EVALUATION AND APPRAISAL REPORT
MONROE COUNTY, FLORIDA

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INTRODUCTION

1. Purpose of the Evaluation and Appraisal Report (EAR)

Section 163.3191(1), Florida Statutes (F.S.) requires that, at least every seven years, local governments evaluate the community's Comprehensive Plan (the Plan) to determine if amendments are necessary to reflect changes in State requirements in Chapter 163, F.S. since the last update of the Plan and notify the State Land Planning Agency (formerly known as the Department of Community Affairs) as to its determination. To meet this requirement, Monroe County (the County) has prepared an EAR of its Plan. The previous Monroe County EAR was adopted August 1, 2004, therefore this review is consistent with Section 163.3191(1), F.S.

The EAR is a periodic evaluation of how successful a local government has been in addressing major issues as part of its Plan. Based on this evaluation, the EAR suggests how the Plan should be revised to reflect changes in State requirements in Chapter 163, F.S. and better address the County's objectives, changing conditions and trends. HB 7207, which significantly amended Chapter 163, F.S., was signed into law the summer of 2011 after the EAR and Technical Document update had already been initiated by the County. Because of the timing of the passage of that law, certain previous EAR requirements had already been met and as such are included. Because the amended law affords more flexibility in the EAR process, there are no inconsistencies between the County's previous work on the EAR and Section 163.3191, F.S. as adopted. In addition, for the purposes of this document, the Department of Community Affairs (DCA), which is also the State Land Planning Agency, has now been changed to the Department of Economic Opportunity (DEO). Therefore, all references to either DCA or the State Land Planning Agency within this document refer to the DEO.

This EAR is intended to accomplish several purposes:

- Identify major issues for the community;
- Review past actions of the County in implementing the Plan since the last EAR;
- Assess the degree to which the Plan's objectives have been achieved;
- Assess both successes and shortcomings of the Plan;
- Identify ways that the Plan should be changed;
- Respond to changing conditions and trends affecting the County;
- Respond to the need for, and availability of, new data;
- Respond to changes in State requirements regarding growth management;

- Respond to changes in regional plans; and

- Ensure effective intergovernmental coordination.

2. County Profile

The County is primarily comprised of the Florida Keys (Keys), an ecologically fragile island based community stretching some 130 miles in an archipelago. The County includes the Mainland area and over 1,700 islands which lie along the Florida Straits, dividing the Atlantic Ocean to the east from the Gulf of Mexico to the west, and defining one edge of the Florida Bay. The largest of these islands include Key Largo, Islamorada, Marathon, Tavernier, Big Pine and Key West. The total land area of the Keys is nearly 1,000 square miles.

Collectively, the County represents considerable natural and economic resources including two national parks, world renown tourism and destination resorts, a long established commercial and recreational fishing industry and extensive accessible coral reefs which support a large recreational snorkeling and scuba diving industry.

The pattern and mix of existing land uses is indicative of the market forces and natural resource constraints which have shaped existing development and are likely to influence future growth.

Planning Areas

The unincorporated areas of the County are divided into four unique Planning Areas (PAs):

- Lower Keys PA: West boundary of Stock Island to the eastern limit of the Seven Mile Bridge. The Marquesas Keys, located 30 miles west of Key West and the Dry Tortuga Keys, located 70 miles west of Key West are also included within this PA;

- Middle Keys PA: Eastern limit of the City of Marathon to the western limit of the Village of Islamorada, including Lignumvitae Key and Shell Key. It excludes the incorporated City of Layton, the City of Marathon, the City of Key Colony Beach and the Village of Islamorada;

- Upper Keys PA: Western limit of the Village of Islamorada to the northern County line; and

- Mainland PA: Bounded to the north by Collier County, to the east by Miami-Dade County, to the west by the Gulf of Mexico and to the south by Florida Bay. This PA encompasses two national landmarks: The Everglades National Park and The Big Cypress National Preserve and accounts for approximately 85 percent or 562,149 acres of the overall County land mass. Approximately 99.8 percent of the Mainland PA consists of federal lands designated as Conservation use.

Socio-Economic Characteristics

To effectively create a comprehensive plan that reflects the needs of the County, the social characteristics that define the community must be considered. Using information obtained from the *2009 American Community Survey, 1-Year Estimate*, the following items list several socio-economic facts regarding the County as a whole:

- HOUSEHOLDS AND FAMILIES: In 2009 there were 28,335 households in the County. The average household size was 2.52 people. Households include all the persons (families) who occupy a housing unit. Families made up 57.5 percent of the households in the County. This figure includes married-couple families (46.3%). Non-family households made up 42.5 percent of all households in the County. Most of the non-family households were people living alone, but some were composed of people living in households in which no one was related to the householder.

- GEOGRAPHIC MOBILITY: In 2009, 89 percent of the people at least one year old living in the County were living in the same residence one year earlier; five percent had moved during the past year from another residence in the same county, two percent from another county in the same state, 3.5 percent from another state, and 0.6 percent from abroad.

- EDUCATION: In 2009, 31.5 percent of people 25 years and over had at least graduated from high school and 24.4 percent had a bachelor's degree or higher. Eleven percent were high school dropouts; they were not enrolled in school and had not graduated from high school. The total school enrollment in the County was 13,201 in 2009. Nursery school and kindergarten enrollment was 1,500 and elementary or high school enrollment was 8,027 children. College or graduate school enrollment was 3,670.

- DISABILITY: In the County, among people at least five years old and older in 2009, 13 percent reported a disability. The likelihood of having a disability varied by age - from 3 percent of people under 18 years old, to 12 percent of people 18 to 64 years old, and to 30.5 percent of those 65 and older.

- INDUSTRIES: In 2009, for the employed population 16 years and older, the leading industries in the County were arts, entertainment, and recreation, and accommodation and food services, 20 percent, and Educational services, and health care, and social assistance, 14.7 percent.

- OCCUPATIONS AND TYPE OF EMPLOYER: Among the most common occupations were: Service occupations, 28.8 percent; Management, professional and related occupations, 28.4 percent; Sales and office occupations, 27 percent; Construction, extraction, maintenance, and repair occupations, 9 percent; and Production, transportation, and material moving occupations, 4 percent. Seventy percent of the people employed were Private wage and salary workers; 20 percent were federal, State, or local government workers; and 10 percent were Self-employed in own not incorporated business workers.

- TRAVEL TO WORK: Sixty-one percent of the County workers drove to work alone in 2009, 11 percent carpooled, 1 percent took public transportation, and 20.7 percent used other means. The remaining 6 percent worked at home. Among those who commuted to work, it took them on average 16.9 minutes to get to work.

- INCOME: The median income of households in the County was $49,721. Seventy-six percent of the households received earnings and 21 percent received retirement income other than Social Security. Thirty-one percent of the households received Social Security. The average income from Social Security was $15,589. These income sources are not mutually exclusive; that is, some households received income from more than one source.

- POVERTY AND PARTICIPATION IN GOVERNMENT PROGRAMS: In 2009, 12 percent of people were in poverty. 14.3 percent of related children under 18 were below the poverty level, compared with 10.7 percent of people 65 years old and over. Seven percent of all families and 28 percent of families with a female householder and no husband present had incomes below the poverty level.

- HOUSING CHARACTERISTICS: In 2009, the County had a total of 54,243 housing units, 48 percent of which were vacant. Of the total housing units, 61 percent was in single-unit structures, 24 percent was in multi-unit structures, and 15 percent was mobile homes. Twenty-six percent of the housing units were built since 1990.

- OCCUPIED HOUSING UNIT CHARACTERISTICS: In 2009, the County had 28,335 occupied housing units - 17,901 (63%) owner occupied and 10,434 (37%) renter occupied. Four percent (1.193 units) of the households did not have telephone service and six percent (1.696 units) of the households did not have access to a car, truck, or van for private use. Thirty-nine percent had two vehicles and another 9 percent had three or more vehicles.

- HOUSING COSTS: The median monthly housing costs for mortgaged owners was $2,323, non-mortgaged (housing units without a mortgage) owners $592, and renters $1,206. 62.2 percent of owners with mortgages, 22.1 percent of owners without mortgages, and 65.8 percent of renters in the County spent 30 percent or more of household income on housing.

- POPULATION: Population for this document is based on the countywide functional population forecast through 2030. This is explained in full detail in *Chapter 2: Community-Wide Assessment*, *subsection "Population Analysis: Trends and Projections"*. **Table 1** shows the permanent and seasonal population projections for unincorporated Monroe County through the year 2030. Functional population is the sum of permanent plus seasonal population. The seasonal population series is based on the Florida Keys Aqueduct Authority (FKAA) data series. The permanent population series is the latest published by the University of Florida, Bureau of Economic and Business Research (BEBR).

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Table 1 – Unincorporated Functional Population Distribution by Sub-Area

Year	Upper	Middle	Lower	Total
2000	29,183	2,138	37,957	69,277
2001	29,205	2,145	38,163	69,512
2002	29,222	2,151	38,364	69,737
2003	29,192	2,155	38,504	69,850
2004	29,150	2,157	38,628	69,935
2005	29,313	2,175	39,027	70,515
2006	29,222	2,174	39,089	70,485
2007	29,075	2,169	39,073	70,317
2008	28,928	2,169	39,240	70,338
2009	29,185	2,199	39,927	71,311
2010	28,980	2,183	39,645	70,808
2011	29,126	2,194	39,846	71,166
2012	29,187	2,199	39,929	71,315
2013	29,248	2,203	40,013	71,464
2014	29,309	2,208	40,097	71,613
2015	29,370	2,212	40,181	71,763
2016	29,429	2,217	40,263	71,909
2017	29,489	2,221	40,345	72,055
2018	29,549	2,225	40,427	72,201
2019	29,608	2,230	40,510	72,348
2020	29,668	2,234	40,592	72,494
2021	29,728	2,238	40,674	72,640
2022	29,787	2,243	40,756	72,786
2023	29,847	2,247	40,838	72,933
2024	29,907	2,252	40,921	73,079
2025	29,966	2,256	41,003	73,225
2026	30,026	2,260	41,085	73,371
2027	30,086	2,265	41,167	73,518
2028	30,145	2,269	41,249	73,664
2029	30,205	2,274	41,332	73,810
2030	30,265	2,278	41,414	73,956

Source: Fishkind & Associates, Inc. April, 2011
NOTE: Slight differences in totals due to rounding.

3. Overview of the EAR

Pursuant to Section 163.3191 F.S. the County has reviewed its Plan to ensure that it appropriately reflects current and anticipated conditions, embodies the County's vision for its future, targets the major issues that the County should address in the near and long term, and complies with State requirements as required by Section 163.3191, F.S.

Coordinating this effort on behalf of the County, the Planning Department, within the Growth Management Division, began the County's EAR process in January 2010 with the update of the data and analysis within the Technical Document that forms the basis of the EAR.

Preparing the EAR

The EAR process includes three basic steps as outlined below:

Step 1: Identification of Major Issues

As part of the EAR process, a community generally identifies a "List of Issues" to address as part of the report. Previously, Chapter 163, F.S. required that once these issues were identified, a community would enter into a "Letter of Understanding" (LOU) with DCA before the formal evaluation proceeded. The County's LOU is dated October 29, 2010. This letter documents the County's issues to be addressed as part of the evaluation process.

Step 2: Evaluation of the Plan

The Plan has been assessed or evaluated to determine its success in addressing the major issues identified as part of Step 1. Growth-related strategies are then generally developed to address these major issues, and the changes needed to implement these new strategies are identified.

Step 3: Amendment of the Plan

Local governments have twelve (12) months to amend their comprehensive plans to reflect changes in State requirements if they determine that amendments are necessary. Since the planning horizon of the 2010 Comprehensive Plan has ended, the County has worked with the community to develop current major issues that are to be addressed. The County defined these major issues in a Compilation Report that was sent to the State Land Planning Agency for review. The County then received a "Letter of Understanding" from the State Land Planning Agency, which accepted the County's defined major issues. Therefore, the County can now proceed with the preparation of the necessary amendments to its Plan.

The County is using the same general process for preparing its EAR as that used for most other local government programs and projects, with the steps that are noted above. The EAR provides an "audit" of all Plan-related data since the completion of the previous EAR in 2004 to determine whether the community is achieving the Goals, Objectives and Policies (GOPs) it has set for itself through the Plan. It should be noted that as a result of the 2011 legislative session, Rule 9J-5, F.A.C. was repealed. For the purposes of the "Policy Framework" discussions, references to Rule 9J-5 F.A.C. remain because those Rule references were from the Monroe County 2010 Comprehensive Plan, which was in effect before the Rule was repealed. This is to assure an accurate reflection of the Goal, Objective or Policy language from the 2010 Plan.

Content of the EAR

The EAR includes the following information:

- Population growth and changes in land area, including annexation, since the adoption of the original plan or the most recent updated amendments;
- The extent of vacant and developable land;
- The location of existing development in relation to the location of development as anticipated in the original plan;
- An identification of the major issues for the County and, where pertinent, the potential social, economic, and/or environmental impacts;
- Relevant changes to the requirements of Chapter 163, F.S. since the most recent EAR update amendments;
- An assessment of whether the plan objectives within each element, as they relate to major issues, have been achieved;
- A brief assessment of successes and shortcomings related to each element of the plan;
- The identification of any actions or corrective measures, including whether plan amendments are anticipated to address the major issues identified and analyzed in the report;
- A summary of the public participation program and activities undertaken by the County in preparing the report; and

- An assessment of each of the following Special Topics:

    1) The Plan based upon the SFWMD's regional water supply plan;

    2) The County's policies related to the Coastal High Hazard Area, particularly their impact upon private property rights;

    3) The effectiveness of any transportation concurrency exception areas;

    4) The extent to which changes are needed to develop a common methodology for measuring impacts on transportation facilities for the purpose of implementing the concurrency management system; and

    5) The need to revise the County's policies to assure military compatibility.

Schedule For Adoption of EAR-based Amendments

The EAR is intended to provide recommendations to amend the Plan, such as deleting outdated policies, establishing goals and defining new objectives to address local issues that have evolved since the previous EAR. Section 163.3191(2)F.S. requires that such "EAR-based plan amendments" be adopted within twelve (12) months after submission of the EAR evaluation determination letter. The most recent State Land Planning Agency schedule calls for the County to submit this letter by May 2014.

Based upon this schedule, the County has until May, 2015 to adopt amendments to the Plan that result from the EAR.

Public Involvement Process

A broad-based public involvement strategy was utilized to address the early steps of the EAR Process. The community was actively engaged to identify significant local issues and to identify strategies to address these issues. Public participation was initiated through a website created for the update of the Plan and the EAR process (www.keyscompplan.com). The site contains a brief overview of the EAR process, information about public workshops and meetings, and links to EAR related documents.

One of the steps in the public involvement occurred on May 13, 2010. Government and agency stakeholders attended a "Scoping Meeting" in Marathon, Florida to help identify local issues that should be addressed as part of this process. This provided an opportunity for the attendees to offer early guidance on relevant issues. The Scoping Meeting invitation is provided in **Appendix 1**. The input from this meeting was combined with information obtained during a series of public information gathering meetings that were held at various locations throughout the County. In addition, individual meetings with members of the Board of County Commissioners (BOCC) took place and input was obtained during a public meeting with the Planning Commission.

All of the above helped the County formulate a proposed list of local "major issues" to discuss in the EAR. This list was proposed to DCA mid-September, 2010 and a Letter of Understanding, dated October 29, 2010 was received from DCA confirming the County's list of local "major issues". A copy of DCA's Letter of Understanding can be found in **Appendix 2**.

Details of public involvement and outreach for the EAR process are described more fully in *Chapter 1: Public Involvement Process* of this document.

Major Issues

The County's major local issues are addressed in Chapter 4 of this document. The nine (9) identified issues will require strategic actions such as the implementation of Plan amendments, changes to the Land Development Code or other County ordinances, and/or other new formal agreements or mechanisms. From the results of the public involvement process and surveys that were performed, the County developed a proposed "Compilation Report" of EAR major issues for submittal to the Florida Department of Community Affairs (DCA) in mid-September 2010. A final Letter of Understanding, dated October 29, 2010, was received from the DCA confirming the County's list of local "major issues" to be discussed in the EAR. They are as follows:

1. County-wide Visioning and Planning

   Capitalize upon and protect the uniqueness (sense of place) of the various communities within the planning areas; implement the recommendations within the existing visioning plans.

2. Economic Sustainability

   Promote economic sustainability, in a manner consistent with environmental stewardship, with a special focus upon existing businesses.

3. Land Use/Mobility

   - *Promote Attractive, Well-Planned Development Adjacent to Services, and Existing Commercial "Hubs", with an Emphasis on Redevelopment.*
   - *The County Should Meet or Exceed Hurricane Evacuation Requirements as required.*
   - *Support Historic Preservation.*
   - *Assure Continued Public Waterfront Access; Protect and Expand Water Dependent/Water Related Uses.*
   - *Increase Availability and Use of Alternative Modes Transportation.*

4. Natural Resource Protection

    - *Preserve and protect natural resources, including water, habitat and species.*
    - *Complete Wastewater and Drainage Upgrades.*

5. Climate Change/Hazard Mitigation

    Monroe County should support and promote "green" initiatives; address climate change; and develop and implement hazard mitigation/adaptation best practices.

6. Public Facilities Funding

    Assure adequate capital funding to complete necessary improvements or purchase lands for conservation or affordable housing purposes.

7. Affordable Housing

    Promote the development of affordable, attainable and senior living housing that is well-planned, attractive and energy efficient.

8. Public Involvement/Information

    Promote robust public involvement and information sharing regarding land use issues throughout the planning and development process.

9. Intergovernmental Coordination

    Provide effective and efficient intergovernmental, interdepartmental and interagency coordination.

These major issues were seen as the foundation of an effort to create a more sustainable community for current and future County residents, businesses and other stakeholders in the community and to comply with then-existing (October 29, 2010) requirements of Chapter 163, F.S. and Rule 9J-5, F.A.C.

Community-Wide Assessment

Chapter 2, Community–Wide Assessment of this document discusses the outcome of an extensive effort to update the County's Existing Land Use Map (**See Map 1**) and also assesses the changes in population and development patterns since the adoption of the Plan. Some of the key findings include:

County Land Mass: Approximately 1.67 million acres; of which 1.6 million acres are located on the Mainland.

The unincorporated Keys consist of approximately 73,138 acres:

- 65 percent located in Lower Keys;
- 3 percent located in Middle Keys; and
- 32 percent Located in Upper Keys.

Seventy-five percent of all land in the unincorporated County is set aside for conservation purposes. The second largest land use (4,988 acres) is Residential (6.8%), consisting of single-family; multi-family; mobile homes, apartments and mixed use residential.

Historic and Existing Population:

- 1970 population was 52,586; 2000 population was 79,589, an increase of 27,003 people.
- Highest growth rate between 1970 and 2000 was during the ten year period from 1980 (63,188) to 1990 (78,024) , an increase of 14,836 people.
- Lowest growth rate was from 1990 (78,024) to 2000 (79,589) an increase of only 1,565 people.
- 2010: U.S. Census - 73,165 Permanent (County-wide)

Population Trends:

- Shifting from Permanent to Seasonal Population
- 2010-2030: Projections (unincorporated)
  -Permanent: (2010) 35,972; (2030) 34,730; (-4%)
  -Seasonal: (2010) 33,951; (2030) 37,705; (+10%)

-Functional (unincorporated): (2010) 70,808; (2030) 73,956; (+3,148 or _4%)

The Plan Element Assessment

Chapter 3: Element Assessment of this document concludes that overall, the majority of GOPs in the Plan have been met. The assessment of the current 2010 Plan has generated recommendations to be considered, and identifies those that may require a plan amendment.

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CHAPTER 1: PUBLIC INVOLVEMENT PROCESS

Public participation was initiated through a website created for the update of the Plan and the EAR process (www.keyscompplan.com). The site contains a brief overview of the EAR process, information about public workshops and meetings, and links to other EAR related documents. The following meetings and public hearings were held in order to identify the major local issues on which the County will focus its EAR:

- February 12, 2010: A meeting with the County's Division Directors was conducted. The purpose of the meeting was to introduce staff to the Comprehensive Plan update process and to obtain preliminary comments regarding potential EAR major issues.

- February 24, 2010: The Planning Commission meeting was held at the Marathon Government Center. The purpose of the meeting was to provide a briefing regarding the Plan update process and to survey the commissioners regarding the major issues upon which the EAR should focus.

- February 24 – 26, 2010: One-on-one interviews were conducted with the Board of County Commissioners. The purpose of these meetings was to provide a briefing regarding the Plan update process and to survey the commissioners regarding the major issues upon which the EAR should focus.

- March 10, 2010: Monroe County Division Directors and other key personnel were surveyed on the major issues upon which the EAR should focus.

- April 9 – 11, 2010: A series of public workshops were conducted in the lower, middle and upper keys to survey the participants regarding the major issues of importance upon which the EAR should focus.

- April 21, 2010: A public workshop was held on Sugarloaf Key. The purpose of the meeting was to survey the participants regarding the major issues of importance for the EAR.

- May 13, 2010: At the Scoping Meeting, agencies, adjacent cities and municipalities met with County staff for the purpose of ensuring that all important EAR issues are identified; agency/municipality concerns are addressed; and to assist the County in developing strategies to address issues that are within their jurisdiction or expertise.

- July 14, 2010: A public workshop was conducted for the purpose of confirming the final draft list of major issues.

- September 15, 2010: At this hearing, the Board of County Commissioners approved the Compilation Report of issues upon which the EAR should focus, with the addition of expanding the evaluation of coordination process for land uses regarding Special Topic 4, "Compatibility with Military Installations" to include "other military activities" and under Major Issue I, "County-wide Visioning and Planning" to add evaluation of maximum net density provisions; and approved the transmittal of a Letter of Understanding and the Compilation Report to the DCA requesting concurrence.

- May 25, 2011: A public hearing was held with the Planning Commission to present Chapter 3 of the Draft EAR, which is known as the Element-by-Element Report.

- June 20, 2011: A public hearing was held with the Board of County Commissioners to present Chapter 3 of the Draft EAR.

- November 2, 2011: A Planning Commission briefing and presentation of the first portion of the Draft EAR was held.

- November 16, 2011: A Board of County Commissioners briefing and presentation of the first portion of the Draft EAR was held.

- February 6, 2012: A Planning Commission briefing and presentation of the second portion of the Draft EAR was held.

- March 19, 2012: A Board of County Commissioners briefing and presentation of the second portion of the Draft EAR was held.

- May 16, 2012: The Draft EAR is scheduled for adoption.

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CHAPTER 2: COMMUNITY-WIDE ASSESSMENT

1. Population Analysis: Trends and Projections

Background

The population forecast was prepared[1] and approved by DCA on April 4, 2011 for the unincorporated portions of the County through year 2030 for the update of the Plan. Population is identified according to upper/middle/lower (UML) keys. It is based on the countywide functional population control total forecast through 2030. Functional population is the sum of permanent plus seasonal population.

The seasonal population series is based on the Florida Keys Aqueduct Authority (FKAA) data series which was based the "Monroe County Population Estimates and Forecast 1990-2015". This series includes estimates of seasonal residences, RV's, hotel/motel units, campsites, boat liveaboards, mobile home, and other. DCA recommended using the FKAA series for the purposes of estimating the seasonal population component, with appropriate updates to the methodology.

The permanent population series is the latest published by the University of Florida, Bureau of Economic and Business Research (BEBR). In as much as the County's Rate of Growth Ordinance (ROGO) has been in place since 1993, BEBR population projections reflect a ROGO constrained growth trend. This means permanent population growth projections implicitly assume the continuation of the ROGO constraint and the effects of the ROGO constraint are implicitly embedded in the history.

Population Growth Trends

BEBR annual population estimates for municipalities and unincorporated areas indicates permanent population fell in the Keys from 2006-2008, with some return to growth evidenced in 2009. The data indicates a loss in permanent population with likely replacement through an increase in seasonal residents. Further, both sales and traffic are trending up by similar magnitude suggesting there is limited growth, and no sustained decline in economic activity. This volume of limited growth is consistent with growth which occurs under the ROGO cap.

The data suggests a portion of the permanent population losses have occurred as a result of the recession, a rise in foreclosures, depletion of affordable housing and increased unemployment. Nearly 3,500 units have been foreclosed throughout the

[1] The April, 2011 population forecast was prepared by Fishkind and Associates with support from Keith and Schnars, P.A. See July 2011 Technical Document for full report.

Keys since 2005. Losses associated with some of these conditions may be temporary, resulting in renewed growth after the recession.

As a decline in permanent population has occurred over the past decade, from 1990 to 2000 there is a real increase in non-permanent/seasonal replacement as evidenced by an increase in the trend in auto-traffic volume, an increase in the trend in inflation adjusted retail sales, an increase in non-homesteaded residential properties, and an increase in seasonal population as shown in the American Communities Survey (ACS) during the 2000-2008 time period.

In 1998, 55 percent of the units were homesteaded. In 2011, non-homesteaded units equate for 57 percent. Among single family units only, the non-homestead share has risen from 45 percent in 1998 to 49 percent in 2009. For single family units, 70 percent of the growth since 1998 has been in non-homestead units. This supports an increase in non-permanent/seasonal occupancy, which offsets the permanent population losses.

2010 Population of Municipalities and Unincorporated Area

As illustrated in **Table 2**, below, for 2010, the estimated functional (permanent and seasonal) population for the unincorporated areas of the County is 70,808 persons; 35,368 are permanent residents and 35,440 are seasonal residents.

The 2010 Census provides the following permanent population estimates for the municipalities:

- Islamorada: 6,119 persons
- Key Colony Beach: 797 persons
- Key West: 24,649 persons
- Layton: 184 persons
- Marathon: 8,297 persons

Population Projections for Monroe County

With the understanding that permanent losses do appear to be replaced by seasonal population, and some losses in permanent population may be temporary and cyclical due to recession and foreclosures, if all of the recent Census or ACS based permanent losses were shifted into the seasonal population, the resulting 2030 functional population would still likely demonstrate small levels of growth consistent with the ROGO allocations.

Based on this analysis, a county level functional population series was prepared to reflect these conditions. This series begins with the medium series population projection from the BEBR medium series projection, PS156, published in 2010.

Next, the FKAA seasonal series through 2025 was used and to this was applied the 2000-2025 Compound Annual Growth Rate (CAGR) of the FKAA seasonal series to extend the series from 2025 to 2030. In addition, from 2006-2030, 70 percent of the permanent population loss as forecast by BEBR was added to the seasonal population. Further, the equivalent of 70 percent of the ROGO growth to seasonal population was added to the FKAA seasonal series, reflecting the seasonal shift component not evidenced in FKAA's original data. The resulting functional population is seen in **Table 1**. The projected functional population by sub area is shown in **Table 2**.

This data series is the most reflective of actual economic and market conditions and is most representative of the long term functional population outlook.

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Table 1- Unincorporated Functional Population Series

	Unincorporated Population Projection Seasonal Replacement Series		
	Permanent	Seasonal	Functional
2000	36,036	33,241	69,277
2001	36,250	33,263	69,512
2002	36,452	33,285	69,737
2003	36,543	33,307	69,850
2004	36,606	33,329	69,935
2005	37,164	33,351	70,515
2006	36,466	34,019	70,485
2007	35,749	34,568	70,317
2008	34,788	35,550	70,338
2009	36,268	35,043	71,311
2010	35,368	35,440	70,808
2011	35,917	35,249	71,166
2012	35,862	35,453	71,315
2013	35,806	35,658	71,464
2014	35,751	35,862	71,613
2015	35,696	36,067	71,763
2016	35,632	36,277	71,909
2017	35,567	36,488	72,055
2018	35,503	36,698	72,201
2019	35,438	36,909	72,348
2020	35,374	37,120	72,494
2021	35,310	37,330	72,640
2022	35,245	37,541	72,786
2023	35,181	37,752	72,933
2024	35,116	37,962	73,079
2025	35,052	38,173	73,225
2026	34,988	38,384	73,371
2027	34,923	38,594	73,518
2028	34,859	38,805	73,664
2029	34,794	39,016	73,810
2030	34,730	39,226	73,956

Source: Fishkind & Associates, Inc. April, 2011

Table 2: Unincorporated Functional Population Distribution by Sub-Area

Unincorporated Functional Population Projection Seasonal Replacement Series				
	Upper	Middle	Lower	TOTAL
2000	29,183	2,138	37,957	69,277
2001	29,205	2,145	38,163	69,512
2002	29,222	2,151	38,364	69,737
2003	29,192	2,155	38,504	69,850
2004	29,150	2,157	38,628	69,935
2005	29,313	2,175	39,027	70,515
2006	29,222	2,174	39,089	70,485
2007	29,075	2,169	39,073	70,317
2008	28,928	2,169	39,240	70,338
2009	29,185	2,199	39,927	71,311
2010	28,980	2,183	39,645	70,808
2011	29,126	2,194	39,846	71,166
2012	29,187	2,199	39,929	71,315
2013	29,248	2,203	40,013	71,464
2014	29,309	2,208	40,097	71,613
2015	29,370	2,212	40,181	71,763
2016	29,429	2,217	40,263	71,909
2017	29,489	2,221	40,345	72,055
2018	29,549	2,225	40,427	72,201
2019	29,608	2,230	40,510	72,348
2020	29,668	2,234	40,592	72,494
2021	29,728	2,238	40,674	72,640
2022	29,787	2,243	40,756	72,786
2023	29,847	2,247	40,838	72,933
2024	29,907	2,252	40,921	73,079
2025	29,966	2,256	41,003	73,225
2026	30,026	2,260	41,085	73,371
2027	30,086	2,265	41,167	73,518
2028	30,145	2,269	41,249	73,664
2029	30,205	2,274	41,332	73,810
2030	30,265	2,278	41,414	73,956

2. Land Use Inventory

Current Existing Land Use Area

The County includes the Mainland area and over 1,700 islands which lie along the Florida Straits, dividing the Atlantic Ocean to the east, from the Gulf of Mexico to the west, and defining one edge of the Florida Bay. The Mainland Planning Area (PA) encompasses two national landmarks: The Everglades National Park and The Big Cypress National Preserve and accounts for approximately 85 percent or 562,149 acres of the overall County land mass. Federal lands designated as Conservation use comprise 99.8 percent of the lands within the Mainland PA.

The measurement of the areas in the County is not exact. The unique environmental character of the area, especially the large areas of mangrove-fringed shoreline and numerous small islands, many of which are below the mean high water line, makes an exact land area with acreage inventories difficult, simply because defining "land" in the County is difficult.

The calculation of acreages of land use types shown in **Table 3** and **Table 4**, provides an approximation of the land area of each of the land use categories, and is useful in determining the conditions as they presently exist.

Table 3 - Existing Land Use by Planning Area (Acres)

Existing Land Use	Lower Keys	Middle Keys	Upper Keys	Total	Percent of Total
Commercial	344.6	67.7	497.2	909.5	1.2%
Conservation	30,801.5	1,240.8	16,208.0	48,250.2	66.1%
Educational	49.2	0.0	30.8	80.0	0.1%
Industrial	332.7	0.2	38.7	371.6	0.5%
Institutional	147.8	0.4	55.8	204.0	0.3%
Military	3,307.8	0.0	0.0	3,307.8	4.5%
Other Public - Utilities ROW	1,777.3	175.2	1,396.8	3,349.3	4.6%
Public Buildings and Grounds	22.7	33.0	62.2	117.9	0.2%
Recreational	643.4	132.1	547.0	1,322.6	1.8%
Residential	2,612.2	199.8	2,240.0	5,052.0	6.9%
Vacant or Undeveloped	6,849.2	2,97.9	3,045.9	10,143	13.9%
Total	47,437.9	2,144.1	23,388.1	72,970.2	100.0%

Source: Monroe County Growth Management, May 2011, "Existing Land Use" Geographic Information Files.

NOTE: Slight difference in totals due to rounding.

Land Area of Future Land Use Map

There have been no changes in land area on the Future Land Use Map since the previous EAR was completed in 2004. However, the County continues to review ownership of offshore islands which may require digitization and mapping of additional offshore island acreage.

Table 4: Future Land Use Acreage Distribution

Future Land Use	Lower Keys	Middle Keys	Upper Keys	Total	Percent of Total
Agriculture	18.8	0.0	1.9	20.7	0.0%
Airport District	22.6	0.0	19.7	42.2	0.1%
Conservation	19,629.5	500.8	11,566.8	31,697.1	43.4%
Education	28.5	0.0	32.1	60.6	0.1%
Industrial	403.5	0.0	0.0	403.5	0.6%
Institutional	87.5	0.0	43.4	130.9	0.2%
Military	4,258.0	0.0	0.0	4,258.0	5.8%
Mixed Use / Commercial	878.0	138.6	1,004.5	2,021.1	2.8%
Mixed Use/Commercial Fishing	190.2	25.2	12.2	227.7	0.3%
Public Buildings	20.2	0.0	26.8	47.0	0.1%
Public Facilities	55.6	27.2	57.4	140.2	0.2%
Recreation	526.7	848.0	638.4	2,013.1	2.8%
Residential Conservation	12,148.8	312.5	6,075.4	18,536.7	25.4%
Residential Low	2,839.5	23.8	939.0	3,802.3	5.2%
Residential Medium	2,906.6	231.3	2,125.4	5,263.3	7.2%
Residential High	421.1	41.8	908.5	1,371.4	1.9%
Undesignated	2,878.7	52.2	0.0	2,930.9	4.0%
Total	47,313.8	2,201.4	23,451.5	72,966.7	100.0%

Source: Monroe County Growth Management, May 2011, "Future Land Use" GIS File.

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Amount of Vacant and Developable Land

There is approximately 10,143 acres of vacant land in the unincorporated area of the County. The largest amount of vacant land in the unincorporated areas (7,054 acres) is located within the Lower Keys PA.

The general trend for all planning areas signal that vacant land is primarily located under the residential future land use designations: Residential Conservation, Residential Low and Residential Medium.

As illustrated in **Table 5** on the next page, the majority of vacant land is located within Tier I (85%) with little development potential as regulated by the County's point system. Tier II, III, and III-A comprise 13 percent of vacant land and this is where development is most likely to concentrate. Also illustrated in this table are the vacant parcels within each PA. The Lower Keys PA contains 7,054.2 acres (5,471 parcels), which are vacant, and located within a tier designation. Most of the vacant land (89.9 %) is located in Tier I comprised of 3,288 parcels (6,338.7 acres); 8.1 percent (1,724 parcels) are designated Tier III. The Lower Keys PA is the only PA with 411 vacant parcels (1.1%) designated Tier II, which only applies to Big Pine Key and No Name Key. Less than one percent of vacant land (31 parcels) is located in Tier III-A.

The Middle Keys PA has 211.2 vacant acres or 304 vacant parcels, which are located in a tier. Tier I contains 69.9 % (20 vacant acres), and Tier III has 30.1% (63.6 vacant acres). The Upper Keys PA includes 2,158.6 acres or 2,983 parcels of vacant land within the Tier System. Most of the vacant acres are split up into two of the tiers. Tier I has 69.5 % vacant acres (835 parcels). Another 1,658 parcels (14.7 %) are located in Tier III, these parcels constitute 316.3 acres. Lastly, 3.7 percent of vacant acres, or 265 parcels are located in Tier III-A.

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Table 5 – Privately-owned Vacant Land

Note: Percentage of Tier – slight differences due to rounding.

	I	II	III	III-A	0[2]	Vacant acres in Tier	Net Parcels and Acres
Lower Keys							
Vacant Parcels	3,288	411	1,724	31	17	N/A	5,471
Acres	6,338.7	78.1	573.7	11.5	52.2	7,002.0	7,054.2
Percent Vacant Acres	89.9%	1.1%	8.1%	0.2%	0.7%	N/A	N/A
Middle Keys							
Vacant Parcels	20	0	284	0	N/A	N/A	304
Acres	147.6	0.0	63.6	0.0	0.0	211.2	211.2
Percent Vacant Acres	69.9%	0.0%	30.1%	0.0%	N/A	N/A	N/A
Upper Keys							
Vacant Parcels	835	0	1,658	265	225	N/A	2,983
Acres	1,501.1	0.0	316.3	79.9	261.3	1,897.3	2,158.6
Percent Vacant Acres	69.5%	0.0%	14.7%	3.7%	12.1%	N/A	N/A
Total Parcels	4,143	411	3,666	296	242	**N/A**	**8,758**
Total Acres	7,987.4	78.1	953.6	91.4	313.5	**9,110.5**	**9,424.0**
Percentage of Tier	84.8%	0.8%	10.1%	1.0%	3.3%	**N/A**	**100%**

Source: Monroe County Growth Management, 2011, Geographic Information System file "MC_ELU_511"; Monroe County Growth Management, 2011, Geographic Information System file "MC_FLUM_511"; Monroe County Growth Management, 2011, Geographic Information System file "Tier_0110"

Tiers are:

I = Tier I – Natural Areas

II = Tier II (Big Pine Key and No Name Keys in the Lower Keys Planning Area only)

III = Tier III – Infill Areas

III-A = Special Protection Area (SPA)

0 = Property does not have a Tier designation. Most of these occur in the Upper Keys and some are right-of-way parcels. Some lots were not originally designated because of mapping errors; the majority of which are currently being reviewed by the Tier Designation Review Committee and will be designated at a later date.

Tier 0 is used for illustration purposes only and is not part of the analysis.

Vacant acres in all tiers after subtracting Tier 0.

3. Potential Future Land Use District Conflicts

In order to understand the magnitude of potential future land use district non-conformities, a GIS analysis was performed utilizing the Property Appraiser's data sets and the County's data sets that comprise the Future Land Use Map (FLUM).

To begin this process, a matrix was developed, which assigns the Property Appraiser Code PC), based upon its use, to each of the Future Land Use Districts (see **Appendix 7**).

A parcel-level GIS analysis, by Planning Area (PA), was prepared to identify potential conflicts when comparing the allowable uses in each future land use district with the "on the ground" PC assigned by the Property Appraiser. The results are illustrated in **Table 6, Table 7** and **Table 8** below, and in map form as **Appendix 8**.

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Lower Keys Planning Area:

As illustrated by **Table 6**, the largest number of potential conflicts located in this PA are within the Residential Medium (2,766 parcels, 513.24 acres), and Military (371 parcels, 2,643.55 acres) Future Land Use Districts. Residential Conservation (321 parcels, 1,181.43 acres), and Mixed Use Commercial (197 parcels, 120.61 acres) Future Land Use Districts are two areas that have the next most widely distributed potential conflicts. The following Future Land Use Districts contain the remaining potential conflicts within this planning area; Airport (4 parcels, 10.69 acres), Conservation (45 parcels, 90.38 acres), Educational (1 parcel, 1.15 acres), Industrial (15 parcels, 44.96 acres), Institutional (4 parcels, 2.35 acres), Mixed Use Commercial Fishing (17 parcels, 10.94 acres), Public Facilities (1 parcel, 3.04 acres), Public Buildings (1 parcel, 9.20 acres), Recreation (5 parcels, 3.83 acres), Residential Low (80 parcels, 94.58 acres) and Residential High (40 parcels, 14.87 acres). With a total of 3,868 potential parcel conflicts, and 4,744.8 potential acreage conflicts, this PA contains the largest number of parcels with potential conflicts within the unincorporated County as a whole.

Table 6 - Potential Land Use Conflicts, Lower Keys

LOWER KEYS PA		
Land District	**Parcels**	**Acres**
Airport	4	10.687
Conservation	45	90.375
Educational	1	1.148
Industrial	15	44.961
Institutional	4	2.354
Military	371	2643.546
MU-Commercial	197	120.605
MU-Commercial Fishing	17	10.944
Public Facilities	1	3.039
Public Buildings	1	9.196
Recreation	5	3.828
Residential Conservation	321	1181.427
Residential High	40	14.87
Residential Low	80	94.577
Residential Medium	2766	513.243
Total	**3868**	**4744.8**

Source: Monroe County Growth Management, 2011, Geographic Information System file "MC_FLUM_511"; Monroe County Property Appraiser 2011, Geographic Information System file, September 2011.

Middle Keys Planning Area:

As shown in **Table 7,** this PA contains the least amount of potential conflicts. Residential Medium Future Land Use (66 parcels, 15.87 acres) contains the highest number of potential conflicts. In the Future Land Use Districts of Mixed Use Commercial Fishing there are 7 parcels, (1.79 acres) in Residential Conservation, there are 4 parcels (.64 acres), and in Residential High there is 1 parcel (3.85 acres) with potential conflicts. The remaining potential conflicts fall within the Public Facilities (2 parcels, 3.55 acres), and Mixed Use Commercial (1 parcel, .47 acres) Future Land use Districts. The Middle Keys PA has a total of 81 potential parcels conflicts, and 26.17 potential acreage conflicts.

Table 7- Potential Land Use Conflicts, Middle Keys

MIDDLE KEYS PA		
Land District	**Parcels**	**Acres**
Airport	0	0
Conservation	0	0
Educational	0	0
Industrial	0	0
Institutional	0	0
Military	0	0
MU-Commercial	1	0.47
MU-Commercial Fishing	7	1.794
Public Facilities	2	3.548
Public Buildings	0	0
Recreation	0	0
Residential Conservation	4	0.637
Residential High	1	3.849
Residential Low	0	0
Residential Medium	66	15.869

Source: Monroe County Growth Management, 2011, Geographic Information System file "MC_FLUM_511"; Monroe County Property Appraiser 2011, Geographic Information System file, September 2011.

Upper Keys Planning Area:

Table 8 illustrates that this PA contains the second highest number of parcels with potential conflicts. Recreation (409 parcels, 295.15 acres), Residential Conservation (592 parcels, 2,935.06 acres), Residential Low (669 parcels, 2,658.69 acres), and Residential Medium (1,376 parcels, 291.87 acres) Future Land Use Districts contain the majority of the potential conflicts. The Residential High (342 parcels, 777.63 acres), Mixed Use Commercial (127 parcels, 181.44 acres), and Conservation (136 parcels, 698.45 acres) Future Land Use Districts have the second highest number of potential conflicts. Lastly, the Public Facilities (12 parcels, 30.54 acres), Mixed Use Commercial Fishing (18 parcels, 2.67 acres), Institutional (4 parcels, 12.73 acres), Educational (2 parcels, .556 acres), Public Buildings (1 parcel, 2.04 acres), and Airport (4 parcels, 18.67 acres) Future Land Use Districts contain the remaining potential conflicts. There are a total of 3,692 potential parcel, and 7,905.51 potential acreage conflicts in the Upper Keys PA.

Table 8- Potential Land Use Conflicts, Upper Keys

UPPER KEYS PA		
Land District	**Parcels**	**Acres**
Airport	4	18.675
Conservation	136	698.45
Educational	2	0.556
Industrial	0	0
Institutional	4	12.733
Military	0	0
MU-Commercial	127	181.439
MU-Commercial Fishing	18	2.672
Public Facilities	12	30.543
Public Buildings	1	2.036
Recreation	409	295.153
Residential Conservation	592	2935.059
Residential High	342	777.632
Residential Low	669	2658.687
Residential Medium	1376	291.874
Total	**3692**	**7905.509**

Source: Monroe County Growth Management, 2011, Geographic Information System file "MC_FLUM_511"; Monroe County Property Appraiser 2011, Geographic Information System file, September 2011.

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 CommuniKeys 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 disadvantage 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 (NASKW) 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) overseas 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 quality 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 FKAA'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 the 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 disable. 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 County should prioritize the completion of strategies, studies and master plans resulting from the EAR, based on the 20 year planning horizon of the new Comprehensive 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.

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.

CHAPTER 4: MAJOR ISSUES ANALYSIS

The County identified nine (9) Major Issues:

- ***County-wide Visioning and Planning***
- ***Economic Sustainability***
- ***Land Use/Mobility***
- ***Natural Resource Protection***
- ***Climate Change/Hazard Mitigation***
- ***Public Facilities Funding***
- ***Affordable Housing***
- ***Public Involvement/Information***
- ***Intergovernmental Coordination***

Each Major Issue will require strategic actions such as: the implementation of Plan amendments; changes to land development code or other County ordinances; and new formal agreements or mechanisms, or other actions. Each of the Major Issues have been analyzed in this section. The analysis is divided into an Issue Statement, Background, Issue Analysis, Policy Framework (which lists all of the relevant current *Monroe County 2010 Comprehensive Plan* policies for that particular issue statement), and Strategies (strategic actions).

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I. COUNTY-WIDE VISIONING AND PLANNING (2 ISSUE STATEMENTS)

Issue Statement #1: ***Capitalize upon and protect the uniqueness (sense of place) of the various communities within the planning areas; implement the recommendations within the existing visioning plans.***

A. Background: The County, seeking a comprehensive planning approach to address the individual needs of Keys communities, developed the Livable CommuniKeys Program in 1997, and began the preparation of individualized "Livable CommuniKeys Plans" (LCP). The plans acknowledge the distinctive nature of the planning areas and the needs and desires of each community.

A LCP has been adopted for each of the following areas:

- Key Largo;
- Stock Island and Key Haven;
- Big Pine Key and No Name Key; and
- Tavernier.

The Lower Keys LCP is currently under development.

B. Analysis: The first LCP that was completed was for Big Pine Key and No Name Key in 2004. This area is the prime habitat for the endangered Florida key deer. The plan recognized both the needs of the species and the local community's desire, "…to retain a rural character". Much of the land is under federal government ownership and large tracts of undeveloped land provide habitat to the key deer and other protected species.

In late 2005, the Tavernier LCP was completed. This LCP is focused upon preserving the community's historical heritage; protecting green space; improving the visual character of the U.S. 1 corridor; and providing public access to water and recreational facilities.

The Key Largo LCP was completed in May 2005 and reflects the community's challenges as both a tourist destination, "Dive Capital of the World", and a "pit-stop" for travelers heading to other communities further south, including Key West.

The Stock Island LCP was completed in July 2006 and addresses the needs of this small next door neighbor to Key West. The island contains the only true, industrial deep water port in the County, surrounded by traditional waterfront-based businesses (e.g., fish houses, lobstering operations).

Although each community has a different vision, each LCP focuses upon redevelopment over new development.

C. Policy Framework:

One of guiding principles for the development of the LCPs includes action items for the implementation of each plan.

Policy 101.20.1: Each Community Master Plan will include an Implementation Plan consisting of action items and an implementation schedule as determined by the action items and the Capital Budget. Accountability to the communities through the process will be provided with a monitoring and feedback mechanism.

Note: The Land Development Code (LDC), specifically the "Tavernier Creek to Mile Marker 97 US Highway 1 Corridor District Overlay" and the "Tavernier Historic District Overlay", provides specific guidance and regulatory provisions related to uses, landscape improvements; bike and pedestrian environment; and design guidelines based upon the Tavernier LCP to address community character and aesthetics.

D. Strategies:

- County staff currently reviews development applications to assure compliance with the applicable LCP. The County should consider adding policies to the Comprehensive Plan the implements action items of the LCPs.

- The County should consider adding policies to Objective 101.4 and develop Land Development Code revisions related to additional overlay districts, such as the Community Center Overlay in order to assure compliance with the specific development guidelines of the LCP and to address the non-conforming issues of each of the community areas.

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Issue Statement #2: ***Promote Attractive, Well-Planned Development Adjacent to Services, and Existing Commercial "Hubs", with an Emphasis on Redevelopment.***

(This is a related Issue Statement from ***Major Issue III. Land Use/Mobility****, also discussed in that section.)*

Note: Background, Issue Analysis, Policy Framework and Strategies are divided into six (5) categories each for this section: Floor Area Ratios, Redevelopment Incentives, Discouragement of Density Increases, Impact of Outside Jurisdictional Constraints, and Development of a Commercial Land Use District Category.

Issue Category #2(a): Floor Area Ratios (FAR)

A. Background: The concept of Floor Area Ratio (FAR) is a tool that helps to explain how large a building can be built on a given site; the higher the FAR, the larger the building. The total allowable floor area is derived by multiplying the ratio by the acreage (43,560 square feet per acre) of the property. Understanding FAR is important when reviewing development proposals in light of neighborhood or design compatibility as it relates to building massing and scale.

The following analysis evaluates the FAR maximums in each of the Future Land Use categories for compatibility with the existing "on the ground" non-residential floor area and the development guidance provided by the LCPs, specifically the "Community Center" concept, (e.g. Big Pine Key, Downtown Key Largo, and the U.S. 1 Corridor Enhancement Plans).

B. Analysis: GIS data was used to analyze the range of density or intensity of existing land uses for the County. GIS data was obtained from the Monroe County Property Appraisers Office in January 2010. This data provides parcel and floor area for land uses which are grouped into Parcel Codes (PC). The Property Appraiser's PC land use acreage does not necessarily match the newly created Existing Land Use Map due to the method in which the existing land use data was created. PCs were converted into a generalized existing land use category and form the basis for the existing land use analysis. Property Appraiser data is used to determine existing density and intensity as of January 2010.

The PC and existing land use discrepancies are due to:

- The Property Appraiser's Office only maps platted land whereas existing and future land use maps comprise offshore islands and the Mainland portion of the County which may not be platted in their entirety;

- The Property Appraiser's data includes submerged lands whereas the Existing and Future Land Use Maps do not; and

- The method for creating the Existing Land Use Map was a two part exercise 1) to convert the Property Appraiser's PC code into a generalized land use category and map and 2) match the land mass depicted in the Future Land Use Map Series.

Some of the densities and intensities are worth highlighting. According to the Property Appraiser's data, the average single family density is at 2.2 units per acre. Multi-family of less than 10 units averages 5.2 units per acre. Multi-family "Compounds" use have the highest density at 18.2 units per acre. The average density for all multi-family units is 6.7 units per acre.

The residential portion of mixed uses has a density of 1.65 dwelling units per acre; likewise, the FAR for the commercial portion of mixed-uses averages 0.10.

At the time of data collection there were 5,667,248 square feet of non-residential space with an average FAR of 0.0055 as seen in **Table 8**, below. Of the General Commercial PC codes, the highest FAR is in the "Drive-in Theatre or Open Stadium" (PC 31) category at 0.26098. The average FAR in the General Commercial category is 0.013. In the Tourist Commercial category, the average FAR is 0.08535. Commercial Fishing has the lowest average FAR at 0.05826.

For the Industrial uses, "Lumberyard" (PC 43) has the highest FAR at 0.12854; however, the average of all industrial uses is 0.04492. Overall, no PC code category exceeds a 0.3 FAR.

