary to meet the unincorporated area water supply needs, consistent with the SFWMD Lower East Coast Regional Water Supply Plan and the FKAA 20-year Water System Capital Improvement Master Plan.

Recommendations

- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## **H. Solid Waste**

### Overview

The purpose of the Solid Waste Element is to provide for adequate collection, disposal and resource recovery of solid waste in an environmentally sound and economically feasible manner to meet the needs of present and future County residents.

The Public Works Division, Department of Solid Waste/Recycling (PWD-DSW/R) oversees the solid waste disposal and recovery program for the County.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, since the last EAR (2004), the County has successfully implemented the Solid Waste Element GOPs of the Plan.

- The Solid Waste Element currently promotes orderly and economical development through the Concurrency Management System by ensuring that public facilities and services, including solid waste be available concurrent with the impacts of development as required by Objective 801.1.
- Pursuant to Policy 801.1.2, and LDC, Section 114-2(a)(2), "... sufficient capacity shall be available at a solid waste disposal site to accommodate all existing and approved development for a period of at least three years from the projected date of completion of a proposed development or use".
  - The determination of sufficient capacity is assessed on an annual basis. As stipulated in Section 114-2(b)(3) of the LDC, capacities for solid waste and other public facilities are updated and presented each year on or before June 15th in a public facilities capacity assessment report that is approved by the Board of County Commissioners.
- The County entered into a haul out contract with Waste Management Inc. (WMI) in 1990 to have its solid waste hauled out of the County, pursuant to Objective 801.3. Since that time, the County has continually renewed five year contracts with WMI. The County has been paying annual disposal fees on a per ton basis of municipal solid waste.

- To implement Objective 801.4, currently, the County’s recycling program consists of a voluntary curbside collection system, recycling centers at each of the solid waste transfer stations, and voluntary commercial collection. Recycling programs related to commercial establishments have been developed and put in place. The Monroe County School District has developed and implemented programs at all County schools.
  - In addition to the curbside collection, recycling centers have been made available to the residents as part of County’s recycling program. The current drop-off centers are located at (1) Cudjoe Key Transfer Station (MM 21.5, Blimp Road), (2) Long Key Transfer Station (MM 68), and (3) Waste Management Recycling Center (MM 100.2, 300 Magnolia St. Key Largo).
  - These locations accept recyclable material that coincides with curbside collection of recyclable material.
  - In addition to typical recyclable materials (paper, plastic, glass, and metals), electronic waste (E-waste) and household hazardous wastes are accepted twice a month.
- As required by Policy 801.4.7, a program to remove, crush and haul abandoned vehicles for processing has been developed by the County. This service is provided to the County through contractual agreements.
- In accordance with Objective 801.5, the County is responsible for monitoring small quantity hazardous waste generators. This program is managed by the Department of Health. There are approximately 800 potential small quantity generators that are registered in the County. Each small quantity generator is responsible for the transportation and disposal of its own hazardous waste; however, as part of the agreement with the County, small quantity generators can contract with the County's private contractor, at reduced rates.
  - PWD-DSW/R has temporary storage facilities at Cudjoe, Long Key, and Key Largo for small quantities of household hazardous material and electronic waste. The County accepts household hazardous material and electronic waste during specified times and days at all three transfer station sites and sponsors special collection events at no charge to residents. Small quantities of these materials are accepted from businesses for a fee during regular collection hours. In addition, the County has encouraged auto repair stations to voluntarily collect batteries and waste oil from their customers as a public service.
  - PWD-DSW/R offers training sessions and classes on hazardous waste management to various business and community groups. Training, along with evaluation and assessment, is one of the topics on which the Cooperative Extension Service has written materials, slides, and a video that are available

upon request. The County sponsors special household hazardous material and E-waste collection events at no charge to residents.

- Objective 801.7 directs the County to promote public awareness of the initiatives to recycle and reduce the solid waste stream. A revised comprehensive program for public education and awareness of recycling is currently in development and is being implemented for the entire County. Updated brochures, an on-line newsletter, press releases, and media interviews are prepared on a regular basis by PWD-DSW/R.
  - A list of all local newspapers, radio stations and television stations has been compiled. News releases and public service announcements are sent regularly to all local newspapers and radio stations. Paid advertisements have been utilized for publicizing special recycling events. Brochures have been prepared and distributed and flyers to promote recycling events have been circulated throughout the County by PWD-DSW/R.

*Recommendations*

- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## **I. Sanitary Sewer**

### Overview

The purpose of the Sanitary Sewer Element is to provide for the adequate, economically sound collection, treatment, and disposal of sewage which meets the needs of present and future residents while ensuring the protection of public health, and the maintenance and protection of ground, nearshore, and offshore water quality.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes, Shortcomings and Recommendations

Overall, since the last EAR (2004), the County has successfully implemented the Sanitary Sewer Element GOPs of the Plan.