Table 8 below depicts the floor area ratio calculations by summarized PC code. It is not intended to summarize floor area ratios by the existing land use category classifications**,** but rather by PC code**.**

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Table 8 - Existing Density and Intensity by Property Code (PC)

PC	Description	Area (SF)	Area (Acres)	Units	Building SF	Density (DU/Acres)	FAR (SF/SF)
SINGLE FAMILY							
01	SINGLE FAMILY	269,036,094	6,176.2	13,596	NA	2.20	NA
MOBILE HOMES							
02	MOBILE HOME	304,084,770	6,980.8	4,987	NA	0.71	NA
MULTI-FAMILY							
03	MULTI FAMILY (10 UNITS OR MORE)	1,108,698	25.5	261	NA	10.25	NA
04	CONDOMINIUM	19,997,628	459.1	2,393	NA	5.21	NA
05	TIMESHARE	372,267	8.5	70	NA	8.19	NA
07	COMPOUNDS	19,124	0.4	8	NA	18.22	NA
08	MULTI FAMILY (LESS THAN 10 UNITS)	12,488,031	286.7	1,493	NA	5.21	NA
NA	LICENSED PUBLIC LODGING FACILITIES	7,624,63	175.0	2,199	NA	12.56	NA
	SUBTOTAL	**41,610,378**	**955.2**	6,424	NA	6.72	NA
MIXED USE							
12	MIXED-USE(Residential)	5,177,622.40	118.9	196	NA	1.65	NA
12	MIXED-USE (Commercial)	5,177,622.40	118.9	NA	518,972	NA	0.10023

Table 8 - Existing Density and Intensity by Property Code (continued)

PC	Description	Area (SF)	Area (Acres)	Units	Building SF	Density (DU/Acres)	FAR (SF/SF)
GENERAL COMMERCIAL							
11	STORES, ONE STORY	2,560,859	58.8	NA	386,764	NA	0.15103
13	DEPARTMENT STORE	20,627	0.5	NA	1,600	NA	0.07757
14	SUPERMARKET	237,189	5.4	NA	51,415	NA	0.21677
15	REGIONAL SHOPPING CENTER	0	0.0	NA	0	NA	0.00000
16	COMMUNITY SHOPPING CENTER	3,129,330	71.8	NA	629,659	NA	0.20121
17	OFFICE BUILDING, ONE STORY	1,838,872	42.2	NA	233,770	NA	0.12713
18	OFFICE BUILDING, MULTI STORY	1,045,452	24.0	NA	111,862	NA	0.10700
19	PROFESSIONAL SERVICES BUILDING	1,677,210	38.5	NA	110,303	NA	0.06577
20	AIRPORT, MARINA, BUS TERM	165,922,094	3,809.0	NA	269,381	NA	0.00162
21	RESTAURANT OR CAFETERIA	1,486,046	34.1	NA	128,242	NA	0.08630
22	FAST FOOD DRIVE THRU RESTAURANT	276,325	6.3	NA	25,598	NA	0.09264
23	FINANCIAL INSTITUTION	676,353	15.5	NA	67,139	NA	0.09927
24	INSURANCE COMPANY OFFICE	0	0.0	NA	0	NA	0.00000
25	REPAIR SHOP (NOT AUTOMOTIVE)	2,016,526	46.3	NA	162,679	NA	0.08067
26	SERVICE STATION	741,167	17.0	NA	62,575	NA	0.08443
27	AUTO SALES/REPAIR, MARINE EQUIP	611,711	14.0	NA	31,457	NA	0.05142
28	PARKING LOTS, MOBILE HOME PARKS	9,372,308	215.2	NA	231,780	NA	0.02473

Table 8 - Existing Density and Intensity by Property Code (continued)

PC	Description	Area (SF)	Area (Acres)	Units	Building SF	Density (DU/Acres)	FAR (SF/SF)
29	WHOLESALE OUTLET	193,653	4.4	NA	9,224	NA	0.04763
30	FLORIST OR GREENHOUSE	218,456	5.0	NA	1,742	NA	0.00797
31	DRIVE-IN THEATER OR OPEN STADIUM	20,071	0.5	NA	5,238	NA	0.26098
32	ENCLOSED THEATER OR AUDITORIUM	11,940	0.3	NA	2,378	NA	0.19916
33	NIGHTCLUB OR LOUNGE OR BAR	174,782	4.0	NA	13,059	NA	0.07472
34	BOWLING ALLEY, POOL HALL, MIN GOLF	28,768	0.7	NA	0	NA	0.00000
	SUBTOTAL	**192,259,737**	**4,413.7**	**NA**	**2,535,865**	**NA**	**0.01319**
TOURIST COMMERCIAL							
35	TOURIST ATTRACTION	440,844	10.1	NA	30,172	NA	0.06844
36	CAMPS	40,001	0.9	NA	2,594	NA	0.06485
37	RACE TRACKS, AUTO, DOG, HORSE	764,519	17.6	NA	73,522	NA	0.09617
	SUBTOTAL	**1,245,364**	**28.6**	**NA**	**106,288**	**NA**	**0.08535**
COMMERCIAL FISHING							
44	PACKING PLANT, SEAFOOD ETC.	1,032,510	23.7	NA	60,152	NA	0.05826

Table 8 - Existing Density and Intensity by Property Code (continued)

PC	Description	Area (SF)	Area (Acres)	Units	Building SF	Density (DU/Acres)	FAR (SF/SF)
INDUSTRIAL							
41	LIGHT MANUFACTURING	874,279	20.1	NA	56,326	NA	0.06443
42	HEAVY INDUSTRIAL	449,499	10.3	NA	14,721	NA	0.03275
43	LUMBER YARD	150,723	3.5	NA	19,374	NA	0.12854
46	OTHER FOOD PROCESSING	38,477	0.9	NA	3,009	NA	0.07820
47	GRAVEL PIT	7,853,609	180.3	NA	31,642	NA	0.00403
48	WAREHOUSING	6,016,921	138.1	NA	700,219	NA	0.11637
49	OPEN STORAGE	3,090,718	71.0	NA	4,521	NA	0.00146
	SUBTOTAL	**18,474,226**	**424.1**	**NA**	**829,812**	**NA**	**0.04492**
EDUCATION							
72	PRIVATE SCHOOL OR COLLEGE, RESEARCH CENTER	521,485	12.0	NA	90,885	NA	0.17428
83	PUBLIC SCHOOL	3,588,519	82.4	NA	280,183	NA	0.07808
84	PUBLIC COLLEGE	0	0.0	NA	0	NA	0.00000
	SUBTOTAL	**4,110,004**	**94.4**	**NA**	**371,068**	**NA**	**0.09028**

Table 8 - Existing Density and Intensity by Property Code (continued)

PC	Description	Area (SF)	Area (Acres)	Units	Building SF	Density (DU/Acres)	FAR (SF/SF)
INSTITUTIONAL							
71	CHURCH	3,358,403	77.1	NA	190,612	NA	0.05676
73	PRIVATE HOSPITAL	93,436	2.1	NA	27,705	NA	0.29651
74	NURSING HOME	7,667	0.2	NA	1,485	NA	0.19370
75	ORPHANAGE	0	0.0	NA	0	NA	0.00000
76	MORTUARY OR CEMETERY	1,181,899	27.1	NA	8,611	NA	0.00729
77	CLUB OR LODGE	16,848,964	386.8	NA	352,887	NA	0.02094
85	PUBLIC HOSPITAL	361,346	8.3	NA	90,300	NA	0.24990
	SUBTOTAL	**21,851,714**	**501.6**	**NA**	**671,600**	**NA**	**0.03073**
PUBLIC BUILDINGS/GROUNDS							
86	COUNTY (OTHER THAN PC LIST)	66,517,589	1,527.0	NA	233,680	NA	0.00351
87	STATE (OTHER THAN PC LIST)	602,792,054	13,838.2	NA	79,915	NA	0.00013
89	MUNICIPAL (OTHER THAN PC LIST)	524,181	12.0	NA	0	NA	0.00000
94	RIGHT OF WAY	28,584,780	656.2	NA	96	NA	0.00000
	SUBTOTAL	**698,418,605**	**16,033.5**	**NA**	**313,691**	**NA**	**0.00045**
PUBLIC FACILITIES							
91	UTILITIES	6,891,176	158.2	NA	188,552	NA	0.02736

Table 8 - Existing Density and Intensity by Property Code (continued)

PC	Description	Area (SF)	Area (Acres)	Units	Building SF	Density (DU/Acres)	FAR (SF/SF)
MILITARY							
81	MILITARY	66,245,929	1,520.8	NA	2,674	NA	0.00004
RECREATION							
38	GOLF COURSE	11,360,085	260.8	NA	51,499	NA	0.00453
92	PRIVATE PARK	6,722,004	154.3	NA	17,075	NA	0.00254
	SUBTOTAL	**18,082,089**	**415.1**	**NA**	**68,574**	**NA**	**0.00379**
CONSERVATION							
NA	NA	NA	NA	NA	NA	NA	NA
VACANT							
00	VACANT RESIDENTIAL	834,287,416	19,152.6	NA	NA	NA	NA
10	VACANT COMMERCIAL	29,443,348	675.9	NA	NA	NA	NA
40	VACANT INDUSTRIAL	0	0.0	NA	NA	NA	NA
70	VACANT INSTITUTIONAL	65,585,215	1,505.6	NA	NA	NA	NA
	SUBTOTAL	**929,315,979**	**21,334.2**	**NA**	**NA**	**NA**	**NA**

Table 8 - Existing Density and Intensity by Property Code (continued)

PC	Description	Area (SF)	Area (Acres)	Units	Building SF	Density (DU/Acres)	FAR (SF/SF)
NOT CLASSIFIED							
96	WASTE LAND, MARSH, SAND DUNES, NON GOV OWNED LAND-EVERGLADES	5,235,306.82	120.2	NA	0	NA	0.00000
99	NATURE CONSERVANCY, FL KEYS LAND TRUST	214,813,929.24	4,931.4	NA	0	NA	0.00000
	SUBTOTAL	**220,049,236.06**	**5,051.6**	**NA**	**0**	**NA**	**0.00000**
TOTAL UNINCORPORATED KEYS		**2,797,885,433.70**	**64,230.61**	26,274	5,667,248	NA	NA
MAINLAND/SUBMERGED							
82	U S MAINLAND FOREST, PARKS, REC AREA	21,147,221,210.09	269,007	NA	119,577	NA	0.00001
88	FEDERAL (OTHER THAN PC LIST)	8,190,914,532.32	122,909	NA	73,725	NA	0.00001
95	SUBMERGED LAND	41,234,132.12	944	NA	820	NA	0.00002
NO PC CODE		879,651.12	20	NA	0	NA	0.00000
	SUBTOTAL	29,380,249,525.65	392,880	NA	194,122	NA	NA
GRAND TOTAL MONROE COUNTY		**32,178,134,959.35**	**457,110.61**	**26,274**	**5,861,370**	**NA**	**NA**

Source: Monroe County Property Appraiser's Office, January 2010, "Parcel_Public" Square foot area from Property Appraiser's Office dataset "Public_Parcel" PC code 39, dating January 2010

NOTE:

1. According to the Monroe County Property Appraiser, "Compounds are single family homes that have a shared interest in a common area. (email communication from Robbie Shaw dated August 26, 2010) New Lodging Establishments – Current
2. Square foot area from Property Appraiser's Office dataset "Public_Parcel" PC code 39, dating January 2010. Number of rooms from licensed hotel/motel acquired from *Economic Trends and Opportunities in Unincorporated Monroe County*, Inc. February 2011 report (**Appendix 4**).

Table 9 – Floor Area Ratio by Future Land Use District

Future Land Use	Policy 101.4.21 Maximum Allowed Floor Area
Agriculture (A)	.020-0.25
Airport District (AD)	0.1
Conservation (C)	0.05
Education (E)	0.3
Industrial (I)	0.25-0.60
Institutional (INS)	0.25-0.40
Mainland Native (MN)	.10
Military (M)	0.30-0.50
Mixed Use / Commercial (MC)	0.10-0.45
Mixed Use/Commercial Fishing (MCF)	0.25-0.40
Public Buildings/Grounds (PB)	0.10-0.30
Public Facilities (PF)	0.10-0.30
Recreation (R)	0.2
Residential Conservation (RC)	0-0.10
Residential Low (RL)	0.20-0.25
Residential Medium (RM)	0
Residential High (RH)	0

Source: Policy 101.4.21, Monroe County Comprehensive Plan, 2010

The compatibility of the existing FAR with the Future Land Use Map reveals that, with few exceptions, parcels have not been built out to the maximum allowable FAR.

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C. Policy Framework:

Goal 105: The FLUE directs the development of 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.

Policy 101.4.21: Provides for the allowable maximum FAR within each land use district. The LCPs encourages development focused within Community Centers e.g. the Big Pine Key LCP allows a maximum of .40 FAR to, "…foster a coherent and dense streetscape…"[2]

D. Strategies:

Due to the need for design flexibility and to provide incentives to develop in hubs, or "Community Centers" to assure compliance with the LCPs and smart growth strategies, a reduction in the allowable maximum allowable FAR (Policy 101.4.21) in each future land use district is not suggested at this time. However, it is recommended that the table within Policy 101.4.21 should be revised to add the minimum open space ratios by future land use category.

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[2] Action Item 4.1.5, "Livable CommuniKeys Master Plan for Big Pine Key and No Name Key", Action Item pg. 45.

Issue Category #2(b): Redevelopment Incentives

A. Background: The results of the community meetings held in April 2010 to identify major issues mirrors the desires expressed in the LCPs, which is to focus upon redevelopment and infill.

The following analysis reviews the County's polices as it relates to the encouragement of redevelopment of sites that are currently developed versus development of vacant land.

B. Analysis:

239 Square Foot Ratio of Commercial Development per Residential Unit: The County is subject to the NROGO which limits commercial construction by allowing a ratio of 239 square feet of nonresidential floor area for each new residential permit issued.

The County maintains an inventory tracking system to determine whether or not sufficient commercial services are ultimately provided in the market place based on the 239 square foot criteria. It is reported the allowable maximum for new commercial construction is not necessarily reached or utilized each year. It is believed the maximums are not reached due to other constraints such as parcel size and availability, other zoning restrictions, and economic conditions.

However, some development is not dependent upon resident population growth and should not be tied to residential growth. For example, demand for tourist retail is a function of tourism activity, not a function of new household growth. Similarly, industrial boat maintenance or marine research and development are not a function of residential growth and should not be tied explicitly to residential activity. As well, medical space serves tourists, workers and the elderly and this skews the empirical "per new household relationship" which dictates how much non-residential space may be developed.

While the 239 square feet per household is empirically observable, it is merely a correlation and is not a causal factor in determining the demand for commercial development.

NROGO Impacts: Although certain types of development are exempt from NROGO, the additional limitations that may negatively impact redevelopment are described below:

- Development with no net increase in nonresidential floor area;
- The redevelopment, rehabilitation or replacement of any lawfully established nonresidential floor area which does not increase the amount of nonresidential floor area greater than that which existed on the site prior to the redevelopment, rehabilitation or replacement; and,

- Limitations on the amount of nonresidential floor area which may be transferred to any one site. The amount of nonresidential floor area which may be transferred to any one site shall be as follows:
  1) No more than a maximum cumulative total of 4,000 square feet of nonresidential floor area may be transferred to any one site.
  2) A receiving structure with existing nonresidential floor area shall not be expanded using transferred floor area if the expansion results in a structure with more than 10,000 square feet of nonresidential floor area, except within the urban commercial land use district, where a structure may be expanded to a maximum total of 50,000 square feet of nonresidential floor area.
  3) The amount of nonresidential floor area to be allocated shall be limited to a maximum of 2,500 square feet for any one site, except for sites located within a designated Community Center District area.

Due to the effects of NROGO restrictions and vacant commercial supply constraints, the most effective and easily permitted commercial development is redevelopment with no net increase in floor area. New commercial development is hindered by floor area coverage limitations, a lack of available parcels, height restrictions, limitation on trip generation, and NROGO constraints tied to residential development. This effectively prohibits much new commercial development. This leaves redevelopment as the most viable option given land use and availability; however even this option is hindered by limitation to grow and expansion of existing building space by limiting an increase in floor area.

Nonconforming Structures and Redevelopment: Monroe County Land Development Code (Sec. 101-1) defines non-conforming structures as, "…any structure lawfully existing on the effective date of the ordinance from which this chapter is derived other than a sign, or any amendment to it rendering such structure nonconforming, which does not comply with all of the standards and regulations of this chapter or any amendment thereto".

When redevelopment efforts include nonconforming structures that are considered part of the community character, flexibility will need to be considered. For instance, many commercial properties county-wide do not comply with the required shoreline setbacks for existing structures; however, these are considered part of the community character. To the degree non-conforming uses will be brought into compliance, a high degree of flexibility will be required so as not to cause the elimination of the business in light of other restrictions, such as side yard setbacks and buffers.

C. Policy Framework:

Policy 101.3.1: Requires that the County 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."

Policy 101.3.5: Allows that, "…the ratio may be modified from time to time through amendments to the Land Development Code based upon market and other relevant studies."

Policy 101.8.8: Enlargements and extensions to non-conforming structures shall be allowed provided that:

1. the improvement does not constitute a substantial improvement;

2. a non-conforming use is not located in the non-conforming structure; and

3. the nonconformity is not further violated."

Policy 101.8.10: With the following exception, non-conforming structures which are damaged or destroyed so as to require substantial improvement shall be repaired or restored in conformance with all applicable provisions of the current Monroe County Code. Substantial improvement or reconstruction of non-conforming single-family homes shall comply with the setback provisions of the Monroe County Land Development Code except where strict compliance would result in a reduction in lot coverage as compared to the pre-destruction footprint of the house. In such cases, the maximum shoreline setback shall be maintained and in no event, shall the shoreline setback be less than ten (10) feet from mean height [sic] water."

D. Strategies:

- Consider discontinuing the 239 sq. ft. commercial floor area NROGO allocation determination formula.

- Instead of the allocation ratio method, consider developing a policy that provides a flat annual limit of 48,500 square feet of commercial floor area to be allocated through the NROGO system. There will be no limitation upon the amount of available square footage that may be requested per site; however, unused square footage would revert back to the County.

- The County should give consideration to allowing a square footage bonus to offset rehabilitation costs, green building practices and relaxation of policies regarding upgrades to non-conforming structures.

- The County should evaluate and consider the relaxation of LDC regulations, e.g., existing shoreline and property line setback requirements; open space; 50% improvement rule (not NFIP regulations), as appropriate, for legal non-conformities, where wastewater, drainage and stormwater issues are met and where land is located within Tier III areas.

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Issue Category #2(c): Discouragement of Density Increases

A. Background: The results of the community meetings held in April 2010 to identify major issues mirrors the desire expressed in the LCPs: Focus upon redevelopment and infill.

B. Analysis: Based up the County's Future Land Use map, there is adequate land, both vacant and developed to accommodate the future population estimates. It must be noted that 61.7 acres of vacant lands located in Tier I have a land use designation of Mixed Use. These parcels could form the basis for a "Sender Site" inventory for commercial intensity bonus to encourage redevelopment as noted in the "Nonconforming Structures" discussion above.

C. Policy Framework:

Policy 101.5.8: 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.

Policy 101.13.5: Monroe County shall map potential Transferable Development Rights (TDRs) sender and receiver sites and map parcels from which development rights have been transferred.

D. Strategies:

- The County should consider creating a policy to allow the transfer of ROGO allocations or exemptions from Tier I, II, and III-A to Tier III, within tbe same subarea; however, there should be no allowable increase in density on a parcel of land unless such density is transferred from a Tier I to Tier III parcel.

- 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.

- Monroe County has a TDR program that encourages the transfer of density from environmentally sensitive land to land more suitable for development. The County should encourage the use of vacant land with Mixed Use designation in Tier I to serve as TDR sender sites. Receiver sites shall meet all of the following criteria: 1) Designated Tier III; not in a V-Zone; and not located on Big Pine Key or No Name Key.

Issue Category #2(d): Impact of Outside Jurisdictional Constraints

A. Background: Federal and State government involvement in the County land use planning and decision-making is extensive due to the presence of aquatic and terrestrial resources that are of regional and national significance. This involvement has heavily influenced the County's comprehensive planning process. Many of the County's goals, objectives, and policies have been mandated by the State pursuant to the Area of Critical State Concern designation or by the Federal government as conditions for the County's continued participation in the National Flood Insurance Program.

B. Analysis: On September 12, 2005, Judge Michael Moore of the U.S. District Court in Miami issued a ruling enjoining the Federal Emergency Management Agency (FEMA) from issuing flood insurance for new developments in the habitat of the endangered Key Deer and seven other federally listed species in the County. The injunction will remain in place until FEMA and the U.S. Fish and Wildlife Service (FWS) develop a plan to protect these species from the development related to FEMA's flood insurance program. In accordance with this ruling, FWS supplied the court with a list of properties which the agency had determined contained suitable habitat for any of the eight species.

C. Policy Framework:

Note: Policies related to coordination activities are identified in the Major Issue category "Intergovernmental Coordination".

This situation is an example of the issues facing the County relative to State and Federal jurisdictions. There is a direct cost to the County associated with staff time and a concern of a potential for liability in the case of County denial of a development application for the affected parcels.

D. Strategies:

- It is recommended that the County evaluate the impact of outside jurisdictional constraints as it relates to potential County exposure pursuant to State and Federal "property rights" law, and identify opportunities to reduce such exposure where possible and appropriate.

Issue Category #2(e): Development of a Commercial Land Use District Category

A. Background: Currently, the County does not have an exclusive commercial land use category. The two existing commercial use categories: Mixed Use/Commercial and Mixed Use/Commercial Fishing include a residential component.

B. Analysis: Due to the potential for encroachment and impacts from litter and pets from residential uses, mixed use parcels adjacent to natural habitat in Tier I have the potential to negatively impact these lands.

C. Policy Framework:

- Objective 101.4 and its associated policies identify the various land use districts and the uses allowed within each district, but again, there is no Commercial land use category.

D. Strategies:

- The County should consider creating a policy for a Commercial Future Land Use Designation that does not allow residential uses.

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II. Economic Sustainability[3]

Issue Statement: ***Promote economic sustainability, in a manner consistent with environmental stewardship, with a special focus upon existing businesses.***

A. Background: The County is primarily comprised of the Florida Keys, a community of islands ecologically fragile stretching some 130 miles in an archipelago from south of Miami at Biscayne Bay to Key West. The total land area is some nearly 1,000 square miles, distributed among 800 +/- keys, excluding the Everglades National Park which is located on the mainland. The largest of these keys include Key Largo, Islamorada, Marathon, Tavernier, Big Pine and Key West.

Collectively, the Keys represent considerable natural and economic resources including two national parks, world renown tourism and destination resorts, a long established commercial and recreational fishing industry and extensive accessible coral reefs which support a large recreational snorkeling and scuba diving industry.

Today, the County faces a variety of economic constraints. These stem from national trends in the structure of employment and local conditions which contribute to a lack of investment. Further, a determination made at the State level has concluded growth and development has reached its effective physical carrying capacity in the Keys. The result of this determination is a regulatory constraint on growth which allows only a very small and limited amount of net new residential and non-residential construction each year. This regulatory constraint is known as ROGO (Rate of Growth Ordinance) for residential development and NROGO for non-residential development. ROGO has been in place since 1992; the County adopted NROGO in 2002.

The combined effect of nearly 20 years of restrictive development regulation, increasing environmental regulation coupled with infrastructure capacity constraints, the need for rapid emergency evacuation plans and the national shift in employment structure and trends has slowed economic development throughout the County. To illustrate: During the 1980's the County employment base grew by 50 percent. In the two decades following, the employment base has only increased by 10 percent.

From an economic structural standpoint, dynamic long term trends at the national and global levels shift the economic structure of the local economy. Absent a highly focused and long term effort to modify the effect of these forces, the global and national trends will prevail. These global and national structural trends include a shift away from industrial production in the United States and a shift toward a service and retail based economy. At the national level some 50 percent of manufacturing jobs have been lost in the United States since 1960. By the same measure, service and retail positions have grown by more than 250 percent each. In Florida, which has never had the share of

[3] Unless otherwise noted, the information and recommendations discussed in this Major Issue topic is extracted (either in part or completely) from the *"Monroe County Economic Trends and Conditions Report"*, 2010, as prepared by Fishkind and Associates and Keith and Schnars, P.A. and attached herein to the EAR as **Appendix 4**.

manufacturing and industrial employment as found elsewhere in the nation, the structural employment shift to service and retail has been more pronounced over this period. Thus, in the face of these forces, employment by industry type in the Florida Keys has shifted in a more pronounced way toward a service and retail based economy.

There are numerous other factors which contribute to economic opportunity outlook in the County. These include: the location of the County with respect to access to mainland United States, the lack of existing available raw materials, a lack of plentiful quantities of potable water which affects water pressure and fire insurance ratings, the geographic constraints associated with the physical layout of the Keys stretching as an archipelago over 130 miles, and very low lying flood prone lands which are subject to periodic violent and destructive hurricanes. Finally, the cost of development coupled with the overall shortage of vacant lands hinders the ability of the local labor force to reach levels sufficiently high to support large new industrial or commercial facilities. These factors impact the diversity and economic development potential of the County over the long term.

Despite this, the very constraints which hinder certain kinds of economic expansion are also what assure that the County remains special and unique, giving rise to its pre-eminent attractiveness for tourism and vacation home living. The Keys are remote, and vibrant with nature and marine environments yet accessible for weekend getaways or longer.

Within this context there are opportunities to expand the economic base of the County which can and should be explored.

B. Analysis: The dominant industry throughout the County (incorporated and unincorporated areas) is tourism. This segment of the economy has held the lead position in employment in the County for more than 30 years. The tourism industry category of "Hotel/Eat-Drink/Entertainment" includes eating and drinking establishments, hotel/motel space along with seasonal rental properties and entertainment venues such as museums, theaters parks and beaches. This category represents about one third of the County employment, as measured by jobs covered under unemployment compensation. Half of the tourist industry is concentrated in Key West. This sector has added more jobs county wide than any other since 1980 which is shown in the Table and Figures that follow.

As illustrated in **Table 10**, "Government" holds the second place in the number of jobs county wide. This includes Federal, State, and Local government jobs; however it excludes active duty military personnel stationed at installations in the County. Active duty military personnel add some 1,200 persons representing the NAS Key West complex of facilities. With the addition of the active duty personnel, government employment would still be the second largest employment segment in the County.

In third place is the number of employees in the County is the "Business Services/Finance/Real Estate" category. The share of employment in this category has nearly doubled in 30 years and the number of employees has approximately tripled.

"Other Retail" outside of tourist oriented establishments (eating, drinking, and entertainment) had ranked third in volume of covered employment until 2010. By 2010, employment in this category had fallen to the fourth largest in the County. It is unclear if the decline in "Other Retail" is cyclical and related to the recent recession or permanent and structural.

Table 10 – Monroe County Employment by Industry (Number of jobs)

	1980	1990	2000	2010
Hotel/Eat-Drink/Entertainment	5,732	9,685	11,396	10,506
Government	4,578	5,400	6,052	5,808
Business Service/Finance/RE	1,570	1,811	2,322	4,392
Other Retail	3,126	4,978	5,738	3,790
Other Services	765	1,817	3,215	2,379
Construction	1,310	1,786	2,233	2,150
Industrial/Warehouse	2,022	2,737	2,774	2,008
Medical/Health Services	699	1,569	2,150	1,895
Ag Svc, Fishing, Water Trans, Food Proc	1,064	1,025	800	648
TOTAL	20,866	30,808	36,680	33,576

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In addition to looking at the composition of employment by industry in the County, the changes in composition over time were also examined. **Figures 1 and 2** illustrate how the mix by industry has evolved over the past 30 years.

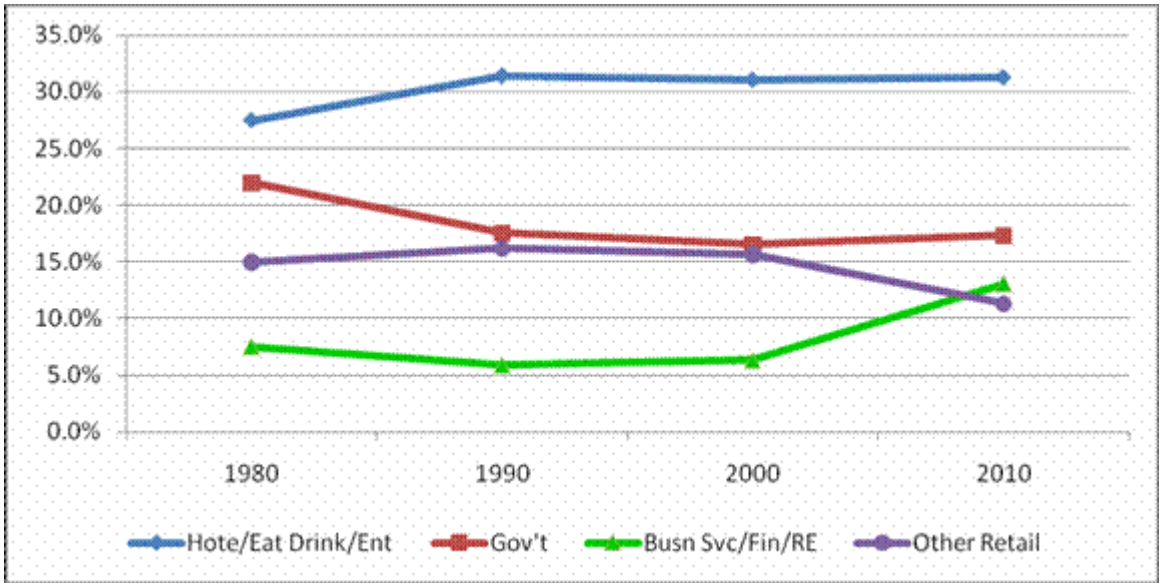


Figure 1 - Share of Employment by Sector 1980-2010

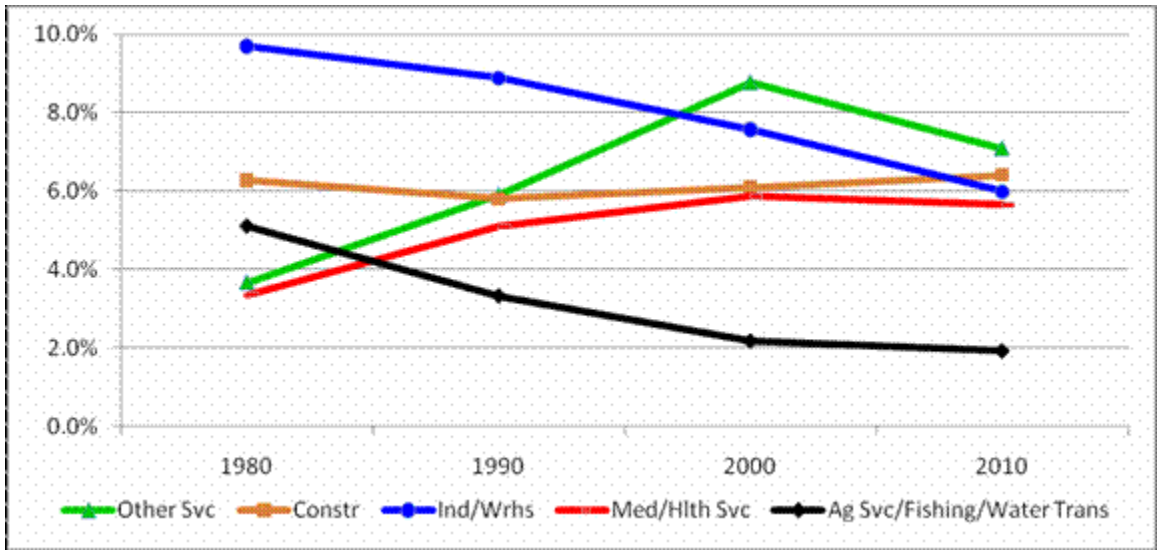


Figure 2- Share of Employment by Sector 1980-2010

"Other Services" is the fifth largest employment category (**Figure 2**). Employment in this category has also tripled since 1980, though the share has declined as other sectors grew at faster rates.

"Construction" is the sixth largest employment sector in the County economy. Construction employment as a share of countywide employment has changed little in 30 years.

"Industrial/Warehouse" employment has remained essentially unchanged at 2,000 employees over the past three decades. The lack of growth in this sector, despite 50 percent overall employment gains county wide, is symptomatic of the decline in industrial and manufacturing employment in the United States and also of the challenges faced by a remote location with limited transportation and labor force opportunity.

Employment in the "Medical/Health Services" category has tripled since 1980. While this category is small as a share of total employment, it is among the fastest growing sectors of the County economy (**Figure 2**).

Covered employment in the "Agricultural Services, Fishing, Water Transportation, and Food Processing" category is the smallest among all categories in the County. This may be misleading to some degree in that much of the employment in the marine and fishing industry locally is comprised of proprietorships and self employed. This means the ranks of those in the marine and related industry may not appear in the measure of covered employment, for the purposes of unemployment compensation. For example there are some 2,500 commercial boat licenses in the County, suggesting the marine industry is substantially larger than what is depicted in the covered employment data series. Because of the island nature of the County and the obvious reliance on marine and coastal activity, the marine industry will be examined in a separate light. Of note is that within the covered employment data series, which refers to employees eligible for unemployment compensation, employment has fallen by nearly 40 percent in 30 years, from approximately 1,000 persons to 650 today (Apr. 2011).

Occupational license data was reviewed to assess marine related employment and activity. Occupational license data includes charter boats and captains, marina and boat storage, mobile marine repair, marine related retail, marine wholesale supply, and marine repair. There are 1,928 such licenses as of April 2011. Some boat and captain licenses are duplicative resulting in an estimated 1,500 active occupational licenses. Not all of these licenses will result in a full time job and many hold a captain's license but are simply not active. Based on this information we find marine and marine related services remains the smallest employment category in the County.

In addition to looking at the composition of employment by industry in the County, the changes in composition over time were also examined. **Figures 1 and 2** illustrate how the mix by industry has evolved over the past 30 years. Change in the share of employment is an indicator of which industries have momentum and may be expected to have growth potential in the future. In this section the changes in

share were examined. By identifying employment sectors which are growing, it helps identify the key components of the local economy which offer opportunity for the future.

The employment segment with the greatest increase in share during the past three decades is "Business Services/Finance and Real Estate" (see **Figure 3, below**). The dominant component by far within this category is business services. Business Services as a category consisting of legal, accounting, architectural, computer and management consulting, research, advertising other professional services and business support. Finance and real estate are comparatively stagnant and given the current economic conditions may not be expected to show significant improvement in the short to medium term. Thus, "business services" is identified as a sector offering substantial employment growth. Its share of employment has doubled over time and is now the third largest employment segment in the countywide economy.

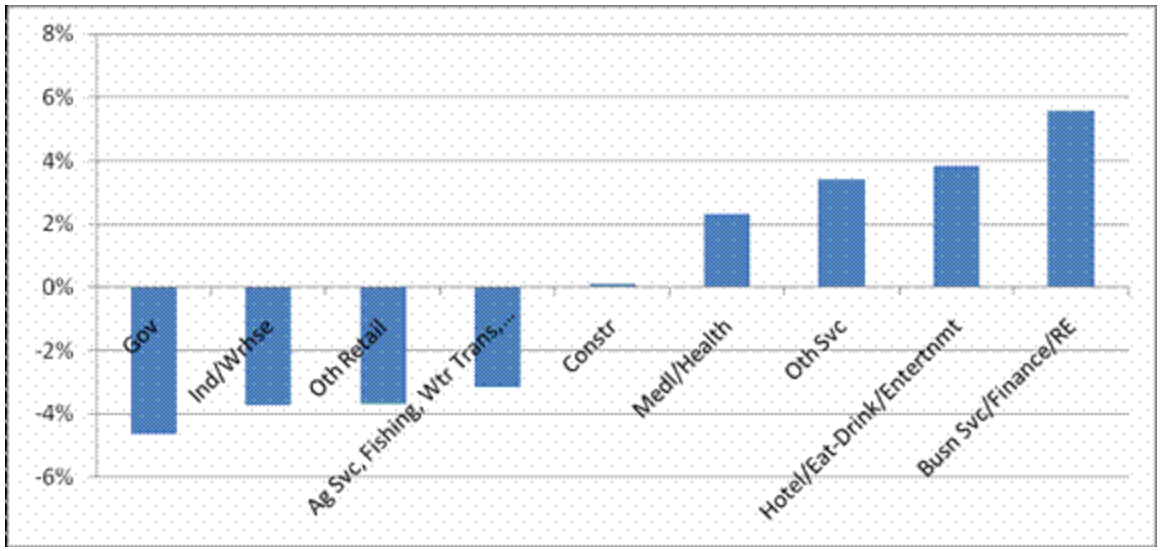


Figure 3 - Net Change in Share of Employment by Type 1980-2010

As noted prior, the "Hotel/Eat-Drink/Entertainment" category, representing the tourism industry, includes eating and drinking establishments, hotel/motel space along with seasonal rental properties and entertainment venues such as museums, theaters parks and beaches. This is the largest sector of the County economy by far, accounting for at least one-third of all employment countywide. It is the second fastest growing segment of the economy as well, having gained more than five points in share since 1980. The tourism industry has long been the focal point of the County economy.

"Other Services" includes automotive service, personal care, laundry, **civic** and religious organizations and repair services for household and commercial equipment. "Other Services" is the third fastest growing employment segment countywide. This segment has shown very consistent growth over the decades.

Though the share of this segment is small (only the fifth largest of 9 groups) the rate of growth in this segment is the fastest of any segment in the local economy.

"Medical and Health Services" has also grown very rapidly since 1980. Since year 2000 the average age of all persons in Florida has increased from 39 years to 40 years and from 37 years to 38 years in Miami-Dade. In the County however, the average age of all persons has increased from 41 years to 43 years. The County population is older and has increased by a greater amount than the population in Miami-Dade County and throughout Florida. By 2030 the University of Florida projects 44 percent of the County population will be age 55 and up, compared with 32 percent in Miami-Dade and 38 percent statewide. The older population will require more medical services supporting an opportunity for continued increases in medical services in the County.

The remainder of the major employment segments in the County has shown no increase in the share of employment. These comparatively slow growth segments include "Government", "Industrial/Warehouse", "Other Retail", "Marine Industries" and "Construction". While most of these sectors added jobs overall from 1980-2010, the pace of growth was below average and so each sector lost market share overall, or in the case of construction increased share only very marginally.

Tourism: The dominant industry throughout the County is tourism. It is the largest employment sector countywide. The tourism industry has had the second fastest growth in market share and added by far the most number of jobs of any employment sector in the County since 1980. As noted earlier, the tourism industry represents about one third of the County's economy, as measured by employment. As shown in **Table 11**, the Keys hosted approximately 3.3 million visitors during 2009, with some 2.2 million visiting Key West. Of those visiting Key West, 39 percent were cruise ship visitors. Fully two thirds of visitor activity countywide is concentrated in Key West.

While the tourism industry is large and adds substantial employment, wages are lower than average, representing about 76 percent of the average wage countywide. The impact on household earnings is perhaps less dramatic in as much as 1 in 3 tourism industry workers holds more than one job. Also, many persons in the real estate industry sell or rent vacation homes and the average wage among these workers is almost 90 percent of the average wage. Nonetheless, the strength and attractiveness of the tourism industry in terms of jobs and long term growth is offset to some degree by lower wages.

By measures created by the Monroe County Tourist Development Council, the tourism industry in its entirety (including multiplier effects) is responsible for 60 percent of total County output (sales) and half of all employment countywide.[4]

[4] "Study of the Monroe County Tourism Workforce", August 2006, Monroe County TDC, page 8

Thus, it is clear the tourism industry is a critical component of the functioning of the countywide economy. Policies which encourage expansion of the tourism industry, promote higher wages for tourism industry workers, and continue to support the strength in employment gains should be considered.

Tourism and Visitors: The County tourism industry is highly concentrated in Key West. The Tourist Development Council data illustrate the nature of visitor activity. As noted earlier fully one third of all employment in the County is concentrated in the tourism industry. The multiplier effect of this activity increases the overall impact and importance of the tourism industry.

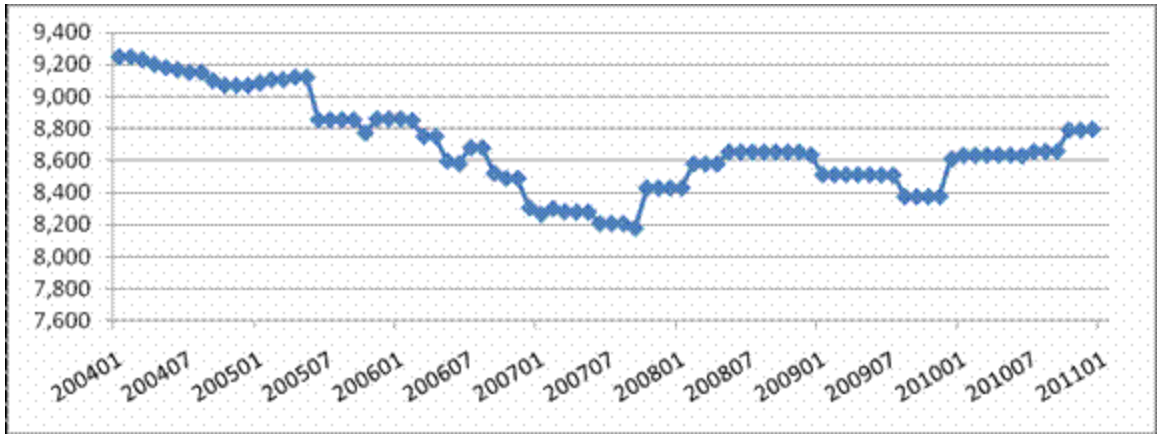
Table 11 - Visitors to the Florida Keys by Type and Location

Florida Keys Visitor Person-Trip Estimates

	2003	2004	2005	2006	2007	2008	2009
Key West Overnight Visitors	1,309,559	1,303,633	1,046,111	1,063,752	1,094,647	1,112,978	1,165,327
Key West Day Trippers	242,268	241,172	237,460	196,794	202,510	205,901	206,263
Cruise Ship Passengers	1,067,222	934,070	925,795	888,183	816,919	739,218	859,409
Total Key West Visitors	2,619,049	2,478,875	2,209,366	2,148,729	2,114,076	2,058,097	2,230,999
All Keys Overnight Visitors	2,425,110	2,414,135	1,937,244	2,030,062	2,089,021	2,169,565	2,092,732
All Keys Day Trippers	448,645	446,615	439,742	375,561	386,469	401,369	370,414
Cruise Ship Passengers *(Key West Only)*	1,067,222	934,070	925,795	888,183	816,919	739,218	859,409
Total All Keys Visitors	3,940,977	3,794,820	3,302,781	3,293,806	3,292,409	3,310,152	3,322,555
Monroe County Lodging Occupancy %:	72.2%	71.2%	70.0%	66.5%	68.1%	67.5%	70.3%

Sources: Monroe County Tourist Development Council; Smith Travel Research

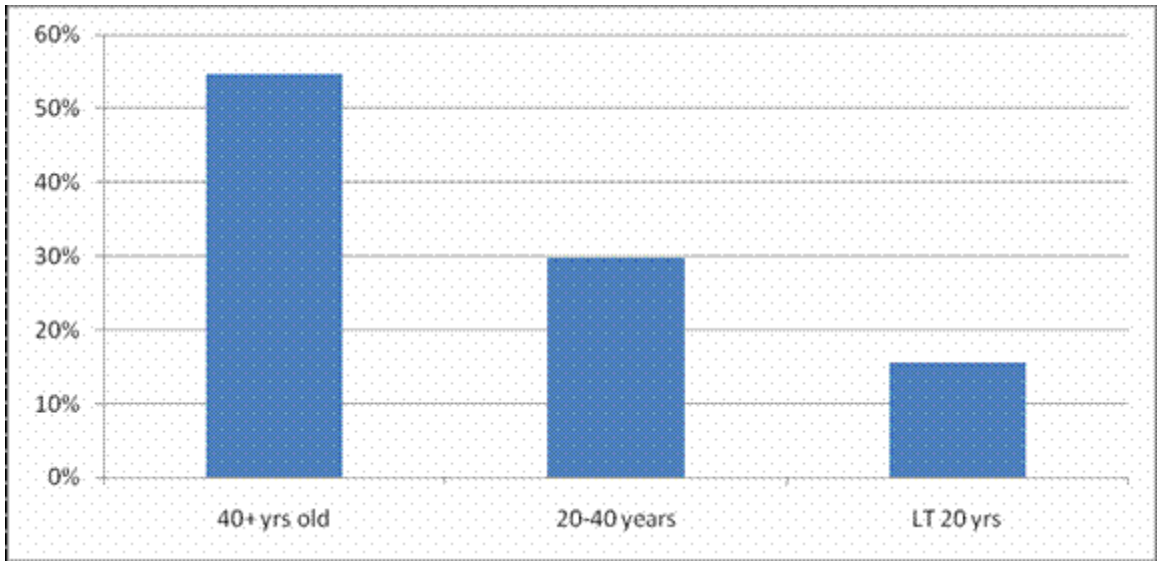
Tourism and Hotels: By year–end 2010 there were 8,796 hotel rooms in the County according to Smith Travel Research data (see **Figure 4,** below). There has been a net loss of 452 rooms since year-end 2003, some 5 percent of the countywide hotel room inventory. Hotel room inventory had declined by 12 percent from 2003-2007 and has rebounded adding 366 rooms since 2007. An additional 4,800 seasonal units are found in resorts. The number of resort units has grown by 19 percent, 772 units, since 2003, according to the Florida Department of Business and Professional Regulation. The total inventory of visitor accommodations has been relatively stable or grown slightly over the past decade, now totaling more than 13,500 units, though the mix and type of accommodations have changed from shorter stay hotel rooms to longer stay resort units.



Source: Smith Travel Research, Fishkind & Associates, Inc.

Figure 4 - Monroe County Hotel Room Inventory

Among hotel rooms throughout the County it is estimated that 2,199 rooms are located within the unincorporated areas. Of the rooms in the unincorporated areas of the County, 54 percent are within structures older than 40 years old. From a building use and architectural perspective, 40 years is a generally accepted measure of the useful life of buildings and structures. By the end of the 20 year planning horizon, an additional 30 percent of hotel properties will age into the greater than 40 year old category, if no renovation is undertaken. **Figure 5** shows the age of hotel room inventory in the unincorporated portions of the County, as of year 2010.



Source: The Monroe County Property Appraiser; Fishkind & Associates, Inc.

Figure 5 - Age of Hotel/Motel Structures, Unincorporated Monroe County 2010

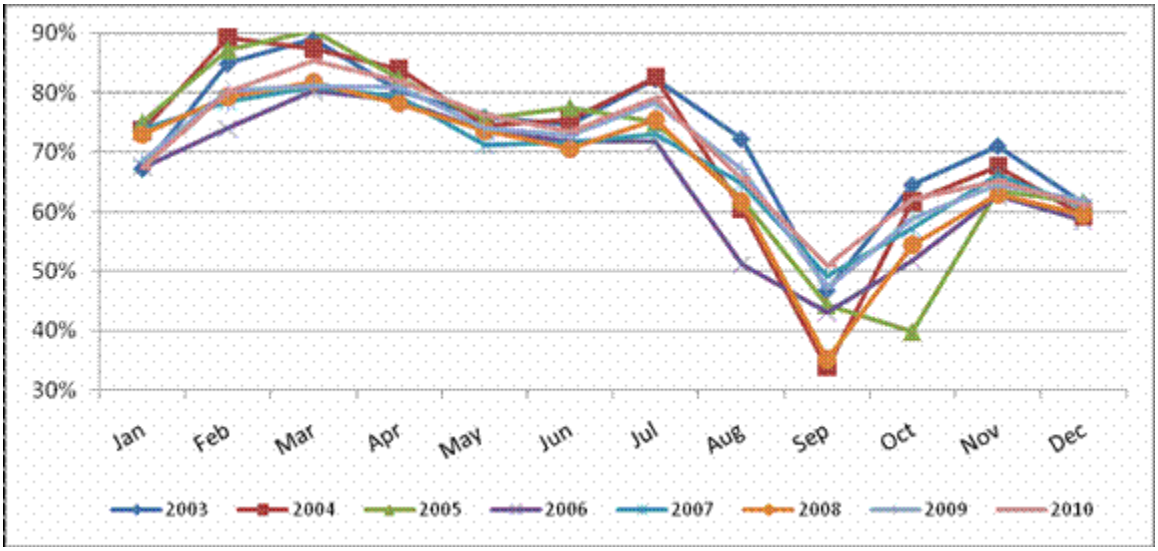
While there are many buildings standing today which are much older than 40 year, older buildings require extensive investment and renovation to maintain their usefulness. This is particularly relevant here in the Florida Keys which has a very challenging climate and environment regarding stability and livability of built structures. The climate of the Keys increases the wear and tear on buildings and structures. Issues such as mold, sun exposure, heat exposure, salt exposure, and storm damage can render buildings useless very quickly. The majority of inventory of hotel motel rooms in the County today is obsolete from a building age standpoint. This means substantial and ongoing investment and renovation is required to maintain these structures.

Over the next twenty years as older properties continue to age, 84 percent of unincorporated hotel/motel structures will exceed their useful lives. Over the next twenty years, the vast majority of inventory of unincorporated Monroe County hotel and motel rooms will require either replacement or extensive renovation. This places the hotel industry throughout unincorporated Monroe County in a precarious position from the standpoint of needed capital investment over the planning horizon. This condition also highlights the redevelopment opportunity which is likely to become increasingly evident over the planning horizon. The need for hotel property investment coupled with a prohibition on hotel expansion due to seasonal occupancy constraints means new hotel tourists are likely to be accommodated in newly built seasonal residential housing units and hotels which are in need of renovation will be unable to justify needed capital investments.

Effects of the Hotel Moratorium on Tourism in Unincorporated Monroe County: Currently, there is a County ordinance and Comprehensive Plan policy effective in the unincorporated area which prohibits any new hotel development throughout the unincorporated keys. This ordinance precludes all new hotel room/unit development. The development prohibition is in place due to the County designation as an Area of Critical State Concern (ACSC). Under the ACSC designation hotel/motel rooms are considered residential units and therefore would require allocation from ROGO, further reducing available increments of new housing supply under ROGO. Generally accepted and standard operating hotel financial performance norms indicate hotel operations are at the financial breakeven point near 65 percent occupancy[5]. It is for these reasons that in unrestricted markets, there are usually few new hotels built when annual occupancy is consistently below 65 percent. However, when annual occupancy is consistently above 65 percent, the market typically responds by adding new hotel rooms until annual occupancy falls back to approximately 65 percent. Throughout the hotel industry, occupancy runs between 63 percent and 73 percent on an annual basis, under normal market conditions.

Figure 6 shows the historic monthly occupancy in the County.

5 http://www.thefreelibrary.com/US+hotel+industry+now+breaks+even+at+55.5+percent+occupancy.-a021173755 and http://www.thefreelibrary.com/Trends+in+the+hotel+industry.-a0131592609



Source: Smith Travel Research, Fishkind & Associates, Inc.

Occupancy Rates: Monroe County, Excluding Key West

	2007	2008	2009	2010	2011	2012	% Chg
January	68.0%	66.3%	59.6%	55.2%	55.5%	65.1%	17.3%
February	72.3%	75.5%	71.9%	69.1%	73.5%		
March	78.6%	76.4%	72.7%	75.8%	82.0%		
April	74.4%	70.2%	73.0%	72.8%	74.9%		
May	64.3%	65.8%	65.2%	68.4%	65.7%		
June	68.3%	66.7%	67.7%	69.1%	71.7%		
July	67.9%	70.0%	72.0%	73.6%	75.9%		
August	60.1%	56.8%	59.2%	60.1%	61.3%		
September	41.5%	31.0%	38.1%	42.1%	45.3%		
October	46.0%	44.7%	46.5%	52.6%	52.8%		
November	52.9%	52.4%	50.7%	52.7%	63.5%		
December	48.5%	48.6%	51.1%	50.0%	58.2%		
Total	61.9%	60.3%	60.6%	61.5%	65.2%	65.1%	17.3%

Source: Smith Travel Research

Figure 6 - Monroe County Monthly Hotel Occupancy

For existing hoteliers this necessitates a policy and support that will stimulate and encourage redevelopment, add to peak season revenue potential, perhaps through more rooms/capacity in the same footprint, and substantially build off-season occupancy.

Changing the seasonal visitation pattern in the Keys may require very high cost low margin-of-return advertising campaigns. This must also be viewed in light of the very substantial rate reductions which are found in September and October. To illustrate the revenue and rate reduction issue, during year 2010, revenue during the peak season was $192 per available room. During the off season this fell to $70. Rates would have to

decline even more sharply to improve off season occupancy or new target markets identified and captured.

Waterfront Related: Among traditional island communities in Florida through the past 100 years, there has been a reliance on fishing, boating and marine environments and marine related industry such as shipping and boat repair. Through a century of change, the marine industry has declined while other areas of employment have grown in dramatic fashion. In terms of the volume and share of employment, there is very little fishing, food processing or water transportation related employment today, compared with employment in retail, finance and the broader service sector. The fishing industry accounts for only 1 percent of employment in island communities. Adding food processing, marine shipping, marine repair and marina raises the share to 2 percent in the County.

Recreational boating has expanded. This has opened opportunities for pleasure boat repair, boat maintenance and storage. Pleasure boat licenses have more than doubled in the Keys since 1980 (see **Figure 7**). This speaks directly to an important segment of the economy which is the vacation home or second home industry. Recreational waterfront activity supports redevelopment of waterfront areas such that the historic character and some historic uses and building are preserved while the economic drivers supporting waterfront properties is tourist and vacation home based. This has meant a waterfront redevelopment transition to service and tourist related activities similar to Savannah, Georgia; Des Moines, Iowa and old harbor areas such as Boston and Baltimore. The result is a vibrant waterfront which can accommodate some historic fishing and boating related commercial activity.

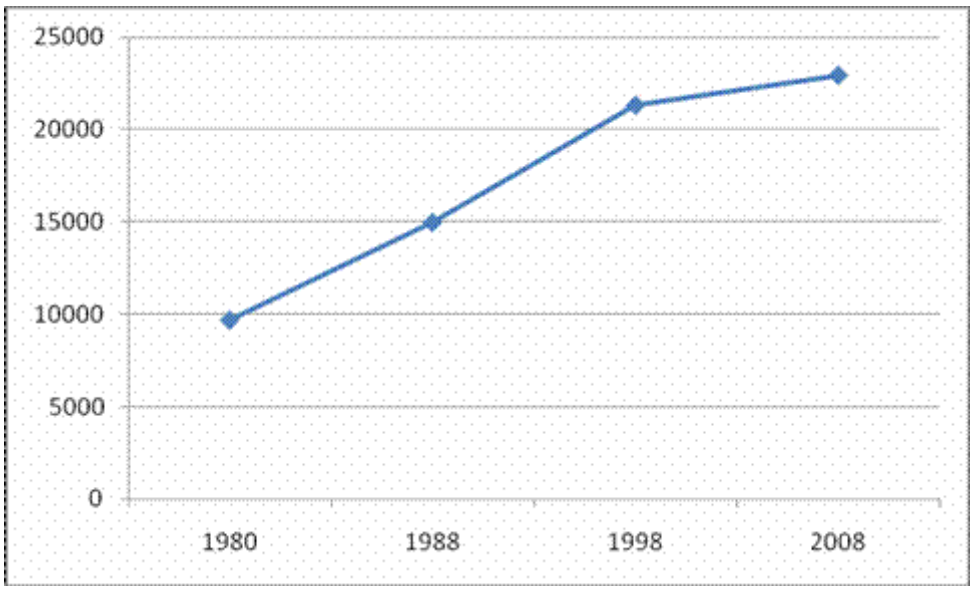


Figure 7 - Recreational Boat Licenses in Monroe County

At the same time, as measured by commercial fishing licenses, the volume and size of the commercial fishing industry has declined sharply over the past 30 years. Commercial fishing licenses have fallen by 25 percent and the volume of seafood catch has declined some 70 percent (see **Figure 8**).

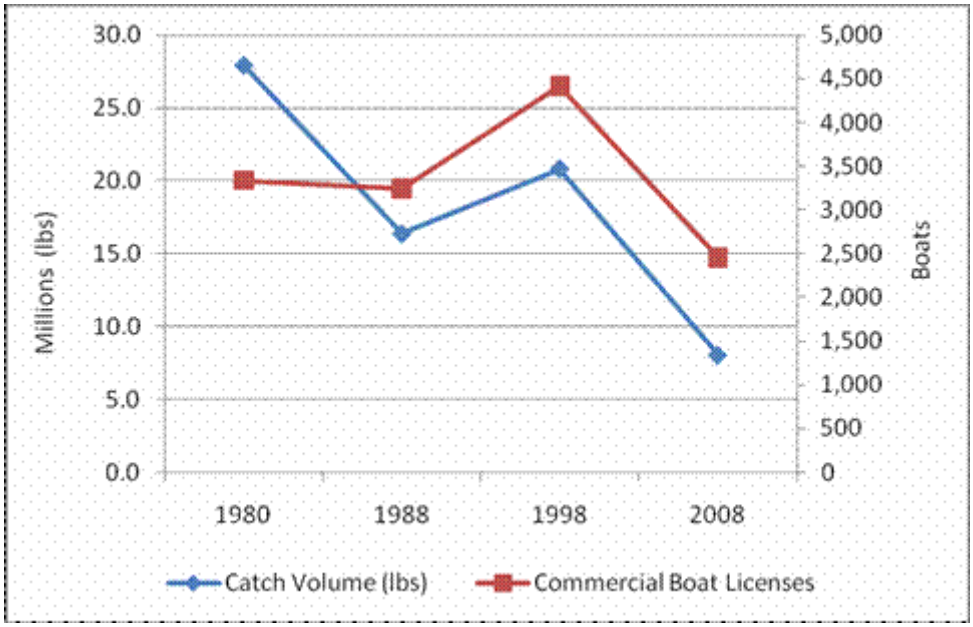


Figure 8 – Commercial Fishing Industry – Monroe County

Water related employment is the smallest employment segment among island communities today, and equally small elsewhere in Florida. Based on trends in commercial registrations, fish and shellfish catch volumes, and covered employment, the marine industry is not a growth industry in the County. Nor is it a growth industry in other island communities or elsewhere in Florida. Within the marine industry, what exists today is an important component of the history and character of the County. It is an important aspect of the local restaurant business which offers "fresh catch".

Given the past 30 years of decline, the historic nature of the marine and fishing industry and the loss of waterfront property to non-marine uses, there is a need to develop a support system to help maintain the viability of the industry as it currently exists. The marine industry, as it relates to fishing, can become a cultural focal point, support surrounding uses and continue to support and build the local restaurant industry. However, the marine industry is not likely to become a substantial employment generator in the future, nor a large-scale or growing aspect of the Keys economy. At most, the entire value of commercial seafood and shellfish landings (before expenses) is less than 5 percent of total personal income in the County. Today, the economy of the Keys has developed, expanded and diversified. Understanding this diversification is integral to planning for new economic opportunities.

There is an opportunity for growth in marine related industries outside of fishing. This includes marine research, coral reef preservation and marine related eco-tourism. One important facility is the Navy's *Marine Corrosion Test Facility* on Fleming Key. Through the process of military technology transfer for civilian use, the ongoing research and technology at this facility offers the potential to help develop local industry synergies with respect to marine materials testing, underwater audio and marine biology. Coral reef research and preservation is of vital national and international interest. The Florida Keys are well suited to conduct such research in conjunction with nearby universities and national funding sources. This discussion is expanded upon later in this section.