- The Sanitary Sewer Element currently promotes orderly and economical development through the Concurrency Management System by ensuring that public facilities and services, including sanitary sewer be available concurrent with the impacts of development, as required by Policy 901.1.1.
- The County is designing and constructing sanitary sewer facilities in order to comply with Objective 901.4 and Sections 380.0552, 381.0065 and 403.086 of the Florida Statutes. Since facilities are being constructed, the County should revise the level of service standards in Policy 901.1.1 to establish a level of service standard to ensure that adequate facility capacity will be provided for future development.
- Pursuant to Objective 901.1, the County has adopted a Sanitary Wastewater Master Plan and continues to utilize the County's limited financial resources to address existing wastewater issues. Additionally, the County assigns positive points for proposed developments that will be connected to a central wastewater system to direct growth to areas with sewers.
- Although originally planned to provide compliance by July of 2010, the 2006 *Monroe County Sanitary Wastewater Master Plan* (the "Master Plan") has fallen short mainly due to a gap in funding. Although many tasks identified in the Master Plan remain incomplete, all are being addressed. The remaining tasks consist mainly of costly capital improvement projects for which funding remains the key issue to implementation.
  - The Keys Wastewater Plan – November 2007 Report, prepared at the request of the Florida House of Representatives Environmental and Natural Resources Council, identified progress of the individual projects along with local

government responsibilities for specific facilities. The executive summary of the report cited a funding gap of approximately \$336 million in meeting the July 2010 date for compliance.

- In April 2010, the Florida Senate and House approved SB 2018 extending the deadline for compliance to the end of 2015, and postponing fines and potential liens against property owners. In addition, the bill authorized \$200 million of State funding for improvements; however, the source of funding remains unresolved. Meeting the 2015 extension requires a detailed financial plan to implement necessary plant and infrastructure improvements. The funding gap of \$330 Million, which has already stretched the County’s capacity for debt service, continues to broaden due to a delayed revenue stream resulting from delays in design and construction of new systems.
- The County should revise the Plan to be consistent with all relevant deadlines for wastewater improvements.
- To date, the County has not imposed assessments on residents as it could result in home forfeitures and financial hardship. The varying costs among projects pose additional problems. For example, areas such as Cudjoe Regional System, projected at \$20,000 per EDU, costs up to two times as much as other systems costing approximately \$10,000 per EDU. Improvements to Cudjoe Regional System could require supplemental funding to bring costs in-line with other systems to avoid an unreasonable burden to the residents. The County looks to State and Federal assistance to make up the difference. Due to uncertainties, all alternative avenues for funding need to be explored and implemented. Without a detailed financial plan and diligent pursuit of funding sources, there is concern that the 2015 extension may not be met.
- Pursuant to Objective 901.1, the County guarantees that the available facilities are able to support the development at the adopted level of service. The capacity data in the permits from the new development of the Waste Water Treatment Plan have all been calculated so that there is sufficient room for growth – (technical data). There are currently no plants that have met the 100% utilization rates. Based upon the population projections by planning area noted in Chapter 2, “Community-Wide Assessment, population and the migration from Upper to Lower Keys, there may be a need to confirm plant capacities.
- The pending EPA Water Quality Standards for the State of Florida's Lakes and Flowing Waters and Marine Systems, 40 CFR, part 131, may have impacts on both existing and proposed facilities. The mandates associated with this program may introduce additional requirements for treatment and result in further improvements to both regional and small private facilities.

- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## J. Drainage

### Overview

The purpose of the Drainage Element is to provide a stormwater management system which protects real or personal properties, and which promotes and protects ground and nearshore water quality.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, since the last EAR (2004), the County has successfully implemented the Drainage Element GOPs of the Plan.

- The Drainage Element currently promotes orderly and economical development through the Concurrency Management System by ensuring that public facilities and services, including drainage be available concurrent with the impacts of development as required by Objective 1001.1 and Policy 1001.1.2 of the Plan.
- The GOPs direct the County to provide stormwater management system which protects real and personal properties, and which promotes and protects ground and nearshore water quality. The County has adopted a *Stormwater Master Plan*, a *Stormwater Management Ordinance* and prepared a *Manual of Stormwater Management Practices* which provides information on acceptable forms of Best Management Practices (BMPs), (e.g. rate control structures, catch basins with skimmers and baffles, and wet and dry detention/retention facilities).
- Policy 1001.1.3 requires the establishment of Stormwater Management Ordinance. In the past, the only controls on stormwater imposed by the County were those involving flood protection and floodplain encroachment in Section 122 of the LDC. Subsequently, the LDC has been revised, based on recommendations provided in the County's Stormwater Management Master Plan (SWMMP), to not only provide stormwater controls for flood protection and floodplain encroachment, but also to include water quality controls in Section 114-3 of the LDC.