Livable CommuniKeys Plans – Vision and Outlook: Having conducted an economic and strategic overview of the unincorporated areas of the County, employment trends, strategic concerns and opportunities were identified. In order to make actionable recommendations which are consistent with the desires and strategic direction of Keys residents the Livable CommuniKeys Plans (LCPs) were examined for the purposes of identifying where these plans might intersect with the economics presented and the economic development direction presented in the Livable CommuniKeys Plans.

The 2010 *Economic Trends and Opportunities in Unincorporated Monroe County* report is provided as **Appendix 4** in this EAR document. An appendix item to this report contains excerpts from the Livable CommuniKeys Plans provided to highlight and help synthesize the integration between economic development objectives and community goals such as livability and sustainability. Sustainability in these instances may include environmental, economic and social/cultural aspects of the challenge of sustainable living practices in the face of the physical constraints of island living. The goal of this section of the report is to identify sustainable economic directives from the LCPs and integrate these with economic development opportunities, goals and objectives.

Summary of Upper Keys - Key Largo LCP Findings:

- Commercial redevelopment of existing sites within the original footprint, with no increase in building square footage is allowed and encouraged in the Key Largo LCP.

- New high intensity commercial development is very limited. Redevelopment which expands a local business floor area is prohibited. New hotel development is prohibited (this is not specifically prohibited in the LCP, but is a county-wide prohibition that impacts the development in the area). Waterfront seasonal housing which may replace water related or water dependant uses is under moratorium. As a result of the highly physically constrained conditions, lack of viable developable sites and regulatory prohibitions, most new commercial development is disallowed in the upper Keys or highly constrained.

Summary of Middle Keys: The functional population of the Middle Keys is projected to increase by fewer than 100 persons through year 2030. This will translate to a need for

approximately 50 additional dwelling units through year 2030. The lack of developable lands and limited growth suggests the economic opportunity in the Middle Keys is primarily support of the valuation and tax base of existing developed property.

Summary of No Name and Big Pine Keys LCP: There is very limited new development opportunity on No Name and Big Pine Keys. The combination of limited land availability, concurrency constraints and other restrictions effectively limit new commercial development to very low levels if at all. The local community does not wish to embark on a path that would bring regional users or regional facilities to these areas.

These conditions point to the need to build sustainable communities through redevelopment.

Summary of Stock Island and Key Haven LCP: The working waterfront and major employment center of the unincorporated Keys is located on Stock Island. The resident population is highly engaged and supportive of maintaining the employment opportunities associated with marine dependent activities including fishing, ship building and repair, tour guides and other water or waterfront dependent activities such as marine research. Residentially zoned land is built out on Stock Island. Remaining vacant lands are either Mixed Use or Industrially zoned.

According to the Stock Island LCP, the focus for economic development opportunity on Stock Island is support of the marine industry, preservation of marine uses, and redevelopment of existing parcels with a focus on marine industry services, facilities and support. Opportunities for marine related science and technology research are strongest in this planning area due to the proximity to the Navy's Marine Corrosion Test Facility and the Key West Airport, which facilitates travel.

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Within these plans are distinct regions within the unincorporated keys which reflect their own set of unique local conditions and geographically specific economic development goals (see **Figure 9, Keys Planning Areas Map**). These sub-regional characteristics are quite distinct from each other and distinct from the concentration and intensity of the Key West tourist industry.

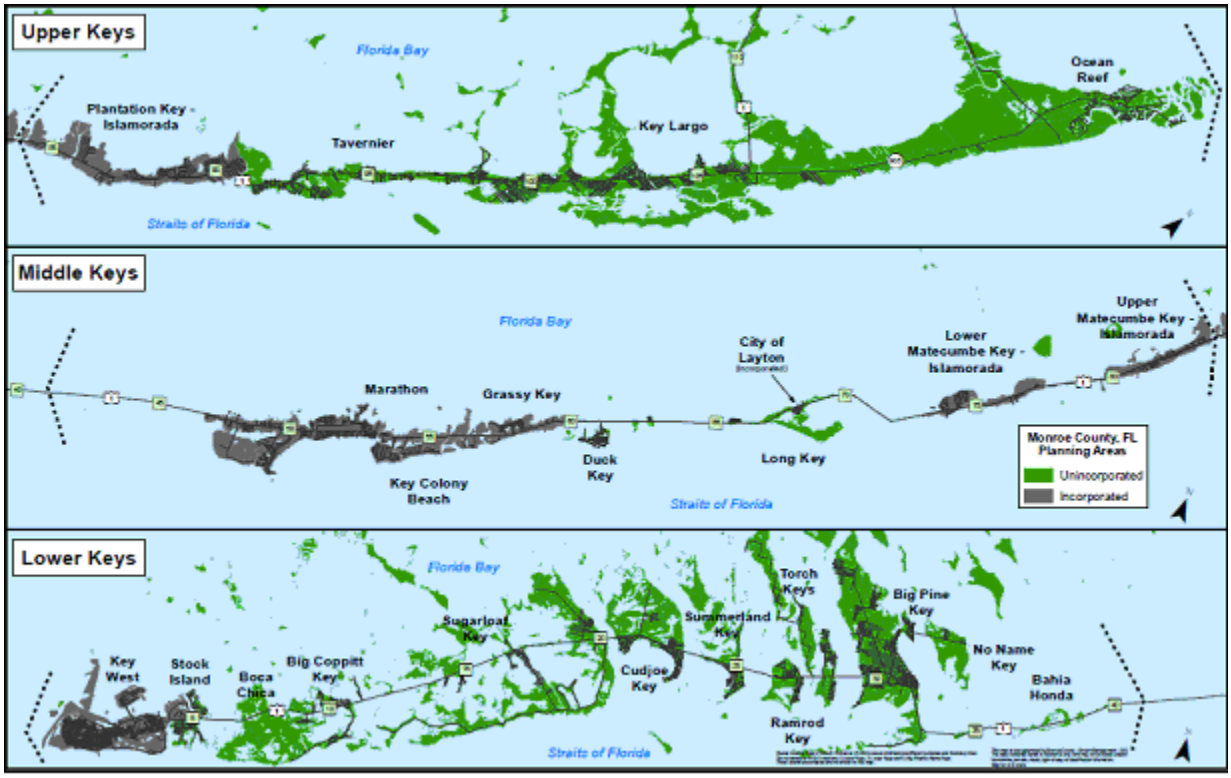

Figure 9 - Keys Planning Areas Map

The Upper Keys have characteristics which lend considerable strength to focusing the definition of this area as a marine sanctuary, with recreational diving, recreational boating, eco tourism, and marine research.

The Middle Keys are more residential in character, and include high value vacation and second home communities which are similar to other beach and island communities in Florida such as Destin, Marco Island, and Longboat Key. There is continued opportunity for tax base growth.

The Lower Keys are in close proximity to Key West's main tourist destination. The Lower Keys can be seen as a bedroom community to the Key West tourist workers. This area is also more industrial and includes much of the working marine industry such as fishing, boat repair, and tour guides. The Naval Air Station Key West is an important presence in the Lower Keys. Facilities on Boca Chica and Key West contribute to the economy of the area. There are some 1,200 permanently stationed personnel plus rotating squadrons throughout the year. Per diem payments to visiting personnel and salaries of stationed personnel represent a source of local income being brought into the

area. This can have a ripple effect and serve as an economic driver in the Lower Keys Also located in the lower keys is The Naval Research Lab. The Lab is housed within the Naval Air Station at Key West and is located on Fleming Key. The Lower Keys is the center for marine research. The Naval Research Lab command includes:

"The Marine Corrosion Test Facility which offers an ocean-air environment and clear, unpolluted, flowing seawater for studies of environmental effects on materials. Equipment is available for experiments involving weathering, general corrosion, fouling, and electrochemical phenomena, as well as coatings, cathodic protection devices, and other means to combat environmental degradation."

"*The laboratory has an unparalleled database for natural seawater exposure testing and marine-related materials evaluation. It receives a plentiful, unpolluted supply of natural undisturbed Gulf of Mexico seawater throughout the year. The tropical climate is ideally suited for marine exposure testing and provides minimal climatic variation, with a stable biomass throughout the year. The laboratory has more than 1,000 feet of waterfront access, natural "blue" ocean-quality seawater access, a 2500-ft 2 atmospheric test site, and more than 14,000 square feet of laboratory facilities building space"*[6].

Working Waterfront: The Keys began a rapid transition from fishing to tourism beginning in 1975; and declines in fisheries and catch volume were pronounced in the 1980's. In 1994, the "Net Ban" further diminished the fishing industry. Inexpensive seafood competition from foreign sources made revenues decline for those remaining. Catch volume has declined further during the most recent decade from 2000-2009. A transition of land uses through redevelopment has shifted marine and waterfront related uses to seasonal housing and condominium uses.

The transition away from fishing and marine related industry is typical and well documented in similar island communities throughout Florida. For island communities however, this represents a shift away from the historic and cultural aspects which gave rise to the community in the first place. In response to this change in orientation and loss of traditional economic activity, the County undertook to study the working waterfront in an attempt to help maintain and preserve the culture, history and economy of the Florida Keys.

The County retained the South Florida Regional Planning Council (SFRPC) and the Center for Urban and Environmental Solutions of Florida Atlantic University (CUES) to develop the *Monroe County Marine Management Strategic Plan* (SFRPC, 2005), which looked at the importance of working waterfronts in the Florida Keys and provide strategies for the preservation of water dependent uses or facilities.

[6] http://www.globalsecurity.org/military/facility/key_west.htm

Subsequently, the County retained the SFRPC to develop several products including 1) the Working Waterfronts Preservation Master Plan (dated April 30,2007) which addressed loss of water dependent facilities, and included proposed Comprehensive Plan and LDC amendments; 2) an updated marine facilities inventory and GIS Map Atlas which added over 100 facilities to a previous inventory developed in the 1990s, and 3) the Monroe County Marina Siting Plan designed to guide marina development through criteria-based site suitability analysis and maps of suitability zones. The Comprehensive Plan and LDC amendments were not adopted, and the Marina Siting Plan was not approved by the Department of Community Affairs. However, revisions are underway to make necessary corrections to the Marina Siting Plan which will be used for data and analysis for marina siting criteria which will be adopted into the Comprehensive Plan and may provide for future marina development.

Relevant excerpts from the *Monroe County Marine Management Strategic Plan,* as they relate to economic development potential and opportunities are included below for review and integration with the overall economic development strategy presented in this section.

- From "*Appendix 2, Working Waterfronts Report"* of the "*Monroe County Marine Management Strategic Plan",* Pages 24-26:

  The redevelopment pressure on Monroe County's waterfront has been well documented. One recent study suggested that redevelopment is accelerated in Monroe County because the tourism and commercial fishing industries are actually in a spatial conflict. The tourism industry's control of the waterfront has been characterized as a natural progression of events resulting from the greater profits generated by tourist-based operations. In fact, the commercial fisherman were said to be despondent about the outcome, but because the political process was often not conducive to commercial fisherman, the outcome was rarely contested. The report questioned whether commercial fishing would be completely abandoned as a revenue generator even though it has a long and rich history in the Keys. Currently, Stock Island remains one of the last operational ports for commercial fisherman in the Keys, and it too, is under enormous pressure to redevelop into the highest and best use based on today's economic environment.

  In 2003, the Florida Keys Carrying Capacity Study was completed to assess the ability of the Florida Keys ecosystem to withstand all impacts of additional development. The study mapped environmentally sensitive land, as well as land suitable for increased development. Four guiding principles for growth management were identified: (1) to prevent encroachment into native habitat, (2) continue and intensify existing programs dealing with environmental and quality of life issues, (3) focus on redevelopment and infill, and (4) increase efforts to manage ecological resources. Currently, the findings of the carrying capacity study are being used to draft the new Monroe County Comprehensive Plan under the Livable CommuniKeys Initiative.

In late 2004, another report concluded that there is indeed a decline in the working waterfront and loss of public access to the waterfront. The pressures to redevelop into private residential and other non-water dependent uses are believed to be exacerbated by the increasing property values and associated taxes levied on waterfront parcels. The higher taxes were also believed to reduce profits for many marine business owners, prompting them to sell their business. It was believed that the conversion to non-water dependent uses may help to provide a short-term economic generator but the long-term benefits could not be guaranteed.

Finally, a study was conducted on the impact of a post-embargo Cuba on Florida's marine industries. The study warned that marine facilities could potentially develop on Cuba's coast and provide direct competition to the many marinas found in Florida and its Keys. The development of tourism in Cuba was said to be a priority of the government that may eventually impact the future successes of Florida's tourism industry. One example of this would be a change in the routing of cruise ships, by-passing Key West in favor of a Cuban destination. Another is the threat that Cuban fisherman will replace local Keys fisherman by offering the same products at lower prices. The study encourages communities to consider the effects of a post-embargo Cuba and to develop a strategic plan to take advantage of opportunities and minimize negative effects of such an occurrence.

- (From Page 24 of the *Monroe County Marine Management Strategic Plan*)*:*

  Scenario 2

  For a second scenario we assumed that approximately half of the estimated 150 marinas and boat yards in the Florida Keys would be replaced by residential development. The additional assumptions include a loss of related jobs numbering approximately 400, and the building of 750 residential units above and beyond those that are otherwise projected in the baseline scenario on the sites of the converted facilities. These residential units would accommodate an additional 1,275 residents, and these, it is assumed, would find employment in other activities in the Florida Keys. The results suggest that there would be a long-term increase in the gross regional product, personal income and overall employment in such a scenario, mostly as a result of the new residents and jobs, and the income and demand for goods and services that would result. Almost 1,500 new jobs would generate an additional $408 million in personal income in the year 2030, contributing to almost 2% increase in the value of output in Monroe County.

Table 2. Scenario 2 - Loss of Marinas and Boat Yards

Variable	2005	2010	2015	2020	2025	2030
Gross County Product (millions)	$0.0	$4.0	$18.0	$38.0	$63.0	$85.0
As % of County Total	0.0%	0.1%	0.5%	0.9%	1.4%	1.8%
Personal Income (millions)	$0.0	$19.0	$71.0	$160.0	$272.0	$408.0
As % of County Total	0.0%	0.4%	1.2%	2.2%	3.0%	3.8%
Total Employment (jobs)	-1	46	304	668	1,104	1,488
As % of County Total	0.0%	0.1%	0.5%	1.1%	1.9%	2.6%

Source: South Florida Regional Planning Council, REMI Policy Insight 7.0

Scenario 2 illustrates the fact that when one economic activity is replaced by another, often the new activity competes successfully with the one it replaces. Although some aspects of this scenario could be refined to reflect unique characteristics of the Florida Keys (for example, the likelihood that some of the residential units would be occupied by seasonal residents), the general outcome of the scenario would not change significantly.

In summary, the loss of the entire commercial fishing industry and associated fish houses without any replacement economic activities is estimated to lead to a reduction of approximately 3% in economic output for the Florida Keys over a 25-year horizon. The conversion of half of the marinas and boat yards into residential units, with the corresponding increase of the resident population, could lead to almost 2% in additional economic output for Monroe County.

- (From Page 26 and of the *Monroe County Marine Management Strategic Plan*)*:*

  Florida Keys National Marine Sanctuary Protection Act

  The water surrounding the Florida Keys is home to a spectacular marine environment, consisting of sea grass meadows, mangrove islands, and living coral reefs. These environments are considered to be equivalent to the tropical rain forests found in other places in the world. Also, the marine environments found in the Keys support rich biological communities that are treasured for their ecological, recreational, commercial, educational, historic, and esthetic value.

While the Marine Management Strategic Plan was not adopted, the pattern of encroachment on working waterfronts has largely stopped primarily due to the downturn in the economy. Still, there is a recognition and commitment on the part of the County and its citizens to help support the marine and maritime communities. The County should continue to consider Comprehensive Plan and LDC amendment language to incentivize property owners to retain working waterfront and uses. This positions the Keys to take advantage of public support for the cultural and historic value of fishing and other water related activities.

Target Industries:

The following target industry analysis identifies industries (or types of industries) that have the strongest potential to expand or relocate in the County and which match the local economic profile and natural resource characteristics.

Tourism: The greatest economic opportunity throughout the Keys is to target employment segments which are both large and fast growing. The Tourist sector which includes hotels, recreation and eating and drinking establishments is the largest employment sector in the County and the second fastest growing employment sector since 1980. Despite the Tourist Development Council reporting a 16 percent decline in visitors since 2003, tourist and related employment has slipped by less than half that rate. The industry has been buoyed by occupancy in the increasing numbers of seasonal housing units. As a result, the percentage decline in the tourist industry and tourist employment is less than the recession related decline in the County employment, despite a loss of hundreds of hotel rooms in recent years.

Tourism in the County is event driven and highly seasonal. Expanding the duration of the season to off peak times will utilize existing capacity and expand the revenue potential of the industry without requiring additional peak season infrastructure. Though off-peak season is coincident with hurricane season, visitor evacuation times are not a factor since tourist evacuations occur prior to general population evacuation. Expanding visitor volumes into non-peak season times should be a policy focus to complement development of new and redevelopment of existing hotel/motel properties.

Marine Resources: Marine research, aquaculture, marine related technology facilities and coral reef research, including impacts from global warming and preservation activities should be targeted for expansion and relocation to the Keys. There are numerous national and international efforts to protect and preserve the corals. Resources such as those noted below should be taken full advantage of with respect to funding and research opportunities and providing the anchors to expanding local research and technology efforts:

- *National Coral Reef Action Strategy*
- *NOAA's Coral Reef Conservation Program*
- *U.S. Coral Reef Task Force*
- *NOAA's Coral Reef Information Service (CoRIS)*
- *The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2008*

C. Policy Framework:

Policy 101.3.5: By July 2005, the County shall complete a market demand analysis and economic assessment to determine the demand for future non-residential development in the County and the planning sub-areas. The non-residential development allocation and Future Land Use Map (FLUM) designations for non-residential uses may be revised based upon the results of this study, and other relevant policy and economic studies and data and provide the basis for preparing specific amendments to the comprehensive plan to incorporate goals, objectives and policies on economic development including tourism. The analysis will address existing non-residential uses, vacancy rates, economic trends and demand for non-residential uses by planning sub-area.

Policy 105.1.1: Monroe County shall create an economic development framework for a sustainable visitor-based economy, not dependent on growth in the absolute numbers of tourists that respects the unique character and outdoor recreational opportunities available in the Florida Keys.

GOAL 212: Monroe County shall prioritize shoreline land uses and establish criteria for shoreline development in order to preserve and enhance coastal resources and to ensure the continued economic viability of the County. [9J-5.012(3)(a); 9J-5.013(2)(a)]

GOAL 502: All existing and future residents and guests of Monroe County shall be served with ports in a manner that maximizes safety, convenience, economic benefit, environmental compatibility and consistency with other elements of the comprehensive plan. [9J-5.009(3)(a)]

Objective 502.1: Because of the Florida Key's unique nature as an archipelago, Monroe County shall promote the preservation and enhancement of the existing ports and port related activities.

Policy 502.1.1: Monroe County shall permit only port and port related land uses within the Safe Harbor/Peninsular port area of Stock Island. Within twelve months of the effective date of the Comprehensive Plan, Monroe County shall adopt Land Development Code and amend the Land Use District Maps to only permit those land uses including but not limited to commercial and industrial port dependent uses, industry, commercial fishing, marinas, and employee housing. [9J-5.009(3)(c)5]

Policy 502.1.2: Monroe County shall permit land uses supportive, complementary or otherwise port related nearby and adjacent to the Safe Harbor/Peninsular port area of Stock Island. Within twelve months of the effective date of the Comprehensive Plan, Monroe County shall adopt Land Development Code and amend the Land Use District Maps to only permit those uses, including but not limited to warehousing, industry, affordable housing, marine businesses, and restaurants. [9J-5.009(3)(c)5]

Policy 502.1.3: Monroe County shall encourage and facilitate the renovation and adaptation of existing port and related facilities to meet new maritime needs by seeking

grants from available sources, assisting private business whenever possible, and adopting Land Development Code responsive to the unique requirements of a port within 24 months of the effective date of the Comprehensive Plan.

D. Strategies:

- Designate economic business development locations (Community Centers, as identified in the LCPs) on the Future Land Use Map.
- Consider developing a separate Economic Development Element of the Plan, with an emphasis on redevelopment.
- Encourage and incentivize green building principals in redevelopment projects and achievement of green lodging certifications for new hotel facilities or expansions.
- Provide incentives for redevelopment of existing outdated hotel/tourist facilities should be instituted. Such incentives may include the ability to expand the building footprint. Recommend some relaxation, where appropriate, of current zoning regulations to reduce the cost of upgrade compliance is also important and should be considered for green building and/or green lodging certification.
- Consider better alignment/consistency between the LCPs and existing policies or new Economic Sustainability Element. However, any changes to the LCPs must be approved by the stakeholders.
- Consider establishing an economic sustainability coordinator position within the County. This position should be tasked with the facilitation of communication and administrative organization among reefs protection groups, national preserves, local and national parks, and upland or land based natural preserves among other wildlife/environmental activities. Twenty percent of visitors to the Keys participate in Nature Study and Wildlife Observation[7]. Advertising synergy, events, awareness building and marketing efforts should be undertaken specifically as it relates to eco-tourism, reef preservation and the promotion of national wildlife parks and reserves.

[7] Visitor Profiles June 2010, Linking the Economy and the Environment of the Florida Keys, P. 74, Table A.2.4 Visitor Participation by Activity

III. LAND USE/MOBILITY

Note: Land Use/Mobility has five (5) Issue Statements

Issue Statement #1: ***Promote Attractive, Well-Planned Development Adjacent to Services, and Existing Commercial "Hubs", with an Emphasis on Redevelopment.***

*This topic is addressed in the previous discussion related to "**County-wide Visioning and Planning."***

As noted in the previous discussion related to the LCPs, appropriate areas for desired development have been identified by the community. The LCPs recommend the use of overlay districts to address the unique planning issues of each area.

Goal 105 of the Plan seeks to assure the County's pattern of future land use and development considers smart growth initiatives, including the location of natural resources, population, and commercial centers. The LCPs reflect that desire by identifying potential locations for future concentration of mixed land use and community activity.

The County's Rate of Growth ROGO and NROGO point systems are primarily based upon the Tier designation of a parcel. Additional points (negative or positive) are assigned based upon location (e.g. Big Pine Key); lot aggregation (density reduction); land dedication; flood hazard area; availability of central wastewater treatment system; payment into the land acquisition fund. For each year the allocation request remains in the queue, the application receives a "perseverance point" until reaching its cap. Applications for allocations which are exempt from the cap limitation continue to accrue perseverance points. The County's existing policies relating to ROGO and NROGO are adequate as it relates to directing development to appropriate areas.

The County includes the Mainland area and over 1,700 islands which lie along the Florida Straits, dividing the Atlantic Ocean to the east from the Gulf of Mexico to the west, and defining one edge of the Florida Bay. The Mainland Planning Area (PA) encompasses two national landmarks: The Everglades National Park and The Big Cypress National Preserve and accounts for approximately 85 percent or 562,149 acres of the overall County land mass. Since 99.8 percent of the Mainland PA consists of federal lands designated as Conservation use; this analysis will focus primarily on lands within the unincorporated Lower, Middle, and Upper PAs.

Issue Category #1(a): Compliance with Section 380.0552(7)(j), Florida Statutes

A. Background: This State statute requires that growth be directed to areas served by central wastewater treatment facilities.

B. Analysis: The County's policies related to ROGO and NROGO provide point incentives for properties currently served by central wastewater.

C. Policy Framework:

Policy 101.2.14: For those ROGO applications and properties which have been denied a ROGO award for four consecutive years and have applied for administrative relief, which are located in a CARL project or the National Wildlife Refuge and have received negative habitat scores under ROGO, the County or the state shall offer to purchase the property if funding for such is available. Refusal of the purchase offer shall not be grounds for granting a ROGO award.

D. Strategies:

- No strategies required.

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Issue Statement #2: ***The County Should Meet or Exceed Hurricane Evacuation Requirements as required by State law.***

A. Background: One of the most hurricane vulnerable areas of the United States is the lower southeast coast of Florida.[8] This area is comprised of the County and the mainland counties of Miami-Dade, Broward, and Palm Beach (the other three counties). U.S. 1 and Card Sound Road/CR‐905 are designated as the evacuation routes for the Keys. Historically, there has been a high frequency of hurricanes which have affected the region. Some of the recent hurricanes are Andrew (1992; Upper Keys); Georges (1998); Irene (1999; Middle and Lower Keys); and Rita and Wilma (2005; throughout the keys including the Sand Keys), which are further detailed in *Chapter 3.0 Conservation and Coastal Management Element* of the updated (July 2011) Technical Document.

The DCA and the County are currently undertaking the process of updating the evacuation model for the County *Florida Keys Hurricane Evacuation Study (Miller 2001*, commonly known as "The Miller Model"). Additionally, in response to the impacts noted during the 2004 and 2005 hurricane seasons, State legislation was passed (HB 1359 amending portions of Chapter 163, F.S.) that identified new hurricane evacuation planning requirements and a new definition of the Coastal High Hazard Area (CHHA). The new definition of the CHHA is "the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake and Overland Surges from Hurricanes (SLOSH) computerized storm surge model" (Section 163.3178(2)(h), F.S.).

Hurricane evacuation clearance time in the County, as determined by modeling efforts, is one of the key factors used to control growth within the County, as required by Rule 28-20.140 F.A.C. Pursuant to Rule 28-20.140, F.A.C., "For the purposes of hurricane evacuation clearance time modeling purposes, clearance time shall begin when the Monroe County Emergency Management Coordinator issues the evacuation order for permanent residents for a hurricane that is classified as a Category 3-5 wind event or Category C-E surge event. The termination point shall be U.S. Highway One and the Florida Turnpike in Homestead/Florida City."

Clearance time, as defined by Reid Ewing's report is, "…the time required to clear the roadways of all vehicles evacuating in response to a hurricane situation. Clearance time begins when the first evacuating vehicle enters the road network and ends when the last evacuating vehicle reaches its destination."9 The ability to safely evacuate residents and visitors in advance of an approaching hurricane is paramount. Thus, growth as managed through the Rate of Growth Ordinance allocations of housing units, should correspond to this principle.

[8] *Lower SE Florida Hurricane Evacuation Study*, Corps of Engineers, June 1991.
[9] Ewing, R. *Monroe County Hurricane Evacuation Clearance Time – Final Report*, September 17, 2010.

B. Analysis:

Hurricane Modeling: Clearance time modeling, through various iterations of the *Lower Southeast Florida Hurricane Evacuation Study*, prepared by Post, Buckley, Schuh & Jernigan, Inc. (PBS&J), has been conducted for the County since the early 1990's. In 2000, pursuant to the requirements of the County's Work Program, Miller Consulting developed *The Florida Keys Hurricane Evacuation Model* (the "Miller Model") to, "…measure and analyze the unique characteristics of the Florida Keys and to determine the clearance time required to evacuate the Florida Keys up to Florida City, based upon existing US1 conditions."[10] This model is based on the number of dwelling units and capacity of roadway links.

In November of 2009, County staff, municipal representatives, DCA and other State of Florida agencies attended a Hurricane Modeling Work Group meeting to develop various assumptions to be used in the hurricane evacuation modeling. Two assumptions used previously in the modeling effort have been substantially changed since the initial model was developed, including the original participation rates and flow rates, which are: 1) 70 percent participation (meaning 70 percent of the people would evacuate) and 2) maximum FDOT capacity of roadways.

Modeling Efforts:

The Florida Keys Hurricane Evacuation Model: The County, with the DCA participation, commissioned an update to the original *Florida Keys Hurricane Evacuation Study* commonly known as "The Miller Model". In 2008, the DCA retained Professor Earl Baker at Florida State University to conduct a survey of residents in unincorporated Monroe County regarding whether or not they would evacuate their homes if mandatory evacuation notices were issued for Category 3-5 hurricanes. The results indicate that close to 90 percent of those surveyed would evacuate. In June 2010, Dr. Brian Wolshon, P.E. of Louisiana State University and Joaquin Vargas, P.E., of Traf Tech Engineering, Inc, (for FDOT) provided revised traffic flow rates. Dr. Reid Ewing, Ph.D., Professor of City and Metropolitan Planning at the University of Utah, conducted a modeling effort, using the Miller Model, to accommodate phased evacuation, the FDOT 5-Year Work Program roadway projects, as well as updated participation rate and traffic flow rate assumptions to determine projected clearance time results.

Pursuant to Rule 28-20.140 F.A.C., the DCA shall utilize the Florida Keys Hurricane Evacuation Model or other model acceptable to the Department to accurately depict evacuation clearance times for the population of the Florida Keys and to complete an analysis of the maximum build-out capacity for the Florida Keys Area of Critical State Concern while maintaining a 24 hour clearance time.

[10] Ibid. pg. 4

The 2006 South Florida Regional Hurricane Evacuation Study: The State of Florida Division of Emergency Management (DEM) obtained grant money through the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program and charged the Regional Planning Councils to conduct regional evacuation modeling and studies across the State, including modeling and boundary mapping for the CHHA. The SFRPC, with the assistance of the FDOT, PBS&J and Miller Consulting, Inc., finalized a regional evacuation study that includes Miami-Dade, Broward, and Monroe Counties to model hurricane evacuation from a regional perspective, assuming multi-county evacuation at the same time. Although hurricanes are a prominent concern in the study, the study includes an "all hazards" analysis to prepare for other types of evacuations as well, such as inland flooding or wildfires.

As it pertains to Monroe County, according to the SFRPC, *The South Florida Regional Hurricane Evacuation Study* is to be considered an operational tool that highlights weaknesses which need to be addressed in the regional evacuation system. Over 13,000 scenarios were run, identifying needs, such as traffic bottle necks, that could be incorporated into the FDOT District *Long Range Transportation Plan*. It is also an emergency management tool as it relates to planning for the placement and distribution of equipment and personnel to address an evacuation event. In addition, there is associated software available that would enable emergency managers to run their own scenarios for emergency management planning purposes.

As illustrated in **Table 12**, the evacuation clearance times in the updated Miller Model range from 16 hours, 16 minutes to 27 hours, two minutes. Evacuation clearance times in the Regional Study (**Table 13**) ranges from 18 hours, two minutes to 37 hours, five minutes.

The distinctions between the models are explained in the *Monroe County 30-Day Report 2010,* (Page 3) and the Rule 28-20.140 F.A.C.

The summary results of these two models are provided in **Table 12** and **13**, on the next pages:

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Table 12 - The Florida Keys Hurricane Evacuation Model (The Miller Model), Summary Results

	Low Occupancies (2001) Occupancy by Zone 1=67%; 2=54%; 3=47%; 4=35%; 5=46%; 6=52%; 7=27%		High Occupancies (2008) Occupancy by Zone 1=84%; 2=67%; 3=59%; 4=44%; 5=58%; 6=65%; 7=34%	
	Low Participation Approx. 70%	**High Participation Approx. 90-95%**	**Low Participation Approx. 70%**	**High Participation Approx. 90-95%**
2001 Lanes/2001 Miller Flow Rates	16 hours 16 minutes	18 hours 50 minutes	18 hours 32 minutes	22 hours 6 minutes
2001 Lanes/2010 FDOT Flow Rates	18 hours 58 minutes	22 hours 28 minutes	22 hours 8 minutes	27 hours 2 minutes
2015 Lanes/2010 FDOT Flow Rates	16 hours 16 minutes	16 hours 16 minutes	16 hours 16 minutes	18 hours 40 minutes
2015 Lanes/2010 FDOT Flow Rates (without outbound shoulder from mm 90 to mm 106)	16 hours 16 minutes	17 hours 16 minutes	17 hours 4 minutes	20 hours 16 minutes

Source: Ewing, R. *Monroe County Hurricane Evacuation Clearance Time – Final Report*, September 17, 2010.

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Table 13 - The 2006 South Florida Regional Hurricane Evacuation Study, Summary Results

Evacuation Scenario	Assumptions	Clearance Time (Hours)
2005 Baseline	• Simultaneous evacuation of tourist, mobile home residents and permanent residents • 100% evacuation participation rate for all units types	37.5 hours
2005 Baseline incorporating Phased Evacuation of Tourists and Mobile Home Residents (Test Scenario 1)	• Only the effect of permanent resident evacuation on clearance time is measured. Tourists and mobile home residents are taken out of the evacuation in accordance with Monroe County's adopted phased evacuation plan. • 100% evacuation participation rate for permanent residents	23.6 hours
Monroe County Phase Evacuation with miller Model Participation Rates (Test Scenario 8)	• Only permanent resident evacuation is measured • 75% evacuation participation rate for permanent residents	18.2 hours

Source: 2006 South Florida Regional Hurricane Evacuation Traffic Study

The DCA notes that for regulatory purposes, Monroe County, as an Area of Critical State Concern, is to follow the requirements specified within the adopted Rule 28-20.140 F.A.C., which was adopted April 11, 2011 and is effective as of July 1, 2011.

The Rule outlines various tasks to be achieved relative to hurricane evacuation. They are:

- *By July 1, 2012, Monroe County shall enter into a memorandum of understanding with the Department of Community Affairs, Division of Emergency Management, Marathon, Islamorada, Key West, Key Colony Beach, and Layton after a notice and comment period of at least 30 days for interested parties. The memorandum of understanding shall stipulate, based on professionally acceptable data and analysis, the input variables and assumptions, including regional considerations, for utilizing the Florida Keys Hurricane Evacuation Model or other models acceptable to the Department to accurately depict evacuation clearance times for the population of the Florida Keys.*

- *By July 1, 2012, the Florida Keys Hurricane Evacuation Model shall be run with the agreed upon variables from the memorandum of understanding to complete an analysis of maximum build-out capacity for the Florida Keys Area of Critical State Concern, consistent with the requirement to maintain a 24-hour evacuation clearance time and the Florida Keys Carrying Capacity Study constraints. This analysis shall be prepared in coordination with the Department of Community Affairs and each municipality in the Keys.*

- *By July 1, 2012, the County and the Department of Community Affairs shall update the data for the Florida Keys Hurricane Evacuation Model as professionally acceptable sources of information are released (such as the Census, American Communities Survey, Bureau of Economic and Business Research, and other studies). The County shall also evaluate and address appropriate adjustments to the hurricane evacuation model within each Evaluation and Appraisal Report.*

- *By July 1, 2012, the Department of Community Affairs shall apply the derived clearance time to assess and determine the remaining allocations for the Florida Keys Areas of Critical State Concern. The Department will recommend appropriate revisions to the Administration Commission regarding the allocation rates and distribution of allocations to Monroe County, Marathon, Islamorada, Key West, Layton and Key Colony Beach or identify alternative evacuation strategies that support the 24-hour evacuation clearance time. If necessary, the Department of Community Affairs shall work*

with each local government to amend the Comprehensive Plans to reflect revised allocation rates and distributions or propose rule making to the Administration Commission.

- *By July 1, 2013, if necessary, the Department of Community Affairs shall work with each local government to amend the Comprehensive Plan to reflect revised allocation rates and distribution or propose rule making to the Administration Commission.*

C. Policy Framework

Objective 101.2: Monroe County shall reduce hurricane evacuation clearance times to 24 hours by the year 2010.

Objective 216.1: Monroe County shall reduce hurricane evacuation clearance time to 24 hours by the year 2010.

Policy 216.1.1: Within one year of the effective date of this plan, Monroe County shall adopt Land Development Regulations which establish a Permit Allocation System for new residential development. The Permit Allocation System shall limit the number of permits issued for new residential development to be consistent with the Future Land Use Element in order to maintain hurricane evacuation clearance times at a maximum of 24 hours.

Policy 216.1.8: In the event of a pending major hurricane (category 3-5) Monroe County shall implement the following staged/phased evacuation procedures to achieve and maintain an overall 24-hour hurricane evacuation clearance time for the resident population.

1. Approximately 48 hours in advance of tropical storm winds, a mandatory evacuation of non-residents, visitors, recreational vehicles (RV's), travel trailers, live-aboards (transient and non-transient), and military personnel from the Keys shall be initiated. State parks and campgrounds should be closed at this time or sooner and entry into the Florida Keys by non-residents should be strictly limited.
2. Approximately 36 hours in advance of tropical storm winds, a mandatory evacuation of mobile home residents, special needs residents, and hospital and nursing home patients from the Keys shall be initiated.
3. Approximately 30 hours in advance of tropical storm winds, a mandatory phased evacuation of permanent residents by evacuation zone (described below) shall be initiated. Existing evacuation zones are as follows:

a. Zone 1 – Key West, Stock Island and Key Haven to Boca Chica Bridge (MM 1-6)
b. Zone 2 – Boca Chica Bridge to West end of 7-mile Bridge (MM 6-40)
c. Zone 3 – West end of 7-Mile Bridge to West end of Long Key Channel Bridge (MM 40-63)
d. Zone 4 – West end of Long Key Channel Bridge to CR 905 and CR 905A intersection

(MM 63-106.5)
e. Zone 5 – 905A to, and including Ocean Reef (MM 106.5–126.5)

The actual sequence of the evacuation by zones will vary depending on the individual storm. The concepts embodied in this staged evacuation procedures should be embodied in the appropriate County operational Emergency Management Plans.

The evacuation plan shall be monitored and updated on an annual basis to reflect increases, decreases and or shifts in population; particularly the resident and non-resident populations For the purpose of implementing Policy 216.1.8, this Policy shall not increase the number of allocations to more than 197 residential units a year, except for workforce housing. Any increase in the number of allocations shall be for workforce housing only.

Policy 216.1.16: Monroe County shall coordinate with the Florida Department of Transportation (FDOT) to ensure that U.S. 1 roadway capacity improvements necessary to maintain hurricane evacuation clearance time at 24 hours, including but not limited to improvements to U.S. 1 between MM 80 and MM 90, are completed.

Policy 216.1.18: Reduced evacuation clearance times which may result from adjustments to evacuation model variables, programs to reduce the number of evacuating vehicles or increased roadway facility capacity, shall not be used to increase development expectations beyond the growth allocations provided herein, except to the extent that a hurricane evacuation clearance time of 24 hours can be maintained. Any necessary reduction in hurricane clearance times shall be accomplished by a plan amendment within 180 days of the re-assessment.

Policy 1301.4.9: Monroe County shall coordinate with the Florida Department of Transportation (FDOT) to ensure that U.S. 1 roadway capacity improvements are placed on FDOT's five year plan to reduce hurricane evacuation clearance times to 24 hours by the year 2010.

Objective 101.2: Monroe County shall reduce hurricane evacuation clearance times to 24 hours by the year 2010.

Based upon the current policies established in the *2010 Comprehensive Plan*, the County must achieve evacuation clearance within 24 hours. Since development of the initial Miller Model in 2000 the County amended the Plan, adding Policy 216.1.8, which requires phased evacuation with visitors leaving 48 hours, mobile home residents leaving 36 hours, and permanent residents leaving 30 hours in advance of tropical storm winds in a Category 3-5 storm.

D. Strategies:

- The County should continue to work with the municipalities and the State Land Planning Agency for completion of tasks within Rule 28-20.140, F.A.C., related to hurricane evacuation modeling.

- Policy 101.2.13 should be updated as appropriate to reflect revisions to Rule 28-20, F.A.C., and the successful implementation and completion of the tasks outlined and to 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.

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Issue Statement #3: ***Support Historic Preservation*.**

A. Background: Monroe County was founded in 1823. It was named for President James Monroe. The County has many historic sites and structures which have been preserved and protected, including many listed on the National Register of Historic Places.

B. Analysis: The various historic resources available to, or associated with the County are as follows:

National Register of Historic Places: The Historic Preservation Act of 1966 created the National Register of Historic Places (the "Register") and the corresponding State Historic Preservation Offices (SHPO). The passage of the act, which was amended in 1980 and 1992, established a broad-based historic preservation policy. The Register is administered by the National Park Service (NPS), an agency within the United States Department of the Interior. Its mission is, "… to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources." The Register reviews nominations submitted by states, tribes, and other federal agencies and lists eligible properties; offers guidance on evaluating, documenting, and listing different types of historic places; assists qualified historic properties to obtain preservation benefits and incentives; manages the National Historic Lighthouse Preservation; and sponsors the Cultural Resources Diversity Program to diversify historic preservation and cultural resource management. Within the County as a whole, there are currently 59 sites and structures listed on the Register.

Florida Master Site File: The State Historic Preservation Office (SHPO) is the entity that maintains the Florida Master Site File (FMSF) inventory for the County, and for coordinating the review of historic resource nominations to the National Register of Historic Places. The FMSF includes structures and archeological sites. In total, the FMSF currently contains 391 listings of historic structures in the unincorporated Keys, 222 of which are housing. Sites are added to the FMSF when completed site file forms describing the characteristics and history of the site are submitted to the Florida Department of State, Division of Historic Resources. Although the FMSF provides an extensive inventory of historic resources, the process does not evaluate the significance of listed sites. However, any sites which are listed or have been determined to be eligible for listing on the National Register are noted as such in their FMSF record. Some structures and sites listed in the FMSF have undergone further evaluation to determine the degree of their significance as part of the nomination process for the National Register of Historic Places. Monroe County Code of Ordinance Article III (Sections 134-55 and 134-56) contains a procedure for designating local historic landmarks. To date, only the three longest Overseas Railroad Bridges: Long Key, Bahia Honda and Seven Mile railroad bridges, have been designated as local historical landmarks.

Tavernier Historic District: The Tavernier Historic District, as recommended by Tavernier Livable CommuniKeys Plan (LCP), is bounded on the north by the U.S. 1, on the west by the Tavernier Creek, on the south by the Atlantic Ocean, and on the east by Mile Marker (MM) 92. The general location of Tavernier's local historic district is shown on Map Series 2-1 and Map Series 2-3 of the Map Atlas. Of the 344 listings of historic structures in the unincorporated Keys, 62 are located in Tavernier Historic District. Of the 62 structures in Tavernier, 53 are residences. On February 5, 2010, the Florida Department of State Division of Historic Resources determined that the Tavernier Historic District is potentially eligible for listing on the National Register of Historic Places.

Archeological Sites: Archeological files are also a curate by the State Historic Preservation Officer (SHPO). In the County as a whole there are 649 archeological sites e.g., vestiges of Flagler's railroad. The Florida Master Site Files also include recorded shipwrecks. In the County as a whole there are 369 ship wreck sites. There a number of groups which are important resources for the preservation of historic resources in the County. The organizations include professionally staffed non-profits, citizen membership groups, scholarly and professional associations, government agencies, and grass-roots advocates. These groups can contribute a variety of services and skills to the historic preservation effort including financial support, technical assistance, increasing public awareness, and scholarly research.

C. Policy Framework:

Policy 101.4.18: The principal purpose of the Historic overlay category is to identify existing and potential historic districts for designation, protection, and preservation (See Goal 104 and supporting objectives and policies). Maximum permitted densities and intensities shall be in accordance with the underlying land use categories.

Policy 101.8.5: Substantial improvement is defined as any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent of the pre-destruction market value of the structure. Improvements to historic sites, and improvements to meet health, sanitary or safety code specifications are not considered substantial improvements.

Policy 102.4.2: The Land Authority and the Growth Management Division shall identify the types of lands which shall be considered for acquisition. These shall include, at a minimum:

9. lands which offer the opportunity for preservation of significant archaeological or historical sites; and

Policy 103.2.11: Prior to issuing a building permit or development approval, Monroe County shall require an archaeological/historical review of the proposeddevelopment site, performed by a qualified professional familiar with Monroe County. The review will identify the potential development impacts on any resources present, and will recommend mitigation measures, if any.

GOAL 104: Monroe County shall recognize, designate, protect, and preserve its historic resources.

Objective 104.1: Monroe County shall establish and maintain a comprehensive inventory of historic and archaeological resources, including buildings, structures, districts, sites, objects, and significant places.

Policy 104.1.1: By January 4 1998, the Monroe County Growth Management Division shall establish an inventory of all known historic and archaeological resources using information provided by the Florida Master Site File and the Archaeological and Historical Conservancy surveys of the Florida Keys.

Policy 104.1.2: Monroe County Growth Management Division shall update the inventory of historic and archaeological resources on an annual basis as new historic and archaeological resources are identified.

Policy 104.1.3: By January 4, 1998, Monroe County shall complete a comprehensive historic architectural survey to inventory and document historic architectural resources. This survey shall also identify historic housing and define the bounds of any potential historic districts such as those preliminary identified on Conch Key, in Islamorada, and in Marathon.

Policy 104.1.4: By January 4, 1998, the Monroe County Growth Management Division, working with local historic preservation organizations, shall complete and submit Master Site File forms to the State Department of Historic Resources for any historic resources, particularly architectural resources, which are not currently included in the Florida Master Site File.

Policy 104.1.5: By January 4, 1998, the Monroe County Growth Management Division shall develop a computerized inventory system for compiling, updating and accessing information pertaining to historic resources. The computerized data base shall include descriptive information provided by the Florida Master Site File and any National Register or Florida Keys Historic Register designations. Included as part of this proposed system shall be an interface with the County's Geographic Information System to provide mapped locations of sites listed on the National Register or Florida Keys Historic Register (See Objective 104.2 and related policies).

Objective 104.2: Monroe County shall formally recognize significant historic and archaeological resources by nominating appropriate resources on the National Register and/or the Florida Keys Historic Register.

Policy 104.2.1: Monroe County shall revise the Land Development Regulations to expand and refine the program and procedures for protection of local historical, archaeological and cultural resources. At a minimum, the Land Development Regulations should be expanded to:

1. establish a Florida Keys Historic Register to which landmarks of local significance are named;

2. establish a review committee and provide for an historic/archaeological review within the development review process;

3. list the criteria and procedure for selecting a review committee;

4. specify the development review procedure;

5. specify designation criteria for sites and structures of historical, architectural, archaeological, and cultural significance;

6. include procedures for designation of local historic districts;

7. describe the consequences of local designation, such as restrictions on archaeological site disturbance, and on demolition or alteration of historic structures;

8. provide procedures for enforcement;

9. specify the penalties and/or mitigation measures for non-compliance;

10. provide for the documentation and protection of sites which are not listed as local landmarks but are discovered through the development process or otherwise discovered; and

11. provide incentives for the preservation and protection of local landmarks.

Policy 104.2.2: By January 4, 1998, Monroe County Growth Management Division shall prepare documentation to nominate the following resources to the Florida Keys Historic Register of historic places:

1. all resources listed on the National Register of Historic Places which are located in unincorporated Monroe County;

2. archaeological sites identified as worthy of preservation; and

3. Tavernier Historic District.

Policy 104.2.3: After revisions to the land development regulations pertaining to the Florida Keys Historic Register are adopted, the County shall contact local historic preservation groups and encourage them to nominate eligible historic resources to the Florida Keys Historic Register. The Monroe County Growth Management Division shall provide information and technical assistance to individuals and local historic preservation groups who wish to prepare nominations to the Florida Keys Historic Register.

Policy 104.2.4: By January 4, 1998 Monroe County shall submit documentation for nominating the following resources to the National Register of Historic Places:

1. old overseas railroad bridges identified in the AHC Architectural Windshield Survey (Thematic Resource nomination);

2. hurricane houses and public buildings (the Islamorada Library and the Tavernier Health Department) constructed as WPA projects in addition to the hurricane memorial in Islamorada; and

3. archaeological sites identified in the AHC 1988 survey as eligible for nomination to the National Register (Individual Historic Site nominations).

Policy 104.2.5: Monroe County shall nominate other historic resources to the National Register as those resources are identified.

Objective 104.3: Monroe County shall adopt and implement measures for the protection and preservation of historic resources.

P**olicy 104.3.1:** January 4, 1997, Monroe County shall adopt Land Development Regulations constituting a Historic Preservation Ordinance to provide protection for historic resources listed on the Florida Keys Historic Register. The adopted LDRs shall:

1. establish a historic/archaeological review board to review development proposals which impact designated historic resources;

2. list the qualifications and selection criteria for review board members;

3. specify the criteria for local designation of historic resources guided by the criteria for designation to the National Register;

4. incorporate the procedure for local designation as specified in Article VIII of the Land Development Regulations (See Policy 104.2.1);

5. specify the restrictions on archaeological sites resulting from local designation. Establish standards to address the siting and design of proposeddevelopments to minimize impacts on archaeological resources, and the proper documentation and recording of the site including retrieving of artifacts;

6. specify the restrictions on the demolition and alteration of historic structures resulting from local designation. Establish standards to evaluate alterations to historic structures which are consistent with the U.S. Department of the Interior's "Standards for Rehabilitation";

7. specify the restrictions on historic districts resulting from local designation. Establish exterior architectural standards to evaluate development proposals within designated historical districts with the intent of encouraging compatibility with the architectural features of historical significance to the particular district;

8. establish a procedure for reviewing development and redevelopment proposals which impact designated resources;

9. specify procedures where development activities uncover unknown archaeological resources;

10. provide procedures for enforcement and consequences of non-compliance;

11. provide incentives such as transfer of development rights, tax credits, tax relief, special property tax assessments, building code waivers, building application fee exemptions, zoning variances, and FEMA exemptions to encourage the conservation and rehabilitation of privately-owned historic resources; and

12. specify permitting and review procedures that reconcile redevelopment of designated historical buildings and sites with their potential non-conforming status.

Policy 104.3.2: The County shall evaluate the possibility of incorporating effects of proposed developments on historic resources into the Point System established by Land Use Element Objective 101.5 and supporting policies.

Policy 104.3.3: The Land Development Regulations adopted pursuant to Policy 104.3.1 shall be drafted to meet the requirements of the Department of the Interior's "Certified Local Government Program" which shall enable Monroe County to qualify for State Historic Preservation Grants-in-Aid. Within six months of adopting Land Development Regulations pursuant to Policy 104.3.1, Monroe County shall submit the historic preservation regulations to the U.S. Department of the Interior and the State Historic Preservation Officer for certification.

Policy 104.3.4: Monroe County shall require that architectural guidelines be drafted and approved by Monroe County for each Historic District listed on the Florida Keys Historic Register. These guidelines shall be drafted by the nominating agency, and shall be approved by a qualified historic preservation professional. The guidelines shall be reviewed and approved by Monroe County within one year of acceptance of the District on the Florida Keys Historic Register.

Objective 104.4: Monroe County shall adopt and implement measures for the protection and preservation of historic resources on public lands.

Policy 104.4.1: Monroe County shall coordinate with the lessee of Pigeon Key to ensure that the renovation and use of the County-owned island retains the historical and architectural character of the site, and allows a reasonable amount of public access.

Policy 104.4.2: Monroe County shall coordinate with county, State and federal agencies to identify, monitor and protect historic resources located on public lands (See Future Land Use Objective 102.9 and related policies).

Policy 104.4.3: Development plans on County-owned lands which contain historic resources listed on the Florida Keys Historic Register shall be subject to review by the historic/archaeological review board established pursuant to Policy 104.3.1(a).

Policy 104.4.4: Monroe County shall increase its participation in the resource planning of federal and State owned parks, wildlife refuges, military installations and other State or federal properties. Monroe County shall review resource plans, development plans and master plans prepared for these areas, evaluate impacts on historic resources, and submit comments to the appropriate agencies.

Policy 104.4.5: Through a lease agreement, Monroe County shall require that the lessee of Pigeon Key or any other County-owned historical or archaeological site designated on the Local or National Register:

1. conform, at a minimum, to the Secretary of the Interior's Standards for Rehabilitation for any permanent or temporary development of the site; and

2. retain the historical, architectural, and/or archaeological integrity of the site, as approved by a professional who meets the appropriate Professional Qualifications specified in the Code of Federal Regulations, Section 61, Number 36.

Policy 104.4.6: Before the County may sell Pigeon Key, Monroe County shall develop and adopt architectural guidelines for this National Register Historic District.

Objective 104.5: Monroe County shall seek to increase public awareness and appreciation of the historic resources and historic preservation activities in the County.

Policy 104.5.1: Monroe County shall coordinate with the following organizations and individuals to identify opportunities for joint public education and funding efforts :

1. Local preservation groups in unincorporated Monroe County;

2. The Key West historic preservation planner and other historic preservation leaders;

3. Historic Florida Keys Preservation Board;

4. Federal agencies including the National Park Service, U.S. Fish and Wildlife Service, and NOAA;

5. State Agencies including the Florida DNR Division of Parks and Recreation, and State Division of Historic Resources;

6. Florida Trust for Historic Preservation;

7. Monroe County School Board; and

8. Local libraries.

Policy 104.5.2: By January 4, 1997, historical and archaeological information produced by or for the County such as the historic inventory, National Register listings, Florida Keys Historic Register listings, archaeological surveys, and historic architectural surveys shall be made available to the public at various locations throughout the County including libraries, schools, senior centers, museums and County offices.

Policy 104.5.3: By January 4, 1998, Monroe County and the Historic Florida Keys Preservation Board shall seek funding from the Tourist Development Council to create and implement a historic marker program and a historic map/guide to increase public awareness and appreciation of the County's history and historic resources.

Policy 104.5.4: By January 4, 1998, the County and the Historic Florida Keys Preservation Board shall institute a procedure to notify property owners of properties listed or eligible for listing on the Florida Keys Historic Register or National Register and apprise owners of the associated benefits of listing.

Policy 104.5.5: Monroe County shall promote public knowledge of local, state and federal programs and incentives designed to assist owners of historic properties.

Policy 104.5.6: Monroe County shall identify community leaders with an interest in historic preservation and provide technical assistance for the formation of new citizen-based historic preservation groups. These groups will aid the County in generating interest and raising funds for local historic preservation activities. Areas which could benefit from a citizen support group include the Pigeon Key Historic District, potential historic districts on Conch Key, in Islamorada and in Marathon.

Objective 104.6: Monroe County shall coordinate with public agencies and non-profit organizations to protect, preserve and increase awareness of historic resources.]

Policy 104.6.1: Monroe County shall involve local historic preservation groups in the planning process. The County will apprise groups of historic preservation planning efforts, request their comments and solicit their support.

Policy 104.6.2: Monroe County shall include archaeological sites identified by local historic preservation groups on the priority list of Natural Heritage and Park acquisition sites. (See Future Land Use Objective 102.4 and related policies.)

Policy 104.6.3: Monroe County shall encourage and facilitate acquisition of historic sites suitable for cultural, tourism, recreation or conservation uses by federal, State and local agencies, non-profit historic preservation groups, and non-profit conservation organizations.

Policy 104.6.4: By January 4, 1998, the County shall identify available public and private funding sources for historic preservation activities and submit proposals for the following projects:

1. Perform emergency repairs and tenting for termites for historic structures on Pigeon Key;

2. Perform structural surveys and begin renovations of significant buildings on Pigeon Key; and

3. Develop architectural guidelines for Tavernier once a local historic district is established.

Policy 104.6.5: By January 4, 1998, the County shall submit funding proposals for the following historic preservation projects:

1. Conduct a historic architectural building survey for unincorporated Monroe County which shall identify potential historic districts and historic housing resources;

2. Renovation and preservation of other County-owned historic resources; and

3. Create and implement a program to promote historic resources listed on the Florida Keys Historic Register with historic markers and accompanying map/guide.