Recommendations

- Policy 1001.1.6 directs the County to complete an inventory and analysis of existing public and private drainage facilities in the County. At the present time, only project specific surface water management systems exist in the County that are capable of servicing existing land use or mitigating associated impacts. A facility-specific land use inventory has not been completed to ascertain the drainage system needed to serve a combination of residential, commercial, industrial, extractive, institutional and agricultural land uses as well as public facilities, conservation/preservation areas and vacant lands. The County should undertake the inventory and evaluation of existing drainage structures and facilities within County ROWs, identifying flooding issues; and, obtain data from the FDOT and municipalities for their facilities, collaborating efforts to resolve common issues.
  - The Division of Public Works is the maintenance department for County buildings, parks, vehicles and equipment, and roads. The Monroe County Engineering Division should consider hiring a contractor to undertake the inventory and evaluation of existing drainage structures and facilities within County ROWs and identify flooding issues by using drainage system records and plans and by obtaining data from the County Road Department, FDOT, etc.
- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## K. Natural Groundwater Aquifer Recharge Element

### Overview

The purpose of the Natural Groundwater Aquifer Recharge Element is to protect the quantity and quality of water in the potable water aquifer and the freshwater lens systems and preserve ecosystems dependent upon freshwater.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, since the last EAR (2004), the County has successfully implemented the GOPs of the Plan.

- The potable water supply resources used by the County, including both the aquifer system and treatment facilities, are geographically located in Miami-Dade County - entirely outside of the County's jurisdiction (see *Chapter 8.0, Potable Water Element* of the updated (June, 2011) Technical Document). As a result of the potable water source for the County being located entirely within Miami-Dade County, aquifer protection related to the FCAA's Florida City Wellfield is accomplished through the provisions of the Miami-Dade County Wellfield Ordinance, pursuant to Goal 1101 of the Plan.
- The current Stormwater Management Ordinance addresses the need to handle stormwater on site as a water quality strategy; however, it does not stress the need to retain natural drainage features and reduce impervious surfaces as required by Policy 1101.2.1.
- Objective 1101.2 requires the County to, "...map the freshwater lens systems and associate recharge areas in the Florida Keys..." The maps of freshwater lenses on Big Pine Key were updated in 2010, by Geoview, Inc. under a contract by The Nature Conservancy, and presented in "Final Report, Geophysical and Hydrogeological Study of Big Pine Key, FL", dated October 15, 2010.

### Recommendations

- While the current Stormwater Management Ordinance addresses the need to handle stormwater on site, in order to comply with Policy 1101.2.1, standards are needed to ensure impervious surfaces do not reduce the quantity or quality of aquifer recharge to the point where the natural resources are significantly degraded.

- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## **L. Recreation and Open Space Element**

### Overview

The purpose of the Recreation Element is to plan for a comprehensive system of recreation and open space lands available to the public.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, since the last EAR (2004), the County has successfully implemented the GOPs of the Plan.

- The Recreation and Open Space Element currently promotes orderly and economical development through the Concurrency Management System by ensuring that public facilities and services, including parks and recreation be available concurrent with development and as required by Objective 1201.1.
- Lands designated as Recreation (Policy 101.4.9) provide for public and private activity-based and resource based recreational facilities. Lands designated Conservation (Policy 101.4.15) are primarily for the preservation of natural and historic resources as well as compatible passive recreational uses. The County has an abundance of recreation and conservation lands and hundreds of thousands of acres of submerged lands available for recreational use.
- The County has been diligent in providing recreation lands, both resource-based and activity-based for the use and enjoyment of its residents and the tourist and seasonal population.

### Recommendations

While the County has been successful in implementing the majority of the GOPs outlined in the existing Plan, several key provisions have yet to be fully achieved, while others should be reviewed and modified. These policies are discussed below:

- The County should undertake the development of a Parks and Recreation Management and Maintenance Master Plan pursuant to Policy 1201.3.3, which requires the County to adopt a master plan for each existing county-owned park. In addition to the requirements for these master plans as outlined in Policy 1201.3.6, these plans should also address proper management techniques consistent with the updated elements of Future Land Use, Recreation and Open Space,

Historic Sites, and Conservation and Coastal Management; and general maintenance requirements and costs.

- Policy 1201.6 directs the County to ensure access to publicly-owned recreation and open space areas, including the handicapped and disabled. The County should review current Americans with Disabilities Act (ADA) standards for accessible design and ensure that the County's policies are consistent.
- Policy 1201.6.4 requires preparation of a *Monroe County Parks and Recreation Master Plan*; Policy 1201.6.2 requires the development of an annual park and recreation facility management plan. In 2005, the County developed a *Draft 2005 Monroe County Parks and Recreation Master Plan*. This "final draft" of the document was submitted to the County for review and adoption, but has not been adopted as of December 2010. The County should evaluate the draft plan and develop an up-to-date park and recreation management plan.
- Objective 1201.9 directs the County to create a Parks and Recreation Department. This department was created in 1995, but funding and staffing for this department was never provided. The County currently has a Parks and Recreation Advisory Board which reports to the County Commission and works with both Growth Management and Public Works Divisions.
  - The Division of Public Works is the maintenance department for County buildings, parks, vehicles and equipment, and roads. The County should consider deleting this policy due to lack of funding and BOCC direction not to pursue a Parks and Recreation Department.
- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## **M. Intergovernmental Coordination Element**

### Overview

The purpose of this element is to increase the effectiveness, efficiency, and responsiveness of government; provide for consistency in decisions and actions between various departments and agencies; and to improve citizen awareness and participation.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, since the last EAR (2004), the County has successfully implemented the GOPs of the Plan.

- Through the existing GOPs, the County has effectively coordinated with local, state and federal agencies.
- Interlocal agreements have been established with the FKAA and other utility providers to provide wastewater services.
- Some of the interlocal agreements to be entered into that are specified in policies throughout this element appear, from best available data, that they have not been entered into or established.

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*Recommendations*

- The policies identifying specific inter-local agreements should be reviewed closely and should be revised or deleted accordingly.
- Policy 1301.1.2 states that Monroe County must establish a complete list of existing and planned intergovernmental and interagency agreements, which must be updated annually. This has been accomplished through the listing of agreements posted on the County Clerk's website. This website is difficult to search for all interlocal agreements. The County may want to create a comprehensive list of all interlocal agreements for inclusion as an appendix in the Technical Document of the Plan.
- The County should jointly promote the County's parks as community attractions.
- The element includes other outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

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## N. Capital Improvements Element

### Overview

The Capital Improvement Element (CIE) provides for review criteria of capital improvements, coordination with the budget, level of service standards, and concurrency management.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

Overall, the County has been successful in implementing the GOPs within the CIE.

- Through the Capital Improvements Element (Goal 1401), the County ensures that the adopted level of service standards are achieved and maintained and that existing deficiencies are eliminated.
- The County is currently reviewing and modifying its processes for identifying and including necessary capital improvements in the annual update.
- The County prepared an amendment to the CIE in December 2010 to respond to the annual update requirements of Chapter 163 F.S. In February 2011, the amendment was found to be in-compliance by DEO, formerly known as DCA.

### Recommendations

- The County should revise the LOS standards for Recreation and Open Space (Policy 1201.1) and adopt sanitary sewer LOS standard to ensure that adequate facility capacity will be provided for future development (Policy 901.1.1).
- Funding shortfalls continue relating to sanitary sewer implementation. The County should continue to seek funding sources.
- The element includes outdated or no longer applicable objectives and policies; these are identified in the attached **Appendix 3** and should be reviewed closely and revised or deleted accordingly.

## **O. Cultural Resources Element**

### Overview

Cultural Resources is an optional element not required by Chapter 163, F.S. and as such, no specific requirements have been instituted for this element.

The following are the major achievements, successes, shortcomings and recommendations for the element:

### Successes and Shortcomings

- Pursuant to Goal 1501 and its associated objectives and policies, the BOCC created the Tourist Development Council (TDC). The TDC sets an overall direction for the County tourism marketing effort, including cultural activities.
- The residents of the County approved a 3-cent sales tax on tourist lodging (the bed tax) to be used for tourist advertising, promotion, and some tourist related capital projects.
- The Florida Keys Council of the Arts (FKCA) is the main source of information on arts and culture in the Florida Keys. The FKCA provides grants, supports Art in Public Places, and promotes the Florida Keys rich and diverse history in art and culture. The Arts Council provides services to visual and performing artists, arts organizations, students and the public, striving to instill a passion for and participation in the arts. The FKCA maintains an artist registry; publishes and distributes a weekly and quarterly Cultural Calendar and gallery guide.

### Recommendations

- Goal 1501 directs the County to ensure accessibility, stewardship and cooperative facilitation in protecting and fostering cultural activities. The County should review current Americans with Disabilities Act (ADA) standards for accessible design and ensure that the County's policies are consistent.
- No Data Inventory and Analysis is available regarding existing conditions or future needs, including an inventory of cultural resources, public artworks, art education, and programming to formulate a basis to determine the effectiveness of this element. Incorporate this element within the Economic Sustainability Element.