Policy 104.6.6: By January 4, 1998, the County shall submit funding proposals for the following historic preservation projects:

1. Develop architectural guidelines for any historic districts listed on the Florida Keys Historic Register;

2. Develop a computerized system for the inventory of historic resources including all Florida Master Site File records, local and national register status and GIS location maps.

3. Expand documentation of the Keys history through the collection of written records and recording recollections of remaining early settlers in written, video or audio form; and

4. Complete detailed documentation and research for remaining historic resources which may be eligible for the Local or National Register.

GOAL 214: Monroe County shall recognize, designate, protect, and preserve its historic resources.

Objective 214.1: Monroe County shall establish and maintain a comprehensive inventory of historic and archaeological resources, including buildings, structures, districts, sites, objects, and significant places. (See Future Land Use Objective 104.1 and related policies). [

Objective 214.2: Monroe County shall formally recognize significant historic and archaeological resources by nominating appropriate resources on the National Register and/or the Florida Keys Historic Register. (See Future Land Use Objective 104.2 and related policies).

Objective 214.3: Monroe County shall adopt and implement measures for the protection and preservation of historic resources. (See Future Land Use Objective 104.3 and related policies).

Objective 214.4: Monroe County shall adopt and implement measures for the protection and preservation of historic resources on public lands. (See Future Land Use Objective 104.4 and related policies).

Objective 214.5: Monroe County shall seek to increase public awareness and appreciation of the historic resources and historic preservation activities in the County. (See Future Land Use Objective 104.5 and related policies).

Objective 214.6: Monroe County shall coordinate with public agencies and non-profit organizations to protect, preserve and increase awareness of historic resources. (See Future Land Use Objective 104.6 and related policies).

Policy 601.3.4: Identification and improvement of historically significant housing will be encouraged by the Planning Department through the coordination of public information programs (See Policies 601.1.3, 601.2.2) defining benefits and improvement funding sources.

D. Strategies:

- 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.

- The County does not have staff or budget to support a full historic preservation program. Therefore, the County should continue to rely on and augment, if possible, the resources of the various groups identified in Policy 104.5.1 for funding, initiating and performing much of the actual historic preservation work.

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Issue Statement #4: ***Assure Continued Public Waterfront Access; Protect and Expand Water Dependent/Water Related Uses.***

Note: This topic is also included in the Major Issue ***II. Economic Sustainability.***

A. Background: The entire County is located within the coastal area. Therefore, the inventory of existing land uses included in *Chapter 2.0 Future Land Use Element* of the Technical Document represents the inventory of existing land uses within the coastal area. This background addresses land use along the County's shoreline including:

- Water-dependent and water-related uses;
- Conflicts among shoreline uses; and
- Recommended studies to address the need for water-dependent and water-related uses and other issues related to shoreline development.

B. Analysis: Section 163.3177(6)(a)3.c., F.S. now states that future land use plans shall include criteria to be used to encourage preservation of recreational and commercial working waterfronts for water dependent uses in coastal communities.

Water-dependent businesses were identified by obtaining a database of business licenses from the Monroe County Tax Collector in November 2010. Businesses with licenses in categories related to marine businesses were compiled; these categories included receipt numbers starting with 47140 (Fishing Diving Charter), 47142 (Marinas & Storage), 47143 (Marine Repair), 48210 (Marine Retail Sales), 53110 (Marine Wholesale Sales), and 29240 (Mobile Marine Services). The database provided by the Monroe County Tax Collector included a designation for whether the physical location of the business was in an incorporated city (Key West, Key Colony Beach, Layton, Islamorada, or Marathon) or was in unincorporated Monroe County. Because this Technical Document is for the unincorporated parts of the County (not the incorporated areas), businesses within the incorporated cities were deleted from the database, leaving businesses in unincorporated Monroe County only. Based on the description of the business and the name of the business provided in the database, each site was assigned a designation of water-dependent, water-related, or neither. Approximately 130 businesses in unincorporated Monroe County were identified as water-dependent. In the County, the majority of water-dependent uses are related to commercial fishing or recreation activities. These include, but are not limited to, businesses that involve boat rentals, marinas, and boat yards.

The Technical Document provides a list of public and privately owned water-dependent uses in the County. Map Series 3.6, located in the Map Atlas, depicts the locations of the Water-Related and Water-Dependent Uses in the County.

Existing Water-Related Uses: Water-related businesses were identified by obtaining the same database of business licenses as described above for water-dependent uses. Based on the description of the business and the name of the business provided in the database, each site was assigned a designation of water-dependent, water-related, or neither. Approximately 540 businesses in unincorporated Monroe County were identified as water-related. The Technical Document provides a list of water-related uses in the County. These include, but are not limited to, businesses that involve charters, captains for hire, trailer storage, marine supplies, marine parts, boat dealers, and marine maintenance and repair. Map Series 3.6 depicts the locations of the Water-Related and Water-Dependent Uses in the County.

Existing Water-Enhanced Uses: Some facilities do not require access to the water and may not be water-dependent or water-related, but are enhanced by proximity to water. These are informally referred to as "water-enhanced" uses. This term is not identified in Florida law. A good example of a "water-enhanced" use in the Keys is a seafood restaurant. The seafood restaurant does not require access to the water, but the dining experience and economy is enhanced if the restaurant is on a waterfront.

Competition for Shoreline Development Sites: This is a conflict among shoreline uses. The diminishing supply of shoreline development sites is a major source of conflict among competing land uses. The demand for waterfront land comes not only from water-dependent and water-related uses described above, but from commercial, residential, and tourism-related uses attracted to waterfront locations by economic or aesthetic reasons rather that by functional necessity. The physical beauty of the waters surrounding the Keys induces an overwhelming preference for shoreline rather than inland locations. The growth and importance of the tourism industry and the rising functional population has increased the demand for waterfront sites for residential, recreational, and tourist-related commercial development which are not water-dependent. In addition, public agencies have increased efforts to acquire and preserve shoreline areas for recreation and conservation uses. Physical characteristics and more stringent environmental regulations further limit areas suitable for marina and docking facilities.

Despite the extensive shoreline of the Keys, the supply of shoreline development sites cannot satisfy the demand. In this competitive market, water-dependent/water-related uses are often supplanted by more profitable non-water-dependent or water-related uses. Tourism, which continues to dominate the local economy in terms of employment, depends heavily on access to the shoreline for recreational uses. The increasing number of recreational boats has heightened the competition for suitable marina sites between commercial fishing and recreational marina operators.

Some of the decline in the number of commercial fishing vessels can be attributed to less dock space, higher dockage fees, and the rising cost of living in the Keys (see

Chapter 2.0 Future Land Use Element). During the period 1980-1990, the number of commercial fishing boats declined 6 percent while the number of recreational boats increased 67 percent. This increased demand for recreational marinas has squeezed the supply of commercial fishing marinas and increased the pressure to redevelop commercial fishing marinas for recreational marina use.

Conflicts also occur where adjacent shoreline uses are incompatible. The potential for conflict is greatest among water-dependent or water-related uses which may be perceived as nuisance-producing (commercial fishing and support facilities, boat storage, marine repair, marine industrial, fish houses) and uses that are reliant on the scenic quality and amenity provided by a shoreline location (recreational, residential, tourist-related services). The noise, smells, and visual character of some water-dependent/water-related uses may be undesirable to adjacent tourist, residents, and recreation users. Often, existing water-dependent/water-related uses do not become troublesome until newer residential and commercial uses locate on adjacent sites. The harborside area in Marathon is one of many existing locations where conflicts result from residential uses sited adjacent to commercial fishing uses.

Increased shoreline development, which may contribute to the destruction of marine habitats and a decrease in fish populations, may conflict with commercial fishing activities which are dependent on marine resources and conservation uses which attempt to protect and preserve marine resources. Some active recreational activities (motor boating, water-skiing, and jet-skiing) can potentially damage marine resources valued by other recreational activities (scuba/snorkeling, recreational fishing) as well as commercial fishing. Water-dependent recreation uses present a different conflict. Friction between active and passive recreational uses can occur where shared recreational facilities do not allow adequate separation.

Working Waterfronts: This is also a conflict among shoreline uses. A "recreational and commercial working waterfront" is defined in the Florida Waterway and Waterfront Improvement Act, Florida Statute Sec. 342.07, as "*a parcel or parcels of real property that provide access for water-dependent commercial activities, including hotels and motels as defined in s. 509.242(1), or provide access for the public to the navigable waters of the state. Recreational and commercial working waterfronts require direct access to or a location on, over, or adjacent to a navigable body of water. The term includes water-dependent facilities that are open to the public and offer public access by vessels to the waters of the State or that are support facilities for recreational, commercial, research, or governmental vessels. These facilities include public lodging establishments, docks, wharfs, lifts, wet and dry marinas, boat ramps, boat hauling and repair facilities, commercial fishing facilities, boat construction facilities, and other support structures over the water*." Prior to 2006, hotels and motels were not included in the definition.

Working waterfronts are important because they contribute to the economy, heritage, and overall quality of life and provide the coastal community character that visitors come to the Keys to experience. In Islamorada, for example, working waterfronts have given the area the nickname of "the sportfishing capital of the world" and the working waterfronts attract tourists worldwide to compete in fishing tournaments.

As the coastal population increases, there is more competition for waterfront access and consequently, property values rise. There is increasing pressure to redevelop, often to uses that are not water-dependent. Many traditional working waterfront uses are squeezed out by more intense private residential and commercial developments. For example, this has been evident on Stock Island – home to an important community of workers and businesses that serve the local economy. Stock Island has been facing increased pressure to redevelop many of its waterfront industries into residential communities. Of significance is the fact that this island contains the only industrial, deepwater port remaining in the lower Keys.

Recognizing the importance of addressing the loss of recreational and commercial working waterfronts, the Florida Legislature passed the Florida Waterway and Waterfront Improvement Act of 2005 to encourage preservation of working waterfronts. One requirement of the Florida Waterway and Waterfront Improvement Act of 2005 applicable to the County, a waterfront community, is for the County's Comprehensive Plan to set forth criteria that encourage the preservation of commercial and recreational working waterfronts, including public access. Also, coastal local governments must include strategies that will be used to preserve the recreational and commercial working waterfronts (Chapter 163.3178(2)(g), F.S.) in the shoreline use component of the coastal management element.

The DCA's Waterfronts Florida Program provides assistance to local governments in revitalizing their working waterfronts through resources for planning and the provision of intense technical assistance and training. DCA's publication *Guiding the Way to Waterfront Revitalization: Best Management Practices* (DCA, 2007) is a guide that provides an overview of what is happening at waterfronts around the United States, presents a series of best practices, highlights lessons learned, illustrates the key components of the Waterfronts Florida Program through case studies, and provides information on additional working waterfronts resources such as funding sources, planning tools, and project management. The DCA's Waterfronts Florida Program offers help to all coastal local governments in Florida to revitalize their working waterfronts by providing resources for planning. In addition, the Program designates selected communities to receive technical and limited financial assistance through the Waterfronts Florida Partnership Program. New communities are designated as Waterfronts Florida Partnership Communities through a competitive application process held every two years. Since 1997, a total of 23 communities have received designation as Waterfronts Florida Partnership

Communities. Once it receives the designation, a community receives intensive technical assistance and limited financial assistance from the DCA, resulting in a new or refined community-designed vision plan (special area management plan) to guide the revitalization of the community's designated waterfront area. There are no designated Waterfronts Florida Partnership Communities in the County.

In 2006 the County retained SFRPC to develop a master plan to address the conversion of working waterfront facilities to non-water dependent uses, and address future marina development. SFRPC developed, in coordination with CUES, several products for the County, including: 1) the Working Waterfronts Preservation Master Plan (dated April 30,2007) which addressed loss of water dependent facilities, and included proposed CDMP and LDC amendments; 2) an updated marine facilities inventory and GIS Map Atlas which added over 100 facilities to a previous inventory developed in the 1990s, and 3) the Monroe County Marina Siting Plan designed to guide marina development through criteria-based site suitability analysis and maps of suitability zones. These are described more fully below:

1) The Working Waterfronts Preservation Master Plan attempted to quantify the loss of working waterfronts. Current and historic County property appraiser's data, County building permit data and data from the Department of Business and Professional Regulation were analyzed to pinpoint changes indicative of working waterfront conversion. These data did point to broad land use changes. For example, property codes would show that a certain property converted from commercial to vacant. However, property codes did not provide sufficiently detailed information to extract changes related to working waterfronts from the database and identify the precise characteristics of these changes. Existing data sources could not provide a sufficiently specific understanding of working waterfront conversion because of their limited structure and content. Regardless of the limitations of the existing datasets, traveling through the Keys, significant changes and redevelopment of waterfront properties and marine-related uses (SFRPC, 2007) are noted.

   Also addressed in the Working Waterfronts Preservation Master Plan was an estimation of the economic importance of working waterfronts in the Monroe County. A demographic and economic analysis showed the following under the two scenarios tested: (1) the loss of the entire commercial fishing industry and associated fish houses without any replacement economic activities was estimated to lead to a reduction of approximately three percent in economic output for the Florida Keys over a 25-year horizon; and (2) the conversion of half of the marinas and boatyards into residential units, with the corresponding increase of the resident population, could lead to almost two percent in additional economic output for the County. These impacts, while modest when viewed from a strictly economic perspective, do not consider the historical and cultural value of the "working waterfront" in the County (SFRPC, 2007).

Draft CDMP and LDC amendments were included in the Working Waterfronts Preservation Master Plan, based on incentives to retain working waterfront facilities however, those amendments were not adopted.

2) A marine facilities survey was conducted and provided for an updated Marine Facilities Database and accompanying GIS Map Atlas (SFRPC, 2007), updating a previous database developed in the 1990s. The inventory was prepared using the original County database, the Florida Fish and Wildlife Research Institute (FWRI) Marinas Database, the Florida Department of Environmental Protection (FDEP) Marinas Database, public websites, aerial photographs, and field investigations.

   The GIS Map Atlas includes a series of maps illustrating facilities in the Upper, Middle and Lower Keys. Each facility was categorized as illustrated in the chart on the following page.

Facility	**Description of Facility Characteristic**
Marina (Monroe County)	Marina means a facility for the storage (wet and dry), launching and mooring of boats together with accessory retail and service uses, including restaurants and live-aboards, charter boat and sport diving uses, except where prohibited, but not including docks accessory to a land-based dwelling unit limited to the use of owners or occupants of those dwelling units
Commercial Fishing	Any water-dependent facility (marina, boat yard, etc.) that provides support services to commercial fishing activities
Seafood Processing	Any water-dependent facility that receives fresh seafood for processing
Seafood Sales	Any water-dependent facility that receives fresh seafood from commercial fishermen for resale
Trap Yard	Space for storage of lobster traps and access to load / unload them on vessels
Charter Fishing	Any water-dependent facility (marina, boat yard, etc.) that provides support services to recreational fishing activities (charters) and/or sales/rentals of equipment and supplies for recreational fishing
Sport Diving	Any water-dependent facility (marina, boat yard, etc.) that provides support services to recreational diving activities and/or sales/rentals of equipment and supplies for diving
Boat Manufacturing	Manufacturing of marine vessels
Boat Sales	Retail sales of marine vessels
Boat Repair	Any water-dependent facility that provides maintenance and/or repair services for marine vessels
Fuel Sales	Any water-dependent facility that provides retail marine fuel sales
Pump-out	Pump-out capability associated with a qualified marine facility
Restaurant	Restaurant associated with a qualified marine facility
Residential	Residential housing (including single family, multi-family and condominiums) associated with a qualified marine facility -

Facility	Description of Facility Characteristic
	excludes workforce housing for the facility
Hotel / Motel	Hotel / motel associated with a qualified marine facility, including cabins and/or rental spaces in campgrounds and transient RV parks
Live-aboards	Slips, docks or mooring sites where live-aboard vessels are allowed to moor
Docks / Broadside	Docks or broadside space available for rental (including transient) or purchase, or owned by associated residential for the benefit of owners
Wet Slips	Wet slips available for rental or purchase, or owned by associated residential
Moorings	Mooring sites available for rental or purchase, or owned by associated residential
Ramps	One or more points of access to the water for launching trailered vessels
Parking	Parking for vehicles and/or trailers associated with a qualified marine facility
Lifts / Hoists	Equipment that can lift marine vessels to move them between the water and dry storage or maintenance and repair facilities
Dry Storage	Dry stack (inside or outside) and outside storage for marine vessels
Source: SFRPC, 2007	

The marine facility database contained information on a total of 545 facilities, of which 260 are in unincorporated Monroe County. There are a total of 176 marinas in unincorporated Monroe County, including 13 commercial fishing marinas and 4 boatyards:

Marine Facility Type	Unincorporated	Incorporated	Total
Marinas	176	240	416
-Primary Use	61	97	158
-Commercial Fishing	13	18	31
-Boatyard	4	7	11
-Other	44	72	116
-Accessory Use	87	92	179
-Residential Use	28	51	79
Other	84	45	129
Total Facilities	260	285	545
Number of Wet Slips	2,730	2,380	5,110

Source: SFRPC, 2007

The majority of the facilities in the inventory (386) include docks or some type of broadside space, and 251 have wet slips that attach to the docks. There are 63 facilities in the inventory that offer charter boat fishing and 8 that offer sport diving services; 59 offer fuel sales and 46 offer pump-out; 197 have ramps, 27 have lifts or hoists, and 48 offer dry storage. Many of the facilities are associated with residential uses such as a condominium (171) or a hotel/motel (126), and 55 offer berthing or services for live-aboard vessels.

3) A Marina Siting Plan was developed as a guide for marina development using criteria based suitability analysis. The Marina Siting Plan was prepared in April 2007 by CUES at Florida Atlantic University. The Marina Siting Plan identified specific criteria for new or expanding marina facilities with three or more slips (as required under Policy 212.4.1). The Plan identified areas with adequate water depth and good flushing (requiring no new dredging) and do not have substantial concerns with impacts to manatees, crocodiles, turtles, seagrasses, and other marine resources. Based on the criteria, site suitability was identified. The Marina Siting Plan provided three categories of site suitability zones defining Preferred, Conditional, and Exclusionary locations for new or expanded marinas with three or more slips. Site suitability was mapped, to the extent data currently exist; using Geographic Information System (GIS) techniques and maps are included as an appendix to the Marina Siting Plan (CUES, 2007).

   The Marina Siting Plan included recommendations for the County to take to protect, preserve, and enhance public water access and boating-related uses. . The Marina Siting Plan was found not incompliance by the Department of Community Affairs in 2008. SFRPC was retained by the County in August of 2011 to make the necessary revisions and update the site suitability maps. Also to be performed are a Needs Analysis for new marinas (as required under Objective 212.4) and development of Marina Siting Criteria (as required under Policy 212.4.1). The Needs analysis and Marina Siting Plan will provide the data and analysis supporting Marina Siting Criteria which should be adopted into the CDMP. The Marina Siting Criteria, and supporting data and analysis, will direct future marina development and/or expansion.

Existing Public Water Access Facilities: Public water access facilities are those which allow the public access to the beach or shoreline. The County's island configuration offers the public a variety of opportunities for physical or visual access to the beach and shoreline. For the purposes of compiling the existing information on public access as required by Section 163.3178 F. S. and 9J-5.012(2)(g) F.A.C., it is necessary to establish basic definitions and criteria for the selection of these facilities as they are not only numerous but also varied in description throughout the County. "Public Access" is defined for the purposes of the EAR as: *"Any water-oriented facility available to the public in general either without fee or by use of a paid fee or by being a patron of the business that provides the facility."* The term "water-oriented" as used in this study means any facility that is actually on the water and controls the access to the water. The

key element under this summary is the public's access to the water. For example, under this definition, John Pennekamp State Park would be a public access facility. It has boat ramps and as a State Park is classified as a public facility, but a fee is charged to enter the park and use the boat ramps. Another example would be a private business such as a camping resort with boat ramps: the public user would have to be a patron and/or pay a fee to use those boat ramps. This would also be a public access facility.

From these general terms, this summary has grouped the uses into six categories:

1. Marinas and Dockage;
2. Boat Ramps;
3. Fishing Piers and Boardwalks;
4. Public and Commercial Docks;
5. Beaches, Shorelines, and Waterfront Parks; and
6. Scenic Overlooks.

In total, there are 221 public and private facilities in unincorporated and incorporated areas which provide public access to the beach or shoreline (**Table 14**). The locations of these facilities are shown on the Map Series 3.6, located in the Map Atlas.

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Table 14 – Public Access Facilities Summary

Category	Number of Facilities*				
	Mainland	Upper Keys	Middle Keys	Lower Keys	Total
Marinas & Dockage	1	38	5	21	65
Boat Ramps	3	29	9	24	65
Fishing Piers & Boardwalks	1	23	5	11	40
Public & Commercial Docks	1	3	0	0	4
Beaches, Shorelines, Waterfront Parks	1	22	6	15	44
Scenic Overlooks	1	0	0	2	3
Total	8	115	25	73	221

*Includes publicly-owned facilities plus privately-owned facilities which allow public access with a fee paid. Includes unincorporated and incorporated areas.

Each category is addressed below as to the type of facilities included and the general physical characteristics which define them. Only those facilities that occur within the unincorporated area of the County are reported, with the exception being any facility, within an incorporated city, that is owned by the Federal or State government, Monroe County, or by non-profit conservation groups such as The Nature Conservancy and Florida Keys Land and Sea Trust. Also included would be facilities that are owned and operated somewhat autonomously from the city governments (examples include The Boy Scouts and The Audubon Society). These government, non-profit, and related facilities are included because they generally provide regional public access from incorporated as well as unincorporated areas.

Marinas and Dockage: Included in this category are facilities that are licensed as a "marina", providing they have water access. The traditional larger boat-on-water storage docks and associated services such as gas, repair, parts, maintenance facilities, or utility hook-ups would be part of this end of the definition. On the lower end, any business facility, such as a campground, which advertises a "marina" on site, may only provide dock storage and limited utility hook-ups. These latter "marinas" might fall under the associated item of "dockage". Here the public may only be able to access the site by water and tie their boat up for a limited period of time. Because there is not a clear distinction between them, marinas and dockage are consolidated into a single category.

Boat Ramps: For this summary, if a particular site has more than one ramp, both ramps were counted. Also ramps were counted without concern to available parking. The condition of the boat ramp was not taken in consideration. Some ramps are of proper concrete construction and grades and have designated trailer parking. Other ramps are no more than areas where the public has used the land

bank to push their boat into the water; these typically can service only small lightweight boats. If a private business, such as a resort, advertises a boat ramp as one of its amenities to its guests, the ramps are included within this inventory. Privately-owned ramps that are not available to the public are not included.

Fishing Piers and Boardwalks: For fishing piers, these include docks or catwalks where no boats would be tied up but were directly over water. In the County there are old vehicle bridges that no longer serve vehicles but allow fishing from them. In a private business, if "fishing" is advertised separate from the dockage of boats, these are included in the inventory of these facilities. In the County, there are some sites that are generally natural conservation areas where a hiking or boardwalk system has been developed for the use of the public which winds through natural areas including over water or marsh. These "boardwalks" may not be traditional wood, but may be on grade trails as long as it traverses through water areas or natural marsh or flood prone areas.

Public and Commercial Docks: This category includes those dock sites in the County where commercial private boat charter businesses operate; and where the public, as the clients, would have access to these docks. Also included are those sites where the public traveling by boat could pull up and temporarily moor while using the adjacent facilities. An example of this would be a water side restaurant where patrons could arrive and depart by boat. This category is difficult to quantify without a physical inventory throughout the County to field-verify the data; however, the inventory included in this category, which is by no means exhaustive, was researched through internet and other research sources.

Beaches, Shorelines, and Waterfront Parks: These three elements have been grouped together because of their similar uses by the public. "Waterfront Parks" is easily counted as they are specific in their locations and ownership. Under the term "beaches" there is a wide range due to the character and geology of the County. Beaches range from tens of feet to miles in length and the geology ranges from native sands and limestone to imported sand on man-made beaches. If a private business, such as a resort, advertised a beach as an amenity, it was counted. "Shorelines" are difficult to define, especially since the County is almost entirely shoreline of some type. For the purposes of counting it in this category, a "shoreline" must be on the water, separate in ownership from any adjacent business, and defined as a site with some boundaries; generally this means a vacant and undeveloped parcel owned by a governmental agency.

Scenic Overlooks: This list includes sites that offer a scenic overlook but no other facilities (marinas, boat ramps, fishing piers, boardwalks, docks, beaches, etc). For example, some of the abandoned vehicle bridges, some of which the public can fish from, offer scenic overlooks directly out over the water. If the public can fish from them, then they were counted in the category of fishing piers. If not, then they are counted as scenic overlooks. The Florida Department of Transportation offers

some pull off areas, or wayside parks (with no other facilities) along U.S. 1, SR 905, SR 905A, SR 4, and Card Sound Road; these were counted as scenic overlooks. Because there are many informal areas that provide scenic overlooks, the reported number of scenic overlooks in this category is probably lower than the actual number, but a more accurate count would require extensive field investigation.

Overseas Highway: While serving as the County's primary highway and major vehicular link to the mainland, the Overseas Highway (U.S. 1) also serves as one of the County's primary ways of providing public access to the scenery and natural beauty of the Florida Keys. For most of its 112 miles, stretching from the Miami-Dade County Line to Key West, U.S. 1 is within a half mile of the Atlantic Ocean, Florida Bay, or the Gulf of Mexico. The highway includes 42 bridges which provide panoramic views of the water . The highway has some small pull-off areas. For the most part, these pull-offs are informal rather than developed viewing areas. However, approaches to Bahia Honda and Long Key State Parks include designated pull-off areas.

Old Highway and Railroad Bridges: Along some portions of U.S. 1, the old highway and railroad bridges have been retained as fishing piers and viewing areas. These bridges allow pedestrian access to the water. Public access points are identified in **Table 15**.

Table 15 - Coastal Roads and Facilities Providing Scenic Overlooks

Location	Mile Marker	Planning Area	Overlook Facilities	Ownership/ Maintained
Lower Matecumbe Key-Craig Key	73	Middle Keys	Beach, parking, fishing	FDOT
Channel Two Catwalk	73	Middle Keys	Fishing area, parking	FDOT
Channel Five Catwalk- Long Key	71	Middle Keys	Fishing area, parking	FDOT
Fat Deer Key	53.5-56	Middle Keys	Fishing, parking, boat ramp	FDOT
Old Seven Mile Bridge / Sunset Park	40-47	Lower Keys	Fishing, parking	FDOT
Spanish Harbor Wayside Park	33	Lower Keys	Boat ramp. parking	FDOT
Big Pine Key- Old Wooden Bridge Marina	30.5	Lower Keys	Fishing areas, parking	FDOT
Little Torch Key (S.R. 4A)	29	Lower Keys	Boat ramp	County
Kemp Channel Bridge	23.5	Lower Keys	Fishing area, parking	FDOT
Shark Key to Saddlebunch Key	11.5-15	Lower Keys	Boat ramp, parking	FDOT
Boca Chica	6.5	Lower Keys	Catwalk	FDOT

Source: Monroe County Growth Management Division.

Capacity of and Need for Public Access Facilities: The inventory of public water access facilities, shown previously in Table 14 provides information on the number and type of existing public access facilities. A capacity analysis for sandy beach, boat

ramps, and non-boat fishing facilities determined a surplus of these facilities based on the current functional population. There are no population-based standards to determine the capacity and need for other water-dependent public access facilities such as:

- public access points to the beach or shoreline through public lands;
- public access points to the beach or shoreline through private lands;
- parking facilities for beach or shoreline access;
- coastal roads and facilities providing scenic overlook;
- marinas; and
- public docks.

Due to the natural resource characteristics of the County, both the permanent resident and seasonal population recreational preferences are for water-oriented recreational activities such as boating, fishing, and scuba-diving to which public access is readily available.

C. Policy Framework:

GOAL 212: Monroe County shall prioritize shoreline land uses and establish criteria for shoreline development in order to preserve and enhance coastal resources and to ensure the continued economic viability of the County. [9J-5.012(3)(a); 9J-5.013(2)(a)]

Objective 212.1: By December 31, 2006, Monroe County shall develop and implement measures for regulating shoreline uses consistent with the following order of priorities:

a) water-dependent uses;

b) water-related uses; and

c) uses that are not dependent upon or related to shoreline access. [9J-5.012(3)(b)3]

Policy 212.1.1: By December 31, 2003, Monroe County shall develop a Shoreline Use Priorities Plan which shall provide for siting of water-dependent and water-related uses consistent with the following order of priority: 1) water-dependent uses, 2) water-related uses, and 3) uses that are not dependent upon or related to shoreline access. The plan shall accomplish the following:

1. establish performance standards for shoreline development, consistent with criteria for marina siting (See Objective 212.4 and related policies);

2. identify environmentally suitable waterfront areas and recommend strategies for reserving such areas for water-dependent and water-related development sites consistent with estimated need;

3. analyze conflicts among existing shoreline uses and recommend strategies for reducing or eliminating such conflicts; and

4. identify strategies for encouraging appropriate mixed use development that includes water-dependent and water-related uses and is compatible with existing land uses. [9J-5.012(3)(c)8]

Policy 212.1.2: By December 31, 2006, Monroe County shall:

1. adopt an amendment to the Comprehensive Plan which incorporates recommendations of the Shoreline Use Priorities Plan; and

2. adopt Land Development Regulations which regulate existing and new shoreline development consistent with the recommendations of the Shoreline Use Priorities Plan. [9J-5.012(3)(c)8]

Policy 212.1.3: Monroe County shall maintain existing commercial fishing operations as conforming uses.

Policy 212.2.3: Permitted uses and performance standards within the shoreline setback shall be as follows:

14. Special Approvals:

a. For structures serving commercial uses, public uses, or more than three dwelling units, the Planning Commission may approve deviations from the above standards as a major or minor conditional use. Such approval may include additional structures or uses provided that such approval is consistent with any permitted uses, densities, and intensities of the land use district, furthers the purposes of this section, is consistent with the general standards applicable to all uses, and the proposed structures are located in a disturbed area of an altered shoreline. Such additional uses are limited to waterfront dining areas, pedestrian walkways, public monuments or statues, informational kiosks, fuel or septic facilities, and water-dependent marina uses. Any such development shall make adequate provision for a water quality monitoring program for a period of five (5) years after the completion of the development.

GOAL 213: Monroe County shall ensure adequate public access to the beach or shoreline.

Objective 213.1: Monroe County shall maintain and increase the amount of public access to the beach or shoreline consistent with the estimated public need and environmental constraints.

Policy 213.1.1: By December 31, 2006, Monroe County shall complete a Public Access Plan for unincorporated Monroe County. The Public Access Plan shall estimate the existing capacity of and need for the following types of public access facilities:

1. public access points to the beach or shoreline through public lands;

2. public access points to the beach or shoreline through private lands;

3. parking facilities for beach or shoreline access;

4. coastal roads and facilities providing scenic overlooks;

5. marinas;

6. boat ramps;

7. public docks;

8. fishing piers; and

9. traditional shoreline fishing areas.

Policy 213.1.2: By December 31, 2006, Monroe County shall adopt Land Development Regulations which:

1. implement recommendations of the Public Access Plan;

2. provide for the enforcement of public access to beaches renourished at public expense by prescription, prescriptive easement, or any other legal means;

3. provide for the enforcement of public access requirements of the Coastal Zone Protection Act of 1985;

4. specify standards for transportation and parking facilities for beach and shoreline access.

5. include environmental design criteria which reflect environmental constraints.

Policy 213.1.3: Beginning in 1998, Monroe County shall maintain or replace physical public access to beaches and shorelines in accordance with provisions of the appropriate park master plans and current management plans for County-owned beaches. (See Recreation and Open Space Objectives 1201.3.7 and 1201.11 and related policies.)

Policy 213.1.4: By December 31, 2006, Monroe County shall incorporate public access facilities into the GIS for use in future public access and shoreline planning.

D. Strategies:

- The County should evaluate and revise existing policies 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.

- When considering land acquisition, priority should be given to lands which enhance public access to the shoreline and water-dependent uses, such as beaches, marinas, docks and lands containing habitat critical to, or providing significant protection for, species designated as threatened or endangered by the U.S. Fish and Wildlife Service and/or the State of Florida; Monroe County Land Authority funds shall not be used for this purpose.

- The County should consider developing a definition for marinas within the Comprehensive Plan.

- 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 update of the Technical Document has provided an inventory and estimated need for public access points, marina, boat ramps, etc. The County should prepare a Public Access Plan. The Public Access Plan should only address facilities which are available to the general public.

- Although the LOS established in the July 2011 updated Technical Document indicates there are enough beaches and boat ramps to serve its existing and projected population, consideration should be given to adding new beaches and boat ramps to the County's existing inventory.

Issue Statement #5: ***Increase Availability and Use of Alternative Modes of Transportation.***

A. Background:

Existing Public Transit Facilities and Routes: The County is currently served by two main public transit systems:

- Miami-Dade Transit (MDT) 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 (KWDOT) which operates:
  - Key West Transit (KWT) 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.

The current County-wide public transit services are presented in Map Series 5-1, located in the Map Atlas. The locations of significant bus stops or bus run ends located near major destinations along the transit routes are also shown in Map Series 5-1. The stop at at U.S. 1 and Sombrero Beach Road serves as a transfer point between the bus services provided by MDT Dade-Monroe Express Bus Route #301 and the KWDOT Lower Keys Shuttle.

Other transit related services providing limited service in the County include:

- Monroe County Transit's Paratransit Service;
- Guidance Clinic of the Middle Keys (GCMK); and
- Greyhound Bus Line.

B. Analysis:

Dade-Monroe Express - Route #301: Miami-Dade Transit has contracted with American Coach Lines to provide bus service along the U.S. 1 corridor between Florida City (Wal-Mart) and the City of Marathon. The bus service is known as Dade-Monroe Express with the route designation being #301 (shown on Map Series 5-1). The County currently does not provide any funding, equipment, or personnel

for the provision of this service. The route operates seven days a week, generally from 5:15 a.m. to 1:20 a.m. Based on ridership data provided by MDT, the total 2009 ridership for this route was 235,167 trips.

The basic cash fare for this route is $2.35. This includes the basic MDT fare of $1.50 plus a $0.50 transfer fee charged for transferring to the Dade-Monroe Express bus from a regular MDT bus route and $0.35 when boarding the Dade-Monroe Express. The transfer and Express bus fees are waived for passengers using MDT's EasyCard. Metro Bus Passes, Bus Tokens, Golden and Patriot Passports, and MDT Employee ID's are accepted as well.

There is no transfer fee or credit agreement for transfers between the MDT route and the Lower Keys Shuttle. Passengers must pay the full fare price of the corresponding system.

The route's northern terminus is located at the Super Wal-Mart at NE 6th Avenue and Lucy Street (SE 8th Street) in Florida City. The bus route operates 17 daily bus trips (or runs) in each direction (southbound and northbound) based on scheduled segmented route trips as shown in **Table 16** and described as follows:

- Florida City – Key Largo. This bus trip segment operates from the Florida City Wal-Mart southbound to the intersection of U.S. 1 and Second Street (Tom Thumb Store) in Key Largo near MM 98. The bus then returns northbound on U.S. 1 to Florida City. This segment is covered by only one of the 17 daily Dade-Monroe Express bus runs.

- Florida City – Tavernier. This bus trip segment operates from the Florida City Wal-Mart southbound to a point near MM 87 near the entrance to Treasure Village. The bus then returns northbound on U.S. 1 to Florida City. This segment is covered by three of the 17 daily Dade-Monroe Express bus runs.

- Florida City – Islamorada. This bus trip segment operates from the Florida City Wal-Mart southbound to a point located in the vicinity of Gulf View Drive and White Marlin Boulevard on Islamorada near MM 74. The bus then returns northbound on U.S. 1 to Florida City. This segment is covered by seven of the 17 daily Dade-Monroe Express bus runs.

- Florida City – Marathon. This bus trip segment operates from the Florida City Wal-Mart southbound to Sombrero Beach Road near MM 50. The route ends near the Publix Supermarket. This segment is covered by six of the 17 daily Dade-Monroe Express bus runs. Transfers to and from the Lower Keys Shuttle are made near this location.

Within Miami-Dade County, the Dade-Monroe Express buses make regular passenger stops at designated bus stops. However, within Monroe County, there are no designated MDT bus stops. Passengers have to hail the buses to stop. The bus drivers are instructed to stop only at locations or areas which are deemed to be safe for passenger boarding or alighting and will not result in obstruction of traffic. Some of the safe areas include a number of bus passenger shelters along the U.S. 1 corridor that have been installed by the the County's Contractor (see Table 17).

In the Upper Keys, there were previously three shelters that have been removed by Clear Channel. Before the County has the contractor re-install them, County staff is reviewing the locations and coordinating with FDOT. The County will eventually re-install a shelter at the Waldorf shopping plaza in Key Largo; however, there is a proposed pedestrian crossing to be put in nearby, If the crossing is installed, the County plans to relocate the shelter in close proximity.

Currently, (Sept. 2011) the contractor is preparing to install two upper keys shelters: one by Duck Key and one at approximately MM 92 (Ocean Boulevard) on the northbound side near Mariners Hospital in Tavernier. Both of the new bus shelters are near large employers whose employees utilize the bus service.

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Table 16 – Dade-Monroe Express (Route #301) Southbound Schedule

Dade-Monroe Express Southbound				
Depart Florida City Wal-Mart	Arrive Key Largo MM 98	Arrive Tavernier MM 87	Arrive Islamorada MM 74	Arrive Marathon MM 50
05:15AM	06:10AM	06:30AM	06:55AM	n/a
05:30AM	06:25AM	06:45AM	07:10AM	n/a
05:35AM	06:30AM	06:50AM	n/a	n/a
05:40AM	06:35AM	06:55AM	07:20AM	07:55AM
07:40AM	08:35AM	08:55AM	09:20AM	n/a
08:20AM	09:15AM	09:35AM	10:00AM	n/a
10:30AM	11:25AM	11:45AM	12:10PM	12:45PM
11:30AM	12:25PM	12:45PM	n/a	n/a
01:00PM	01:55PM	02:15PM	02:40PM	03:15PM
01:05PM	02:00PM	02:20PM	02:45PM	n/a
02:00PM	02:55PM	03:15PM	03:40PM	n/a
03:15PM	04:10PM	04:30PM	04:55PM	05:30PM
05:30PM	06:25PM	06:45PM	07:10PM	n/a
06:30PM	07:25PM	07:40PM	08:05PM	08:40PM
08:00PM	08:55PM	n/a	n/a	n/a
09:00PM	09:55PM	10:10PM	10:35PM	11:05PM
10:00PM	10:55PM	11:10PM	n/a	n/a
Dade-Monroe Express - Northbound				
Depart Marathon MM 50	Depart Islamorada MM 74	Depart Tavernier MM 87	Depart Key Largo MM 98	Arrive Florida City Wal-Mart
n/a	n/a	06:55AM	07:10AM	08:05AM
n/a	06:55AM	07:20AM	07:35AM	08:35AM
n/a	07:10AM	07:35AM	07:50AM	08:50AM
08:05AM	08:40AM	09:05AM	09:20AM	10:15AM
n/a	09:30AM	09:55AM	10:10AM	11:05AM
n/a	10:15AM	10:40AM	10:55AM	11:50AM
n/a	n/a	12:45PM	01:00PM	01:55PM
01:00PM	01:35PM	02:00PM	02:15PM	03:10PM
n/a	03:30PM	04:00PM	04:20PM	05:00PM
n/a	03:50PM	04:15PM	04:30PM	05:25PM
03:45PM	04:20PM	04:45PM	05:00PM	05:55PM
05:30PM	06:05PM	06:30PM	06:45PM	07:40PM
n/a	07:20PM	07:45PM	08:00PM	08:55PM
n/a	n/a	n/a	09:00PM	09:55PM
09:00PM	09:35PM	10:00PM	10:15PM	11:10PM
n/a	n/a	11:15PM	11:30PM	12:25AM
11:15PM	11:45PM	12:00AM	12:25AM	01:20AM

Source: Miami-Dade Transit Note: Route schedule effective seven days per week.

Prior to May 2011, Clear Channel Outdoor, Inc. installed and maintained a number of bus passenger shelters along U.S. 1, under contract to Monroe County. Earlier in 2011, this company chose not to renew its contract with Monroe County, which was set for expiration on May, 17, 2011 At the July 2011 BOCC meeting, the County Commissioners passed a resolution to have shelters at locations that serve the Lower Keys Shuttle managed by the City of Key West Transportation Dept. At the same meeting, the BOCC approved having the County piggyback on the City of Key West's contract with Anderson Outdoor Advertising to provide bus shelters in the Upper Keys at locations served by the Dade-Monroe express service. The County and the contractor are currently evaluating proposed locations.

Table 17 - U.S. 1 Corridor Monroe County Bus Passenger Shelters as of September 2011

Mile Marker	Direction	Notes
MM 52.3	Northbound	Area to be serviced by Lower Keys Shuttle
MM 50.5	Southbound	Area serviced by Lower Keys Shuttle
MM 50.2	Southbound	Area serviced by Lower Keys Shuttle
MM 48	Southbound	Area serviced by Lower Keys Shuttle
MM 47.4	Northbound	Area serviced by Lower Keys Shuttle
MM 29.7	Northbound	Area serviced by Lower Keys Shuttle
MM 28.5	Southbound	Area serviced by Lower Keys Shuttle
MM 14.3	Northbound	Area serviced by Lower Keys Shuttle
MM 9.4	Southbound	Area serviced by Lower Keys Shuttle

Source: Information as of Sept. 2011 as provided by Monroe County Engineering Services.

Card Sound Express - Route #302: Miami-Dade Transit has contracted with JGT Transportation, Inc. to provide bus service between Florida City (City Hall) and Ocean Reef Club at the northern extent of Key Largo (shown on Map Series 5-1). The bus service serves almost exclusively Ocean Reef Club employees and visitors. The route operates along U.S. 1, Card Sound Road (County Road 905A), and State Route 905. The County currently does not provide any funding, equipment, or personnel for the provision of this service. The route operates seven days a week, with six daily round trips with three trips during the morning peak period and three during the afternoon peak period. The morning operating hours are from 5:30 a.m. to 10:05 a.m. The afternoon operating hours are from 2:35 p.m. to 7:10 p.m. Based on ridership data provided by MDT, the total 2009 ridership for this route is 25,555 trips.

The fare for each one-way trip on the Card Sound Express is $2.35 (cash - exact change). Metro Bus Passes, Bus Tokens, Golden and Patriot Passports, and MDT Employee ID's are accepted as well. A $0.50 transfer fee is charged for transferring to the Card Sound Express bus from the mainland MDT bus. This is in addition to the regular $1.50 MDT bus fare. Also, another $0.35 is paid when boarding the Card Sound Express for a total cost of $2.35 for the combined trip.

Key West Shuttle Bus System: Key West's transit system was originally established in 1972 as the Key West Port and Transit Authority. The system, now known as Key West Transit (KWT), is a department of the City of Key West and is managed by the Department of Transportation, KWDOT.

As of May 2010, the KWDOT operates the Key West Shuttle Bus System serving primarily the City of Key West Downtown area and Stock Island. The Shuttle Bus System consists of four fixed-route bus services. All of the routes make a connection with the Lower Keys Shuttle at Searstown. The KWDOT bus inventory consists of 17 buses that seat 23 or more people. All of the buses are diesel powered and accessible to persons with disabilities. These buses are also used for the Lower Keys Shuttle Bus service.

Two (2) of the bus routes, the BLUE and GREEN Routes, operate full loop routes through Stock Island and Key West City. The BLUE AND GREEN routes operate 7-days per week. The GREEN Route provides 11 full loop round trips per day; whereas, the BLUE Route provides 10 full loop round trips per day. The BLUE Route's daily operations extend from 6:10 AM to 7:54 PM; whereas, the daily operations for the GREEN Route extend from 6:00 AM to 10:09 PM. Service headways on the Green Route range from 84 minutes to 98 minutes. Headways on the Blue Route range from 78 to 95 minutes.

Figure 10 presents the current route map (as of March 15, 2010) for the BLUE and GREEN Routes.

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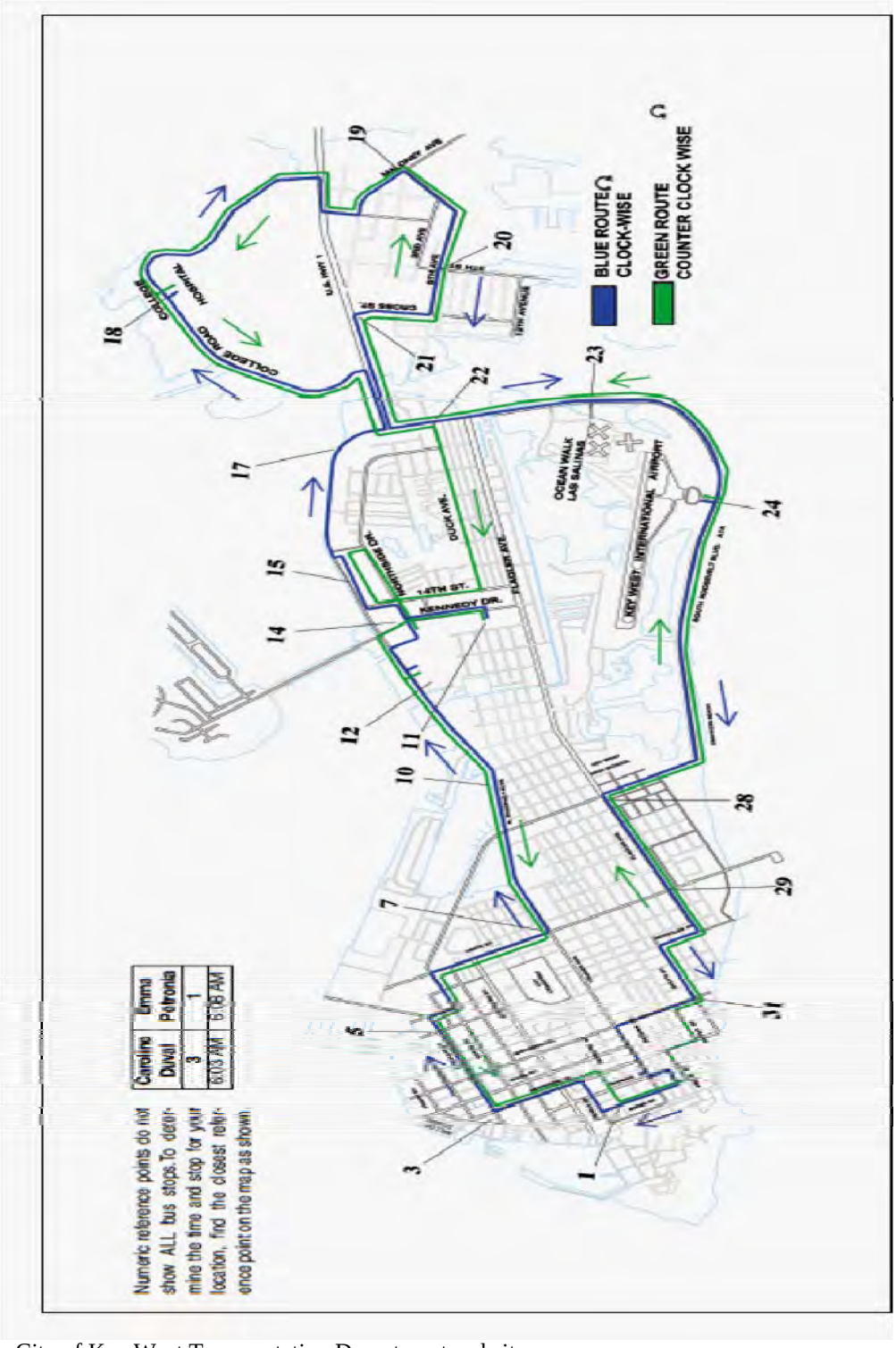
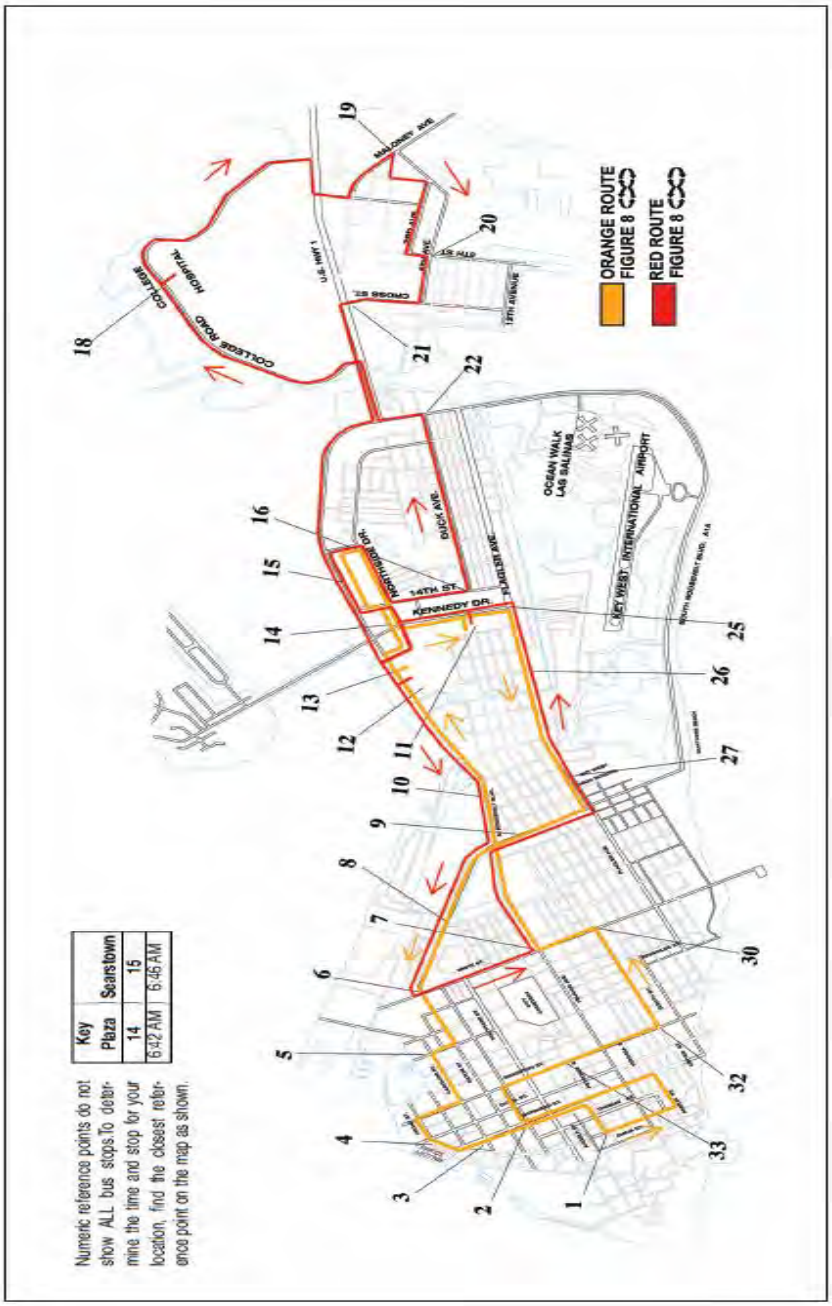


Source: The City of Key West Transportation Department website

Figure 10 – BLUE and GREEN Shuttle Bus Routes, Current Route Map

The other two (2) routes, the RED and ORANGE Routes, provide connections or transfer opportunities at the three (3) main shopping centers in Key West. **Figure 11** presents the current route map (as of March 15, 2010) for the ORANGE and RED Routes.



Source: The City of Key West Transportation Department website

Figure 11 – ORANGE and RED Shuttle Bus Routes, Current Route Map

The ORANGE Route serves the Old Town Key West areas to the shopping centers while the RED Route serves the Stock Island communities with service to the shopping centers. The ORANGE Route does not travel beyond the shopping center areas to Stock Island; whereas, the RED Route does not service Old Town, Downtown Key West area. Both the ORANGE and RED routes provide ten (10) trips each per day as corridor service routes.

The ORANGE and RED Routes operate 6-days per week. The Orange Route's daily operations extend from 6:15 AM to 6:18 PM; whereas, the daily operations for the GREEN Route extend from 6:00 AM to 10:09 PM. The service headways on the ORANGE Route range from 73 minutes to 88 minutes; whereas, headways on the RED Route range from 72 to 87 minutes.

The basic full fare for a one-way trip on the City route buses is $2.00. Reduced ($1.00) and senior citizen fares ($0.50) are available, as well as, 7-day ($3.75 to $8.00) and 31-day fares $15.00 to $25.00). Reduced monthly fares are offered to seniors, students, military and the disabled for $15.00. Children five and under may ride for free with a paying passenger. The City of Key West operates a website that provides up-to-date information on the City Shuttle schedules and routes.

KWDOT 's "BOB", Bikes On Buses Program, allows customers to take a bicycle on any of the Key West buses by securing it onto a bicycle rack, attached to the front of every city bus.
Based on ridership data from the KWDOT, the 12-month ridership from January 2009 through December 2009 is 325,014 passenger trips.

Lower Keys Shuttle Service: The KWDOT also operates the Lower Keys Shuttle along U.S. 1 between Key West and Marathon (shown on Map Series 5-1). The KWDOT obtained Federal Transit Administration (FTA) and FDOT financial assistance for the implementation of this shuttle bus service. This route connects with the Dade-Monroe Express (Route #301) in Marathon to provide bus service from Key West to Florida City (mainland Miami). Scheduled stops are made at various points throughout the length of the route including Key West, Boca Chica, Big Coppitt, Bay Point, Sugarloaf, Cudjoe Key, Summerland Key, Big Pine Key, and Marathon.

The Lower Keys Shuttle operates seven days a week, from 5:40 a.m. to 11:55 p.m. (PINK - Key West Based) and 6:00 a.m. to 11:36 p.m. (LIME - Marathon Based). A total of 9 round trip runs are scheduled during the day. Headways range from 58 minutes to 200 minutes on the northbound trajectory and from 62 minutes to 85 minutes on the southbound trajectory. Both Lower Keys Shuttles now extend into Old town/Downtown Key West and up to 109th Street between Walgreens and Office Depot in Marathon.

The Lower Keys Service fares are as follows:

2011 Lower Keys Service Fares

Fare Type	Full	Reduced	Senior
One way	$4.00	$2.00	$1.50
7 Day Pass	$25.00	$15.00	$15.00
31 Day Pass	$75.00	$45.00	$45.00

Reduced fares require proper ID and applies to students under 21, the disabled, active and retired military, and seniors aged 60 years or more. Children aged five (5) years and under may ride for free with a paying passenger.

The Lower Keys Shuttle provides daily mass transit, fixed route service between Key West and Marathon daily, with forty-two (42) service points along both sides of U.S. 1. Eighteen (18) of these service points are solar powered bus shelters provided via contract with Anderson Advertising and the City of Key West. Another seven (7) electric powered shelters within the Lower Keys Shuttle area are provided by Monroe County. Many of the remaining service points consist of simple bus stop signs and posts with eight (8) locations consisting of solar powered safety lighting and beacon light I-Stop units.

Table 18 presents the location of the KWDOT owned and installed bus shelters (all shelters from Marathon to KW are now installed and included in the City of Key West bus shelter contract. At the July 2011 BOCC meeting, the County passed a resolution to have the Key West Transportation Department handle all of the lower keys shuttle shelters). The local agencies plan to install 20 more shelters in the Lower Keys area within the next two (2) year period. This process will include the reevaluation and re-issuing of the service contracts, where applicable.

The Lower Keys Shuttle does not provide bicycle racks. However, folding portable bicycles are allowed on the Lower Keys Shuttle. These compact bikes can be folded and carried alongside a rider without taking up precious space on the sometimes busy shuttle.

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Table 18 – Lower Keys Shuttle Bus Stop Shelters

Shelter ID	Direction: Northbound (EAST)	Approximate MM
1	Sears (Northside Drive)	3.0
2	Stock Island (U.S. 1 & 3rd Street)	n/a
3	Bay Point (Baby's Coffee)	15.0
F	**Saddlebunch (Bluewater Drive)**	**14.3**
4	Sugarloaf (Across from Mangrove Mama's)	16.0
5	Cudjoe Key (Evie's Subs)	22.5
A	**Little Torch (Dolphin Marina/MC)**	28.5
6	Big Pine Key (NAPA)	n/a
7	Big Pine Key (Industrial Road)	33.5
8	Bahia Honda (Park Entrance)	n/a
B	**Marathon (11th St./MC)**	48.0
9	Marathon (Park & FKAA)	49.0
10	Marathon (Kmart & Publix)	50.0
Shelter ID	**Direction: Southbound (WEST)**	**Approximate MM**
11	Marathon (FHP)	49.0
C	**Marathon (USCG/MC)**	48.0
12	Bahia Honda (Across Entrance)	n/a
13	Big Pine Key (Dions)	33.5
14	Big Pine Key (CVS)	n/a
D	**Big Pine Key (Medical Center/MC)**	29.7
15	Summerland (Across Bank)	n/a
16	Summerland (Across Mote)	n/a
17	Cudjoe Key (Coco's)	21.5
18	Sugarloaf (School)	17.0
E	**Rockland Key (Calle Uno/MC)**	9.4

Notes and Sources:
Shelters 1-18: City of Key West DOT (under contract with Anderson Advertising).
Shelters **A–F**: Monroe County.

Bus Ridership and System Performance: **Table 19** presents annual ridership and performance indicators for the KWDOT service between 2003 and 2008. The ridership and operational data were obtained from the *Key West, Florida, Transit Development Plan (TDP), 2010-2019* report dated January 2010. The TDP was prepared as a requirement by FDOT for receipt of Public Transit Block Grants (PTBG). Grant recipients must submit a 10-year TDP with yearly updates.

The TDP is a planning tool used to identify future needs for transit service, define the community's goals and develop a program of improvements. The submission cycle as defined by Florida Statutes is to perform a major update to the TDP every fifth year. The last major update for the KWDOT was performed in 2005. The 2010 TDP develops new goals and objectives and other relevant data to reflect current year through 2019-2020. The performance indicators are used to present the data that are reported in the National Transit Database (NTD) reports and relate to overall system performance.

Table 19 - KWDOT Transit Performance Indicators

Performance Indicator	Fiscal Year					Percent Change 2003-2008
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	
Passenger Trips	310,736	319,088	519,673	505,885	515,729	66%
Revenue Miles	258,425	358,728	742,869	764,303	795,749	208%
Total Operating Expenses (000's)	$1,143	$1,443	$3,212	$3,218	$3,323	191%
Operating Revenue (000's)	$272	$347	$932	$974	$1,418	421%
Vehicles/ Maximum Service	6	6	8	8	8/9	33%
Net Expenses/ Passenger	$3.67	$4.41	$4.39	$4.44	$3.69	0.5%

Source: Key West, Florida, Transit Development Plan (TDP), 2010-2019, January 2010

Annual ridership on the KWDOT system increased 66 percent between 2003 and 2008. While expenses and revenue saw significant increases since 2003-2004, by 2007-2008 the system was able to reduce expenses per passenger trips to about the same level as it was in 2003-2004. ($3.69 per passenger trip in 2007-2008 versus $3.67 per passenger trips in 2003-2004.)

During the time period indicated, the system underwent several service related changes. The Lower Keys Shuttle was added in 2005-2006 and several changes in route structures were made. In addition, prior to November 2009, the system operated six city routes (Blue, Green, Orange, Red, Gold, and Purple) instead of the present four routes. The information in **Table 19** also includes data from the Park-N-Ride Garage Shuttle which is no longer in service.

Based on latest ridership data from the KWDOT, the 12-month ridership from October 2008 through September 2009 is estimated at 503,115. The Lower Keys Shuttle accounts for approximately 109,087 to 116,070 annual passenger trips.

Key West Transit Bus Ridership Forecasts: **Table 20** presents the 2010-2020 forecasted KWDOT annual transit ridership as developed for the 2010 TDP. The forecasts are based on the maintenance of the current four city routes and the Lower Keys Shuttle with expected budget restrictions and service reductions. Overall annual ridership is expected to increase from approximately 396,390 in 2009 to 451,130 in 2020, an increase of 13.8 percent.

Public Transit Level of Service: Transportation services between communities can be just as important as services within communities, especially for areas where medical, educational, and other services may not be readily available. Intercity transportation services, whether bus, train, or ferry, help to fill these mobility needs by linking smaller communities to larger communities and to other transportation models.

The LOS thresholds for intercity scheduled transit services are presented in **Table 21**. The corresponding LOS for each of the transit routes are summarized in **Table 22** and Map Series 5-2, located in the Map Atlas.

As shown in the table, the Dade-Monroe Express #301, which serves the northern region of the County, has varying LOS per segment based on the number of buses serving each segment. The segments between Florida City and Tavernier have LOS of A. The segment between Tavernier and Islamorada has a LOS of B; whereas, the segment to Marathon has a LOS of D. The Lower Keys Shuttle has an intercity bus LOS of B.

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Table 20 - KWDOT Transit Annual Ridership Forecasts, 2010 – 2020

Year	Forecasted Passenger Boardings per Transit Route					
	Blue	Green	Orange	Red	Lower Keys Shuttle	Total Year
Base 2009	82,490	82,125	47,450	68,255	116,070	396,390
2010	100,451	88,225	53,199	46,260	120,276	408,411
2011	101,455	89,107	53,731	46,723	121,479	412,495
2012	102,470	89,998	54,268	47,190	122,694	416,620
2013	103,494	90,898	54,811	47,662	123,921	420,786
2014	104,529	91,807	55,359	48,139	125,160	424,994
2015	105,575	92,725	55,913	48,620	126,412	429,245
2016	106,630	93,652	56,472	49,106	127,676	433,536
2017	107,697	94,589	57,037	49,597	128,953	437,873
2018	108,774	95,535	57,607	50,093	130,242	442,251
2019	109,861	96,490	58,183	50,594	131,545	446,673
2020	110,960	97,455	58,765	51,100	132,850	451,130

Source: Key West, Florida, Transit Development Plan (TDP), 2010-2019, January 2010

Table 21 - Intercity Transit Level of Service Thresholds

LOS	Vehicles per Day	Comments
A	>15	Numerous trips throughout the day
B	12-15	Midday and frequent peak-hour services
C	8-11	Midday or frequent peak-hour services
D	4-7	Minimum service to provide choice of travel times
E	2-3	Round trip in one day is possible
F	0-1	Round trip in one day is not possible

Source: 2000 Highway Capacity Manual (HCM), Exhibit 27-3

Table 22 – Monroe County Intercity (MDT and KWDOT) Transit Level of Service

Public Transit Service	Ridership by Route	Route Segment		Vehicles per day[1]	LOS[2]
		From	To		
Dade-Monroe Express #301	235,167[3]	Florida City	Key Largo MM 98	17	A
		Key Largo MM 98	Tavernier MM 87	16	A
		Tavernier MM 87	Islamorada MM 74	13	B
		Islamorada MM 74	Marathon MM 50	6	D
Card Sound Express #302	25,555[3]	Florida City	Key Largo/ Ocean Reef	6	D
Lower Keys Shuttle	103,864[4]	Key West	Marathon	12	B

Sources: Miami-Dade Transit and City of Key West Department of Transportation.
Notes:

1. Bus round trips based on current schedule as provided by Miami-Dade Transit.
2. Level of Service determined by Exhibit 27-3 from the Highway Capacity Manual 2000.
3. 2009 Ridership data from January 2009 through December 2009. Source: Miami-Dade Transit.
4. Ridership total for the 12-month period from January 2009 to December 2009.

Monroe County Transit's Paratransit Service: The County operates a county-wide paratransit service known as Monroe County Transit (MCT). As noted on the MCT website, this service provides mobility for those with special transportation needs. In Section 427.011 (9), F.S,, "paratransit" is defined as those elements of public transit which provide service between specific origins and destinations selected by the individual user with such service being provided at a time that is agreed upon by the user and provider of the service. Paratransit can be provided by taxis, limousines, "dial-a-ride", buses and other demand-responsive operations that are characterized by their non-scheduled non-fixed route nature.

The MCT Paratransit service is a door-to-door service designed for people who need transportation. Anyone can ride, especially the elderly and/or disabled individuals

who are unable to access regular fixed route or commuter bus service. The mission statement of the MCT "is to operate a safe, dependable and effective paratransit network that enables Monroe County's elderly, disabled and transportation disadvantaged citizens the mobility necessary to improve their quality of life and provide the means of remaining independent allowing them to have useful and productive lives."

MCT provides paratransit transportation within the Florida Keys, available between MM 0 in Key West through MM 113 in Key Largo as well as Ocean Reef. MCT offers services Monday through Friday (excluding County holidays), from 8:00 a.m. to 5:00 p.m. Each one-way trip is $2.00.

As a demand-response operation, potential passengers must call the main office to register and schedule a pick up. An advance reservation of at least 24-hours is required. On the dates of the reserved trips, the bus operators pick up the passengers at their addresses and transport them to their destinations.

The MCT meets the requirements of the Americans with Disabilities Act (ADA) and provides door-to-door service to those individuals who qualify based on the following criteria:

- Those who because of visual, physical or mental impairment cannot recognize destinations or cope with the physical requirements of the regular bus service.
- Those who would use regular bus service if the buses could accommodate their necessary mobility aids such as wheelchairs, scooters, etc.
- Those who have impairments or impairment-related conditions, which prevent them from getting to or waiting at a regular bus stop.

Generally, the Key West residents will utilize the fixed route, City of Key West bus system, if they live within ¾ of a mile to the fixed route system.

Service frequency for paratransit service is called access time, and is defined as the minimum amount of time from when a passenger requests service to the time a pick up can be guaranteed to occur. **Table 23** provides the LOS thresholds for paratransit service based on service frequency. Because the service requires one day's advance notice for reserving and obtaining a ride, the MCT is considered to be operating at LOS E. Higher LOS would require service to be provided the day it is requested.

Table 23 – Service Frequency Level of Service (LOS) for Paratransit Service

LOS	Access Time (Hours)	Comments
A	0.0 – 0.5	Fairly prompt response
B	>0.5 – 1.0	Acceptable response
C	>1.0 – 2.0	Tolerable response
D	>2.0 – 4.0	Poor response, may require advance planning
E	>4.0 – 24.0	Requires advance planning
F	>24.0	Service not offered every weekday or at all

Source: 2000 Highway Capacity Manual (HCM), Exhibit 27-2

Monroe County Transportation Disadvantaged Service: Public transportation within Monroe County is primarily limited to Key West with extended service to the Lower Keys, which contains less than half the county's population. Therefore, more than half of Monroe County's residents have no access to structured public transportation services. Lack of access to public transportation for majority of the residents coupled with various other local challenges creates a great need for Transportation Disadvantaged services in the area.

Chapter 427, F.S. establishes the Florida Commission for the Transportation Disadvantaged (CTD) and directs the CTD to "accomplish the coordination of transportation services provided to the transportation disadvantaged". In accomplishing its purpose, the CTD approves a Community Transportation Coordinator (CTC) for each county of the state which is charged with arranging cost-effective, efficient, unduplicated, and unfragmented transportation disadvantaged services within its respective service area. Additionally, a designated official planning agency (DOPA) is approved by the CTD and charged with creating the Local Coordinating Board (LCB) and providing technical assistance to the LCB. The LCB acts as an advisory board and as such provides guidance, monitors, evaluates and supports the transportation activities of the CTC.

The Health Council of South Florida has served as DOPA since the spring of 1993 and created the Monroe County LCB the same year. The Guidance/Care Center, Inc. (GCC), formerly Guidance Clinic of the Middle Keys – GCMK, has served as Monroe County's CTC since the fall of 1997 and provides majority of TD trips in Monroe County. The remainder of trips are offered by six (6) contracted providers together with incidental use of taxicabs.

As of fiscal year 2009-2010, the CTC has a reported annual operating expense of over $2 million funded by State and county grants, client fees, third party payers and grants. The CTC and its coordinated contractors have over one hundred employees including approximately 84 full and part-time drivers.

The GCC is a private non-profit organization founded in 1973 in response to the need identified by community leaders for a community facility to provide mental health services to local residents. Since then it has since then it has grown into a multi-service community mental health center providing inpatient, outpatient, residential, day treatment and case management services as well as transportation services. It has a staff of over 100, of these, 5 are full or part-time drivers.

The GCC as CTC currently contracts with the following organizations:

- The Florida Keys Children's Shelter in Tavernier serves at-risk children and families and offers a community-based counseling program. It contracts with the CTC and provides sponsored trips to the residents of its facility. The address is 73 High Point Road, Tavernier, Florida 33070. Hours of operation: 24 hours a day.

- Florida Keys Outreach Coalition for the Homeless in Key West provides homeless outreach and residential services. It utilizes TD funds to purchase monthly bus passes on Key West transit for residents of the Coalition's transitional residential facility. The address is 2221 Patterson Road, Key West, Florida 33040. Hours of operation: Monday through Friday from 8:30 a.m. to 5:30 p.m.

- The Monroe Association for ReMARCable Citizens, Inc. (MARC) is a non-profit agency that serves adult clients within Monroe County who have developmental disabilities. The address is 1401 Seminary Street, Key West, FL, Florida 33040. Hours of operation: Monday through Friday from 8:00 a.m. to 4:00 p.m.

- Center for Independent Living of the Keys is a non-profit organization that provides supportive services to the elderly and disabled. The address is 103400 Overseas Highway, Suite 243, Key Largo, Florida 33036.

- Samuel's House is a safe haven for women, and women with children, for up to 90 days to allow them a new beginning. Any woman in need, of any age, anywhere in Monroe County is welcomed. The address is 1614 Truesdell Court, Key West, FL 33040. Hours of operations: Monday through Friday from 9:00 a.m. to 5:00 p.m.

- US Fellowship of Florida, Inc. is an agency that offers residential housing for adults with mental illness and provides non-sponsored trips for residents of their group home seven days a week. The address is 1320 Coco Plum Drive, Marathon, Florida 33050. Hours of operation: Monday through Friday from 8:00 a.m. to 11:00 p.m.

- The Monroe County Social Services Transportation provides sponsored trips throughout the keys with vans located in Key West, Big Pine, Marathon and Tavernier. Residents are transported within these areas, but not between them. The address is 1100 Simonton Street, Room 1-181, Key West, Florida 33040. Hours of operation: Monday through Friday from 8:00 a.m. to 5:00 p.m. (Transportation and Reservations can be made between these hours).

The GCC provides scheduled weekday services throughout the Keys as demonstrated in **Table 24**.

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Table 24 – The Guidance/Care Center, Inc. Transportation Schedule

Day and Service Area	Departure	Returning Trip
Monday		
Middle to Upper Keys (Up to Key Largo)	6:30 am	8:30 am
	2:30 pm	4:00 pm
Middle to Lower Keys	6:30 am	8:30 am
	10:30 am	12:00 pm
	2:30 pm	4:00 pm
Tuesday		
Middle to Upper Keys (Marathon to Marathon)	9:30 am	10:00 am
	2:30 pm	4:00 pm
Middle to Lower Keys	6:30 am	8:30 am
	2:30 pm	4:00 pm
Wednesday		
Middle to Upper Keys (Up to Key Largo)	6:30 am	8:30 am
	2:30 pm	4:00 pm
Middle to Lower Keys	6:30 am	8:30 am
	10:30 am	12:00 pm
	2:30 pm	4:00 pm
Thursday		
Middle to Upper Keys (Marathon to Marathon)	9:30 am	10:00 am
	2:30 pm	4:00 pm
Middle to Lower Keys	6:30 am	8:30 am
	2:30 pm	4:00 pm
Friday		
Middle to Upper Keys (Up to Key Largo)	6:30 am	8:30 am
	2:30 pm	4:00 pm
Middle to Lower Keys	6:30 am	8:30 am
	10:30 am	12:00 pm
	2:30 pm	4:00 pm

The set stops for the GCC Transportation Services between Marathon and Key West are located at:

- Guidance/Care-Center - 3000 41st Street, Ocean, Marathon;
- Peacock Apartments - 1624 Spalding Court, Key West;
- Dion's Quick Mart – 30989 Avenue A, Big Pine Key;
- Veterans' Administration Clinic - 1300 Douglas Circle, Key West;
- Burger King - 5400 Overseas Highway, Stock Island;
- Near former Waterfront Market - William and Caroline Streets;
- Corner of Truman and White Streets;
- St. Clare's Clinic - 2700 Flagler Avenue, Key West; and
- K Mart (Sears town) - 2928 North Roosevelt Boulevard, Key West.

Between Marathon and Key Largo, the set stops are:

- Islamorada Library - 81830 Overseas Highway, Islamorada,
- San Pedro's Church - MM 89, and
- Guidance/Care-Center - 3000 41st Street, Ocean, Marathon.

The current fare structure (as of March 2011) is presented in **Table 25**.

Table 25 – Middle Keys Transportation Fares Per One-Way Trip

From Marathon southbound to:		From Key West northbound to:	
Big Pine	$1.00	Big Coppitt	$1.00
Summerland Key	$2.00	Sugarloaf Key	$2.00
Sugarloaf Key (Cudjoe Key)	$3.00	Summerland Key	$3.00
Big Coppitt	$4.00	Big Pine Key	$4.00
Key West	$5.00	Marathon	$5.00
From Marathon northbound to:		**From Key Largo southbound to:**	
Grassy Key	$1.00	Tavernier	$1.00
Long Key	$2.00	Islamorada	$2.00
Islamorada	$3.00	Long Key	$3.00
Tavernier	$4.00	Grassy Key	$4.00
Key Largo	$5.00	Marathon	$5.00

During the 2009-2010 fiscal year, the CTC System operated a total of 52 vehicles, of which 44 percent were wheelchair accessible.

The annual operating report for 2009-2010 for the Monroe County Transportation Disadvantaged program revealed a 35 percent increase in unduplicated riders with approximately 700 more riders than in the previous year, indicative of a higher level of need in the county. The Coordinated System provided a total of 107,517 trips up from 104,587 in the previous year.[10] **Table 26** illustrates Monroe County TD

[10] Source: FLCTD Annual Operations Report, 2010.

population projections from 2008 through 2012. During fiscal year 2006-2007, about 40 percent of the county's population (35,509) was designated Potential TD population while an additional 7,472 were designated TD population. Based on the aforementioned Monroe County TD Service Plan 2008, at the end of fiscal year 2006-2007, Monroe County had invested over $2.5 million to provide 119,987 trips to about 2000 TD persons, representing approximately 6 percent of the county's Potential TD population. Currently, the funding allocated to serve the TD population is not sufficient to meet the existing demand for services. Additionally, the steady rise in TD populations demonstrates a need for concurrent increases in funding and other resources to meet the rising demand.

Table 26 – 5 Year Forecast of TD Population in Monroe County, 2008-2012

	2008	2009	2010	2011	2012
Potential TD Population	35,509	36,354	37,225	38,123	39,050
TD Population	7,617	7,765	7,919	8,075	8,237

Source: Center for Urban Transportation Research, University of South Florida, 2008

Greyhound Bus Line: Greyhound Bus Line provides the County with both intercity and interstate service and connectivity. The Greyhound terminal is located at 3535 South Roosevelt Boulevard, Key West.

Greyhound has two daily scheduled services each way. The service to and from Miami includes stops at Key Largo, Islamorada, Marathon, Big Pine Key and Key West. The two southbound trips from Miami depart at 11:10 a.m. and 5:15 p.m. The two daily northbound trips depart Key West at 8:15 a.m. and 6:00 p.m.

Major Public Transit Trip Generators and Attractors: The major public transit trip generators and attractors are graphically depicted on Map Series 5-3, located in the Map Atlas. Their location is denoted by MM in the County, where appropriate. They generally include commercial, government, residential, medical, education, and State parks sites within the County. The existing characteristics of these sites depend upon the type of use. Trips generated by schools include peak traffic demand in the morning (when pupils and staff arrive) and afternoons (when pupils and staff depart). During the morning peak period, traffic associated with the school coincides with the typical morning home-to-work commute. However, the peak afternoon traffic period associated with schools occurs earlier than the typical work-to-home commute.

The trip generation characteristics of governmental facilities, such as the Government Centers and the U.S. Post Office, are influenced by both the facilities'

employees and customers. Most employees arrive in the morning and leave in the evening. Peak hours for retail customers and restaurants may vary depending upon the hours of operation and the clientele to which the service is oriented.

Currently, there are no deficiencies identified in the County concerning terminals, other connections, HOV lanes, or Park-and-Ride facilities.

C. Policy Framework:

Policy 215.1.1: Monroe County shall adopt level of service standards (LOS) for the following public facility types required by Chapter 9J-5, F.A.C: roads, sanitary sewer, solid waste, drainage, potable water, parks and recreation, and mass transit.

GOAL 401: To provide a coordinated surface transportation system for transportation disadvantaged people within Monroe County and to encourage such a system for all residents and guests.

Objective 401.1: Monroe County shall encourage the provision of transit service for all residents to major trip generators.

Policy 401.1.1: By December 31, 2006, Monroe County shall adopt Land Development Regulations requiring retail shopping facilities, offices and similar uses generating over two thousand (2,000) trips per day be built to accommodate mass transit by being designed to include such features as adequate turning radii for large vehicles, direct access to sheltered areas with seating that can serve as a bus stop and pedestrian access to adjacent properties.

Policy 401.1.2: Within twelve (12) months of the effective date of the Comprehensive Plan, Monroe County shall adopt land development regulations that favor the clustering of major trip generators and transit oriented uses.

Policy 401.1.3: Within twelve (12) months of the effective date of the Comprehensive Plan, Monroe County shall adopt land development regulations that encourage all developers to assist the transition to transit by such efforts as providing car pools, transit facilities, and pedestrian/bicycle paths.

Policy 401.1.4: Monroe County shall phase the development of complete transit services, and as an interim measure shall seek the provision of interim measures such as car pool services to the service population, major employers, dense residential areas, resort guests, and tourists.

Policy 401.1.5: Monroe County shall continue to seek funds for the transportation disadvantaged and other transit and paratransit operations from all applicable Federal, State, and other sources and shall continue to provide gas tax revenues to public transit and/or paratransit services.

Policy 401.1.6: Monroe County shall allocate funds collected from highway impact fees to capital expansions of public transit systems that relieve highway traffic or reduce the demand for additional highway capacity.

Policy 401.1.7: Monroe County shall encourage the operation of public and private transit and paratransit services and shall seek legislation to exempt transit facilities such as terminals and repair shops from the U.S. 1 concurrency requirements.

Policy 401.1.8: Due to the very narrow geography of the Florida Keys, limited U.S. 1 right-of-way and exclusive mass transit corridors and limited rate of growth, Monroe County will not establish measures for the acquisition and preservation of transit rights-of-way and exclusive mass transit corridors.

The County's GOPs appear to be adequate in supporting the use of Mass Transit facilities as an alternative transportation strategy.

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D. Strategies:

- There is no official bus transfer station for the three main intercity transit routes (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). However, 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. The three main intercity transit routes lack adequate signage alerting passengers as to the location of this "transfer" stop at MM 50, and there is no indication or signage of a transfer location at the Sombrero Beach Road bus stop, nor is it noted on any of the transit vehicles. The County should provide signage at the various transit locations and on transit vehicles to properly alert passengers of this "transfer" stop at MM50.

- There is no indication on the fare tickets or at the point of sale for the tickets that displays the MM50 "transfer" stop. The County should provide this indication on the fare tickets and display this information at the point of ticket sales. It should be noted, however, that information detailing this transfer stop is available on the Lower Keys Shuttle's website.

- The two transit systems that serve the north and south sections of the U.S. 1 corridor should be better coordinated. The scheduling of the routes should be adjusted to ensure more efficient transfers.

- Due to the limited number of designated bus stops and shelters (signed, with or without amenities) throughout the U.S. 1 Corridor, especially in the Upper Keys, north of Marathon, passengers must hail the buses to stop whether or not they are located at one of the bus shelters. The County should consider creating more identified bus stops in these areas.

- There are a number of disparate transportation projects planned or are currently being undertaken within the County, e.g., Heritage Trail pathways. These projects are often managed by different entities. This results in a "piece-meal" and disconnected approach to the ultimate goal of reducing individual automobile trips and encouraging the use of alternative modes of transportation. The County should evaluate the need for developing a Master Transportation Strategy Plan.

IV. NATURAL RESOURCE PROTECTION

Note: Natural Resource Protection has two (2) Issue Statements

Issue Statement #1: *Preserve and protect natural resources, including water, habitat and species.*

Note: An overall Background for this Issue Statement is provided. In addition, the Background, Issue Analysis, Policy Framework and Strategies headings are divided into ten (10) categories each for this section: Potable Water Supply and Water Conservation, Habitat and Species Protection, Wetlands, Land Acquisition, Habitat Conservation Plan for Big Pine and No-Name Keys, Water Quality, Numeric-Nutrient Criteria Rule, Solid Waste, Marine and Terrestrial Litter, and Invasive Animals.

Overall Background

The County contains one of the Country's most diverse assemblages of terrestrial, estuarine, and marine flora and fauna. The region includes the vast freshwater wetlands of the Florida Everglades and Big Cypress, the transitional areas where the waters of the Everglades discharge into the estuarine environment of Florida Bay, one of the world's largest coral reef tracts (the only one in the continental United States), the largest contiguous seagrass community in the world, and the subtropical habitats of the island chain. The environmental setting of the Keys is exceptional and unique, making the region a major travel destination.

The protection of the environment has been the focus of much of the land use planning effort since the adoption of the 2010 Comprehensive Plan in the early 1990s. Since that time, three major changes have been implemented to protect the Keys unique environment.

The first significant action was the establishment of the Florida Keys National Marine Sanctuary (FKNMS) in 1990. The Sanctuary encompasses approximately 2,600 square nautical miles of nearshore waters extending from just south of Miami to the Dry Tortugas. The FKNMS Comprehensive Management Plan was implemented in 1997 and the Revised Management Plan went into effect in 2007. A key feature of the FKNMS Management Plan was the establishment of the FKNMS Water Quality Protection Program (WQPP). The program identified actions to restore and/or maintain water quality conditions to maintain healthy native plant and animal populations in FKNMS waters. The Program has funded three long-term monitoring projects to monitor overall water quality, coral reef and hard bottom community health, and seagrass community health.

The second significant action was the enactment and implementation of ROGO in 1992 and NROGO in 2002. ROGO and NROGO have slowed the rate of growth and have directed development primarily to already disturbed lands or to infill areas.

Subsequently in 2006, the Tier Overlay Ordinance, a zoning map overlay, was developed, which established open space requirements for environmentally sensitive lands. The Tier Overlay Ordinance also modified the ROGO/NROGO point system to help steer development away from environmentally sensitive lands. On Big Pine Key and No Name Key, particular attention was made to land use protection with the adoption of the Habitat Conservation Plan (with the Incidental Take Permit) and the Livable CommuniKeys Management Plan for these keys. These plans were implemented to complement ROGO/NROGO and the Tier Overlay Ordinance to protect habitat on Big Pine Key and No Name Key for key deer, eastern indigo snake, and lower keys marsh rabbit.

The third significant action was the initiation of major steps to improve nearshore water quality throughout the Keys. Historically, development in the Keys relied on on-site cesspits and septic tanks, which resulted in water quality degradation of inshore areas. In 1985, the waters of the Florida Keys were designated as Outstanding Florida Waters pursuant to State law. In 2002, the Florida Keys were designated as a No Discharge Zone (NDZ), which prohibits the discharge of boater sewage into all waters of the FKNMS, the NDZ was expanded in 2010. Water quality is monitored under the FKNMS WQPP and the U. S. Environmental Protection Agency (USEPA) Strategic Targets for the Water Quality Monitoring Project. County efforts to improve nearshore water quality have included measures such as new criteria for on-site sewage treatment and disposal systems, and connection of individual homes and subdivisions to central wastewater treatment plants.

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Issue Category #1(a): Potable Water Supply and Water Conservation

A. Background: The primary source of potable water consumed in the Keys is the Biscayne Aquifer in southeastern Miami-Dade County. Water is pumped from the Florida City Wellfield and distributed by the FKAA. With treatment, water with drawn from the Biscayne Aquifer meets all federal and State drinking water standards. Alternative potable and non-potable water supplies in use include private cisterns, private wells, home desalinization systems, and bottled water. Most users of these alternative sources rely on them only as supplements to the FKAA supplied water. Cistern and well water is typically reserved for irrigation and other non-potable uses. The deeper Floridan Aquifer, which requires desalination treatment before it is suitable for either potable or irrigation use, is locally used for landscape irrigation.

Based on the SFWMD ePermitting database (accessed June 4, 2010), there are only three consumers in the County that are using enough Floridan Aquifer water to require an individual SFWMD permit: Ocean Reef Community (golf course and landscaping), Silver Shores Mobile Home Park (landscaping), and Card Sound Golf Course (golf course irrigation).

Potable water is supplied to the Keys by the FKAA according to the terms of the current consumptive use permit (SFWMD Water Use Permit No. 13-00005-W). A complex set of interagency and intergovernmental agreements control the water allocation and distribution. Agencies and governments which are parties to these agreements include FKAA, the SFWMD, the FDEP, the County, and the City of Key West. The County, being a retail customer of FKAA, does not have any local responsibility for potable water supply or distribution to its citizens.

The County has a water conservation component of the NROGO (Section 138-47, of the Monroe County Land Development Code (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.

B. Analysis: For 2010, demand for potable water by existing and committed residential and non-residential uses in the Florida Keys is estimated at approximately 20.07 million gallons per day. The projected demand (year 2035) for potable water from residential and non-residential uses in the FKAA service area is estimated at 23.8 million gallons per day. This water will continue to be provided

by the FKAA. The SFWMD Consumptive Use Permit will provide for this projected demand. Water will continue to be obtained from the Florida City Wellfield.

Water conservation strategies in use or under consideration in the County focus upon leak detection and repair; metering to detect unaccounted-for water; reuse of wastewater to the extent practicable; reduction of consumption through a conservation-oriented rate structure; water use restrictions; distribution of water conservation kits; adoption of a Florida-Friendly Landscape Ordinance; and adoption of plumbing fixture efficiency standards. Ten-year (2010) water need protections account for the FKAA Leak Detection Program, which has a goal of recapturing 13 percent of unaccounted for water loss.

In the future, increased water conservation through demand management will become even more important as supplies could become scarce. Equally important is that reduction of water use, treatment and distribution through more aggressive water conservation mitigates the use of energy to maintain infrastructure. Cutting the demand for landscape irrigation, generally the highest type of water use, becomes more of a priority to meet both goals. Given the County's history related to water conservation, additional focus should be placed on more upgrades to the efficiency of water use such as in buildings and irrigation infrastructure.

C. Policy Framework:

Policy 215.1.1: Monroe County shall adopt level of service standards (LOS) for the following public facility types required by Chapter 9J-5, F.A.C: roads, sanitary sewer, solid waste, drainage, potable water, parks and recreation, and mass transit. The LOS standards are established in the following sections of the Comprehensive Plan:

2. The LOS for potable water is established in Potable Water Policy 701.1.1;

GOAL 701: Monroe County shall support 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.

Objective 701.1: Monroe County shall ensure that at the time a development permit is issued, adequate potable water supply, treatment, and distribution facilities are available to support the development at the adopted level of service standards concurrent with the impacts of such development.

Policy 701.1.1: Monroe County hereby adopts the following level of service standards to achieve Objective 701.1 and shall use these standards as the basis for determining facility capacity and the demand generated by a development.

Policy 701.1.2: Monroe County will encourage FKAA to pursue a goal of decreasing unaccounted for water to 13 percent or lower by replacing deficient transmission and distribution lines and implementing meter improvements by the year 2005. Obtaining this goal will result in the following projected potable water consumption:

Residential Consumption 57.00 gal./capita/day
Non-Residential Consumption 0.29 gallons/sq ft/day
Overall Consumption 86.00 gal./capita/day

Policy 701.1.3: By January 4, 1997, Monroe County shall adopt Land Development Regulations which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development unless adequate potable water supply, treatment, and distribution facilities needed to support the development at the adopted level of service standards are available concurrent with the impacts of development.

Policy 701.1.4: The Concurrency Management System adopted in accordance with Policy 701.1.3 shall specify procedures for updating facility demand and capacity information, utilizing data provided by the FKAA as potable water facilities are installed or upgraded.

Policy 701.1.5: Monroe County shall amend the potable water quantity level of service upon attainment of the goal level of service as indicated in Policy 701.1.2.

Policy 701.1.6: Monroe County shall implement a concurrency management system that is consistent with the South Florida Water Management District Lower East Coast Regional Water Supply Plan and Florida Keys Aqueduct Authority 20-year Water System Capital Improvement Master Plan. (Ord. 022-2009)

Policy 701.1.7: Monroe County shall prepare and maintain a 10-year Water Supply Work Plan that identifies alternative water supply projects, traditional water supply projects, conservation, and reuse necessary to meet the Monroe County Unincorporated Area water supply needs, consistent with the South Florida Water Management District Lower East Coast Regional Water Supply Plan and the Florida Keys Aqueduct Authority 20-year Water System Capital Improvement Master Plan. (Ord. 022-2009)

Policy 701.1.8: Monroe County shall update the 10-year Water Supply Work Plan every 5 years or within 18 months after the governing board of the South Florida Water Management District approves an updated regional water supply plan. (Ord. 022-2009)

Objective 701.2: In coordination with Monroe County, the FKAA shall:

1. maintain a five year schedule of capital improvement needs for potable water supply, treatment and distribution, as identified through and in accordance with Policy 701.2.2;

2. identify responsible parties and agencies; and

3. identify time frames for completion.

4. The schedule will be updated annually consistent with Capital Improvements Policy 1401.1.2, and in accordance with the FKAA's annual budget process.

Policy 701.2.1: The Florida Keys Aqueduct Authority (FKAA) shall continue to address the future needs of potable water supply, treatment and distribution facilities and evaluate options to satisfy these needs. FKAA and Monroe County shall evaluate and rank proposed capital improvement projects, on the basis of delivery cost and other factors, considered for inclusion in the five-year schedule of capital improvement needs in accordance with the criteria contained in Policy 701.2.2 as well as the Goals, Objectives, and Policies of the Comprehensive Plan.

Policy 701.2.2: Proposed capital improvement projects shall be evaluated and ranked according to the following priority level guidelines:

Level One - Whether the project is consistent with the FKAA's enabling legislation.

Level Two - Whether the project is needed to protect public health and safety, provide facilities and services, or to preserve or achieve full use of existing facilities.

Level Three - Whether the project increases efficiency of use of existing facilities, prevents or reduces future improvement costs, provides service to developed areas lacking full service, or promotes in-fill development.

Level Four - Whether the project represents a logical extension of facilities and services within a designated service area.

Objective 701.3: Monroe County and the FKAA shall work cooperatively with the South Florida Water Management District (SFWMD), Dade County, and the Cities of Layton, Key Colony Beach and Key West to ensure the protection and availability of an adequate raw water supply at the Florida City Wellfield to meet the needs of Monroe County through the year 2010.

Policy 701.3.1: In coordination with Monroe County, the FKAA shall, as necessary, renew the Florida City Wellfield consumptive use permit issued by SFWMD. Alternative water sources such as reverse osmosis, cisterns and water re-use shall be evaluated and the most feasible solution implemented in the event that the necessary withdrawals from the Biscayne Aquifer are limited.

Policy 701.3.2: The Monroe County Growth Management Division shall provide technical assistance to the FKAA for the consumptive use permitting process. This technical assistance shall include providing information regarding future land use growth patterns, population trends, growth management policies and demand projections to

ensure consistency between the FKAA permitting process and the Monroe County Comprehensive Plan.

Policy 701.3.3: The Monroe County Growth Management Division shall annually supply FKAA and SFWMD with the Concurrency Management Report prepared in accordance with Capital Improvements Policy 1401.4.9. These annual reports shall include the latest information on land use, population trends, and growth management policies as well as facility capacity analyses using data supplied by service providers.

Policy 701.3.4: Monroe County shall continue to reserve the right to review and comment on the SFWMD plans, such as water supply, cost, needs and sources, and water conservation plans, as they are developed.

Policy 701.3.5: Monroe County shall continue to coordinate with the Cities of Layton, Key Colony Beach and Key West and FKAA as necessary to facilitate system-wide compatibility on such potable water-related issues as potable water levels of service, consumption projections, water conservation programs, and emergency management.

Objective 701.4: Monroe County shall work cooperatively with Dade County to encourage land use planning and development controls which shall protect the recharge area of the Florida City Wellfield from potential sources of groundwater contamination.

Policy 701.4.1: Protection of the Florida City Wellfield shall be accomplished through continued implementation of the Dade County Wellfield Protection Ordinance and the SFWMD Water Supply Policy Document.

Policy 701.4.2: By January 4, 1998, Monroe County shall seek an interlocal agreement with FKAA and Dade County. This agreement shall provide Monroe County with an opportunity to comment on land use and regulatory issues related to the Florida City Wellfield, aquifer and aquifer recharge area. It shall set forth procedures for review of land use and regulatory activities identified as having potentially significant impacts on the aquifer recharge and water supply systems especially concerning hazardous waste generation. Criteria for determination of significant impacts shall be included in the interlocal agreement.

Objective 701.5: FKAA shall supply adequate operating pressures in the transmission and distribution system to meet the adopted level of service standard specified in Policy 701.1.1(2) for the customer service connection.

Policy 701.5.1: FKAA shall continue to maintain the transmission network and construct improvements to continue to provide a minimum operating pressure of 20 PSI at customer service.

D. Strategies

- With respect to potable water, the County's GOPs have been successful in promoting environmental protection of water resources and orderly, economical development, including the requirement that potable water be available concurrent with the impacts of development.

- With respect to water conservation, the County should encourage water conservation strategies (including but not limited to use of rainwater harvesting, grey water/reuse, cisterns, stormwater on-site collection systems used for irrigation, and bio-swales) that reduce the demand for surface water treatment in the natural environment while maintaining the viability of freshwater wetlands and upland forested natural communities. Additionally, the County should analyze regulations and processes and strive to remove impediments to residents and business owner seeking to use grey water.

- The County should focus on ways to upgrade the efficiency of water use in buildings and irrigation infrastructure, for example by modifying existing ordinances to assure the most aggressive water efficiency requirements for landscape irrigation and building construction possible.

- The County should encourage FKAA representatives to attend PC and BOCC meetings where the *10-Year Water Supply Plan* is discussed.

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Issue Category #1(b): Habitat and Species Protection

A. Background:

A geospatial GIS analysis was conducted to examine the potential effects of proposed future land uses on vegetation cover. The analysis overlaid the existing vegetation cover map (habitat map) with the Future Land Use map.

Chapter 3: Conservation and Coastal Management Element of the updated (July 2011) Technical Document provides a table that identifies the amount of existing natural habitats within future land use designations, based on the Future Land Use map series. 78.4 percent of the total acreage for all natural habitats have a future land use of Conservation or Residential Conservation, suggesting that a majority of natural habitat acreage has a relatively high level of protection. This is evident for all individual habitat types (Mangrove, Hammock, Pineland, etc.) except for Water (which includes both salt and freshwater ponds), Exotic dominated lands, and Beach/Berm. For Water (which includes both salt and freshwater ponds) and Exotic dominated lands, future land use is primarily Conservation, Residential Conservation, and Military use. For Beach Berm, future land use is 31.3 percent for Recreation followed by 26.8 percent for Residential Conservation. This is the only natural habitat with a relatively small percentage of land categorized as Conservation.

The natural communities that have the most percentage located in future residential land uses (low density, medium density, and high density residential) are Exotic dominated lands (31.8 percent), Freshwater Wetlands (30.1 percent), Tropical Hardwood Hammocks (26.4 percent), Undeveloped lands (24.4 percent), Pinelands (22.6 percent), Beach/Berm (19.6 percent), and Buttonwood (13.4 percent). Although located in future Residential land use designations, residential (and other) development is controlled by the ROGO/NROGO ordinances and by the Tier Overlay Ordinance [see Section 3.19 (Effects of Future Land Use on Natural Resources) and below]. Most of the highest quality habitats are located in Tier 1 lands. For example, 95 percent of all of the Freshwater Wetlands in the Keys are located in Tier 1, 93 percent of Tropical Hardwood Hammocks are located in Tier 1, 98 percent of Pinelands are located in Tier 1, 83 percent of Beach/Berm are located in Tier 1, and 90 percent of Buttonwood are located in Tier 1. The Tier Overlay Ordinance is summarized in the following section.

B. Analysis: The 1990 Plan identified concerns associated with the high rates of growth in the Florida Keys. To address concerns regarding public safety (particularly during a mandatory hurricane evacuation) and quality of life issues, the Monroe County Board of Commissioners recommended the development of a dwelling unit allocation system. On June 23, 1992, the County adopted and implemented the Rate of Growth Ordinance (ROGO).

The primary purpose of ROGO was to control growth throughout the County so that the population can be evacuated in a timely manner in the event of a hurricane. In 1992, it was determined that 2,550 residential permits could be added and still maintain a 24-hour

standard for evacuation clearance time. Under ROGO, building permits are issued for a new dwelling only if it has received a residential dwelling unit allocation award, or if it is determined to be exempt. NROGO applies to the development of all new and expanded nonresidential floor area developments, except as exempted, for which a building permit or development approval is required.

The process of receiving an allocation is competitive and ROGO and NROGO establish the rules and procedures for that competition. Competition is a point based system that allows applicants for new residential or commercial building permits to compete against each other for the limited number of allocations issued each year. The number of allocations available is determined through the adoption of an administrative rule at the State level. The number of allocations is based on the progress the County has made toward achieving stipulated State goals.

The ROGO allocation system applies only to the unincorporated area of the County and excludes the mainland and Ocean Reef (northern Key Largo). It is divided into three subareas:

- The unincorporated area of the county north of Tavernier Creek and corporate limits of the Village of Islamorada (approximately mile marker 90).
- The unincorporated area of the county from the corporate limits of the Village of Islamorada (approximately mile marker 72) south to the corporate limits of the City of Key West at Cow Key Bridge on U.S. 1 (approximately mile marker 4), excluding Big Pine Key and No Name Key.
- Big Pine Key and No Name Key, which are covered under an approved HCP and adopted LCP: the Big Pine Key-No Name Key HCP and LCP are separate conservation planning documents that operate in conjunction with ROGO and NROGO [see Section 3.19.2.2 (Tier Overlay Ordinance in Big Pine Key and No Name Key)].

Market Rate Applicants in ROGO compete for an allocation award with other applicants in the same sub-area. There are two competition areas for Affordable Housing which are 1) the Big Pine / No Name Key subarea and 2) the remainder of unincorporated Monroe County. The affordable housing applicants compete based on two categories: 1) very low, low, & median income category or 2) moderate income category. Allocations are awarded each quarter in each sub-area. The ROGO system is reviewed quarterly and monitored by the County Department of Planning and Environmental Resources.

Point System within ROGO: Points are intended to discourage development in environmentally sensitive areas and to direct and encourage development to appropriate infill areas. The primary point assignments are[11]:

[11] Policy 101.5.4 of the Monroe County 2010 Comprehensive Plan .

Primary point assignments under ROGO

Point Assignment	Criteria (see Section 3.19.2 for an explanation of Tiers)
+0	An application which proposes a dwelling unit within an area designated Tier I on Big Pine Key or No Name Key.
+10	An application which proposes a dwelling unit within an area designated Tier I (natural area).
+10	An application which proposes development within an area designated Tier II (transition and sprawl reduction area) on Big Pine Key or No Name Key.
+20	An application which proposes development within an area designated Tier III (infill area) on Big Pine Key or No Name Key.
+20	An application which proposes the clearing of any upland native habitat vegetation that is part of a one acre or larger upland native habitat within an area designated Tier III-A (special protection area).
+30	An application which proposes development within an area designated Tier III (infill area) outside of Big Pine Key or No Name Key.

Points to implement the HCP and the Livable CommuniKeys Community Master Plan for Big Pine Key and No Name Key

Point Assignment	Criteria
- 10	An application which proposes a dwelling unit on No Name Key.
- 10	An application which proposes development in designated Lower Keys Marsh Rabbit habitat or buffer areas as designated in the community master plan.
- 10	An application which proposes development in Key Deer Corridor as designated in the community master plan.

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Points to encourage density reductions

Point Assignment	Criteria
+4	An application which aggregates a contiguous vacant, legally platted, vacant, buildable lot, zoned IS, IS-D, URM, URM-L, or CFV, located within a Tier III designated area together with the parcel proposed for development. Each additional vacant, legally platted, buildable lot which is aggregated that meets the above requirements will earn the application the additional points.
+3	On Big Pine Key and No Name Key. An application which aggregates a contiguous vacant, legally platted, vacant, buildable lot, zoned IS, IS-D, URM, URM-L, or CFV, located within a Tier II or Tier III designated area together with the parcel proposed for development. Each additional vacant, legally platted, buildable lot which is aggregated that meets the above requirements will earn the application the additional points.
Additional Requirements: • The proposed development cannot clear upland native vegetation of more than 5,000 square feet or the open space requirements of LDR Section 118-9[12]. • The application shall include, but not be limited to o A legally binding, restrictive covenant limiting the number of dwelling units on the aggregated lot, running in favor of the county and enforceable by the county, subject to the approval of the growth management director and county attorney and recorded in the office of the clerk of the county prior to the issuance of any building permit pursuant to an allocation award.	
• Exception: No points for aggregation are awarded for any application that proposes the clearing of any native upland habitat in a Tier III-A (Special Protection Area) area. No aggregation of lots will be permitted in Tier I.	

[12] The Department of Community Affairs and the Keys communities evaluated the adopted clearing limits for high and moderate quality tropical hardwood hammocks. The allowable amount of clearing is currently determined by the quality of the hammock and varies by tier designation and community. Recommendations were made to bring parity between incorporated and unincorporated Monroe County, and to strengthen the protection of tropical hardwood hammocks. Proposed recommendations included land clearing limits, which vary according to the tier designation, but cannot exceed 7,500 square feet. It was further recommended that the Comprehensive Plan revise its lot aggregation policies, land development regulations, and Rule 28-20.120(4)(e), F.A.C., to limit clearing of aggregated lots that receive points in the building permit allocation system from 5,000 square feet to a maximum of 7,500 square feet (DCA, 2010).

Points to encourage dedication of lands in Tier I and Tier II (Big Pine Key and No Name Key) areas and to encourage affordable housing in Tier III lands

Point Assignment	Criteria
+4	An application, which includes the dedication to the county of one vacant, legally platted buildable lot, zoned SC, IS, IS-D, URM, URM-L, or CFV, or a legally platted, buildable lot within any CFSD that authorizes dwelling units. Each additional vacant, legally platted, buildable lot which is dedicated that meets the above requirements will earn the application the additional points.
+2	On Big Pine Key and No Name Key, an application, which includes the dedication to the county of one vacant, legally platted buildable lot, zoned SC, IS, IS-D, URM, URM-L, or CFV, or a legally platted, buildable lot within any CFSD that authorizes dwelling units. Each additional vacant, legally platted, buildable lot which is dedicated that meets the above requirements will earn the applicant the additional points.
+1 for each 5,000 square feet of lot area	An application, which includes the dedication to the county of a vacant, legally platted, buildable lot of 5,000 square feet or more within a suburban residential district (SR) or suburban residential-limited district (SR-L) within a designated Tier I area. Each additional vacant, legally platted, buildable lot of 5,000 square feet or more that meets the above requirements will earn points.
+0.5	An application, which includes the dedication to the county of one vacant, legally platted, buildable lot of 5,000 square feet or more within a native area district (NA) or sparsely settled district (SS) in a designated Tier I area. Each additional vacant, legally platted, buildable lot that meets the above requirements will earn the half-point.
+4	An application, which includes the dedication to the county of at least one acre of vacant, unplatted, buildable land located within a designated Tier I area. Each additional one acre of vacant, unplatted, buildable land that meets the above requirements will earn the points.
+2	On Big Pine Key and No Name Key, an application, which includes the dedication to the county of at least one acre of vacant, unplatted, buildable land located within a designated Tier I area. Each additional one acre of vacant, unplatted, buildable land that meets the above requirements will earn the points.

Additional requirements

- The application shall include, but not be limited to
  - A statutory warranty deed that conveys the dedicated property to the county shall be approved by the growth management director and county attorney and recorded in the office of the clerk of the county prior to the issuance of any building permit pursuant to an allocation award.
- Lots or parcels dedicated for positive points under this paragraph shall not be eligible for meeting the mitigation requirements of the Big Pine Key and No Name Key Overlay Zone.
- Lots or parcels donated for points in Big Pine Key or No Name Key must be located within Tier I or Tier II lands in Big Pine Key or No Name Key.

Additional points

Point Assignment	Criteria
+6	An application for market rate housing unit which is part of employee or affordable housing project. The market rate dwelling unit must be part of an approved employee or affordable housing project and meet all the requirements and conditions pursuant to LDR Section 130-161(a) and (f).
- 4	An application which proposes development within a "V" zone on the FEMA flood insurance rate map.
+4	An application for which development is required to be connected to a central wastewater treatment system that meets BAT/AWT standards established by the State legislature.
+1	A point shall be awarded on the anniversary controlling date for each year that the application remains in the ROGO system up to a maximum of four years.
+ 1 to + 2	Proposes payment to the county's land acquisition fund in an amount equal to the monetary value of a ROGO dedication point times the number of points to be purchased, up to a maximum of two points. The monetary value of each point shall be established annually by resolution of the board of county commissioners. The monetary value of each point shall be based upon the average fair market value of privately-owned, buildable, vacant, IS/URM, platted lots in Tier I divided by four. Payment to the county's land acquisition fund shall be prior to the issuance of any building permit pursuant to the allocation award.

Tier Overlay Ordinance in Unincorporated Monroe County: On March 21, 2006, the Tier Overlay Ordinance was adopted as a zoning overlay. The Tier Overlay Ordinance is a ranking of land based on environmental characteristics.

Section 130-130 of the LDCs stipulates the Tier Overlay Ordinance as a planning tool and as an overlay district to manage development and conservation of land. The purpose is to designate geographical areas outside of the mainland of the County (excluding the Ocean Reef planned development) into tiers. Each tier:

- assigns points used in the ROGO and NROGO systems;
- determines the permittable amount of clearing of upland native vegetation; and
- prioritizes lands for public acquisition.

The tier boundaries are shown on the Tier Overlay District Maps, which are available from the County Department of Planning and Environmental Resources.

Lands in unincorporated Monroe County (excluding the Ocean Reef planned development) are mapped as Tier I, III, and III-A (Special Protection Area). Lands on Big Pine Key and No Name Key are mapped as Tier I, II, or III. The Tier boundaries were determined using aerial photographs, data from the Florida Keys Carrying Capacity Study, endangered species maps, property and permitting information, and limited field

evaluations. Approximately half of the land subject to the Tier Overlay Ordinance is classified as Tier I.

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Tier classification system criteria for Unincorporated Monroe County

Tier	Description	Lower Keys - acres	Middle Keys - acres	Upper Keys - acres	Total acres
I	Tier I boundaries were delineated to include one or more of the following criteria: • Vacant lands which can be restored to connect upland native habitat patches and reduce further fragmentation of upland native habitat. • Lands required to provide an undeveloped buffer, up to 500 feet in depth, if indicated as appropriate by special species studies, between natural areas and development to reduce secondary impacts. Canals or roadways, depending on width, may form a boundary that removes the need for the buffer or reduces its depth. • Lands designated for acquisition by public agencies for conservation and natural resource protection. • Known locations of threatened and endangered species, as defined in LDR Section 101-1, identified on the threatened and endangered plant and animal maps or the Florida Keys Carrying Capacity Study maps, or identified in on-site surveys. • Conservation, Native Area, Sparsely Settled, and Offshore Island land use districts. • Areas with minimal existing development and infrastructure.	31,490.0	944.1	16,979.4	49,413.4
II	Pertains only to Big Pine Key / No Name Key. Scattered lots and fragments of environmentally sensitive lands that may be found in platted subdivisions. A large number of these	278.2	0.0	0.0	278.2

Tier	Description	Lower Keys - acres	Middle Keys - acres	Upper Keys - acres	Total acres
	lots are located on canals and are of minimal value to the key deer and other protected species because the canal presents a barrier to dispersal.				
III	Tier III are lands located outside of Big Pine Key and No Name Key that are not designated Tier I or Tier III-A. Tier III represents the majority of developable acreage in the County.	7,190.5	1,606.4	26,134.0	34,930.9
III-A	Tier III-A is designated as a Special Protection Area. It is defined as lands that have one acre or more of native upland habitat.	130.8	0.0	1,204.9	1,335.7
Undesignated	Some properties do not have a tier designation. These undesignated properties are found throughout the Keys but most occur in Ocean Reef, which is exempt from the Tier Overlay Ordinance. Others are rights-of-way, military installations, or properties that were not designated due to mapping discrepancies and, at the time of the preparation of this document, are being evaluated for tier designation.	5,319.1	292.2	8,745.9	14,357.2

Source: Acreages from Monroe County GIS database 10/8/2010.

After adoption of the Tier Maps and ordinances, a legal challenge was filed to the ordinance which resulted in an order from an administrative law judge that recommended striking certain portions of the tier criteria ordinance which was used to classify parcels in the Tier Overlay Ordinance. DCA Secretary Pelham adopted the administrative law judge's recommended order in his Amended Final Order. This Final Order invalidated the tier designations for approximately 3,100 parcels. With the complex permitting system in the County, the de-designation of these parcels, along with several other groupings of parcels where property owners petitioned the County for amendments to their Tier Designation, this has caused some parcels/land to be "Tier-less", or "Tier Undesignated", with no ability to score them in ROGO or NROGO. The County has re-evaluated and processed these lands into Tier categories, based upon recommendations made by a Tier Designation Review Committee (TDRC). The County adopted Ordinance 005-2011, 006-2011, 007-2011 and 008-2011 in May 2011 to assign Tier designations to all these parcels.

Tier Overlay Ordinance in Big Pine Key and No Name Key: The Tier Overlay Ordinance in unincorporated Monroe County differs somewhat from the islands of Big Pine Key and No Name Key. The tier boundaries on Big Pine Key and No Name Key

were designated using the Big Pine Key and No Name Key HCP (Monroe County et al., 2006) and the adopted community master plan for Big Pine Key and No Name Key. The HCP provides a strategy to protect the habitat of the endangered key deer (*Odocoileus virginianus clavium*), endangered lower keys marsh rabbit (*Sylvilagus palustris hefneri*), and threatened eastern indigo snake (*Drymarchon corais couperi*). The HCP protects the highest quality habitat and directs development to areas that have already been impacted. The HCP was developed in conjunction with an Incidental Take Permit issued by the USFWS on June 9, 2006. Under this permit, landowners obtaining a building permit from the County may "take[13]" threatened and endangered wildlife and can proceed with construction without any other permits or reviews from the USFWS.

Based on the Key Deer studies completed under the HCP and the spatial model that resulted, the County developed a conservation priority classification for private undeveloped lands in the study area.

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[13] "Take" is defined in the Endangered Species Act of 1973, as amended (87 Stat. 884; 16 U.S.C. 1531 et seq.) as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species. Harm may include significant habitat modification where it actually kills or injures a listed species through impairment of essential behavior (e.g., nesting or reproduction).

Tier classification criteria for Big Pine Key and No Name Key

Tier	Description	Area (acres)	
		Big Pine Key	No Name Key
I	Lands where all or a significant portion of the land area is characterized as environmentally sensitive and is important for the continued viability of HCP covered species. These lands are high quality key deer habitat, generally representing large contiguous patches of native vegetation that provide habitat for other protected species.	973.4	217.0
II	Scattered lots and fragments of environmentally sensitive lands that may be found in platted subdivisions. A large number of these lots are located on canals and are of minimal value to the key deer and other protected species because the canal presents a barrier to dispersal.	101.6	0
III	Scattered lots within already heavily developed areas that provide little habitat value to the key deer and other protected species. Some of the undeveloped lots in this Tier are located between existing developed commercial lots within the U.S. 1 corridor or are located on canals.	58.5	0
Total		**1,133.5**	**217.0**

Source: HCP for Florida key deer (*Odocoileus virginianus clavium*) and other protected species on Big Pine Key and No Name Key, Monroe County, Florida. April 2003, revised, April 2006.

Tier I lands are higher-quality key deer habitat (and other protected species considered in the plan) while Tier III lands are the lowest quality. Most of the parcels in Tiers II and III are interspersed among developed parcels and along canals. The tier classification helps to determine the location of potential new development and to prioritize mitigation areas.

Tiers are also used as part of the County's 20-year land acquisition program. Tier I land will receive first priority for acquisition, Tier II land and patches of tropical hardwood hammock or pinelands of one acre or greater in areas within Tier II land will receive second priority for acquisition, and Tier III lands will be third priority for acquisition, except for acquisition of land for affordable housing, which also shall be a first priority. These areas will be set aside for conservation or retirement of development rights of vacant privately-owned, buildable, platted lots within Tier I and Tier II and the acquisition of scarified and disturbed lands for affordable housing within Tier III (Monroe County et al., 2006).

Tier Overlay District Map Amendments: According to Section 130-130 of the LDCs, the Tier Overlay District Map may be amended to reflect existing conditions in an area because of drafting errors, , or regrowth of hammock. The Tier Overlay District Map amendments are made according to procedures set in the LDCs for map amendments.

The most suitable habitat for listed species and unprotected plant and animal species is located within parks, preserves, and refuges. These lands and a majority of remaining suitable habitat are located within lands predominately categorized as Tier I lands. As discussed for each listed species, the most suitable habitat for each terrestrial species is generally located in lands protected by the Tier Overlay System. The County's ROGO/NROGO as well as the LDCs further protect these habitats. In addition, most wetlands (freshwater marsh, salt marsh, buttonwood, salt ponds, freshwater lenses, mangroves, and some areas of tropical hardwood hammocks and pinelands), which provide habitat for several protected species, are protected by State and federal regulations.

The tier boundaries on Big Pine Key and No Name Key were designated using the Big Pine Key and No Name Key HCP and the adopted community master plan for Big Pine Key and No Name Key. The HCP, developed in conjunction with an Incidental Take Permit, protects the highest quality habitat and directs development to areas that have already been impacted. Thus, future development would affect lands that have reduced habitat value for protected wildlife species.

Effects of Future Land Uses on Seagrass Beds: The FKNMS Management Plan provides the basis for future federal, State, and local conservation activities affecting the resources of the FKNMS, including its seagrass beds. The County's Plan and LDCs provide similar goals, strategies, and code regulations to provide protection to seagrass communities.

Seagrass beds protection in the future can be achieved through the LDCs and by actions of the Monroe County Marine Resources Office. The LDCs currently prohibit new dredging in the Florida Keys and prohibits maintenance dredging within areas vegetated with seagrass beds. No new dredging has taken place in unincorporated Monroe County in recent years and it is expected that this trend will continue. State regulations oversee placement of boat docks and associated structures. However, inexperienced boaters often contribute to benthic resource damage. The FKNMS Management Plan has implemented the Mooring Buoy and Waterway Management Action Plan to reduce vessel damage to seagrass beds (as well as coral reefs and other benthic communities). The Marine Resources Office coordinates with FDEP on the existing policy prohibiting mooring buoy fields over seagrass beds. The Marine Resources Office identifies derelict vessels and receives financial assistance to remove them.

Effects of Future Land Uses on Coral Communities: The FKNMS Water Quality Protection Plan monitoring program was established to study the status and trends of the coral communities. Monitoring has identified a large loss of coral and that many of the causes of these declines originate from outside the influence of the County. Losses have been attributed to nutrients and water flows from the mainland or from ocean/gulf currents. Warming ocean temperatures have been identified as a major factor in coral bleaching. Solutions will require action on local, regional, and global scales, many of which are out of the control of the County. However, the water quality provisions discussed in the next section are in the control of the County and it is anticipated that, under these provisions, nearshore water quality will be improved.

Effects of Future Land Uses on Mangroves: No documented reports of mangrove losses in the Keys have been due to poor water quality. However, they are sensitive to herbicides, petroleum products, and heavy sediment loads. Most of the County's mangroves are protected in federal or State parks, preserves, or refuges. The FKNMS Management Plan provides the basis for future federal, State, and local conservation activities affecting the resources of the FKNMS, including its mangrove forests. The Plan identifies the regulatory strategies and responsibilities for resource protection. It includes a public education program for mangrove conservation.

Current LDCs limit the alteration of fringing shoreline mangroves along much of the Keys' unaltered open water shorelines and along altered shorelines and shorelines of artificial waterways. The LDCs, as well as State and federal regulations, specify the heights and amount of mangrove trimming that is allowed by exemption or by permit.

C. Policy Framework:

Policy 101.5.4: Monroe County shall implement the residential Permit Allocation and Point System through its land development regulations based primarily on the Tier system of land classification as set forth under Goal 105. The points are intended to be applied cumulatively.

1. Tier Designation - Utilizing the Tier System for land classification in Policy 105.2.1, the following points shall be assigned to allocation applications for proposed dwelling units in a manner that encourages development of infill in predominately developed areas with existing infrastructure and few sensitive environmental features and discourages development in areas with environmentally sensitive upland habitat which must be acquired or development rights retired for resource conservation and protection.

Policy 101.5.9: For the purposes of NROGO scoring pursuant to Policy 101.5.5, lawfully established non-residential uses shall be assigned +20 points. If any such use is located within a Tier I designated area or a Tier III Special Protection Area, such scoring assignment shall be contingent upon no further clearing of upland native habitat and no addition to and/or expansion of the existing lot or parcel upon which the use is located.

Policy 101.13.4: In conjunction with the evaluation of the existing TDR program pursuant to Policy 101.13.2, parcels within the following habitats and land use districts shall be designated as sender sites for Transferable Development Rights (TDRs): Habitat of the following types which lie within any zoning category: Freshwater wetlands Saltmarsh/Buttonwood wetlands High quality high hammock High quality low hammock Moderate quality high hammock Moderate quality low hammock High quality pinelands Low quality pinelands Beach/berm Palm Hammock Cactus Hammock Disturbed Wetlands.

GOAL 102: Monroe County shall direct future growth to lands which are intrinsically most suitable for development and shall encourage conservation and protection of environmentally sensitive lands.

Objective 102.1: Upon adoption of the Comprehensive Plan, Monroe County shall require new development to comply with environmental standards and environmental design criteria which will protect disturbed wetlands, native upland vegetation and beach/berm areas.

Policy 102.1.1: The County shall protect submerged lands and wetlands. The open space requirement shall be one hundred (100) percent of the following types of wetlands: 1. submerged lands 2. mangroves 3. salt ponds 4. fresh water wetlands 5. fresh water ponds 6. undisturbed salt marsh and buttonwood wetlands Allocated density (dwelling units per acre) shall be assigned to freshwater wetlands and undisturbed salt marsh and buttonwood wetlands only for use as transferable development rights away from these habitats. Submerged lands, salt ponds, freshwater ponds, and mangroves shall not be assigned any density or intensity.

Objective 102.2: Upon adoption of the Comprehensive Plan, Monroe County shall adopt revisions to the Environmental Standards (Section 9.5-335) and Environmental Design Criteria (Section 9.5-345) of the Land Development Regulations. These revisions will require new development to further protect disturbed wetlands, native upland vegetation and beach/berm areas.

Policy 102.2.1: Monroe County shall adopt revised environmental standards and environmental design criteria as indicated in Conservation and Coastal Management Policy 204.2.6. These revised standards and criteria will eliminate the net loss of disturbed wetlands. Where possible, on-site mitigation shall be required in order to offset any loss of disturbed wetlands by requiring revegetation of an area equal or greater in size than the area proposed for fill. If on-site mitigation is not possible, restoration fees shall be paid pursuant to a wetlands restoration fund; also see Policy 204.3.1 and 204.3.4]

Policy 102.2.2: Monroe County shall adopt revised environmental standards and environmental design criteria as indicated in policies adopted pursuant to Conservation and Coastal Management Objective 205.2. These revised standards and criteria will protect native upland vegetation and promote restoration of habitat values of native upland communities, including hardwood hammocks and pinelands.

Policy 102.2.3: Monroe County shall adopt revised environmental standards and environmental design criteria as indicated in policies adopted pursuant to Conservation and Coastal Management Objective 206.1. These revised standards and criteria will protect beach/berm resources. They will address permitted uses, siting of structures, disturbances, removal of invasive vegetation, and restoration of native vegetation in beach/berm areas.

Policy 102.3.2: Monroe County shall require development clustering so as to avoid impacts on sensitive habitats and to provide for the preservation of all required open space in a contiguous, non-fragmented condition by requiring the following:

1. when a parcel proposed for development contains more than one (1) habitat type, all development shall be clustered on the least sensitive portion(s) of the parcel (as is currently required): and

2. development permitted on the least sensitive portion(s) of a parcel shall be clustered within that portion(s) of the parcel. (See Conservation and Coastal Management Policy 205.2.3).

Policy 102.4.2: The Land Authority and the Growth Management Division shall identify the types of lands which shall be considered for acquisition. These shall include, at a minimum:

1. designated Tier I (Natural Areas) lands as defined in Policy 105.2.1.1, which shall include all contiguous hammock or pineland areas above four acres in area;

2. restoration areas between fragmented hammocks to increase the contiguous hammock size and buffers where appropriate and lands containing naturally occurring and native habitats;

3. fresh water wetlands, and undisturbed salt marsh, and buttonwood wetlands that are required open space under Policy 102.1.1;

4. patches of upland native vegetation of one acre or greater in area in Tier III, designated as Special Protection Areas, that provide habitat for small birds and animals and contribute to the quality of the neighborhoods;

5. lands containing unique geologic features;

6. lands whose conservation would enhance or protect water quality or would protect fish or wildlife habitat, which cannot be adequately protected through local, State and federal regulatory programs;

7. lands in Tier III for employee and affordable housing that do not involve the clearing of any upland native vegetation contained within a patch of one acre or greater;

8. lands which can be used, without adverse impacts on natural resources, for community and neighborhood parks and/or public beaches water access;

9. lands which offer the opportunity for preservation of significant archaeological or historical sites; and

10. lands with habitat value on Big Pine Key and No Name Key to meet mitigation requirements of the Big Pine Key and No Name Key Habitat Conservation Plan

Policy 102.4.3: The Land Authority and Growth Management Division shall develop a priority list of acquisition sites. This list shall be updated annually with public input. In formulating this list, the County shall prioritize Tier I lands over Tier II (Big Pine Key and No Name Key) and Tier III lands. Outside the boundaries of Tier I, land with fragmented hammocks or pinelands of greater than one-acre in area and wetlands identified in Policy 102.4.2, 2 shall be the second highest priority for acquisition. Acquisition of land for affordable housing in Tier III that does not involve any clearing within an upland tropical hammock or pineland of one acre or greater in area shall also be a top priority.

The Monroe County Land Acquisition Master Plan shall contain policies to direct the overall acquisition program, criteria to follow when setting priorities for acquisition and a framework for the acquisition process and the sharing of responsibilities. At a minimum the plan shall include the following: 1. Environmental protection, density reduction and passive recreation:

a) public acquisition, ownership and maintenance will be the preferred option for Tier I lands and for clusters of undisturbed wetland and tropical hardwood hammock, or pineland patches of one acre or greater in size in Tier II (Big Pine and No Name Key) and Tier III;

b) buy/sell back to the adjacent property owner's option will be followed in Tier II, where sprawl and density reduction and mitigation requirements of the Habitat Conservation Plan for Big Pine Key and No Name Key are the prime impetus for land purchase. A higher priority for acquisition will be given to those parcels in Tier II (Big Pine and No Name Key) with neighboring properties owners or communities who want to partner with the county to purchase the lots and take responsibility for maintenance and protection of any areas of native vegetation;

c) purchased lands that can also provide needed recreational opportunities will be identified in coordination with the Parks and Recreation Board and a plan for utilization developed;

d) non-purchase options will also be explored and specific recommendations included;

e) criteria for the ranking of land acquisitions within the different priority areas will include 1) the size and the location of the property and surrounding land uses including management status, 2) minimization of the edge to area ratio of parcels by combining lots for acquisition, 3) potential for successful reclamation if within a larger, better hammock quality area, and 4) maintenance costs for isolated parcels.

Policy 103.1.3: Monroe County shall identify Key deer habitat areas as priority acquisition sites for conservation purposes. Emphasis shall be placed upon acquisition of movement corridors, sources of fresh water, and undisturbed native vegetation areas which are located within Improved Subdivisions and which are outside of the acquisition areas identified by the FWS (for the National Key Deer Refuge), DNR (for the Coupon Bight CARL Project), and SFWMD (for the Big Pine Key Save Our Rivers project). Acquisition shall be considered through the Monroe County Natural Heritage and Park Program. (See Objective 102.4 and related policies.)

Policy 103.1.4: Monroe County shall support, wherever possible, the efforts of federal agencies, State agencies, and private non-profit conservation organizations, to acquire land for conservation purposes within habitat areas of the Key deer.

Policy 103.1.13: Monroe County, in conjunction with the FWS, shall implement activities to prohibit the destruction of the federally-designated endangered Key deer and to protect its habitat by addressing:

1. enforcement of animal control laws;

2. incorporation of management guidelines into development orders;

3. construction of fences;

4. roadside management techniques;

5. feeding laws;

6. speed limit enforcement;

7. removal of invasive plants;

8. distribution of management guidelines to private landowners;

9. attainment of Key deer management objectives; and (See Conservation and Coastal Management Objective 207.7 and supporting policies.)

10. secondary and cumulative impacts by, among other things, adopting and implementing appropriate land development regulations.

Objective 103.2: Monroe County, in coordination with the FWS, shall regulate future development and coordinate the provision of public facilities in North Key Largo consistent with the Goals, Objectives and Policies of this Comprehensive Plan in order to maintain the rural and open space character of North Key Largo, as well as to preserve and enhance the habitat of four (4) species of animals listed as endangered under the Endangered Species Act, including the American crocodile (*Crocodylus acutus*), the Key Largo wood rat (*Neotoma floridana smalli*), the Key Largo cotton mouse (*Peromyscus gossypinus allapaticola*), and the Schaus swallowtail butterfly (*Heraclides aristodemus ponceanus*). North Key Largo is defined as that portion of Key Largo Located between the junction of State Road 905 and U.S. Highway 1 and the Dade County boundary at Angelfish Creek.

Policy 103.2.1: Monroe County shall implement methods including, but not limited to, designating known habitat of the Schaus swallowtail butterfly as Tier I.

Policy 103.2.3: By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations pertaining to development siting and clustering so as to avoid impacts on sensitive habitats and to provide for the retention of contiguous open space by requiring the following:

1. when a parcel proposed for development contains more than one (1) habitat type, all development shall be clustered on the least sensitive portion(s) of the parcel (as is currently required); and

2. development permitted on the least sensitive portion(s) of a parcel shall be clustered within that portion(s) of the parcel. (See Conservation and Coastal Management Policy 205.2.3.)

Policy 103.2.4: Upon adoption of the Comprehensive Plan, Monroe County shall require that the following analyses be undertaken prior to finalizing plans for the siting of any new public facilities or the significant expansion (greater than 25 percent) of existing public facilities:

1. assessment of needs

2. evaluation of alternative sites and design alternatives for the selected sites; and

3. assessment of impacts on surrounding land uses and natural resources.

The assessment of impacts on surrounding land uses and natural resources will evaluate the extent to which the proposed public facility involves public expenditures in the coastal high hazard area and within environmentally sensitive areas, including disturbed salt marsh and buttonwood wetlands, undisturbed beach/berm areas, units of the Coastal

Barrier Resources System, undisturbed uplands (particularly high quality hammocks and pinelands), habitats of species considered to be threatened or endangered by the State and/or federal governments, offshore islands, and Conservation Land Protection Areas. Monroe County shall require that public facilities be developed on the least environmentally sensitive lands and shall prohibit the location of public facilities on North Key Largo, unless no feasible alternative exists and such facilities are required to protect the public health, safety, or welfare.

Policy 103.2.5: Monroe County shall monitor FKAA compliance with federal regulations prohibiting potable water hookups to designated habitat areas of the American crocodile, the Key Largo wood rat, the Key Largo cotton mouse, and the Schaus swallowtail butterfly (pursuant to FKAA Rules Chapter 48-7).

Policy 103.2.6: Monroe County shall implement activities to protect the habitat and prohibit the destruction of the:

1. American crocodile (See Conservation and Coastal Management Objective 207.8 and supporting policies);

2. Schaus swallowtail butterfly (See Conservation and Coastal Management Objective 207.10 and related policies); and

3. the Key Largo wood rat and the Key Largo cotton mouse (See Conservation and Coastal Management Objective 207.12 and related policies.)

Policy 103.2.7: Monroe County shall identify native upland habitats used by the Schaus swallowtail butterfly and the Key Largo wood rat and the Key Largo cotton mouse as priority acquisition sites for conservation purposes. Emphasis shall be placed upon acquisition of native upland sites which are located within Improved Subdivisions and which are outside of the acquisition areas identified by the FWS (for the Crocodile Lake National Wildlife Refuge), and DNR (for the Key Largo Hammock CARL Project). Acquisition shall be considered through the Monroe County Natural Heritage and Park Program. (See Objective 102.4 and related policies.)

Policy 103.2.8: By January 4, 1998, Monroe County shall complete and implement a cooperative land management program for private and county-owned lands located within and adjacent to state and federal government-owned parks and conservation lands which are within or affected by land uses in North Key Largo, including:

1. Crocodile Lake National Wildlife Refuge;

2. John Pennekamp Coral Reef State Park;

3. North Key Largo Hammock State Botanical Site and CARL Project; and

4. Biscayne Bay - Card Sound State Aquatic Preserve. (See Objective 102.9 and related policies.)

Policy 103.2.9: Monroe County shall support, wherever possible, the efforts of federal agencies, state agencies, and private non-profit conservation organizations, to acquire land for conservation purposes within North Key Largo. [

Policy 103.2.10: Monroe County shall take immediate actions to discourage private development in areas designated as units of the Coastal Barrier Resources System. (See Objective 102.8 and related policies.)

Policy 103.2.11: Prior to issuing a building permit or development approval, Monroe County shall require an archaeological/historical review of the proposed development site, performed by a qualified professional familiar with Monroe County. The review will identify the potential development impacts on any resources present, and will recommend mitigation measures, if any.

Policy 103.2.12: Prior to issuing a building permit or development approval, Monroe County shall require that the Monroe County Biologist visit the site of all development approval and building permit applications within North Key Largo to assess the need for any federal or state permits.

Policy 103.2.13: Prior to issuing a building permit or development approval, Monroe County shall require all applicants to obtain all federal and state permits, including, but not limited to, required permits pertaining to endangered species as required by the U.S. Fish and Wildlife Service and the Florida Game and Fresh Water Fish Commission.

Policy 103.2: Monroe County, in conjunction with the FWS, shall implement activities to prohibit the destruction of the federally-designated threatened and endangered species and to protect its habitat by addressing:

1. enforcement of animal control laws;

2. construction of fences;

3. roadside management techniques;

4. feeding laws;

5. speed limit enforcement;

6. removal of invasive plants;

7. distribution of management guidelines to private landowners; and

8. attainment of endangered species management objectives.

Objective 103.3: Monroe County shall coordinate future development on Ohio Key to protect the habitat value and environmental sensitivity of the wetland system on that Key that serves as habitat for a variety of wading birds, including the piping plover (*Charadrius melodius*), a species listed as threatened under the Endangered Species Act.

Policy 103.3.3: Upon adoption of the Comprehensive Plan, Monroe County shall implement methods including, but not limited to, the Permit Allocation and Point System in order to discourage developments which may adversely impact activities of the piping plover on their wintering grounds (measures of adverse impact to be established by the Monroe County Biologist). (See Policy 101.5.4)

Objective 103.4: By January 4, 1997, the Land Development Regulations will be revised to address the issues in the focal point plans for all four ACCC designations as stipulated in Objectives 103.1 to 103.3 and related policies.

Policy 103.4.1: By January 4, 1997, the Land Development Regulations will be revised to eliminate the ACCC designations from Holiday Isle, Big Pine Key, North Key Largo, and Ohio Key.

GOAL 203: The health and integrity of living marine resources and marine habitat, including mangroves, seagrasses, coral reefs and fisheries, shall be protected and, where possible, enhanced.

GOAL 205: The health and integrity of Monroe County's native upland vegetation shall be protected and, where possible, enhanced.

Objective 205.1: Monroe County shall utilize the computerized geographical information system (GIS) and the data, analysis and mapping generated in the Florida Keys Carrying Capacity Study (FKCCS), FMRI, habitat maps and field evaluation to identify and map areas of upland vegetation in the Florida Keys and to prepare Tier Overlay District Maps as required in Policy 105.2.2.

Policy 205.1.1: The County shall establish the following criteria at a minimum to use when designating Tiers: 1. Land located outside of Big Pine Key and No Name Key shall be designated as Tier I based on following criteria:

1. Natural areas including old and new growth upland native vegetated areas, above four acres in area.

2. Vacant land which can be restored to connect upland native habitat patches and reduce further fragmentation of upland native habitat.

3. Lands required to provide an undeveloped buffer, up to 500 feet in depth, if indicated by appropriate special species studies, between natural areas and

development to reduce secondary impacts; canals or roadways, depending on size may form a boundary that removes the need for the buffer or reduces its depth.

4. Lands designated for acquisition by public agencies for conservation and natural resource protection.

5. Known locations of threatened and endangered species.

6. Lands designated as Conservation and Residential Conservation on the Future Land Use Map or within a buffer/restoration area as appropriate.

7. Areas with minimal existing development and infrastructure.

8. Lands on Big Pine Key and No Name Key designated as Tier I, II, or III shall be in accordance with the wildlife habitat quality criteria as defined in the Habitat Conservation Plan for those islands. 3. Lands located outside of Big Pine Key and No Name Key that are not designated Tier I shall be designated Tier III.

9. Designated Tier III lands located outside of Big Pine Key and No Name Key with tropical hardwood hammock or pinelands of one acre or greater in area shall be designated as Special Protection Areas.

10. Lands within the Ocean Reef planned development shall be excluded from any Tier designation.

Policy 205.1.2: The County shall ground-truth the upland habitats identified in the ADID habitat maps, aerial photography, satellite imagery and the FKCCS, including mapping and preliminary habitat evaluations. Priority shall be given to natural upland communities of four acres or greater.

Policy 205.1.3: The County shall enter ground-truthed upland native vegetated area location and evaluation data into the Geographic Information System (GIS) and use the GIS to analyze the data and prepare the Tier Overlay District Maps for adoption as required in Policy 105.2.2.

Policy 205.1.4: The GIS will be used to evaluate the lands designated in the different Tiers, identifying vacant lands, platting and ownership status, zoning, and appraised values for acquisition planning.

Policy 205.1.5: Land management activities, land acquired and permit data shall be incorporated into the GIS annually.

Policy 205.1.6: The County shall coordinate its upland native vegetation mapping and evaluation efforts with those of federal and state agencies and private researchers so as to avoid duplication of effort. These agencies shall include, at a minimum, the Environmental Protection Agency (EPA), Army Corps of Engineers (ACOE), Florida

Department of Environmental Protection (FDEP), Florida Department of Community Affairs (FDCA), South Florida Water Management District (SFWMD), Florida Fish and Wildlife Conservation (FWC), and nongovernmental environmental groups.

GOAL 206: The health and integrity of Monroe County's beach/berm resources shall be protected and, where possible, enhanced.

Objective 206.1: Upon adoption of the Comprehensive Plan, Monroe County shall revise the Land Development Regulations to include revised development standards pertaining to permitted uses, siting of structures, disturbances, removal of invasive vegetation, and restoration of native vegetation in undisturbed and disturbed beach/berm areas.

Policy 206.1.1: Upon adoption of the Comprehensive Plan, Monroe County shall implement the Permit Allocation and Point System. Monroe County shall assign a negative point rating to developments which require disturbance of undisturbed beach/berm areas. (See Policy 101.5.4).

Policy 206.1.2: Minimum coastal construction setbacks currently in use in Monroe County shall be reviewed in coordination with DNR. Existing setbacks in the Land Development Regulations (Monroe County BOCC, 1990) shall be revised as deemed appropriate based upon findings of this review. (See Objective 212.2 and related policies).

Policy 206.1.3: Permitted uses within the shoreline setback along natural shorelines characterized by beach/berm vegetation shall be limited to docks and walkways. Access shall be restricted to wooden dune walkover structures which, in the absence of a dock, shall terminate at the waterward toe of the dune. All structures shall be elevated on pilings or other supports.

Policy 206.1.4: No beach/berm material shall be excavated or removed and no fill shall be deposited on a beach/berm.

Policy 206.1.5: Clearing of beach/berm vegetation in the area landward of the shoreline setback shall be limited to the minimum clearing required to allow development of a permitted use. Prior to commencement of construction, the immediate area required for construction shall be enclosed with fencing. No vehicular or pedestrian traffic shall be permitted outside the fenced areas for the duration of the construction period. All areas disturbed during construction shall be managed to avoid the introduction and/or establishment of invasive exotic species.

Policy 206.1.6: Beach/berm areas disturbed during construction shall be immediately restored to stable condition. Restoration techniques shall be designed to achieve the maximum stability possible. Native plants shall be used exclusively in re-vegetation.

Policy 206.1.7: Invasive exotic vegetation shall be removed from the development site as a condition for issuance of a Certificate of Occupancy.

Policy 206.1.8: A list of invasive exotic beach/berm plants shall be prepared by the County Biologist.

Policy 206.1.9: Existing and new outdoor lighting shall be restricted/or prohibited, as appropriate, so as to avoid adverse impacts on beach nesting areas (See Policies 207.9.6 and 207.9.7).

Policy 206.1.10: Seawalls shall be prohibited on any beach or open water shoreline.

GOAL 207: Monroe County shall protect and conserve existing wildlife and wildlife habitats.

Objective 207.1: By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which shall protect wildlife and wildlife habitat from adverse impacts of development.

Policy 207.1.1: An Environmental Impact Assessment (EIA) shall be required for major development projects. (See Goal 218 and related objectives and policies.) As part of the EIA, the applicant shall be required to complete the following activities related to wildlife and wildlife habitat:

1. a species survey to include, at a minimum, species of special status that are known to inhabit biological communities similar to those existing on the site in the project area;

2. an assessment of probable impacts on those species associated with the proposed development; and

3. identification of measures that will avoid or lessen the identified wildlife impact.

Monroe County shall, when deemed appropriate, incorporate the wildlife impact avoidance measures as stipulations for the land development order.

Policy 207.1.2: Development shall be prohibited on offshore islands (including spoil islands) which have been documented as an established bird rookery, as identified on the current Protected Animal Species Map.

Policy 207.1.3: The Open Space Requirement for undisturbed salt marsh and buttonwood wetlands shall be one hundred (100) percent.

Policy 207.1.4: Clustering requirements shall be revised so as to reduce habitat fragmentation (See Policy 205.2.3).

Objective 207.2: By January 4, 1998, Monroe County shall provide guidance to private landowners to reduce disturbances to wildlife species designated by the FWS and the State as threatened or endangered.

Policy 207.2.1: 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 shall provide public education to residents and prospective developers within critical habitat areas regarding activities disruptive or harmful to specific wildlife species. As appropriate for each species, the guidelines shall address items such as feeding, free-roaming domestic pets, noise, traffic, fencing, pesticide applications, etc. Existing laws and penalties for their violation shall be identified. A separate set of guidelines shall be developed for each species.

Policy 207.2.2: Monroe County shall make the management guidelines for designated wildlife species available to the general public.

Policy 207.2.3: Monroe County shall, as appropriate, incorporate specific management guidelines for state- and federally-designated wildlife species as stipulations for land development orders.

Objective 207.5: By January 4, 1998, Monroe County shall implement an expanded program for mapping occurrences and habitat of species of special status. These shall include wildlife species designated as threatened and endangered by the FWS and those designated as threatened, endangered or species of special concern by the FGFWFC.

Policy 207.5.1: Monroe County shall develop a list of locally rare wildlife species. This list shall include species which are rare within the Florida Keys but which do not have special status.

Policy 207.5.2: Monroe County shall expand and update its maps showing occurrences of the following species:

1. wildlife species designated as threatened and endangered by the FWS;

2. wildlife species designated as threatened, endangered or species of special concern by the FGFWFC; and

3. wildlife species designated as locally rare.

Information shall be obtained from the Florida Natural Areas Inventory data base. It shall be entered into the County's GIS. To the extent possible, the historic occurrence data shall be plotted on specific parcels for which the occurrences were recorded. GIS data shall be updated annually.

Objective 207.7: Monroe County shall implement activities to prohibit the destruction of the federally-designated Key deer (*Odocoileus virginianus clavium*) and to protect its habitat.

Policy 207.7.1: Monroe County shall regulate future development and coordinate the provision of public facilities on Big Pine Key and No Name Key, consistent with the Goals, Objectives and Policies of this Comprehensive Plan and in order to:

1. protect the Key deer;

2. preserve and enhance the habitat of the Key deer; and

3. maintain the rural, suburban, and open space character of Big Pine Key. (See Future Land Use Objective 103.1 and related policies.)

Policy 207.7.3: By January 4, 1998, Monroe County shall identify Key deer habitat areas as priority acquisition sites for conservation purposes. Emphasis shall be placed upon acquisition of movement corridors, sources of freshwater, and undisturbed native vegetation areas which are located within Improved Subdivisions and which are outside of the acquisition areas identified by the FWS (for the National Key Deer Refuge), DNR (for the Coupon Bight CARL Project), and SFWMD (for the Big Pine Key Save Our Rivers project). Acquisition shall be considered through the Monroe County Natural Heritage and Park Program. (See Future Land Use Objective 102.4 and related policies).

Policy 207.7.4: By January 4, 1998, Monroe County shall meet with federal agencies, state agencies, and private non-profit conservation organizations, to determine how the County can support programs for acquisition of land for conservation purposes within habitat areas of the Key deer.

Policy 207.7.6: Monroe County shall monitor FKAA compliance with federal regulations prohibiting potable water hookups to designated habitat areas of the Key deer (pursuant to FKAA Rules Chapter 48-7).

Policy 207.7.8: By January 4, 1998, the County Biologist shall designate Key deer habitat on Big Pine Key, No Name Key, and other keys as appropriate, as priority areas for enforcement of animal control laws (pursuant to Policy 207.3.1). Adequate staff shall be provided at the animal shelter on Big Pine Key to enforce animal control laws (determined pursuant to Policy 207.3.3).

Policy 207.7.12: By January 4, 1997, Monroe County shall meet with the FWS to determine measures which can be taken by the County to support the FWS in enforcing existing no feeding laws pertaining to the Key deer.

Overall the County's GOPs provide adequate protection of habitat and threatened and endangered species. The suggested strategies below may require comprehensive plan amendments, revisions to the MCLDC or is a programmatic consideration.

Objective 207.13: Monroe County shall implement activities to protect the habitat of, and to prohibit the destruction of, the federally-designated American alligator (*Alligator mississippiensis*).

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D. Strategies

- Monroe County should amend Policy 101.5.4 to provide points for the dedication for Tier IIIA-Special Protection Area (SPA) lots and wetland lots.

- Regarding abandoned mine sites, additional regulations are needed to more fully address the environmental and public safety issues. The County should undertake coordination with the FDEP and the SFWMD to review existing State and local mine reclamation standards for consistency and to determine the appropriate revisions to the County Code which will better protect the environment and residents of the County from the impacts of mining. The County should prepare an inventory of abandoned mining sites and, working where possible with landowners, develop plans for the cleanup and productive reuse of these sites.

- Given the potential for offshore oil and gas drilling to affect the County, the County should continue to be engaged in issues related to potential drilling in State and federal waters.

- Further improvements in sewage treatment practices are needed to improve canal and other nearshore waters.

- Further study of the benefits and adverse impacts associated with the use of aerators in artificial canals is needed, including evaluation of alternative aerator technologies.

- The USEPA and the FDEP, in consultation with the National Oceanographic and Atmospheric Administration (NOAA), were given the responsibility for developing a comprehensive WQPP for the FKNMS. The WQPP was developed to reverse the trend of environmental degradation and restore and maintain the Florida Keys marine ecosystem. County should continue to participate in the WQPP studies and monitoring projects.

- Because most of the Keys are located within the 100-year floodplain, potential activities for conservation, use or protection of floodplain are related to those which (1) prevent disturbances to areas which provide critical flood water storage and filtration functions, including mangroves, salt ponds, saltmarsh and buttonwood wetlands, and freshwater wetlands; (2) prevent excessive clearing and disturbance to natural upland vegetation within the floodplain; and (3) minimize the alteration of natural drainage patterns within the floodplain. Lands that retain natural floodplain functions or water storage and filtration (wetlands) should be retained where possible, in their natural condition. Development activity should be directed away from areas of high quality upland vegetation which lies in the floodplain, including hardwood hammocks and pinelands. Land clearing, grading, and filling should not disturb natural drainage patterns.

- The County should prepare beach management plans for public beaches to address problems of erosion and invasive plants.

- To protect and manage conservation lands, the County should maintain its land stewardship program, continue its existing partnerships, and develop new ones as needed, with resource agencies, organizations, and individuals. Partnerships can achieve the goals of complex programs and can considerably reduce costs.

- Numerous efforts are underway in the Florida Keys to control the proliferation of exotic plants and animals. Since 2005, the Monroe County Land Steward 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. The Land Steward is a partner with the Florida Keys Invasive Exotics Task Force. Task Force partners include the County, State and federal agencies, non-profits and public utilities. The Task Force coordinates efforts to eliminate invasive, non-native plant and animal species. The County should continue this partnering with the Task Force.

- The County should continue to support programs to control exotic, invasive and nuisance plant species.

- The County can continue to work cooperatively with the U.S. Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FFWCC), and Florida Department of Agriculture and Consumer Services (FDACS) to promote the recovery of designated wildlife species. The County can cooperate with these agencies to locate potential introduction sites for designated species, particularly for those which are federally- or State-listed. The County should assist, to the extent that it is able, with acquisition of sites having known populations of designated species. The County Biologist should participate in development of new recovery plans and revisions to old recovery plans for federally-designated species. When State or federal agencies undertake specific recovery actions in the County, the County should support these activities as appropriate through public education, law enforcement, and data collection.

- The County should coordinate with State and Federal agencies which are developing informational brochures for use by developers and landowners within critical habitat areas to inform them regarding activities disruptive or harmful to specific wildlife species. As appropriate for each species, the guidelines should address items such as feeding, free-roaming domestic pets, noise, traffic, fencing, pesticide applications, invasive exotic species, and other threats. Existing laws and penalties for their violation should be identified. Guidelines should be made available to the general public.

- The County should develop a proactive public education program that informs individuals considering moving to the Florida Keys about issues concerbning habitat, conservation, evacuation issues and flood plain regulations.

- Regarding free-roaming domestic pets, the County Biologist should cooperate with the State and Federal resource agencies in their efforts to develop and implement an animal control plan. This plan should identify areas within the County where priority should be placed in enforcing animal control laws so as to protect native wildlife populations, particularly listed species. These priorities should be reviewed periodically. Monroe County should consider the long-term staffing, facility and financial requirements to support implementation of the plan.

- Fee title acquisition by public agencies generally guarantees the permanent protection of conservation lands from development. However, it does not ensure the long-term health and stability of the natural systems present on a property. Canals, mosquito ditches, fill, and roads have altered natural hydrologic processes. Residential development has impacted management capabilities for fire-adapted pinelands by expanding the wildland-residential edge. This has resulted in the alteration of natural fire processes and a demand for fire suppression. Although many wetland and upland habitats have been restored, the County should continue restoration practices as appropriate.

- The County should continue to support the conservation efforts of State and federal agencies by working cooperatively with resource managers at publicly-owned refuges, parks, and special-interests sites to address adjoining lands issues. Prescribed fire is an important tool for effectively managing and restoring pinelands. Fire can also manage the encroachment of overstory vegetation and restore open habitat features of coastal salt marsh and freshwater marsh habitats. The County should continue to support the habitat management strategies of resource agencies to include monitoring of the effectiveness of prescribed fire treatments within the federal refuge. Such monitoring is essential for an adaptive management process to maintain and restore habitat. The County should continue its outreach efforts to increase the public's awareness and understanding of this management technique.

- The County prohibits the planting of some highly invasive exotic plants throughout the County and should continue in its efforts to educate the public of the need to remove invasive plant materials from existing developed areas.

- Hurricanes and tropical storms and sea level rise have consequences for the management of conservation lands. It is predicted that the Florida Keys will experience changes from global climate change (For additional details, see the discussion under Major Topic: "Climate Change and Hazard Mitigation), particularly from changing temperatures in the air and water, rising sea level, and coastal storms. Saltwater intrusion into the freshwater lens from sea level rise and saltwater inundation of surface freshwaters from storm surges can alter pinelands

and freshwater marshes resulting in more salt-tolerant plant communities. Species that are found only in pinelands may disappear as the pine forests die out.

- Storm events can cause considerable physical damage to beach/berm and coastal habitats. The County should continue to support the resource agencies as they gather scientific data to understand the natural processes and subsequent changes from sea level rise and to assist in the development of adaptive management strategies for future conservation needs. The County should continue cooperative efforts with the Southeast Climate Compact.

- Long-term protection of natural resources may best be accomplished through acquisition for permanent conservation purposes by the federal, State, or local government, or by non-profit conservation organizations. While acquisition is not a realistic solution for most lands in the Keys, it should be pursued aggressively for those which are determined by County staff, local scientists, and regulators to be the most ecologically sensitive and the most susceptible to development or environmental threat, despite the protections afforded by the Plan. However, effective management of that land after acquisition is necessary to ensure it remains in a condition to support the viability of natural systems being protected.

- The County should coordinate with agencies having jurisdiction to investigate impacts on habitats of commercial and recreational fishing gear and methods.

- The County should evaluate and identify sites for the installation of new mooring fields.

- Several anchorage sites need improved anchorage management and facilities, including but not limited to anchoring regulations, engineered mooring fields and pump-out facilities adjacent to liveaboard anchorages.

- The County should consider evaluating the Comprehensive Plan GOPs further to determine if there is a need for additional revisions or programs/projects. The evaluation consider the effectively and the implementation status of the policies. For example, are the action items under Goal 207 no longer applicable since the implementation of the habitat evaluation index, what is their status (adopted, incorporated or deleted)? Were they reinitiated with all the FEMA documents?

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Issue Category #1(c): Wetlands

A. Background: The biological communities of the Florida Keys include five wetland types which provide important storm protection, water quality protection, and wildlife habitat functions. These wetland communities include:

- mangrove forests along the shorelines of the Keys;
- transitional wetlands (salt marsh and buttonwood wetlands) lying landward of the mangrove fringe and oceanward of upland communities;
- salt ponds occupying shallow enclosed basins having very restricted tidal influence;
- beaches[14]; and
- freshwater wetlands and freshwater ponds in areas of freshwater lenses in the Lower Keys.

Map Series 3.3, located in the Map Atlas, depicts the wetlands within the Upper, Middle, and Lower Keys and selected offshore islands, which are characterized by mangrove forests, salt marsh, buttonwood wetlands, salt ponds, and freshwater wetlands (disturbed wetlands are not mapped).

B. Analysis: Wetlands in the Florida Keys are regulated by federal and State agencies, and by the County's Plan and the LDCs. A permit is required for certain activities within wetlands, as defined by these agencies. The primary federal jurisdiction for the USACE over wetlands is derived from Section 404 of the Clean Water Act, 33 U.S.C. 1344, 1972, as amended in 1977, 1981, and 1987, with the Water Quality Act. Other programs are Section 10 the Rivers and Harbors Acts of 1899, which regulates construction, excavation, or fill in navigable waters; the National Environmental Policy Act of 1969; and the Endangered Species Act (ESA) of 1973. Under the Marine Protection, Research, and Sanctuaries Act, a permit is required for the transportation of dredged material that is to be deposited in the ocean. Disposal sites are selected with criteria developed by USEPA and the USACE. The federal regulations are contained in 33 CFR 320-330 and have evolved over time to reflect added authorities and developing case law.

The Clean Water Act Section 404(b)(1) Guidelines (40 CFR, Part 230), USACE Regulations (33 CFR Part 332), and associated guidance require that project effects to waters of the United States, including wetlands, be addressed through a sequence of avoidance, minimization and then compensation for unavoidable impacts.

[14] Beaches are not considered to be traditional wetlands under State and Federal definitions since they are located in the high wave energy zone; thus, they do not have wetland soil features nor are they vegetated (although mud flats would meet State and Federal definitions of wetlands). However, beaches (as part of the beach/berm community) are protected by the Comprehensive Plan and the LDCs and by State and Federal regulations when they are below the mean high water line. Thus, beaches are mentioned in this section. Beaches are more fully described in Section 3.10 (Beach/Berm Communities).

In 2008, the USACE Rules 33 CFR Parts 325 and 332 and USEPA Rules 40 CFR Part 230 were finalized accounting for "Compensatory Mitigation for Losses of Aquatic Resources." This sequence is also followed by State agencies prior to permit issuance [Rule 40E-4.091 (1)(a) F.A.C. (Basis of Review)].

Both FDEP and SFWMD have permitting authority over impacts to wetlands under State law. A memorandum of agreement between the two agencies divides the types of projects applying for permits between the two agencies. Most relevant to private-sector development, all residential projects in excess of four units and all commercial projects receive permits from the SFWMD, and smaller residential projects receive permits from FDEP. Transportation projects (road and air) also fall under SFWMD permitting authority, whereas FDEP permits projects limited to beach and shoreline impacts with no associated upland residential or commercial development.

SFWMD also regulates the management and storage of surface waters, including dredging or filling in wetlands, by requiring Environmental Resource Permits (ERP). Pursuant to Chapter 373, F.S. and Chapter 40E, F.A.C. Any proposed surface water management system involving a project site 100 acres or more in size or with more than 1 acre of wetland impacts would require an Individual Permit. In most cases, project sites less than 100 acres in size with less than 1 acre of wetland impacts qualify for a Standard General, Noticed General, or No Notice General Permit.

FDEP also oversees activities in wetlands that are:

- located on Florida's natural sandy beaches facing the Atlantic Ocean, the Gulf of Mexico, the Straits of Florida or associated inlets;
- activities that extend seaward of the mean high water (MHW) line (the SFWMD oversees activities landward of the MHW);
- activities that extend into sovereign submerged lands; and
- activities that are likely to affect the distribution of sand along a beach.

FDEP also regulates activities including beach restoration or nourishment; construction of erosion control structures such as groins and breakwaters; public fishing piers; maintenance of inlets and inlet-related structures; and dredging of navigation channels that include disposal of dredged material onto the beach or in the nearshore area.

Prior to the permitting process, a wetland Jurisdictional Determination (JD) is required. Wetland boundaries are determined by:

- The USACE *Interim Regional Supplement to the 1987 Wetland Delineation Manual: Atlantic and Coastal Plain Region* (*Federal Manual*); and
- Chapter 62-340 F.A.C., "Delineation of the Landward Extent of Wetlands and Surface Waters".

The *Federal Manual* is the current accepted methodology developed jointly by the USACE, the USEPA, USFWS, and the USDA NRCS. Wetland boundaries are verified

by the regulatory agencies and then the boundaries are usually instrument surveyed. The permit application is a joint application to the State agencies (SFWMD and FDEP) and the USACE. The State ERP authorizes all activities permitted by SFWMD and FDEP; the USACE would issue its own permit.

In general, wetlands in the County are protected by the LDCs and by the County's Plan policies as "environmentally sensitive lands." However, this term is not defined in the LDCs or in the Plan. For example, Section 114-3 (Surface Water Management Criteria) of the LDCs establishes procedures to assist in the protection of the water resources, including the reservoir of freshwater on Big Pine Key and the nearshore waters. These include existing and proposed water management systems. Stormwater management systems are coordinated with SFWMD and FDEP. Another example is contained in Section 118-4 (Wetland Open Space Requirements) which states that no development activities, with some exceptions, are permitted in mangroves, freshwater wetlands and in undisturbed saltmarsh and buttonwood wetlands. The open space requirement in these habitats is 100 percent (no filling or clearing is allowed). Undisturbed freshwater wetlands, salt marsh and/or buttonwood association wetlands are considered to be habitats with the highest sensitivity and development under the LDCs requires clustering in areas with lowest sensitivity [Section 118-7 (General Environmental Design Criteria)]. Sec. 118-10 (Environmental Design for Specific Habitat Types) specifies design criteria for mangroves, wetlands, and submerged lands.

In practice, all proposed developments are required to obtain State and federal permits for activities that would alter jurisdictional wetlands. The State of Florida mandates that all State agencies and local governments use the Uniform Mitigation and Assessment Method (UMAM) for evaluation of all wetland impacts and mitigation measures (Section 373.414(18), F.S. and Chapter 62-345, F.A.C). Wetlands are evaluated for existing conditions and mitigation requirements are determined for the proposed impacts by using UMAM. In the Florida Keys, a specific wetlands evaluation procedure was developed called the Keys Wetland Evaluation Procedure (KEYWEP). It was developed as part of the Advanced Identification of Wetlands [see Section 3.9.2 (Monroe County Advance Identification of Wetlands (ADID) Program)]. The LDCs mandate the use of KEYWEP only for lands classified as disturbed with salt marsh and buttonwood association [Section 118-10 (Environmental Design For Specific Habitat Types)].

Because disturbed salt marsh and buttonwood wetlands are the only wetland habitats that are developable under current LDCs, this is the only situation where KEYWEP is mandated for use in the Florida Keys. However, certain salt marsh and buttonwood wetlands that are determined by KEYWEP to have moderate or low functional capacity (KEYWEP index of 7.0 or less) are "suitable for filling with appropriate mitigation," if also authorized by FDEP and USACE permits. KEYWEP should continue to be used to determine if a proposed wetland impact is permittable. If a proposed impact is permittable, mitigation would be determined in accordance with UMAM. Prior to the mandated use of UMAM in Florida, KEYWEP (under the federal ADID program) was used by the USACE but only for those projects that proposed to use the Keys Environmental Restoration Fund (KERF) as mitigation for mangrove, saltmarsh, and

buttonwood wetland impacts and for seagrass impacts. The USACE continues to accept mitigation through KERF and determines the required mitigation using KEYWEP.

Wetlands are also protected under the Plan and the LDCs by setbacks and buffers adjacent to existing or proposed development. In general, setbacks are determined by State and federal permits. Under the LDCs, the buffer between a wetland and the proposed development is generally 50 feet with some exceptions that allow a buffer of 25 feet [(Section 118-10(4)(g)]. The point from which the setback is applied is not specified in the LDCs.

The Florida Keys Advance Identification of Wetlands (ADID) Program was a joint effort of the USEPA, USACE, and the County. The ADID program was designed to facilitate the permitting process under Section 404 of the Clean Water Act by providing comprehensive wetlands mapping and assessment information. The scope of the ADID Program included the entire Florida Keys, prioritized as follows:

- Privately-owned lands with development potential on the islands connected by U.S. 1;
- Publicly-owned lands on the islands connected by U.S. 1; and
- Offshore islands.

The Florida Keys ADID project included mapping of marine and freshwater wetlands throughout the Keys. Wetlands were mapped at the seasonal high water line, although this boundary was based on the interpretation of aerial photographs. A field-based wetland functional assessment methodology specific to the Florida Keys was developed (KEYWEP). The KEYWEP methodology is presented in "Technical Summary Document for the Advance Identification of Wetlands of the Florida Keys" (Kalla, 2000). The ADID project mapped approximately 65,000 acres of marine and freshwater wetlands and conducted a functional evaluation of these wetlands. The evaluation separated those wetlands that were "generally unsuitable" for the placement of fill and those wetlands that were "generally suitable with appropriate mitigation" for the placement of fill (Kalla, 2000). The ADID maps produced are available in the County Office of Planning and Environmental Resources.

The map series produced for the ADID program was produced on hand-drawn maps that were then digitized. The analysis of the data for the inventory of natural habitats for this Technical Document revealed that the ADID data did not correspond to the other databases (i.e., the maps did not line up exactly). The ADID data can be useful for an individual parcel to determine if it contains a wetland with a KEYWEP score but, because of the mapping limitations, the ADID data could not be used on a County-wide basis.

C. Policy Framework:

Policy 101.13.4: In conjunction with the evaluation of the existing TDR program pursuant to Policy 101.13.2, parcels within the following habitats and land use districts shall be designated as sender sites for Transferable Development Rights (TDRs): Habitat of the following types which lie within any zoning category: Freshwater wetlands, Saltmarsh/Buttonwood wetlands, Disturbed Wetlands.

Objective 102.1: Upon adoption of the Comprehensive Plan, Monroe County shall require new development to comply with environmental standards and environmental design criteria which will protect disturbed wetlands, native upland vegetation and beach/berm areas.

Policy 102.1.1: The County shall protect submerged lands and wetlands. The open space requirement shall be one hundred (100) percent of the following types of wetlands: 1. submerged lands 2. mangroves 3. salt ponds 4. fresh water wetlands 5. fresh water ponds 6. undisturbed salt marsh and buttonwood wetlands Allocated density (dwelling units per acre) shall be assigned to freshwater wetlands and undisturbed salt marsh and buttonwood wetlands only for use as transferable development rights away from these habitats. Submerged lands, salt ponds, freshwater ponds, and mangroves shall not be assigned any density or intensity.

Objective 102.2: Upon adoption of the Comprehensive Plan, Monroe County shall adopt revisions to the Environmental Standards (Section 9.5-335) and Environmental Design Criteria (Section 9.5-345) of the Land Development Regulations. These revisions will require new development to further protect disturbed wetlands, native upland vegetation and beach/berm areas.

Policy 102.2.1: Monroe County shall adopt revised environmental standards and environmental design criteria as indicated in Conservation and Coastal Management Policy 204.2.6. These revised standards and criteria will eliminate the net loss of disturbed wetlands. Where possible, on-site mitigation shall be required in order to offset any loss of disturbed wetlands by requiring revegetation of an area equal or greater in size than the area proposed for fill. If on-site mitigation is not possible, restoration fees shall be paid pursuant to a wetlands restoration fund.

Policy 102.4.2: The Land Authority and the Growth Management Division shall identify the types of lands which shall be considered for acquisition. These shall include, at a minimum: 1. designated Tier I (Natural Areas) lands as defined in Policy 105.2.1.1, which shall include all contiguous hammock or pineland areas above four acres in area; 2. restoration areas between fragmented hammocks to increase the contiguous hammock size and buffers where appropriate and lands containing naturally occurring and native habitats; 3. fresh water wetlands, and undisturbed salt marsh, and buttonwood wetlands that are required open space under Policy 102.1.1.

Policy 102.4.3: The Land Authority and Growth Management Division shall develop a priority list of acquisition sites. This list shall be updated annually with public input. In formulating this list, the County shall prioritize Tier I lands over Tier II (Big Pine Key and No Name Key) and Tier III lands. Outside the boundaries of Tier I, land with fragmented hammocks or pinelands of greater than one-acre in area and wetlands identified in Policy 102.4.2, 2 shall be the second highest priority for acquisition. Acquisition of land for affordable housing in Tier III that does not involve any clearing within an upland tropical hammock or pineland of one acre or greater in area shall also be a top priority.

Policy 102.4.4: The Monroe County Land Acquisition Master Plan shall contain an acquisition financing plan which identifies sources of funding for acquisition of lands on the Priority List. Land acquisition will be a coordinated effort between the state and federal governments and the County. The County shall petition the state and federal government to accept primary responsibility for acquisition of Tier I, conservation and natural lands. The County shall be responsible for purchases in Tier II (Big Pine Key and No Name Key) and in Tier III of wetlands and fragmented hammock or pineland areas of one-acre or greater. Land acquisition for other priorities depends upon funding availability, need and future use.

GOAL 203: The health and integrity of living marine resources and marine habitat, including mangroves, seagrasses, coral reefs and fisheries, shall be protected and, where possible, enhanced.

Objective 203.1: Monroe County shall protect its mangrove wetlands by implementing regulations which will further reduce disturbances to mangroves and which will mitigate the indirect impacts of development upon mangroves. [9J-5.012(3)(b)1; 9J-5.013(2)(b)3 and 4]

Policy 203.1.1: As set forth in the Land Development Regulations (Monroe County BOCC, 1990), the open space requirement for mangroves shall be one hundred (100) percent. No fill or structures shall be permitted in mangrove wetlands except for elevated, pile-supported walkways, docks, piers and utility pilings.

Policy 203.1.3: Monroe County shall require minimum vegetated setbacks of fifty (50) feet to be maintained as an open space buffer for development occurring adjacent to all types of wetlands except for tidally inundated mangrove fringes and as provided for in Policy 204.2.2, 204.2.3 and 204.2.4. If a 50-foot setback results in less than 2,000 square feet of principal structure footprint of reasonable configuration, then the setback may be reduced to allow for 2,000 square feet of principal structure footprint of reasonable configuration, provided that the setback is not reduced to less than twenty-five (25) feet. On properties classified as scarified adjacent to wetlands, the wetland setback may be reduced to twenty-five (25) feet, without regard to buildable area, if the entire setback management plan in accordance with County regulations approved by the County Biologist and placed under conservation easement. “Development” shall include all activities as currently defined in the F.S. 380.05-compliant Land Development

Regulations, hereby incorporated by reference. The effectiveness of this policy shall be reviewed during the Evaluation and Appraisal Review (EAR) Process.

GOAL 204: The health and integrity of Monroe County's marine and freshwater wetlands shall be protected and, where possible, enhanced.

Objective 204.1: By January 4, 1998, Monroe County shall develop an information system to be used as the basis for regulating land development activities in wetland areas, to identify potential wetland restoration sites, and to identify high quality wetland sites for possible future acquisition by the County, State and/or private non-profit conservation organizations.

Policy 204.1.1: Monroe County shall participate in the Florida Keys Advance Identification of Wetlands (ADID) Program. This program is designed to facilitate the regulatory process under Section 404 of the Clean Water Act of 1973 by providing comprehensive wetlands mapping and assessment information. The proposed geographic scope of the ADID Program includes the entire Florida Keys, prioritized as follows:

1. privately-owned lands with development potential on the islands connected by U.S. 1;
2. publicly-owned lands on the islands connected by U.S. 1; and
3. offshore islands (which appear in imagery of the islands connected by US 1).

As part of the ADID Program, Monroe County shall:

1. inform and educate the public regarding wetlands protection and the application of information forthcoming from the ADID Program;
2. retain a consultant to map preliminary ACOE and DER jurisdictional lines;
3. compile wetlands mapping information on the County's geographic information system;
4. assist with development of a Florida Keys wetlands functional quality analysis;
5. assist with the functional assessment of wetlands;
6. assist with ground-truthing mapped information; and
7. assist with preparing a draft Technical Support Document.

Policy 204.1.2: Monroe County shall cooperate with the Florida Game and Fresh Water Fish Commission (FGFWFC) in its ongoing effort to map freshwater wetlands and disturbed wetlands in the Lower Keys.

Policy 204.1.3: Monroe County shall use the refined, up-to-date wetlands information made available from the ADID Program and from the FGFWFC to generate a new set of wetlands maps. These wetlands maps shall replace those currently in use by the County. In order to prepare the new wetlands maps, Monroe County shall compile information obtained from the ADID Program and from the FGFWFC in the Geographic Information System (GIS). The new composite map set shall be plotted by the GIS at a scale of 1"=200'. The maps and/or overlays shall show:

1. all undisturbed and disturbed marine and freshwater wetlands by vegetative cover type;
2. advisory ACOE and DER jurisdictional lines mapped as part of the ADID Program; and
3. wetland "suitable/unsuitable" designations with respect to ACOE Section : 404 permitted activities mapped as part of the ADID Program (See Policy 204.1.3). [9J-5.013(2)(c)9]

Policy 204.1.4: As part of the ADID Program, Monroe County shall cooperate with the EPA, ACOE, FGFWFC, SFWMD and FWS to develop a wetlands functional assessment protocol. This assessment protocol shall be tailored for use in the Florida Keys and shall be based upon habitat suitability, water quality, and flood flow alteration functions of marine and freshwater wetlands.

Policy 204.1.5: As part of the ADID Program, Monroe County, EPA, FWS, and FGFWFC will jointly carry out the functional analysis of wetlands. This shall be completed on all wetland vegetative cover areas within improved subdivisions and on selected sites outside improved subdivisions, according to statistically valid selected sample locations for each wetland vegetative cover type. In addition to the functional analysis, the field team shall ground-truth the wetland vegetative cover maps using a differential global positioning system. The wetland vegetative cover boundaries in the GIS shall be revised to reflect results of the ground-truthing (See Policy 204.1.1).

Policy 204.1.6: By September 30th of each year, Monroe County shall update the wetlands data in the Geographic Information System to reflect information obtained during wetlands permitting and wetland impact mitigation during the preceding year.

Objective 204.2: Monroe County shall eliminate the loss of undisturbed wetlands and shall eliminate the net loss of disturbed wetlands. [9J-5.012(3)(b)1; 9J-5.013(2)(b)3]

Policy 204.2.1: To protect submerged lands and wetlands the open space shall be 100 percent of the following types of wetlands:

1. submerged lands;
2. mangroves;
3. salt ponds;
4. freshwater wetlands;
5. freshwater ponds; and
6. undisturbed saltmarsh and buttonwood wetlands.

Allocated density (dwelling units per acre) shall be assigned to freshwater wetlands and undisturbed salt marsh and buttonwood wetland only for use as transferable development rights away from these habitats. Submerged lands, salt ponds, freshwater ponds and mangroves shall not be assigned any density or intensity.

Policy 204.2.2: No structures shall be permitted in submerged lands, mangroves, salt ponds, or wetlands, except for elevated, pile-supported walkways, docks, piers and utility pilings. No fill shall be permitted in submerged lands, mangroves, salt ponds, or wetlands except:

1. as specifically allowed by Objective 212.6 and subsequent Policies;
2. to fill a manmade, excavated water body such as a canal or swimming pool if the Director of Environmental Resources determines that such filling will not have a significant adverse impact on marine or wetland communities; or
3. as needed for shoreline stabilization or beach renourishment projects with a valid public purpose that furthers the goals of the Monroe County Comprehensive Plan, as determined by the Directors of Planning and Environmental Resources. All such projects shall require approval by the Florida Department of Environmental Protection and the U.S. Army Corps of Engineers prior to the issuance of a County building permit.

Policy 204.2.3: No fill or structures shall be permitted in mangroves or wetlands except as allowed by Policy 204.2.2 (as amended) and for bridges extending over mangroves or wetlands that are required to provide automobile or pedestrian access to dwelling units located on upland areas within the same property for which there is no alternative means of access. Such bridges shall be elevated on pilings such that the natural movement of water, including volume, rate and direction of flow shall not be disrupted or altered. Upland areas shall include disturbed wetlands that have been lawfully converted into uplands through filling.

Policy 204.2.4: Notwithstanding other provisions of this comprehensive plan regarding disturbed wetlands, no development activities shall be allowed in wetlands pending completion of the ADID program (referenced in Policy 204.1.1 above) or other similar functional assessment of disturbed wetlands in the County. No later than January 4, 1999, the ADID or other similar revised program shall assess the functional value of disturbed wetlands in the County and develop an evaluation index to determine the appropriate level of development for disturbed wetlands. Upon completion and adoption of the functional assessment, it shall be incorporated into the plan, along with a functional definition of disturbed wetlands, by plan amendment.

Policy 204.2.6: Monroe County shall adopt revised environmental standards and environmental design criteria which establish minimum vegetated setbacks of fifty (50) feet to be maintained as an open space buffer for development occurring adjacent to all types of wetlands except for tidally inundated mangrove fringes and as provided for in Policies 204.2.2, 204.2.3, and 204.2.4. If a 50-foot setback results in less than 2,000 square feet of principal structure footprint of reasonable configuration, then the setback may be reduced to allow for 2,000 square feet of principal structure footprint of reasonable configuration, provided that the setback is not reduced to less than twenty-five (25) feet. On properties classified as scarified adjacent to wetlands, the wetland setback may be reduced to twenty-five (25) feet, without regard to buildable area, if the entire setback area is planted and maintained in native vegetation with a site-suitable

stormwater management plan in accordance with County regulations approved by the County Biologist and placed under conservation easement. "Development" shall include all activities as currently defined in the F.S. 380.05-compliant Land Development Regulations, hereby incorporated by reference. The effectiveness of this policy shall be reviewed during the Evaluation and Appraisal Review (EAR) Process.

Policy 204.2.10: By January 4, 1998 or upon completion of the functional assessment of wetlands in the ADID program, Monroe County shall revise the land development regulations to include additional environmental standards pertaining to open space ratios, permitted uses, filling, and setbacks as may be deemed appropriate to protect wetland habitats.

Objective 204.3: By January 4, 1998, Monroe County shall initiate a program to restore disturbed marine and freshwater wetlands. (See Goal 210 and related objectives and policies)

Policy 204.3.1: The Monroe County Growth Management Division shall be responsible for coordinating with other agencies in developing and administering the wetlands restoration program.

Policy 204.3.2: A list of publicly-owned priority wetland restoration sites shall be drafted and updated every other year. This list shall be developed by Monroe County in consultation with representatives of the ACOE, EPA, FWS, DER, DNR, FGFWFC, and others as appropriate. Priority wetland restoration sites shall be those disturbed wetlands offering the greatest potential increase in functional value after mitigation, as determined in the Florida Keys ADID Program.

Policy 204.3.3: Monroe County shall work cooperatively with the ACOE, EPA, FWS, DER, DNR, FGFWFC, and others as appropriate, to determine funding sources to support the wetlands restoration program.]

Policy 204.3.4: A wetlands restoration fund shall be established. This fund shall include, at a minimum:

1. restoration fees paid by landowners developing in disturbed salt marsh and buttonwood wetlands; and

2. fines collected by the Environmental Crimes Task Force for wetlands violations.

If possible, additional funds shall be obtained for the fund from state and federal agencies through fees, fines and/or special programs.

Objective 204.4: By January 4, 1998, Monroe County shall establish a program for acquiring high quality undisturbed salt marsh and buttonwood wetlands. (See Future Land Use Objective 102.4 and related policies.)

Policy 204.4.1: The Monroe County Growth Management Division in coordination with the Monroe County Land Authority and other federal and state agencies will continue with wetlands acquisition through Florida Forever program, and other funding mechanisms such as the Monroe County Land Acquisition Fund.

Policy 204.4.2: A list of priority wetlands acquisition sites shall be drafted and updated annually. This list shall be developed by Monroe County in consultation with representatives of the ACOE, EPA, FWS, DER, DNR, FGFWFC, and others as appropriate. Priority wetland acquisition sites shall include the following:

1. wetlands having the greatest functional value as determined in the Florida Keys ADID Program;

2. wetlands which are documented habitat of species of special status; and/or

3. undisturbed and disturbed wetlands located within Improved Subdivisions.

Policy 207.1.3: The Open Space Requirement for undisturbed salt marsh and buttonwood wetlands shall be one hundred (100) percent. (See Policy 204.2.1).

Policy 207.12.5: By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which shall establish the open space requirement for undisturbed salt marsh and buttonwood wetlands at one hundred (100) percent. (See Policy 204.2.1).

Policy 207.13.1: By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which shall continue to establish the open space requirement for freshwater ponds and freshwater wetlands at one-hundred (100) percent (Monroe County BOCC, 1990). (See Policy 204.2.1)

Policy 207.13.2: By January 4, 1998, Monroe County shall meet with the FWS, DNR and SFWMD to determine how Monroe County can support acquisition of freshwater wetlands and critical recharge areas in the Lower Keys by FWS, DNR, and SFWMD.

Policy 207.13.3: By January 4, 1998, Monroe County shall identify additional privately-owned lands with freshwater wetlands (not within the acquisition areas of the FWS, DNR or SFWMD) which provide important alligator habitat as priority acquisition sites for conservation purposes. Acquisition shall be considered through the Monroe County Natural Heritage and Park Program. (See Future Land Use Objective 102.4 and related policies).

GOAL 210: Monroe County shall restore, where practicable, disrupted marine, wetland, beach/berm, and native upland vegetation systems on County-owned public lands.

Objective 210.1: By January 4, 1998, Monroe County shall initiate a program to restore and maintain disrupted marine, wetland, beach/berm and native upland vegetation systems on Monroe County public lands.

Policy 210.1.1: Priority wetland restoration sites shall be drafted and updated every other year. This list shall be developed by Monroe County in consultation with representatives of the ACOE, EPA, FWS, DER, DNR and FGFWFC. Priority wetland restoration sites shall be those disturbed wetlands having the greatest functional value as determined in the Florida Keys Advance Identification of Wetlands Program.

Policy 215.2.3: No public expenditures shall be made for new or expanded facilities in areas designated as units of the Coastal Barrier Resources System, saltmarsh and buttonwood wetlands, or offshore islands not currently accessible by road, with the exception of expenditures for conservation and parklands consistent with natural resource protection, and expenditures necessary for public health and safety.

Policy 217.4.2: No public expenditures shall be made for new or expanded facilities in areas designated as units of the Coastal Barrier Resources System, undisturbed saltmarsh and buttonwood wetlands, or offshore islands not currently accessible by road, with the exception of expenditures for conservation and parklands consistent with natural resource protection, and expenditures necessary for public health and safety.

Policy 901.5.7: Pending the completion and implementation of the ADID or other similar functional analysis, Monroe County shall prohibit the use of OSDS in buttonwood, salt marsh or wetland area and require the provision of a buffer between OSDS and wetlands. Following the completion of the ADID or other similar revised functional analysis, but no later than January 4, 1999, Monroe County shall determine whether OSDS may be used in disturbed wetlands based on functional assessment and shall adopt Land Development Regulations to further implement this policy.

Policy 1101.2.1: By January 4, 1997, Monroe County shall adopt a Stormwater Management Ordinance. This ordinance shall establish level of service standards for the quality and quantity of stormwater discharges. The ordinance shall encourage use of site-specific natural drainage features to the maximum extent possible before utilizing structural stormwater control. The protection of freshwater lens recharge areas, and associated freshwater wetlands where identified, shall be of primary concern in design of a development project.

Policy 1201.3.9: Park master plans shall identify areas of disturbed wetlands as potential wetlands mitigation sites. (See Conservation and Coastal Management Objective 204.3 and related policies).

Policy 1201.11.5: Park management plans shall identify areas of disturbed wetlands as potential wetlands mitigation sites. (See Conservation and Coastal Management Element Policy 204.3.2.).

Objective 1301.6 Monroe County shall establish or maintain mechanisms of coordination and cooperation to ensure the protection and restoration of wetlands.

Policy 1301.6.1: Monroe County shall participate in the Florida Keys Advance Identification of Wetlands (ADID) Program.

Policy 1301.6.2: As part of the ADID Program, Monroe County shall continue to cooperate with the EPA, the U.S. Army Corps of Engineers (ACOE), the Florida Game and Fresh Water Fish Commission (FGFWFC), and the U.S. Fish and Wildlife Service (USFWS) to develop a wetlands functional assessment protocol. This assessment protocol shall be tailored for use in the Florida Keys and shall be based upon habitat suitability, water quality, and flood flow alteration functions of marine and freshwater wetlands.

Policy 1301.6.3: As part of the ADID Program, Monroe County, EPA, USFWS, and FGFWFC will jointly carry out the functional analysis of wetlands. This shall be completed on all wetland vegetative cover areas within improved subdivisions and on selected sites outside improved subdivisions, according to statistically valid selected sample locations for each wetland vegetative cover type.

Policy 1301.6.4: Monroe County shall work cooperatively with the ACOE, EPA, DER, DNR, FGFWFC, and others as appropriate, to determine funding sources to support the wetlands restoration program.

Policy 1301.6.5: Monroe County shall cooperate with the FGFWFC in its effort to map freshwater wetlands and disturbed wetlands.

Policy 1301.6.6: The Monroe County Growth Management Division in conjunction with the Monroe County Land Authority and other federal and state agencies will develop and administer the wetlands acquisition program as part of the Monroe County Land Acquisition Master Plan.

Policy 1401.2.2 No public expenditures shall be made for new or expanded facilities in areas designated as units of the Coastal Barrier Resources System, undisturbed saltmarsh and buttonwood wetlands, or offshore islands not currently accessible by road, with the exception of expenditures for conservation and parklands consistent with natural resource protection, and expenditures necessary for public health and safety.

D. Strategies:

- The Comprehensive Plan and LDCs should be revised to (1) provide a definition of wetlands that is consistent with the State definition and provide a definition of wetland boundaries that is the same as those established through wetland jurisdictional determinations; and (2) specify setbacks from wetlands that are based on the jurisdictional wetland boundary line; and and the functional value of the wetland.

- The Comprehensive Plan and LDCs should be revised to provide a definition of "environmentally sensitive lands" and "native upland vegetation."

- Monroe County should conduct a review and evaluation of the Keys Wetland Evaluation Procedure (KEYWEP). The County should explore if the use of KEYWEP is appropriate and is consistent with State law in determining whether the County will authorize impacts to wetlands. The KEYWEP is a tool to evaluate wetlands in the Keys. The KEYWEP is a living document and process. It was developed in the early 1990's and requires ongoing updates to remain current. The KEYWEP data is outdated in many areas, especially areas that have undergone significant development. In order to maintain relevance, current KEYWEP analysis should be conducted on parcels proposed for development by qualified biologists. The County should consider establishing a process to allow for the updating of KEYWEP scores.

- Monroe County should update the methodology utilized to determine mitigation requirements for impacts to wetlands. The County should consider utilizing the Uniform Mitigation Assessment Method (UMAM).

- The map series for the Advance Identification of Wetlands (ADID) program was produced on hand-drawn maps that were then digitized. The analysis of the data for the inventory of natural habitats for the Technical Document revealed that the ADID data did not correspond to the other databases (i.e., the maps did not line up exactly). The ADID data can be useful for an individual parcel to determine if it contains a wetland with a KEYWEP score but, because of the mapping limitations, the ADID data could not be used as an inventory tool on a County-wide basis. The County should consider revising the Comprehensive Plan to require the use of best available data in determining habitat and plant communities and consider re-mapping efforts if funding is available. An applicant must submit a wetland analysis report, prepared by a biologist approved by the County, with any development application for parcels identified in the ADID program as containing wetlands.

- The County should provide a definition of "environmentally sensitive land" and "disturbed saltmarsh and buttonwood wetland associations" and consider revising the definition for "saltmarsh wetlands," "buttonwood wetlands."

- Section 118-4 of the LDCs prohibits development activities in mangroves, freshwater wetlands, and in undisturbed saltmarsh and buttonwood wetlands. The Comprehensive Plan and the LDCs should be amended to include salt ponds in this prohibition.

- Regarding freshwater wetlands, continued government acquisition of freshwater wetlands offers the greatest opportunity for conservation of these critical resource areas. Acquisition efforts should continue to focus on freshwater wetlands, freshwater ponds, buffer areas, and the critical recharge areas of the groundwater lenses which sustain freshwater flows into the wetland habitat areas.

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Issue Category #1(d): Land Acquisition

A. Background: Fee title acquisition of real estate is the most effective means of protecting environmentally sensitive lands from direct disturbances by human activities. Components of the Plan which reduce the rate of growth and direct the allocation of growth discourage development in many undisturbed upland communities and habitat areas of federally-designated species. However, these techniques do not permanently guarantee protection of these sensitive ecological resources. Long-term protection is best accomplished through acquisition for permanent conservation purposes by the federal, State, or local government, or by non-profit conservation organizations.

B. Analysis: While acquisition is not a realistic solution for most lands in the Keys, it should be pursued for those which are determined by County staff, local scientists, and regulators to be the most ecologically sensitive and the most susceptible to development or environmental threat, despite the protections afforded by the Plan. However, effective management of that land is necessary to ensure it remains in a condition to support the viability of natural systems being protected. Unmanaged public lands tend to become used for unregulated vehicle access, informal camping sites, dumping, and removal of protected species (particularly native orchids and tree snails). Also, areas purchased for conservation often contain exotic vegetation and other disturbances that require restoration activities. The County has a land management program for County-owned conservation lands for maintenance and restoration activities. In addition the County has established the Monroe County Environmental Land Management and Restoration Fund as a recurring funding source to ensure these public resources retain their habitat functions.

Most (75 percent) of the remaining tracts of tropical hardwood hammocks in the County (excluding incorporated areas and the mainland) are protected through public or non-profit ownership for conservation purposes. Land acquisition efforts have focused in recent years on the higher quality hammocks. Conservation lands [see Section 3.18 (Areas of Special Concern to Local Government)] with significant tropical hardwood hammock communities are located in:

- Crocodile Lake National Wildlife Refuge;
- Dagney Johnson Key Largo Hammock Botanical State Park;
- Lignumvitae Key State Botanical Site;
- National Key Deer Refuge;
- John Pennekamp Coral Reef State Park;
- Bahia Honda State Park;
- Long Key State Recreation Area;
- Great White Heron National Wildlife Refuge;
- The Nature Conservancy;
- Everglades National Park;

- Florida Keys Land and Sea Trust's Crane Point Hammock; and
- Curry Hammock State Park.

Many parcels containing hammock that have been protected through land acquisition programs occur as islands within developed and developing lands. This poses management problems in terms of edge effects (e.g., trash dumping, exotic plant infestation, exotic and feral animal control) and loss of the natural ecotone that forms between the tropical hardwood hammocks and the adjacent community.

Both the "Key Deer Recovery Plan" (USFWS, 1999) and the "Habitat Conservation Plan for Florida Key Deer" (Monroe County et al., 2006) identify land acquisition as the single most important management strategy that would significantly contribute to the successful maintenance of the key deer in its natural environment. Approximately 69 percent of the land on Big Pine Key and No Name Key is in public ownership of which 66 percent is managed for conservation. The main landowner is the Federal government with 55 percent, all of which is within the National Key Deer Refuge. The National Key Deer Refuge was established on August 22, 1957 to protect and conserve key deer and other wildlife resources. It comprises nearly 8,983 acres of land on several islands within the refuge, as well as additional parcels located outside the boundary administered by the refuge. The USFWS owns 52 percent of Big Pine Key and 71 percent of No Name Key. The State of Florida purchases land under the Florida Forever program, which is administered by FDEP. State-owned lands within the project area include the Coupon Bight Aquatic Preserve and Preserve Buffer Lands and lands within the Coupon Bight/Key Deer CARL project area. The Monroe County Land Authority (MCLA) purchases a wide variety of vacant lands as directed in the Plan (Monroe County et al., 2006).

The FDEP Office of Coastal and Aquatic Managed Areas manages State-owned lands within the Coupon Bight Aquatic Preserve and Preserve Buffer, whereas the USFWS manages State-owned lands within the Coupon Bight/Key Deer CARL project area under an existing lease agreement. State-owned lands (purchased by the State with Florida Forever funds) outside of the USFWS and FDEP management boundaries are managed by the County Land Steward. The Land Steward also manages County-owned conservation lands which were acquired through ROGO dedications or purchased by the MCLA. Habitat management of County lands started Keys-wide during FY 2002-2003.

C. Policy Framework:

Policy 101.5.4 provides for 2 points in the ROGO system for payment to the Land Acquisition Fund.

Objective 101.6: Monroe County shall expand the Monroe County Land Authority acquisition program to provide for the purchase of land from property owners who have not been awarded building permit allocations in the Permit Allocation System."

Policy 101.6.1 Monroe County, the State, or other acquisition agency shall, upon a property owner's request, purchase the property for fair market value or permit the minimum reasonable economic use of the property."

Policy 101.6.2: By fiscal year 1998, the Monroe County Land Authority shall dedicate a minimum of 35 percent of its annual budget each year for the purpose of acquiring land from qualified property owners as defined by Policy 101.6.1. Funds accumulated from this source shall be reserved for the acquisition of land from qualified property owners, but may also be used to acquire other properties when deemed appropriate by the Land Authority.

Policy 101.6.3: By January 4, 1998, Monroe County shall identify potential funding sources and seek funding from state, federal, and/or private sources to be used for acquisition of land from qualified property owners as defined by Policy 101.6.1.

Policy 101.6.4: The County will coordinate with DCA to ensure that DCA continues to support enhanced land acquisition efforts in the Keys based on needs identified in this comprehensive plan. This coordination shall ensure continued support of state acquisition efforts under CARL, Preservation 2000 and the Florida Communities Trust programs. The County encourages the Department to work at the state level to create a dedicated acquisition fund for Tier 1 lands on Big Pine Key and No Name Key based on the results of the Carrying Capacity Study, the requirements of the incidental take permit and Habitat Conservation Plan and the Master Plan for Big Pine Key and No Name Key. The County and the Department will also support appropriate legislative changes which will have the effect of enhancing the Land Authority efforts throughout the County, and the South Florida Water Management District's acquisitions on Big Pine Key. Similarly, cooperation will continue with private acquisition efforts, such as The Nature Conservancy and the Florida Land and Sea Trust.

Policy 101.6.5: Monroe County, the state, or other acquisition agency shall pursue land acquisition through voluntary purchase of lands from private property owners denied a building permit through the Permit Allocation System, as the preferred option for administrative relief pursuant to Policy 101.6.1, if the subject permit is for development located within: 1. a designated Tier I area; 2. a designated Tier III

Special Protection Area; or, 3. a designated Tier III area on a non-waterfront lot suitable for affordable housing. Refusal of the purchase offer by a property owner shall not be grounds for the granting of a ROGO or NROGO allocation award.

Objective 102.4: Monroe County in cooperation with the state and other acquisition agencies shall prepare a Land Acquisition Master Plan by July 1, 2005 containing a strategy for securing funding, and a determination of those sources considered appropriate for acquisition and management of conservation lands, retirement of development rights and identification and purchase of sites for affordable and employee housing and recreational purposes. Acquisition priorities should be consistent with the tiered system adopted by this plan and as required by the State Work Program in Policy 101.2.13 in order to identify lands appropriate for voluntary purchase consistent with the comprehensive plan policies.

Objective 105.2: Monroe County shall implement with assistance of the state and federal governments a 20-year Land Acquisition Program to: 1) secure for conservation and passive recreation purposes remaining privately-owned environmentally sensitive lands; 2) retire development rights on privately-owned vacant lands to limit further sprawl and equitably balance the rights of property owners with the long-term sustainability of the Keys man-made and natural systems; and, 3) secure and retain lands suitable for affordable housing. This objective recognizes the finite limits of the carrying capacity of the natural and man-made systems in the Florida Keys to continually accommodate further development and the need for the significant expansion of the public acquisition of vacant developable lands and development rights to equitably balance the rights and expectations of property owners.

Policy 105.2.1: Monroe County shall designate all lands outside of mainland Monroe County, except for the Ocean Reef planned development, into three general categories for purposes of its Land Acquisition Program and smart growth initiatives in accordance with the criteria in Policy 205.1.1. These three categories are: Natural Area (Tier 1); Transition and Sprawl Reduction Area (Tier II) on Big Pine Key and No Name Key only; and Infill Area (Tier III). The purposes, general characteristics, and growth management approaches associated with each tier are as follows:

> 1. Natural Area (Tier I): Any defined geographic area where all or a significant portion of the land area is characterized as environmentally sensitive by the policies of this Plan and applicable habitat conservation plan, is to be designated as a Natural Area. New development on vacant land is to be severely restricted and privately owned vacant lands are to be acquired or development rights retired for resource conservation and passive recreation purposes. However, this does not preclude provisions of infrastructure for existing development. Within the Natural Area designation are typically found lands within the acquisition boundaries of federal and state resource

conservation and park areas, including isolated platted subdivisions; and privately-owned vacant lands with sensitive environmental features outside these acquisition areas.

2. Transition and Sprawl Reduction Area (Tier II): Any defined geographic area on Big Pine Key and No Name Key, where scattered groups and fragments of environmentally sensitive lands, as defined by this Plan, may be found and where existing platted subdivisions are not predominately developed, not served by complete infrastructure facilities, or not within close proximity to established commercial areas, is to be designated as a Transition and Sprawl Reduction Area. New development is to be discouraged and privately owned vacant lands acquired or development rights retired to reduce sprawl, ensure that the Keys carrying capacity is not exceeded, and prevent further encroachment on sensitive natural resources. Within a Transition and Sprawl Reduction Area are typically found: scattered small non-residential development and platted subdivisions with less than 50 percent of the lots developed; incomplete infrastructure in terms of paved roads, potable water, or electricity; and scattered clusters of environmentally sensitive lands, some of which are within or in close proximity to existing platted subdivisions.

3. Infill Area (Tier III): Any defined geographic area, where a significant portion of land area is not characterized as environmentally sensitive as defined by this Plan, except for dispersed and isolated fragments of environmentally sensitive lands of less than four acres in area, where existing platted subdivisions are substantially developed, served by complete infrastructure facilities, and within close proximity to established commercial areas, or where a concentration of non-residential uses exists, is to be designated as an Infill Area. New development and redevelopment are to be highly encouraged, except within tropical hardwood hammock or pineland patches of an acre or more in area, where development is to be discouraged. Within an Infill Area are typically found: platted subdivisions with 50 percent or more developed lots situated areas with few sensitive environmental features; full range of available public infrastructure in terms of paved roads, potable water, and electricity; and concentrations of commercial and other non-residential uses within close proximity. In some Infill Areas, a mix of non-residential and high-density residential uses (generally 8 units or more per acre) may also be found that form a Community Center.

Policy 105.2.2: Monroe County shall prepare an overlay map(s) designating geographic areas of the County as one of the three Tiers in accordance with the guidance in Policy 105.2.1, which shall be incorporated as an overlay on the zoning map(s) with supporting text amendments in the Land Development Regulations. These maps are to be used to guide the Land Acquisition Program and the smart growth initiatives in conjunction with the Livable CommuniKeys Program (Policy 101.20.1).

Policy 105.2.3: The priority for acquisition of lands and development rights under the County's Land Acquisition Program shall be as follows: Tier I (Natural Area)-first

priority; Tier II (Transition and Sprawl Reduction Area) and patches of tropical hardwood hammock or pinelands of one acre or greater in area within Tier III-second priority; and Tier III (Infill Area)-third priority, except acquisition of land for affordable housing shall also be a first priority. These acquisition priorities shall be applied consistent with the Policy 105.2.10 that directs the focus of the County's acquisition efforts to the acquisition or retirement of development rights of privately owned vacant platted subdivision lots within Tiers I and II. Federal, State and local funding will be used for purchasing privately owned vacant lands for Tier II.

Policy 105.2.4: Monroe County shall prepare a specific data base tied to its Geographic Information System, containing information needed to implement, monitor, and evaluate its Land Acquisition Program, smart growth initiatives, and Livable CommuniKeys Program.

Policy 105.2.5: Monroe County shall, in coordination with federal and state agencies, implement a land acquisition program to acquire all remaining privately-owned vacant lands within areas designated as a Natural Area (Tier I).

Policy 105.2.14: Monroe County shall identify and secure possible local sources to yield a steady source of funds and secure increased funding from state and federal, and/or private sources for the Land Acquisition Program and the management and restoration of acquired resource conservation lands. With the uncertainty concerning the County's ability to successfully secure sufficient funding from state and federal governments for their fair share of the financial support for the Land Acquisition Program and the demands placed on the County's limited financial resources to address wastewater and other critical issues, it is recognized that the Land Acquisition Program may extend well beyond 20 years.

Objective 105.3: Monroe County shall implement its 20-Year Land Acquisition Program and smart growth initiatives in conjunction with its Livable CommuniKeys Program and shall make appropriate amendments to this Plan and the Land Development Regulations including, but not necessarily limited to the residential and non-residential permit allocation systems.

Objective 204.4: By January 4, 1998, Monroe County shall establish a program for acquiring high quality undisturbed salt marsh and buttonwood wetlands. (See Future Land Use Objective 102.4 and related policies.)

Policy 204.4.1: The Monroe County Growth Management Division in coordination with the Monroe County Land Authority and other federal and state agencies will continue with wetlands acquisition through Florida Forever program, and other funding mechanisms such as the Monroe County Land Acquisition Fund.

Objective 205.5: Monroe County, together with private, state, and federal agencies, shall establish a program for acquiring native upland habitat to implement Goal 105 and

the recommendations in the FKCCS. (See Future Land Use Objective 102.4 and related policies).

Policy 205.5.1: The Monroe County Division of Growth Management shall work cooperatively with the Monroe County Land Authority and other responsible state and federal agencies in developing and administering the acquisition program. Acquisition shall be undertaken to implement the Monroe County Land Acquisition Master Plan (Objective 102.4).

Policy 207.12.2: Sites identified pursuant to Policy 207.12.1 shall be identified as priority acquisition sites for conservation purposes. Particular emphasis shall be placed upon acquisition of identified wetland and native upland sites which are located within Improved Subdivisions. Acquisition shall be considered through the Florida Forever program and other funding mechanisms such as the Monroe County Land Acquisition Fund.

Policy 601.1.13: The Land Authority will coordinate with developers of affordable housing projects when land acquisition proposals or donation requests are submitted to the Land Authority. The Land Authority will acquire and donate land for projects if they are deemed appropriate and acceptable by the Land Authority as meeting the intent of:

1. the affordable housing provisions in the Land Authority's charter;

2. the goals, objectives and policies of this Plan; and

3. the land use designations specified on the Future Land Use Map and in the Monroe County Land Development Regulations.

Policy 601.1.14: The Land Authority shall not list or donate lands as potential affordable housing sites if the lands exhibit any of the following characteristics:

1. Any portion of the land lies within a known, probable, or potential threatened or endangered species habitat, as specified on the most recent Protected Animal Species Maps; or

2. Any portion of the land within the area to be cleared contains Habitat Type/Habitat Quality Group 3 or 4, as specified in Policy 101.5.4, Section 6.

D. Strategies

- The County's current strategies and regulations have in the past addressed land acquisition and management issues within the Florida Keys; however, the County will need to revise the policies to better address the future build-out or maximum number of housing units in the Florida Keys.

- The County should develop alternate land use policies related to the pocssiblity of a build out of the Florida Keys.
- The County should develop an estimate of the long term maintenance costs for lands acquired by the County.
- The County should invenstigate whether the one half cent sales tax used by the Land Authority for acquision can be broadened in scope in the statute to include the ability to use those funds for long term land management.

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Issue Category #1(e): Habitat Conservation Plan for Big Pine and No-Name Keys

A. Background: The Plan calls for an active protection program for federally and State-listed threatened and endangered plant and animal species. Recovery activities are proposed for each species, aimed at prohibiting its destruction and protecting its habitat. These are dependent upon the type of habitat utilized, the threats to that habitat, and the specific sensitivities of each species. The general types of recovery activities include:

- assignment of negative points in the ROGO System;
- recommended habitat acquisition;
- stepped up enforcement of existing laws pertaining to free-roaming pets, road speeds in critical habitat areas, and molesting or harming of endangered species; and
- increased coordination of preservation efforts among the County, USFWS, FFWCC and FDEP.

B. Analysis: Big Pine Key and No Name Key contain particularly sensitive habitat for threatened and endangered species. Since the mid-1980s, the County has recognized that continued growth and development on Big Pine and No Name Keys without proper protective measures would be harmful to key deer (*Odocoileus virginianus clavium*), lower keys marsh rabbit (*Sylvilagus palustris hefneri*), eastern indigo snake (*Drymarchon corais couperi*), and other protected animal and plant species. Beginning in 1995, and lasting nearly ten years, Big Pine Key and No Name Key were under a building moratorium due to the lack of concurrence with the State of Florida transportation requirements. The moratorium placed an undue burden on the community, so the County met with various stakeholders to seek a solution to the problem. A solution to the insufficient level of service was realized through an intersection improvement project, which included an additional lane on the northbound side of U.S. 1. The USFWS agreed to allow the intersection improvement project to proceed on the condition that the County prepare a habitat conservation plan for Big Pine and No Name Keys. The *Habitat Conservation Plan for the Florida Key Deer and other Protected Species on Big Pine Key and No Name Key, Monroe County, Florida* (HCP) was adopted by the County on August 2004 and accepted by the USFWS in June 2006. The HCP defines all allowed development activities within Big Pine Key and No Name Key for the 20 year life of the plan. In conjunction with this process, the County prepared a Livable CommuniKeys Plan (LCP) for Big Pine and No Name Key to serve as a master plan for the area (adopted by the County on August 18, 2004). Like the HCP, the overall goal of the LCP was to determine the appropriate amount, type, and location of development in the project area that would provide for community needs, while maximizing conservation of the key deer and other covered species through appropriate avoidance, minimization, and mitigation. The LCP serves as an addendum to the Year 2010 Comprehensive Land Use Plan and works in concert with the HCP.

Covering an area of approximately 7,000 acres, the HCP is a conservation strategy that protects the habitat of the key deer, lower keys marsh rabbit, and eastern indigo snake while allowing limited residential development, commercial development and expansion, community and institutional facilities, and transportation improvements on Big Pine Key and No Name Key. In addition to protecting high quality habitat for these species, the HCP directs development toward areas that have already been already impacted and away from prime habitat for the covered species.

The goal of the HCP is to hold impact on the species below the "quasi-extinction" threshold, which was defined as the probability that the number of female deer would fall below 50 at least once over 50 years. The drafters used an assignment of an "H" value for each type and amount of development to keep track of development impacts on key deer and other protected species. "H" represents impact, both primary and secondary, and was based on six factors: distance from U.S. 1, existing housing density, existing habitat quality, proximity to deer movement corridors, existing deer density, and water barriers. A Population Viability Analysis (PVA) was conducted for the Key Deer in association with the HCP and estimates the likelihood that the species will persist for a given time into the future under different scenarios. The PVA indicated that, under the conditions prior to the implementation of the HCP, the key deer would have a 2.2 percent chance of reaching quasi-extinction. Based on this PVA, the drafters determined that risk of quasi-extinction could be raised to no more than 4.2 percent. This equates to the loss of 4.2 deer a year to human-related mortality. With the above goal, an acceptable "H" limit or impact limit for development in Big Pine Key and No Name key is H(impact) = 1.1 over 20 years. The drafters agreed to mitigate all H (impact) at a ratio of 3:1. This means that each parcel developed under this plan will be added to the total H allowed over the next 20 years and the County must mitigate that H by three times this amount. If this ratio is not maintained, development activity will be stopped until the mitigation ratio is achieved or exceeded.

To not exceed the H(impact) = 1.1 limit, basic development limitations were set. These limitations are outlined in general in the HCP and more specifically defined in the LCP for Big Pine and No Name Keys. These limitations cover everything from residential to light industrial to road widening. The following 20-year development limitations are included in the LCP:

- new residential units limited to 200;
- new commercial limited to 47,800 square feet;
- one new major recreational and community center at the County-owned Mariner's Resort, three additional public parks on disturbed uplands, and expansion of the existing library;
- up to seven new pocket parks on disturbed or scarified sites within certain subdivisions;

- expansion of existing community organizations, such as religious institutions and civic clubs, on certain scarified lands;
- certain new or expanded public facilities (such as projects in the Sanitary Wastewater Master Plan, Stormwater Management Master Plan, public office space, and emergency response), all of which are restricted to disturbed and/or scarified areas;
- approximately 250-300 vacant lots allowed to be either be fenced or developed with accessory uses primarily on Tier II and Tier III lands; and
- three-laning of U.S. 1 only.

If at any time during the 20 year period H(impact) = 1.1 is met or exceeded, development activity will halt.

While these restrictions on new development help meet the goal, additional restrictions were also required. Most of these restrictions were based on the tier system, which reflects the increased impact based on location and development pattern for the area. These 20-year restrictions are:

- 10 new residential permits in Tier 1 areas;
- no new fences in Tier 1 areas; and
- only residential development is allowed in Tier 1.

A complete listing of restrictions on the allowed level of development is available in the HCP and the LCP. All applications for new residential and commercial development will be required to apply for a ROGO/NROGO allocation.

ROGO/NROGO applications for Big Pine and No Name Key compete against each other as a subarea to the rest of the County's ROGO/NROGO system. Allocations are based on the overall score and date the applicant applied. Applicants are competing for eight market rate and two affordable allocations annually. Prior to allocation issuance, the applicant must mitigate the H value associated with the development of the parcel. This is accomplished through land donation or fund donation to allow the County to purchase property to maintain a 3:1 ratio for impact.

Based on the HCP, finalized in 2006, USFWS issued an Incidental Take Permit (No. TE083411-0, issued June 9, 2006 and expires June 30, 2023) that allows the County to continue to adversely impact endangered species on Big Pine and No Name Key through the issuance of building permits. The development of 200 homes or no more than 168 acres of development over a 20-year period is anticipated on Big Pine Key and No Name Key. The HCP does not specify which properties will be permitted or when. Because the County now has the approved HCP and Incidental Take Permit necessary to protect listed species and their habitats, landowners obtaining a building permit generally do not need any other permits or reviews from the USFWS. Improvements to properties are generally allowed as long as they are consistent with County regulations. However, projects that remove nativevegetation or reduce key deer access to habitat, such as fences, may undergo additional review by the County and the USFWS.

The HCP aides in the recovery of listed species on Big Pine and No Name Keys because it directs development away from the more sensitive habitat and toward areas that have already been impacted. Development is limited to 168 acres (with no more than 7 acres being native habitat) of impact over a 20-year period and mitigation is conducted at a 3:1 ratio. In total, 504 acres will be acquired, restored, and managed for key deer, lower keys marsh rabbit, and eastern indigo snake conservation. In addition, no development will occur in lower keys marsh rabbit habitat within a 1,640-foot buffer to reduce the indirect effects of development (except for about 40 acres that have already been fragmented). All unprotected suitable marsh rabbit habitat on Big Pine and No Name Key will be targeted for acquisition and conservation. The County will also implement a free-roaming pet education program to reduce mortality (predation) on marsh rabbits.

Under the LDCs [Section 9.5-345 (General Environmental Design Criteria)], clustering of development is required to reduce habitat fragmentation and to preserve the largest possible area of contiguous undisturbed habitat (for all natural habitat types). The LDCs also contain restrictions on the amount of land clearing, depending on the tier designation. The County currently requires a coordination letter from the USFWS when development is proposed in known or potential habitat for endangered and threatened species. Under the Tier Overlay Ordinance, lands that serve as habitat for protected species have top priority for land acquisition. Under the current ROGO/NROGO system, development within known habitat of threatened or endangered species receive minus 10 points.

C. Policy Framework

*Note: These GOPs are also discussed in section **III. Public Facilities Funding**.*

Policy 101.5.4(8) provides for 2 points in the ROGO system for payment to the Land Acquisition Fund.

Objective 101.6: Monroe County shall expand the Monroe County Land Authority acquisition program to provide for the purchase of land from property owners who have not been awarded building permit allocations in the Permit Allocation System."

Policy 101.6.1: Monroe County, the State, or other acquisition agency shall, upon a property owner's request, purchase the property for fair market value or permit the minimum reasonable economic use of the property.

Policy 101.6.2: By fiscal year 1998, the Monroe County Land Authority shall dedicate a minimum of 35 percent of its annual budget each year for the purpose of acquiring land from qualified property owners as defined by Policy 101.6.1. Funds accumulated from this source shall be reserved for the acquisition of land from qualified property owners, but may also be used to acquire other properties when deemed appropriate by the Land Authority.

Policy 101.6.3: By January 4, 1998, Monroe County shall identify potential funding sources and seek funding from state, federal, and/or private sources to be used for acquisition of land from qualified property owners as defined by Policy 101.6.1.

Policy 101.6.4: The County will coordinate with DCA to ensure that DCA continues to support enhanced land acquisition efforts in the Keys based on needs identified in this comprehensive plan. This coordination shall ensure continued support of state acquisition efforts under CARL, Preservation 2000 and the Florida Communities Trust programs. The County encourages the Department to work at the state level to create a dedicated acquisition fund for Tier 1 lands on Big Pine Key and No Name Key based on the results of the Carrying Capacity Study, the requirements of the incidental take permit and Habitat Conservation Plan and the Master Plan for Big Pine Key and No Name Key. The County and the Department will also support appropriate legislative changes which will have the effect of enhancing the Land Authority efforts throughout the County, and the South Florida Water Management District's acquisitions on Big Pine Key. Similarly, cooperation will continue with private acquisition efforts, such as The Nature Conservancy and the Florida Land and Sea Trust.

Policy 101.6.5: Monroe County, the state, or other acquisition agency shall pursue land acquisition through voluntary purchase of lands from private property owners denied a building permit through the Permit Allocation System, as the preferred option for administrative relief pursuant to Policy 101.6.1, if the subject permit is for development located within: 1. a designated Tier I area; 2. a designated Tier III Special Protection Area; or, 3. a designated Tier III area on a non-waterfront lot suitable for affordable housing. Refusal of the purchase offer by a property owner shall not be grounds for the granting of a ROGO or NROGO allocation award.

Objective 102.4: Monroe County in cooperation with the state and other acquisition agencies shall prepare a Land Acquisition Master Plan by July 1, 2005 containing a strategy for securing funding, and a determination of those sources considered appropriate for acquisition and management of conservation lands, retirement of development rights and identification and purchase of sites for affordable and employee housing and recreational purposes. Acquisition priorities should be consistent with the tiered system adopted by this plan and as required by the State Work Program in Policy 101.2.13 in order to identify lands appropriate for voluntary purchase consistent with the comprehensive plan policies.

Objective 105.2: Monroe County shall implement with assistance of the state and federal governments a 20-year Land Acquisition Program to: 1) secure for conservation and passive recreation purposes remaining privately-owned environmentally sensitive lands; 2) retire development rights on privately-owned vacant lands to limit further sprawl and equitably balance the rights of property owners with the long-term sustainability of the Keys man-made and natural systems; and, 3) secure and retain lands suitable for affordable housing. This objective recognizes the finite limits of the carrying capacity of the natural and man-made systems in the Florida Keys to continually accommodate further development and the need for the significant expansion of the public acquisition

of vacant developable lands and development rights to equitably balance the rights and expectations of property owners.

Policy 105.2.1: Monroe County shall designate all lands outside of mainland Monroe County, except for the Ocean Reef planned development, into three general categories for purposes of its Land Acquisition Program and smart growth initiatives in accordance with the criteria in Policy 205.1.1. These three categories are: Natural Area (Tier 1); Transition and Sprawl Reduction Area (Tier II) on Big Pine Key and No Name Key only; and Infill Area (Tier III). The purposes, general characteristics, and growth management approaches associated with each tier are as follows:

1. Natural Area (Tier I): Any defined geographic area where all or a significant portion of the land area is characterized as environmentally sensitive by the policies of this Plan and applicable habitat conservation plan, is to be designated as a Natural Area. New development on vacant land is to be severely restricted and privately owned vacant lands are to be acquired or development rights retired for resource conservation and passive recreation purposes. However, this does not preclude provisions of infrastructure for existing development. Within the Natural Area designation are typically found lands within the acquisition boundaries of federal and state resource conservation and park areas, including isolated platted subdivisions; and privately-owned vacant lands with sensitive environmental features outside these acquisition areas.

2. Transition and Sprawl Reduction Area (Tier II): Any defined geographic area on Big Pine Key and No Name Key, where scattered groups and fragments of environmentally sensitive lands, as defined by this Plan, may be found and where existing platted subdivisions are not predominately developed, not served by complete infrastructure facilities, or not within close proximity to established commercial areas, is to be designated as a Transition and Sprawl Reduction Area. New development is to be discouraged and privately owned vacant lands acquired or development rights retired to reduce sprawl, ensure that the Keys carrying capacity is not exceeded, and prevent further encroachment on sensitive natural resources. Within a Transition and Sprawl Reduction Area are typically found: scattered small non-residential development and platted subdivisions with less than 50 percent of the lots developed; incomplete infrastructure in terms of paved roads, potable water, or electricity; and scattered clusters of environmentally sensitive lands, some of which are within or in close proximity to existing platted subdivisions.

3. Infill Area (Tier III): Any defined geographic area, where a significant portion of land area is not characterized as environmentally sensitive as defined by this Plan, except for dispersed and isolated fragments of environmentally sensitive lands of less than four acres in area, where existing platted subdivisions are substantially developed, served by complete infrastructure facilities, and within close proximity to established commercial areas, or where a concentration of non-residential uses exists, is to be designated as an Infill Area. New development and

redevelopment are to be highly encouraged, except within tropical hardwood hammock or pineland patches of an acre or more in area, where development is to be discouraged. Within an Infill Area are typically found: platted subdivisions with 50 percent or more developed lots situated areas with few sensitive environmental features; full range of available public infrastructure in terms of paved roads, potable water, and electricity; and concentrations of commercial and other non-residential uses within close proximity. In some Infill Areas, a mix of non-residential and high-density residential uses (generally 8 units or more per acre) may also be found that form a Community Center.

Policy 105.2.2: Monroe County shall prepare an overlay map(s) designating geographic areas of the County as one of the three Tiers in accordance with the guidance in Policy 105.2.1, which shall be incorporated as an overlay on the zoning map(s) with supporting text amendments in the Land Development Regulations. These maps are to be used to guide the Land Acquisition Program and the smart growth initiatives in conjunction with the Livable CommuniKeys Program (Policy 101.20.1).

Policy 105.2.3: The priority for acquisition of lands and development rights under the County's Land Acquisition Program shall be as follows: Tier I (Natural Area)-first priority; Tier II (Transition and Sprawl Reduction Area) and patches of tropical hardwood hammock or pinelands of one acre or greater in area within Tier III-second priority; and Tier III (Infill Area)-third priority, except acquisition of land for affordable housing shall also be a first priority. These acquisition priorities shall be applied consistent with the Policy 105.2.10 that directs the focus of the County's acquisition efforts to the acquisition or retirement of development rights of privately owned vacant platted subdivision lots within Tiers I and II. Federal, State and local funding will be used for purchasing privately owned vacant lands for Tier II.

Policy 105.2.4: Monroe County shall prepare a specific data base tied to its Geographic Information System, containing information needed to implement, monitor, and evaluate its Land Acquisition Program, smart growth initiatives, and Livable CommuniKeys Program.

Policy 105.2.5: Monroe County shall, in coordination with federal and state agencies, implement a land acquisition program to acquire all remaining privately-owned vacant lands within areas designated as a Natural Area (Tier I).

Policy 105.2.14: Monroe County shall identify and secure possible local sources to yield a steady source of funds and secure increased funding from state and federal, and/or private sources for the Land Acquisition Program and the management and restoration of acquired resource conservation lands. With the uncertainty concerning the County's ability to successfully secure sufficient funding from state and federal governments for their fair share of the financial support for the Land Acquisition Program and the demands placed on the County's limited financial resources to address wastewater and other critical issues, it is recognized that the Land Acquisition Program may extend well beyond 20 years.

Policy 105.2.15: Where appropriate, as part of the Livable CommuniKeys Planning Process, Community Centers shall be designated within areas designated as Tier III (Infill Area). A Community Center is characterized as a defined geographic area with a mix of retail, personal service, office and tourist and residential uses (generally of greater than 8 units per acre). Community Centers shall be designated as receiving areas for transfer of development rights and shall receive special incentives in the non-residential permit allocation system.

Objective 105.3: Monroe County shall implement its 20-Year Land Acquisition Program and smart growth initiatives in conjunction with its Livable CommuniKeys Program and shall make appropriate amendments to this Plan and the Land Development Regulations including, but not necessarily limited to the residential and non-residential permit allocation systems.

Objective 204.: By January 4, 1998, Monroe County shall establish a program for acquiring high quality undisturbed salt marsh and buttonwood wetlands. (See Future Land Use Objective 102.4 and related policies.)

Policy 204.4.1: The Monroe County Growth Management Division in coordination with the Monroe County Land Authority and other federal and state agencies will continue with wetlands acquisition through Florida Forever program, and other funding mechanisms such as the Monroe County Land Acquisition Fund.

Objective 205.5: Monroe County, together with private, state, and federal agencies, shall establish a program for acquiring native upland habitat to implement Goal 105 and the recommendations in the FKCCS. (See Future Land Use Objective 102.4 and related policies).

Policy 205.5.1: The Monroe County Division of Growth Management shall work cooperatively with the Monroe County Land Authority and other responsible state and federal agencies in developing and administering the acquisition program. Acquisition shall be undertaken to implement the Monroe County Land Acquisition Master Plan (Objective 102.4).

Policy 207.12.2: Sites identified pursuant to Policy 207.12.1 shall be identified as priority acquisition sites for conservation purposes. Particular emphasis shall be placed upon acquisition of identified wetland and native upland sites which are located within Improved Subdivisions. Acquisition shall be considered through the Florida Forever program and other funding mechanisms such as the Monroe County Land Acquisition Fund.

Policy 601.1.13: The Land Authority will coordinate with developers of affordable housing projects when land acquisition proposals or donation requests are submitted to the Land Authority. The Land Authority will acquire and donate land for projects if they are deemed appropriate and acceptable by the Land Authority as meeting the intent of:

1. the affordable housing provisions in the Land Authority's charter;

2. the goals, objectives and policies of this Plan; and

3. the land use designations specified on the Future Land Use Map and in the Monroe County Land Development Regulations.

Policy 601.1.14: The Land Authority shall not list or donate lands as potential affordable housing sites if the lands exhibit any of the following characteristics:

1. Any portion of the land lies within a known, probable, or potential threatened or endangered species habitat, as specified on the most recent Protected Animal Species Maps; or
2. Any portion of the land within the area to be cleared contains Habitat Type/Habitat Quality Group 3 or 4, as specified in Policy 101.5.4, Section 6.

D. Strategies:

- The strategies and regulations contained in the HCP and ROGO/NROGO have adequately addressed methods of land acquisition in Big Pine and No-Name Keys. No amendments are recommended at this time.

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Issue Category #1(f): Water Quality

A. Background: Historically, development in the Keys relied on the use of cesspits and septic tanks which provide little treatment of domestic wastewater in porous lime rock substrates. In addition, stormwater flows untreated into nearshore surface waters. Lack of nutrient removal from domestic wastewater and stormwater has resulted in the addition of nutrient-rich waste waters into confined waters and adjacent nearshore areas. The cumulative effects of these discharges have led to water quality degradation of these inshore areas (Kruczynski, 1999). Kruczynski (1999) provided the following summary statements on water quality issues in the Florida Keys:

- There is a rapid exchange of groundwater and surface waters in the Keys that is driven by tidal pumping.
- Cesspits are not appropriate for disposal of wastewater because they are illegal, provide very little treatment, and are a health hazard. Cesspit effluent can rapidly migrate to surface waters.
- Properly functioning septic tank systems remove very little nutrients (4 percent nitrogen, 15 percent phosphorous) from wastewater and, depending upon their location, effluent from septic tank drainfields can rapidly migrate to surface waters.
- Sewage discharged from cesspits and septic tanks are a source of nutrients and human pathogens to ground and surface waters.
- Contaminants in stormwater runoff contribute substantially to the degradation of nearshore water quality.
- Water quality problems due to on-site sewage disposal practices and stormwater runoff have been documented in residential canals. Water quality parameters that are degraded include nutrient enrichment, fecal coliform contamination, and biological oxygen demand.
- Long, dead-end canal systems, deep canals of any length, and poorly flushed basins accumulate weed wrack and other particulate matter.
- The water column of many canals over six feet deep is stratified and bottom waters are oxygen deficient. Because they usually violate Class III Surface Water Quality Standards, canals were excluded from Outstanding Florida Waters (OFW) designation.
- Artificial aeration of canals does not eliminate the sources of excessive nutrients in canal waters but may result in better mixing which may facilitate nitrogen cycling.
- Improving flushing of degraded canal systems may improve the water quality within the canal, but will also result in adding additional nutrients to the adjacent waters.
- Canal systems and basins with poor water quality are a potential source of nutrients and other contaminants to other nearshore waters.

- Seagrass beds located near the mouths of some degraded canal systems exhibit signs of eutrophication, such as increased epiphyte load and growth of benthic algae.
- Vessel generated turbidity (re-suspended sediments) is a growing concern in many areas with high boat traffic including canals and open waters.
- Aerobic treatment units and package plants provide secondary treatment, removing 80 percent (90 percent of the total suspended solids (TSS) and organic wastes that are responsible for biochemical oxygen demand). In poor soil conditions with high groundwater tables, where drainfields are rendered inefficient, secondary treatment systems are better than septic tanks at removing organically bound nutrients associated with the TSS. These systems, however, are not designed to remove dissolved nutrients.
- Disposal of wastewater from package treatment plants or on-site disposal systems into Class V injection wells results in nutrient enrichment of the groundwater. However, it is not known whether discharges into Class V wells results in substantial nutrient loading to surface waters.
- In areas where groundwater is saline, injected wastewater is buoyant and rapidly rises to the surface.
- Tracer studies have demonstrated rapid migration of Class V effluent to surface waters (hours to days). These studies demonstrated that tracers were greatly diluted before reaching surface waters and that some phosphorus was stripped from groundwater by the substrate. The long term ability of phosphorus stripping by the substrate is under investigation.
- Sewage discharges from vessels degrade the water quality of marinas and other confined water anchorages.
- Florida Bay discharge, oceanic and Gulf of Mexico upwelling and currents, rainwater and other natural sources add nutrients to surface waters of the Keys.
- Net water movement through the tidal passes between the Keys is toward the Atlantic Ocean. Once entering Hawk Channel, water direction and speed is controlled by prevailing winds and ocean currents.
- Coral habitats are exhibiting declines in health; coral diseases are more common and benthic algae have increased in abundance and spatial coverage.
- There are no definitive studies on the geographic extent of the impact of human-caused nutrient enrichment. Scientists agree that canal and other nearshore waters are affected by human-derived nutrients from sewage. Improved sewage treatment practices are needed to improve canal and other nearshore waters. Impacts further from shore that may be due to human-derived nutrients may be reduced or eliminated by cleaning up nearshore waters.
- Planning and implementation of improvements to wastewater treatment are underway.
- A long term monitoring program has been implemented to provide information on the status and trends of water quality, coral, and seagrass communities.
- The costs of water quality improvements are a small fraction of the long term asset value that natural resources (such as reefs, hard bottoms, and seagrasses) provide to the economy of the Florida Keys.

B. Analysis: FDEP's Florida Keys Reasonable Assurance Plan prepared in December 2008, provides the following summary of water degradation in the Keys. In 1985, when the Florida Keys were designated as an OFW, water quality data were collected to define the existing ambient water quality at the point of designation. Data were collected at 165 stations from January to February 1985 in three areas: Bayside (49 stations north and northwest of the islands), Oceanside (46 stations south and southeast of the islands), and Canal (70 stations within the artificial waterways interior to the islands in canals, boat basins, and marinas). Parameters measured included dissolved oxygen, pH, temperature, conductivity, salinity, nitrogen species, total phosphorus, and fecal coliform.

Table 27 represents the range of nutrient water quality at the time of OFW designation and the water quality that needs to be protected according to the OFW designation. **Table 28** provides estimated nutrient concentrations as a result of the nutrient models prepared for the Florida Keys Reasonable Assurance Plan and represent the ambient nutrient content of the nearshore waters in 1999.

Table 27: 1985 FDEP OFW Water Quality Data

1985 FDEP OFW Water Quality Data						
	Total Nitrogen (μ g/L)			Total Phosphorus (μ g/L)		
Location	Average	Minimum	Maximum	Average	Minimum	Maximum
Bayside	370	130	697	14	1	54
Oceanside	288	145	489	15	4	80

Table 28: 1999 Baseline Nutrient Concentrations

1999 Baseline Nutrient Concentrations						
	Total Nitrogen (μ g/L)			Total Phosphorus (μ g/L)		
Location	Average	Minimum	Maximum	Average	Minimum	Maximum
Bayside	381	211	782	19	10	50
Oceanside	159	119	275	15	6	48

This data shows that average total nitrogen and total phosphorus values (except Oceanside) exceed those of the 1985 OFW data, indicating, according to OFW criteria, a degradation of water quality due to nutrient concentrations.

Anecdotal information and observations from FDEP staff, scientists, and engineers working in the Keys, and other observers, point out increasing problems with water clarity, proliferation of macrophytic and epiphytic algae in the nearshore waters which can be linked to nutrient enrichment [see Section 3.8.2 (Seagrass Beds)].

Boyer and Briceño (2008) provide an annual summary of the Water Quality Monitoring Project for the FKNMS as part of the Water Quality Protection Program. The period of

record for the 2008 report is March 1995 through December 2008 and includes data from 50 quarterly sampling events at 154 stations within the FKNMS including the Dry Tortugas National Park. Field parameters measured at each station included salinity, temperature, dissolved oxygen, turbidity, relative fluorescence, and light attenuation. Water quality variables include the dissolved nutrients nitrate, nitrite, ammonium, dissolved inorganic nitrogen, and soluble reactive phosphate. Total unfiltered concentrations include those of nitrogen, organic nitrogen, organic carbon, phosphorus, silicate, and chlorophyll *a*.

The U.S. Environmental Protection Agency (USEPA) developed Strategic Targets for the Water Quality Monitoring Project, which state that beginning in 2008, they will annually maintain the overall water quality of the nearshore and coastal waters of the FKNMS according to the 2005 baseline. For reef sites, chlorophyll *a* should be less than or equal to 0.2 μ/L and the vertical attenuation coefficient for downward irradiance (light attenuation) should be less than or equal to 0.13 per meter. For all monitoring sites in FKNMS, dissolved inorganic nitrogen should be less than or equal to 0.75 micromolar (μM) and total phosphorus should be less than or equal to 0.2 μM. The following data shows the number of sites and percentage of total sites exceeding these Strategic Targets for 2008 (Boyer and Briceño, 2008):

- 88 of 136 reef values are greater than 0.2 μg/L chlorophyll *a* (64.7 percent)
- 33 of 129 reef values are greater than 0.13/m light attenuation (25.6 percent)
- 106 of 1,003 total values are greater than 0.75 μM ammonium (10.6 percent)
- 530 of 1,005 total values are greater than 0.20 μM phosphorus (52.7 percent)

Boyer and Briceño (2008) noted elevated nitrate in the inshore waters of the Keys. The distribution implies an inshore source which is diluted by low nutrient Atlantic Ocean waters. Since the 2005 hurricane season, water quality on the reef, especially dissolved inorganic nitrogen, were elevated but have mostly returned to normal levels. Boyer and Briceño (2008) note that it is clear that some of the trends observed inside the FKNMS are influenced by regional conditions outside the FKNMS boundaries and are not in the control of the County.

A number of studies were initiated to identify the causes of water quality degradation in Florida Bay. These studies were reviewed in Lodge (2005) and are summarized as follows:

- Due to drainage modifications, the freshwater and nutrient inputs to Florida Bay from the Everglades are negligible compared to tidal exchanges through the passages in the Middle Keys and across the western connection of Florida Bay with the Gulf of Mexico.
- Nutrients and water quality problems in the bay are drawn from currents from the eastern Gulf of Mexico. This implicates enriched discharges of waters from Lake Okeechobee and the Caloosahatchee River.

- The limiting nutrient for the western Florida Bay is nitrogen, not phosphorus (phosphorus is an important pollutant in inland waters). Nitrogen from agricultural sources has enriched eastern and central Florida Bay, where phosphorus is limiting. Nitrogen combined with phosphorus from the west has caused algal blooms and turbidity problems.
- Pulsed freshwater releases carry contamination loads from agricultural runoff. The pulses also result in low salinities, which is seldom a problem (unless the biota that receives the pulse is intolerant). These pulses have been implicated in the occurrence of algal blooms (Rudnick et al., 2006).
- Roseate spoonbills are an indicator of the health of the bay. Their abundance and reproductive success is tied to the production of juvenile fishes.
- Many studies have demonstrated the complexity of the bay because it has a range of characteristics over its extent. No data exist to provide a pre-drainage baseline that could serve as a restoration target.

To support the resource protection purpose of the FKNMS, Congress directed the USEPA and the State of Florida, represented by FDEP, to develop a Water Quality Protection Program (WQPP) for the Sanctuary. The purpose of the WQPP is to recommend corrective actions that restore and maintain the water quality conditions needed to maintain healthy native plant and animal populations in FKNMS waters. The Act also requires the development of a water quality monitoring program.

The WQPP consisted of a set of initial recommendations for corrective actions, monitoring, research and special studies, and education and outreach. Recommendations for monitoring and special studies were conducted by the USEPA and FDEP. Most recommendations for corrective actions require coordination activities by numerous agencies. The Program has funded three long-term monitoring projects: overall water quality, coral reef and hard bottom community health, and seagrass community health.

The USEPA prepared the *Water Quality Protection Program for the Florida Keys National Marine Sanctuary: Phase 1 Report*, which listed 84 water quality hot spots. These areas have been identified as sites of known or suspected water quality degradation, based upon workshops and discussion groups. The list was later increased to a list of 88 hot spots in 1996, primarily as a result of water quality issues and wastewater influences. Hot spot locations correspond with higher density urban areas, representing neighborhoods and subdivisions with the poorest sewage treatment and strongest need for central sewage facilities. During preparation of the Monroe County Sanitary Wastewater Master Plan, a priority ranking system was developed to determine the order in which these areas should be provided with wastewater collection and treatment facilities, using Best Available Technology. Three recommendations were made for all higher priority, poorly designed canal systems:

- install Best Available Technology sewage treatment,
- collect and treat stormwater runoff, and
- improve canal circulation (Kruczynski, 1999; USACE and SFWMD, 2004).

Water quality monitoring data have been collected in and around the Keys by Florida International University since 1995 as part of the WQPP. These studies revealed significant increases in total phosphorus and nitrate (a form of nitrogen) in the Keys and Tortugas over a five year sampling period. Increases did not occur in areas influenced by Florida Bay water transport and these results may suggest that increasing nutrients outside the influence of Florida Bay are due to local influences of nearshore waters. In contrast, total organic nitrogen decreased over the five year sampling period and may be a result of regional circulation patterns of the Loop and Florida Currents (Jones and Boyer, 2001; USACE and SFWMD, 2004).

Results from the WQPP (1995-2006) indicated that Middle and Lower Keys inshore waters had higher nitrate concentrations than waters from the reef tract. In the inshore waters of the less populated Upper Keys and the Tortugas, nitrate levels were low and similar to those found on the reef tract. This difference suggests that shoreline development may be the source of nitrate in the Middle and Lower Keys.

The USEPA estimates that nutrient loadings from the Keys to nearshore marine waters total 2,377 lbs/day of total nitrogen and 544 lbs/day of total phosphorus. About 80 percent of this total nitrogen and 56 percent of the total phosphorus were attributed to wastewater disposal, while the remainder was attributed to stormwater runoff. An analysis of inputs from municipal wastewater, live-aboard boats, and stormwater indicated nutrient rich groundwater accounts for about 63 percent of total nitrogen and about 44 percent of total phosphorus loading from the Keys to the nearshore marine waters (USEPA, 1996; USACE and SFWMD, 2004).

In addition to nutrient loading and anaerobic conditions, degraded water quality in canals and isolated waterbodies also pose a human health concern. Multiple studies have been conducted to determine the presence of pathogens and their origins. One study in 1997 involved the testing of 19 sites throughout the Keys, including 17 residential canals and two nearshore sites selected from a USEPA hot spot list based on suspected poor water quality. The testing detected the presence of viruses, but did not determine whether they were infectious in nature. In the survey, 15 of the 19 sites tested positive for enteroviruses and 12 sites tested positive for the hepatitis A virus. Clinical symptoms of enteroviruses are generally mild, but occasional infections may cause serious disease such as paralytic poliomyelitis, meningitis, or myocarditis (USACE and SFWMD, 2004).

Another study, funded by the USEPA (Fuss, 2000), showed that at least one Keys canal contained live infectious viruses linked to human waste. Among the viruses identified in the water sampling were those that cause polio and viral meningitis, along with a variety of others that cause lesser viral illnesses. Researchers sampled water at six sites from Key Largo to Key West, and one canal in lower Matecumbe Key that was defined as a hot spot. Test results indicated the presence of live enteroviruses, including polio, Coxsackie A and B and echoviruses in Captains Cove, a canal basin in the Port Antigua neighborhood of lower Matecumbe Key. Coxsackie A and B can cause diseases such as herpangina and myocarditis. Echoviruses can cause a variety of illnesses, ranging from

fever to viral meningitis. Coxsackie B has also been repeatedly implicated as a causal agent for chronic fatigue syndrome (USACE and SFWMD, 2004).

These studies indicate that current wastewater treatment practices are contributing to health hazards in the canals in the Keys. All of the detected viruses are transmissible through human feces and are believed to have been transported into Keys canals in raw sewage from leaking cesspools and septic tanks (Fuss, 2000) (USACE and SFWMD, 2004).

Clean public beaches and nearshore water quality are leading health concerns in the County. The number of beach health advisories due to elevated contamination levels has risen during recent years. Of 15 County beaches monitored in 2001, five were found to have elevated bacterial levels and received water quality advisories (**Table 29**).

In 2002, 15 Keys beaches were tested, and two, John Pennekamp Coral Reef State Park in Key Largo and Higgs Beach in Key West, were found to have high concentrations of enterococcus indicating contamination from mammalian waste through wastewater or stormwater. While there were no beach closings reported in 2001, the total number of advisories was up substantially from earlier years. A total of 30 days of beach advisories and closings were reported in 2000 as compared to 60 in 2001 (FEMA, 2002). The total number of beach advisories and closings for 2002 was 138 days for all health advisories. These advisories were issued throughout the year, with little apparent association with time of year (USACE and SFWMD, 2004).

Table 29 - Monroe County Beach Advisories and Closings (2001)

Beach	Advisory or closing	Number of advisories or closings	Number of days, respectively	Reason	Indicator
Bahia Honda Oceanside	Advisory	2	24 and 11	Elevated bacteria levels	Enterococci
Coco Plum Beach	Advisory	2	11 and 11	Elevated bacteria levels	Enterococci
Curry Hammock State Park (Marathon)	Advisory	1	1	Elevated bacteria levels	Enterococci
Higgs Beach (Key West)	Advisory	4	14, 11, 24, and 27	Elevated bacteria levels	Enterococci and fecal coliform
Veteran's Beach (Marathon)	Advisory	1	4	Elevated bacteria levels	Enterococci

Source: Florida Department of Health, 2003, online data.

Point sources of water pollutants are defined as discharges from any discernible, confined, and discrete conveyance, such as a pipe, ditch, container, etc., which flow directly into surface water. In the County, point source discharges include releases from concrete batch plants, a sanitary wastewater treatment plant, and urban runoff. Some stormwater discharges (urban runoff) are considered point sources according to the USEPA and some are non-point sources. In this document, urban runoff is discussed in Section 3.5.3.2.8 (Urban Runoff) below. All point sources are required to operate under a National Pollutant Discharge Elimination System (NPDES) Permit pursuant to the Federal Clean Water Act. In 1995, the USEPA authorized the FDEP to administer the NPDES Wastewater Program in Florida. Consequently, the NPDES permit requirements are now included in the State-issued permit for most wastewater facilities providing the permittee with one set of requirements for each facility. In 2000, FDEP was authorized to administer the NPDES Stormwater Program.

Since 1974, there has been a steady decline in the number of permitted facilities discharging wastewater into surface waters in the County. According to USEPA data, the number of NPDES Permits dropped from 70 in 1974, to 35 at the beginning of 1991, and to 23 in November 1991 (CSA, 1991). The FDEP data, as of July 2010, list five dischargers in the County (incorporated and unincorporated areas): four are concrete batch plants and one is a domestic sanitary wastewater plant (FDEP 2010). Discharges have been discontinued as a result of a combination of business closures, stringent water quality standards, and/or permits for alternative disposal methods such as regional deep well injection facilities. Pursuant to Section 62-302.700(9), F.A.C., the waters in the Florida Keys have been designated as OFW, which are afforded special protection. Because discharges must meet these stricter surface water quality standards, it is difficult to obtain a surface water permit. Therefore, most treatment facilities elect to discharge into Class V injection wells (boreholes), which are considered non-point discharges [see Section 3.5.3.2.8 (Urban Runoff)]. FDEP anticipates that eventually all point source discharges will be eliminated in favor of the deep well injection method.

To ensure that discharges meet surface water and groundwater criteria, the permitted facilities are required to submit monthly Discharge Monitoring Reports to FDEP. The reports provide effluent monitoring data for toxicity, effluent quality, fecal coliform, and discharge rates. Together with FDEP site inspections, the reports help FDEP ensure that the facilities are meeting their discharge limitations and are operating in accordance with the permitted requirements.

Non-point sources of water pollutants are defined as discharges made directly or indirectly to overland flow or groundwater. They are associated with land use and activities associated with everyday life, such as: vehicles and machinery leaking gas, oil and grease; disposal of oil in storm drains; overuse of fertilizer and pesticides; litter; and pet waste. In addition, typical non-point sources in the County include domestic and industrial wastewater facilities, on-site sewage treatment and disposal systems (OSTDS), erosion and sedimentation from unvegetated lands, abandoned and inactive landfills,

marinas, live-aboard vessels, application of mosquito control pesticides, and urban runoff**.**

For permitting purposes, wastewater facilities are designated as industrial or domestic based on the type of wastewater the facility treats. Domestic wastewater is generated by dwellings, business buildings, and institutions. All wastewater that is not defined as domestic is considered industrial. Industrial wastewater sources include manufacturers and commercial businesses, such as concrete batch plants, laundries, and dry cleaners.

In addition to the five point source dischargers described above, FDEP records (FDEP 2010) indicate that there are 234 domestic and seven industrial wastewater treatment facilities with operating permits in the County (incorporated and unincorporated areas). These facilities provide wastewater treatment and disposal for municipalities, schools, hospitals, restaurants, hotels/motels, trailer parks, campgrounds, marinas, office buildings, condominiums, resort complexes, shopping centers, and laundries. FDEP data indicate that on July 6, 2010, 46 domestic wastewater permits and one industrial wastewater permit were under review.

To ensure that discharges meet surface water and groundwater criteria, the permitted facilities are required to submit monthly Discharge Monitoring Reports to FDEP. The reports provide effluent monitoring data for toxicity, effluent quality, fecal coliform, and discharge rates. Together with FDEP site inspections, the reports can help FDEP ensure that the facilities are meeting their discharge limitations and are operating in accordance with the permitted requirements. Wastewater treatment plants in the County treat effluent to advanced standards and discharge via deep well injection. This methodology is the preferred method according to FDEP staff. It is anticipated that regional wastewater treatment plans will be constructed using deep well injection. Improved properties within the service areas of these facilities will be required to connect to the regional plants, reducing the use of septic tanks. Well construction and discharge are regulated by FDEP pursuant to Chapter 62-528, F.A.C.

The Florida Department of Health (FDOH) regulates and permits the use of On-Site Sewage Treatment and Disposal Systems (OSTDS). However, FDOH does not permit the use of an OSTDS where the estimated domestic sewage flow is over 10,000 gallons per day (gpd) or the commercial sewage flow is over 5,000 gpd. In the early 1990s, it was estimated that there were 24,000 septic tanks and 5,000 cesspits in the Florida Keys. In the late 1990s, it was estimated that there were 20,000 septic tanks and 4,000 cesspits (Kruczynski, 1999). Based upon best estimates presented in Kruczynski (1999), approximately 80 percent of nitrogen loadings to nearshore waters came from wastewater. OSTDS (septic tanks and aerobic treatment systems) and cesspits accounted for 40.3 percent of nitrogen loadings. For phosphorous, approximately 55 percent of phosphorus loadings were from wastewater. OSTDS and cesspits accounted for 33.2 percent of total phosphorus loadings (Kruczynski, 1999).

According to *The Florida Statewide Inventory of Onsite Sewage Treatment and Disposal Systems, June 4, 2009,* there is no comprehensive database for the number of OSTDS in

the County. Based on the number of known OSTDS (permitting records) and the number of improved parcels, that report estimated that there may be as many as 46,977 OSTDS in the Keys. Improperly designed, constructed, and maintained OSTDS can allow wastewater to enter canals, groundwater, and other nearshore waters. The 2010 Florida Legislature passed Senate Bill 550 (SB 550) amending portions of Chapter 373, F.S. among other statutes, to ensure proper management of OSTDS to protect the health, safety, and welfare of the public. Governor Crist signed the bill on June 4, 2010 and site evaluations will begin in 2011. As a result of SB 550, FDEP is mandated to adopt a special rule for the OSTDS in the Florida Keys. The new criteria will:

- increase setbacks from surface waters, saltmarsh, and buttonwood association habitat areas;
- preclude discharges from OSTDS by December 31, 2015 if higher discharge standards are not met;
- require basic disinfection for systems discharging to an injection well;
- require all new, modified, or repaired OSTDS to meet new criteria as of July 1, 2010 unless the area will be served by a regional sewer by December 31, 2015; and
- require documented inspections of OSTDS once every five years.

Although the potential exists for problems, monitoring data do not indicate leaching or water quality degradation due to landfills (U.S. Department of Commerce, 2007). The County does not have any active landfills receiving solid waste for on-site disposal. Solid waste collection is provided by several private franchise operators, each servicing a specific geographical area of the County. Disposal of solid waste is currently handled by three transfer station operations (Cudjoe Key Transfer Station at Mile Marker (MM) 21.5, Long Key Transfer Station at MM 68, and Key Largo Transfer Station at County Road 905) where waste is prepared for transportation and disposal out of the County.

In years prior to 1992, unincorporated Monroe County operated municipal landfills at Long Key Landfill, Cudjoe Landfill, and Key Largo Landfill. Both the Long Key and Key Largo facilities operated under a FDEP Consent Order.

In addition to the three inactive municipal landfill sites, USEPA identified five abandoned dump sites in the County (USEPA, no date). These include the following:

- Boca Chica Key (south U.S. 1 SR 5, MM 8). Site owned by the U.S. Government, operated as a landfill from 1947 to 1955. It is currently part of the runway on the Naval Air Station;
- Saddlebunch Key (north U.S. 1 SR 5, MM15). Site owned by the U.S. Government. Operated by Bland Disposal as a landfill from 1957 to 1977;
- Middle Torch Key (north U.S. 1 SR 5, MM 27). Privately owned. Operated by Bland Disposal 1969 to 1978;
- Boot Key (south U.S. 1 SR 5, MM 48). Privately owned, operated by the County as a landfill 1951 to 1977; and

- Key Largo (SR 905, 4 miles NE U.S. 1 SR 5). Privately owned, operated by Key's Sanitary Service as a landfill 1957 to 1980.

All landfill sites in the Florida Keys, with the exception of the Cudjoe Key expansion, were developed prior to current regulations that require bottom liners and leachate collection. At many sites, filling with solid waste probably occurred below the water table in the early stages. Consistent with common practice at the time, there was probably little or no control over materials deposited in the landfills. These conditions result in a significant potential for groundwater and surface water contamination. The underlying strata is either the Miami Oolite or Key Largo Limestone, both of which are highly porous and permeable and subject to saltwater intrusion and mixing (CSA, 1991). Leachate, when introduced to this type of substrate can migrate off-site through a number of subsurface cavities, fracture zones, or cavernous zones (CSA, 1991). Conditions favor the migration of materials that tend to upwell a considerable distance away (e.g., at an offshore location) (CSA, 1991). The NOAA Florida Keys National Marine Sanctuary Revised Management Plan (U.S. Department of Commerce, 2007) recommends searching for and assessing abandoned landfills and dumps, intensifying existing monitoring programs around landfills to ensure that no significant leaching into marine waters is occurring, and implementing remedial actions if problems are discovered.

Water quality in the vicinity of marinas is affected by general marina operations, such as boat scraping and painting operations, fueling, and engine repair, as well as by discharges from live-aboard vessels docked in marina slips. Data are not available to quantify loadings of pollutants from marina operations (Kruczynski, 1999). Some of the more potentially toxic or harmful materials associated with marinas include paints and wood preservatives containing copper and other heavy metals (Snedaker, 1990). Metal corrosion and oxidation represents an additional source of metal contamination due to the widespread use of zinc to protect boat hulls. Bilge waste is a source of oils, coolants, lubricants, and cleaners.

Research suggests that toxic materials, which normally accumulate in organic bottom sediments, are more dispersed in nearshore marine environments such as are typical of the Keys where there is an absence of rich organic bottom sediments (Snedaker, 1990). A study of a marina in Marathon (FDER, 1987) indicated that water quality was significantly impacted in comparison with ambient conditions based on dissolved oxygen, pH, coliform bacteria, biological oxygen demand, Total Kjeldahl Nitrogen, total phosphorus, copper, and zinc. The presence and distribution of coprostanol in bottom sediments within and adjacent to the marina confirmed that the marina basin, particularly beneath boat slips, was acting as a sink for sewage contaminated water (FDER, 1987). Water quality studies for Boot Key Harbor (FDER, 1990) and Campbell's Marina on Key Largo (FDER, 1988) have also linked marina activities to water degradation.

Although there is the potential for toxic materials in water and sediments of marinas, poor water quality in marinas is more often attributed to poor onsite wastewater systems in the area, poor stormwater treatment, and live-aboards releasing wastewater.

Live-aboard vessels are found throughout the nearshore waters of the Florida Keys. In 1988, the total number of live-aboard boats in the Keys was estimated to be 1,410, housing some 3,000 residents (Antonini et al., 1990). This estimate included vessels used for continuous overnight stays of at least two months. Live-aboards include a large number of permanent and seasonal residents. The most common type of live-aboard boat was a sailing vessel, comprising 69 percent of the total. Most live-aboard vessels were tied up in marinas, although a sizable number were anchored offshore. Approximately 70 percent of live-aboard vessels were found at shoreside sites (marinas, clubs, boat yards, piers, seawalls) and 30 percent of live-aboards anchor in coastal waters. Shoreside live-aboard sites are found throughout the Keys while anchorages tend to be concentrated. Over half of them were in Boot Key Harbor in the Middle Keys. Other major anchorage locations were Cow Key Channel and Wisteria Island (locally known as Christmas Tree Island) in the Lower Keys, which accounted for 27 percent of the anchorages.

In 2002, the Monroe County Department of Marine Resources (now referred to as the Marine Resources Office) prepared the Keys-Wide Mooring Field System Preliminary Planning Document which included a survey of 15 anchorage sites throughout the Keys. A variety of site data were collected, including physical and biological data (depth, seagrass, etc.), cultural data (types of boats and boaters), and logistical data (where boaters access land, availability of pump-outs, etc.) An Anchorage Site Evaluation Form was generated for each site using the collected data. Based on the evaluation forms, approximately 500 to 800 boats were anchored at the sites, with approximately 200 to 250 in unincorporated areas. The type of each boat was not described, but most anchorage sites were described as containing predominantly live-aboard vessels.

Wastewater flows from live-aboard vessels have been estimated at 100 gpd per boat (FDER, 1988). Antonini et al. (1990) reports that disposal of sanitary waste is by one or more methods: overboard by flushing, holding tank storage and subsequent shoreside pump-out, and/or on-board pretreatment and discharge. Antonini et al. (1990) estimated that less than 10 percent of the live-aboard vessels use sewerage pump-out facilities. A Monroe County Grand Jury received testimony that up to 80 percent of live-aboard vessels do not use sewage dumping facilities (Kruczynski, 1999). Kruczynski (1999) reported that disposal of wastewater from live-aboard vessels is a significant localized problem because of the low level of treatment, the tendency for live-aboard vessels to congregate in certain marinas or anchorages, and potential adverse health effects of discharging untreated wastewater.

The Clean Vessel Act of 1992 (Section 327.53, F.S.) prohibits the discharge of raw sewage from any vessel, houseboat, or floating structure into Florida waters. A houseboat is a vessel that is used primarily as a residence (21 days out of any 30 day period) and its use as a residence precludes its use as a means of transportation. Houseboats and floating structures must have permanently installed toilets attached to Type III Marine Sanitation Devices (MSD) or connect their toilets directly to shoreside plumbing. A Type III MSD is one that stores sewage onboard in a holding tank for pump-out. Houseboats may also have other approved MSD on board; but, if they do, the valve or other mechanism selecting between devices shall be selected and locked to direct

all sewage to the Type III device while in Sanctuary waters. All vessels that have MSD capable of flushing raw sewage directly overboard or of being pumped into a holding tank, must set and secure the valve directing all waste to the holding tank, so that it cannot be operated to pump overboard while in Sanctuary waters. All waste from a Type III MSD or from portable toilets must be disposed in an approved sewage pump-out or waste reception facility (Kruczynski, 1999).

While Chapter 327, F.S. prohibited the dumping of raw sewage, treated wastewater from transient vessels still could be discharged into State waters. Wastewater treatment (disinfection) by Type I and II MSD does not remove nutrients from wastewater. Graywater did not have to be stored or treated from any vessel and could be discharged directly into waters of the State. Thus, many live-aboard vessels and most transient vessels discharged wastewater into surface waters. It was estimated that live-aboard vessel wastewater account for 2.7 percent of nitrogen and 2.9 percent of phosphorus loadings into nearshore waters of the Keys (Kruczynski, 1999). Although nutrient loadings from vessels may be relatively minor contributions to the total loading, loadings from vessels are a significant localized source to harborages and result in eutrophication of waters that typically exhibit poor circulation/flushing (Kruczynski, 1999).

The USEPA designated the Florida Keys as a No Discharge Zone for boater sewage. Effective June 19, 2002, the No Discharge Zone designation prohibits discharging sewage into all State waters of the FKNMS. This includes treated sewage from marine sanitation devices but does not apply to gray water from showers or sinks, only sewage. The No Discharge Zone strengthened existing regulations under the Florida Clean Vessel Act so that even chemically-treated sewage cannot be discharged overboard. All State waters of the FKNMS are included in the No Discharge Zone.

Pump-out facilities are available for boaters at various locations throughout the Florida Keys. The Monroe County Marine Resources Office periodically updates a list of facilities in the Keys (incorporated and unincorporated areas) that offer pump-out service. The October 2010 list indicated that 16 marinas provide pump-out service for private use by their guests (5 in the Upper Keys, 9 in the Middle Keys, and 2 in the Lower Keys), and 27 other marinas provide pump-out service for the general public (7 in the Upper Keys, 8 in the Middle Keys, 4 in the Lower Keys excluding Key West, and 8 in Key West).

Many live-aboard vessels are permanently anchored and mobile pump-out facilities are required to service those vessels. In 1999, there were no mobile pump-out facilities in the Keys, but by October 2010 five vessels were providing mobile pump-out services. Mobile pump-out service areas include (1) Key Largo oceanside and bayside, (2) Duck Key to Key Colony Beach, (3) Boot Key Harbor area, (4) Stock Island area and Boca Chica basin, and (5) Key West area including Fleming Key and Wisteria Island. Even in areas having mobile pump-out service, many anchored live-aboard vessels do not take advantage of mobile pump-out facilities and can degrade water quality by discharging their waste overboard. The FFWCC and its marine law enforcement partners (FDEP, U.S. Coast Guard, and Monroe County Sheriff's Office) occasionally conduct

inspections. From Key Largo to Key West, officers check live-aboard occupants for compliance with Coast Guard-required safety equipment, State registration requirements, nighttime anchor lighting, and marine toilet specifications.

Seafood processing facilities generate large amounts of wastewater and historically discharged wastewater to open waters. FFWCC maintains data on the amount of seafood harvested in the County. In the County, the average seafood harvest for 2004-2008 was 12 million pounds annually. Wastes from seafood processing operations include fish carcasses, cooking water, and wash-down water. Seafood processing facilities must now be connected to an approved wastewater treatment system in compliance with Sections 403.086 and 403.087 F.S. Seafood processing facilities no longer discharge to open waters.

The Florida Keys Mosquito Control District conducts year-round applications of pesticides for mosquito control. These applications are a source of atmospheric and land-based non-point loading on the Florida Keys environment (CSA, 1991).

Ground spraying by truck is the current method for controlling the adult mosquito population. However, aerial spraying is initiated only when the mosquito population reaches a certain threshold, as determined by mosquito landing counts at test sites. Although the Florida Keys Mosquito Control District attempts to avoid marine areas during aerial spraying, there is the potential for pesticides to reach marine waters. Use of ultra low-volume aerial spray in recent years has significantly reduced the volume of pesticide applied and has eliminated the use of fogging oil contamination. However, the area being sprayed is now harder to define because the spray is not visible, and the finer particles are susceptible to greater drift. The Florida Keys Mosquito Control District refines flight lines, evaluates alternative spray technologies, and makes equipment improvements to reduce the amount of pesticide released over water.

Housing patterns, design, and landscaping affect the demand for mosquito control. Most pesticide applications are limited to areas surrounding residential communities, commercial and light industrial site locations, within the boundaries of the County's inactive landfills, and within areas of standing water (CSA, 1991). Applications are restricted on most conservation lands owned by the State and federal governments, particularly on North Key Largo due to the presence of the State- and federally-listed endangered Schaus' swallowtail butterfly.

The Florida Keys Mosquito Control District uses several larvicides (products to control mosquitoes in their larval stage) and adulticides (products to control adult mosquitoes) depending on the situation. Both of the adulticides (naled and permethrin) are also used in agriculture. They may be used on food crops at rates much higher than are used for mosquito control. They are also used in pet shampoos (permethrin) and flea collars (naled). Permethrin is also applied directly to livestock to control pest insects, and is the active ingredient in some human louse shampoos.

- *Bacillus thuringiensis israelensis*, or Bti, is a naturally-occurring soil bacterium. It is applied for control of mosquito larvae in large areas of water.
- *Bacillus sphaericus*, or Bs, is a common soil-inhabiting bacterium. It is applied to control mosquito larvae in highly polluted water, such as sewage treatment plants.
- Methoprene is a synthetic mimic of juvenile hormone, a hormone found in insects. Methoprene is used in situations like cisterns and abandoned swimming pools.
- Temephos is used very sparingly and infrequently. It is applied only to temporary pools that contain mosquito larvae but do not support nontarget organisms.
- Chlorpyrifos is used to treat ornamental bromeliads (water-holding plants).
- Oils and monomolecular surface films are used to control pupae and larvae by interfering with their ability to breathe. These products are used only when an adult emergence will occur without treatment.
- *Gambusia* are a species of mosquito-eating fish. The Florida Keys Mosquito Control District raises these fish and stocks them in permanent freshwater bodies.
- Naled is used to control adult mosquitoes with the aerial program. Naled is a fast acting, non-systemic contact, and stomach poison in insects and mites. It is used as a short-term fumigant to control agricultural pests on ornamental in greenhouses, animal and poultry houses, kennels, and food processing plants.
- Pyrethrum is used to control adult mosquitoes with spray trucks. Pyrethrum is a botanical insecticide produced primarily from the flowers of a species of the chrysanthemum plant family. Pyrethrum is made up of six complex chemical esters known as pyrethrins that work in combination to repel and kill insects.

The specific pesticides used have varied over time. In the early 1990s, the most commonly used insecticides (by tradename) included the following (CSA, 1991):

Dibrom 14C	Teknar	Artosurf
Malathion	Biomist 4 + 12	Scourge
Acrobe	Bactimos	Fog Oil
Abate	Altosid	Fyntex
Ortho Additive	Bectobac	Diesel Oil

Material Safety Data Sheets from the Pesticide Information Office of the Florida Cooperative Extension Service indicate that many of these chemicals are toxic to fish, aquatic life and/or wildlife and should not be applied directly to water (CSA, 1991).

Some pesticides used in mosquito control are nonspecific; that is, in addition to controlling mosquitoes, the chemicals also affect the larval stages of crustaceans, fish, and other natural mosquito predators. Pesticides used for mosquito control, or their toxic breakdown products, have been found in some canals in concentrations high enough to adversely affect marine organisms. USEPA funded a study in 1997 to assess potential impacts of mosquito spray chemicals and their breakdown products. Although the study was not conclusive, it did determine that sprayed chemicals reach surface waters in concentrations that are of concern. Additional data concerning pesticide concentrations

in sediments and biological tissues throughout the FKNMS are being collected through the Water Quality Research Program.

In the past, the USEPA has not required an NPDES permit for point source discharges from the application of pesticides to surface waters. Instead, this activity was regulated through the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). However, effective April 9, 2011, an NPDES permit will be required for discharges to surface waters of biological and chemical pesticides that leave a residue. Florida will be developing its own rule to cover such discharges.

Non-point source contamination of nearshore waters in the Keys by urban runoff is limited by the small area of developed land in the County in relation to the surrounding water area, and by the natural high permeability of the underlying limestone (FDER, 1987). However, despite these conditions, researchers warn that given the low assimilation threshold of oligotrophic waters, the potential impacts on non-point source loading from urban runoff should be recognized (Snedaker, 1990). Some evidence suggests that when stormwater discharges are located in artificial waterways, contamination from runoff can be magnified, with the result that even minor inputs may become harmful over extended periods (FDER, 1987). Water quality parameters which are typically degraded in areas receiving contaminated stormwater include DO, pH, phosphorus, total coliform bacteria, heavy metals, and petroleum hydrocarbons.

In Florida, the water management districts and local governments now impose a minimum level of stormwater treatment for all new developments, and the standards that apply to the Florida Keys are the most stringent in the State. The criteria are intended to protect surface waters according to their use classification. Much of the development in the Florida Keys occurred prior to the existence of these criteria. Similar to other parts of the State at the time, stormwater was considered a nuisance since it resulted in flooding. Therefore, if stormwater control systems were employed at all, they were typically designed to efficiently convey water off land surfaces as quickly as possible. These old systems are considered to be the most liable to cause water pollution and, therefore, policies now in place seek to retrofit them whenever possible (Kruczynski, 1999).

In the Keys, stormwater runoff from roadways, bridges, driveways and yards, roof tops, and shopping center parking lots contribute stormwater loading to surface waters. The amount of pollutant load caused by stormwater runoff can be estimated mathematically from rainfall quantity, imperviousness (i.e. the degree to which rainwater cannot soak into soil), and land use. Estimates of total loadings of nitrogen and phosphorus from wastewater and stormwater were summarized in Kruczynski (1999). These estimates attributed about 20 percent of the nearshore nitrogen load and about 45 percent of the phosphorus to stormwater. These estimates, however, can vary widely depending on the magnitude of each factor (Kruczynski, 1999).

Marine litter originates from a variety of sources including intentional and unintentional releases from recreational boaters, shoreline users, commercial fishing operations, sportfishing and diving boats, and oceanic sources such as merchant ships, cruiseships,

and oil drilling vessels. In addition, litter on the land blows into the waterways of the Keys.

Entanglement and ingestion of marine litter can directly damage wildlife. Birds, sea turtles, and other animals can die when they become entangled in fishing lines, six-pack rings and other trash, or when they mistake garbage for food. Marine litter can also cause habitat destruction including smothering of seagrasses and coral (UNEP, 2010). According to Chiappone et al. (2002), fishing gear (hooks and lines) and debris from lobster traps causes damage to the coral reefs in the Florida Keys. Marine litter along beaches and waterways can reduce the beauty and enjoyment of those areas, and hence, negatively affect tourism. Maintaining the beauty of these areas also costs time and money for both the private and public sectors (UNEP, 2010). Discarded fishing line, rope, and plastic trash or food bags can disable boats and ships by wrapping around boat propellers or being sucked into outboard boat engines. Medical wastes transported onto beaches by winds and waves can threaten public health through disease transmission and broken glass and other sharp objects (UNEP, 2010).

Natural and man-made sources of pollutants affect waters of the FKNMS, including increased turbidity or suspended solids, temperature changes, increased nutrients, salinity changes or increased levels of heavy metals, synthetic organic chemical, and man-made organic chemicals (CSA, 1991).

Water quality in Florida Bay is highly variable depending upon prevailing weather and climatic conditions (Schomer and Drew, 1982; SFWMD, 1991) and is the result of natural and man-made causes (U.S. Department of Commerce, 2007). Causes of poor water quality include wind-driven transport of suspended particulates; the presence of soluble nutrients; decomposition; transport of mangrove detritus; seagrass decomposition with associated biologic activity; and naturally-occurring low dissolved oxygen at night attributed to plant respiration (CSA, 1991). The Bay has shown man-made contaminants with freshwater inputs (U.S. Department of Commerce, 2007). Elevated nutrients in the Bay have been documented due to releases from the C-111 Canal and other drainage modifications (Lodge, 2005).

The C-111 Canal is the southernmost canal of the Central and Southern Florida (C&SF) Project, completed in 1967 and operated by the SFWMD. The C-111 drains agricultural areas in south Miami-Dade County and discharges into Manatee Bay (Barnes Sound) west of Key Largo. The canal functions are: to supply water to the eastern panhandle of Everglades National Park; to prevent saltwater intrusion (with the construction of a water control structure to prevent the inland movement of salt water), and; to provide flood protection for upstream agricultural uses (SFWMD, 1991). Large episodic releases of freshwater have occurred from the C-111 basin into Card Sound and Barnes Sound. These releases have been due to the periodic opening of the S-197 structure from the mouth of the C-111 Canal to alleviate upstream flooding (SFWMD, 1991). They have had severe impacts on marine biota and may have impacted water quality in the estuary due to the potential presence of suspended sediments containing contaminants from the urban and agricultural areas of south Miami-Dade County (SFWMD, 1991). These

impacts are exacerbated by the tendency of large volumes of freshwater to move as freshwater pulses and by the restricted circulation and increased residence time of water in Card Sound and Barnes Sound.

The C-111 spreader canal is one of the Comprehensive Everglades Restoration Plan (CERP) projects. This project will help restore the quantity, timing, and distribution of water delivered to Florida Bay via Taylor Slough, improve hydroperiods and hydropatterns in the Southern Glades and Model Lands, and return coastal zone salinities in western Florida Bay as close as possible to pre-drainage scenarios.

The recommended plan for the "Western" part of the project (Project Implementation Report 1) includes the 590-acre Frog Pond detention area and a 225 cubic feet per second (cfs) pump station; creating a mound of groundwater to the south and west, by reducing groundwater seepage to the east and improving water deliveries (quantity, timing, and distribution) to eastern and central Florida Bay. It also includes a second 225 cfs pump station and modifications to increase the water level in the Aerojet Canal to further reduce groundwater seepage to the east. A Draft Project Implementation Report and Draft Environmental Impact Statement was completed in 2009 and published in the Federal Register on April 24, 2009. Expedited construction of the C-111 Spreader Canal Western Project began in January 2010. The "Eastern" (Project Implementation Report 2) project will replace existing portions of the lower C-111 Canal with a spreader canal to enhance sheetflow to Florida Bay, and restoration efforts within the Southern Glades and Model Lands. Due to numerous uncertainties associated with the actual spreader canal feature, a spreader canal design test is being implemented to gain information that will guide planning efforts for the Eastern project. The Eastern project will address the restoration of the remainder of the project area through such features as a spreader canal and backfilling the C-111 Canal.

Biscayne Bay is a potential source of poor water quality to the FKNMS due to flows of various types from the City of Miami, other local municipalities, and Miami-Dade County (CSA, 1991). North Biscayne Bay, extending from Dumfounding Bay to Rickenbacker Causeway, is contaminated by large numbers of man-made sources including manufacturing, boat building and repair, urban runoff, raw sewage from illegal connections, degraded systems and overflows during heavy rains (CSA, 1991). The Miami River has the poorest water quality in Biscayne Bay (CSA, 1991). Offshore disposal of dredged Miami River sediments may potentially have detrimental effects on the reef tract due to longshore transport from the north (CSA, 1991).

C. Policy Framework:

GOAL 202: The environmental quality of Monroe County's estuaries, nearshore waters (canals, harbors, bays, lakes and tidal streams,) and associated marine resources shall be maintained and, where possible, enhanced. [9J-5.012(3)(a); 9J-5.013(2)(a)]

Objective 202.1: Monroe County shall work cooperatively with the U.S. Environmental Protection Agency (EPA), the Florida Department of Environmental Regulation (DER), the South Florida Water Management District (SFWMD), and the National Oceanic and Atmospheric Administration (NOAA) to develop and implement the Water Quality Protection Program for the Florida Keys National Marine Sanctuary. Pursuant to the Florida Keys National Marine Sanctuary Act (H.R. 5909), this program shall be enacted no later than July/August 1993. [9J-5.012(3)(b)2; 9J-5.013(2)(b)2]

Policy 202.1.1: Monroe County shall coordinate with EPA, DER, SFWMD and NOAA to determine the scope of studies required to document pollutant loads for Florida Keys waters. Phase I of the Development Plan for the Florida Keys National Marine Sanctuary Water Quality Protection Program (EPA and DER, in preparation), recommends several studies are undertaken in order to:

1. provide data to document relationships between water quality and declines in seagrass beds and coral communities; and

2. to provide the basis for institutional and regulatory changes which will protect against further declines in the quality of confined and nearshore waters and their biotic communities.

Recommended studies include the following:

1. monitoring to characterize the nutrient inputs to groundwater;

2. data collection and modeling in order to understand the transportation of groundwater nutrients to marine coastal waters;

3. monitoring to characterize the constituents within stormwater based on use, as well as determination of what percentage of stormwater results in overland flow to marine coastal waters;

4. data collection pertaining to natural nutrient regeneration due to decomposition of floating Sargassum and seagrass within confined water bodies;

5. evaluation of the relative contributions of point source discharges, groundwater input, stormwater overland flow, natural decomposition of organic matter, and other mechanisms of nutrient input and potential for further declines in water quality within the confined waters of the Florida Keys National Marine Sanctuary;

6. monitoring of water, sediment and biotic parameters for confined and nearshore waters; and

7. development of potential engineering solutions applicable to the Florida Keys, with cost estimates, for selected representative areas of confined waters that are experiencing poor water quality.

By January 4, 1997, Monroe County shall seek to enter into an agreement with the EPA, DER, SFWMD, and NOAA which shall describe the responsibilities of each agency and of the County in each of these studies. Monroe County shall:

1. obtain and/or make available the necessary funds to complete the study tasks for which it is responsible; and

2. execute those tasks in accordance with the timeframes outlined by the agreement.

Special studies to be undertaken by Monroe County as identified in other elements of the Monroe County Year 2010 Comprehensive Plan shall be coordinated with these special studies. Specifically:

1. the scope of work for the Sanitary Wastewater Master Plan shall be developed so as to include special studies required to assess pollutant loadings to ground and nearshore waters from sanitary wastewater facilities (See Objective 901.4 and related policies);

2. the scope of work for the Stormwater Management Master Plan shall be developed so as to include special studies required to assess:

a) non-point source contributions to surface water discharges from stormwater; and

b) non-point source contributions to groundwater from stormwater (See Drainage Element Objective 1001.3 and related policies); and

3. the scope of the Live-Aboard Study shall be developed so as to collect data required to determine pollutant loadings from live-aboard vessels (See Policy 202.4.2). [9J-5.012(3)(c)1,3 and 13; 9J-5.013(2)(c)1]

Policy 202.1.2: Monroe County shall coordinate with EPA, DER, SFWMD and NOAA during completion of Phase II of the Florida Keys National Marine Sanctuary Water Quality Protection Program. Pursuant to the Florida Keys National Marine Sanctuary Act (H.R. 5909), Phase II shall:

1. adopt or revise, under applicable Federal and State laws, applicable water quality standards for the Sanctuary;

2. adopt enforceable pollution control measures (including water quality-based effluent limitations and best management practices) and methods to eliminate or reduce pollution from point and nonpoint sources; and

3. establish a comprehensive water quality monitoring program to:

a) determine the sources of pollution causing or contributing to existing or anticipated pollution problems in the Sanctuary;

b) evaluate the effectiveness of efforts to reduce or eliminate those sources of pollution; and

c) evaluate progress toward achieving and maintaining water quality standards and toward protecting and restoring the coral reefs and other living marine resources of the Sanctuary. [9J-5.012(3)(c)1,2,3 and 8; 9J-5.013(2)(c)1 and 6]

Policy 202.1.3: Within six months following completion of the Water Quality Protection Program by DER, Monroe County shall:

1. review the County's policies and regulations pertaining to water quality protection; and

2. shall draft and complete revisions, as appropriate, to the County's policies and regulations, including the Land Development Regulations and other sections of the Monroe County Code, as appropriate, to comply with the requirements and intent of the Water Quality Protection Program. [9J-5.012(3)(c)1,2,3 and 8; 9J-5.013(2)(c)1 and 6]

Policy 202.1.4: Within six months following completion of the Water Quality Protection Program by DER, Monroe County shall seek to enter into an agreement with EPA, DER, SFWMD and NOAA which shall describe the responsibilities of each agency and of the County in the water quality monitoring program. Monroe County shall:

1. obtain and/or make available the necessary funds to complete the monitoring program tasks for which it is responsible; and

2. execute those tasks in accordance with the timeframes outlined by the agreement. [9J-5.012(3)(c)1,2,3 and 8; 9J-5.013(2)(c)1 and 6]

Policy 202.1.5: Monroe County shall continue to maintain the Monroe County Department of Marine Resources with adequate staff and funding to support the development and implementation of the Florida Keys National Marine Sanctuary Management Plan, including the Water Quality Protection Program. [9J-5.012(3)(c)1,2,3 and 8; 9J-5.013(2)(c)1 and 6]

Policy 901.4.4: By the effective date of this Plan, the County shall enter into an agreement with EPA, DER, SFWMD and NOAA regarding the scope of studies required to document pollutant loads from OSDS, cesspits, package treatment plants, and other point and non-point sources on the Florida Keys into surrounding waters. These studies shall be executed according to the terms of the agreement, in coordination with the Water

Quality Protection Program for the Florida Keys National Marine Sanctuary. Upon execution of this agreement, the scope of the Sanitary Wastewater Master Plan shall be adjusted accordingly.

Objective 901.5: Monroe County shall regulate land use and development to conserve potable water, and protect the functions of natural drainage features and groundwater from the impacts of sewer systems.

Policy 901.5.1: By January 4, 1997, in conjunction with the development of the Sanitary Wastewater Master Plan, the County shall initiate an interlocal agreement with the DER and other state and federal agencies to develop a water quality monitoring program. The program shall identify and analyze the individual and cumulative impacts of development, especially wastewater treatment systems, and establish remedial actions to correct identified deficiencies which degrade nearshore water quality. Monroe County shall consider and utilize to the furthest extent possible, the management plan being developed by NOAA under the direction of DER and EPA. All monitoring procedures shall be approved by the DER and EPA for compliance with Quality Assurance requirements (F.A.C., 17-160 and 40 CFR Part 136), to ensure that proper quality control guidelines are followed during data collection and reporting.

Policy 901.5.2: By January 4, 1998, the existing and/or available results of the comprehensive water quality monitoring program shall be analyzed and reported to document specific problem areas which may be in violation of federal or state standards or which may be defined through scientific study, as a threat to the continued maintenance of high levels of water quality or to specified biotic communities. Upon confirmation of any problem areas, priorities for the construction of alternate wastewater facilities shall be reevaluated, within the context of the Monroe County Sanitary Wastewater Master Plan, with those areas in greatest need given highest priority.

Policy 901.5.14: Monroe County shall revise the Land Development Regulations to incorporate the conclusions and recommendations of the EPA's water quality protection program as those findings become available.

GOAL 1001: Monroe County shall provide a stormwater management system which protects real and personal properties, and which promotes and protects ground and nearshore water quality.

Policy 1001.1.1: Water Quality Level of Service Standards - Minimum Water Quality:

> 1. All projects shall be designed so that the discharges will meet Florida State Water Quality Standards as set forth in Chapters 17-25 and 17-302, F.A.C, incorporated herein by reference. In addition, all projects shall include an additional 50 percent of the water quality treatment specified below, which shall be calculated by multiplying the volumes obtained in Section (a) by a factor of 1.5 , Retention/Detention Criteria (SFWMD Water Quality Criteria 3.2.2.2):

a) Retention and/or detention in the overall system, including swales, lakes, canals, greenways, etc., shall be provided for one of the three following criteria or equivalent combinations thereof:

(1) Wet detention volume shall be provided for the first inch of runoff from the developed project, or the total runoff of 2.5 inches times the percentage of imperviousness, whichever is greater.

(2) Dry detention volume shall be provided equal to 75 percent of the above amount computed for wet detention.

(3) Retention volume shall be provided equal to 50 percent of the above amounts computed for wet detention.

b) Infill residential development within improved residential areas or subdivisions existing prior to the adoption of this comprehensive plan must ensure that its post-development stormwater run-off will not contribute pollutants which will cause the runoff from the entire improved area or subdivision to degrade receiving water bodies and their water quality as stated above.

c) New Development and Redevelopment projects which are exempt from the South Florida Water Management District permitting process shall also meet the requirements of Chapter 40-4 and 40E-40, F.A.C.

Policy 1001.1.7: By January 4, 1997, Monroe County shall work with the SFWMD through the existing interlocal agreement to adopt and implement appropriate stormwater quality evaluation and estimation criteria and techniques for incorporation into the County's Stormwater Management Ordinance and Land Development Code.

D. Strategies:

- Goal 202 directs Monroe County to maintain and enhance nearshore water quality and the associated marine resources. To implement these policies, Monroe County adopted the 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 and include implementation or focus on the surface water management plan relative to canals and the water quality of the canals.

Issue Category #1(g): Solid Waste

A. Background: Solid waste management is a critical issue in the Florida Keys. While problems of landfill sitings, facilities, financing, and hazardous waste disposal have increased throughout the County, the unique setting of the Keys makes waste management even more difficult. The geographic isolation, the limited land area, the environmental constraints, and the presence of nationally significant natural resources adds to the challenge of responsibly and efficiently managing the Keys' solid waste stream.

B. Analysis: Solid waste generation in the County has increased each year from 1998 to 2009, showing a general increase over time. Although solid waste generation is expected to increase as the population increases, the solid waste tonnage generated in the County will also fluctuate with natural and economic events. For example, total tonnage values significantly increased from 2004 to 2005, this increase reflects approximately 35,000 tons of additional waste due to tropical storms events that produce excess debris. Inversely, tonnage values significantly dropped during the years of 2007 and 2008, at which time major economic problems throughout the country were prevalent, causing less tourism, less consumption of goods, and drops in the County's population. Although, these events will not occur on an annual basis, general trends show that the steady increase of solid waste generated within the County will continue as population increases.

The tourism industry in the Florida Keys is another large factor in solid waste generation that needs to be accounted for in projected demands calculations. In 2009 the Monroe County Tourist Development Council estimated 3.3 million tourist visited the County and future tourism will continue to rise as general population increases, thus having a serious impact on the solid waste generation within the County.

Any future declines will also reflect the diligent efforts by the citizens of the County to reduce the amount of solid waste they generate, through the conscious consumption of goods, composting, mulching or other sustainability efforts. Additional factors which are less easily quantifiable could also affect solid waste generation. The amount of construction taking place in the County, and thus the amount of construction debris being disposed of, also significantly affects the total amount of solid waste generated. Periods with less construction could have contributed to the decline in total waste generation. Finally, the weather affects the rate of vegetative growth, and therefore affects the amount of yard waste generated. Drier years could result in less total waste generation.

The solid waste generated in the County is comprised of a variety of materials. Yard waste, paper products, construction debris, and miscellaneous material comprise the four largest components of the solid waste stream. Of these, yard waste is by far the largest component, with over 3,700 tons generated between January 1, 2009 and December 31, 2009. This constitutes 31 percent of the total 12,100 tons of waste generated in the PWD-DSW/R service area.

The potential for recycling is high. The recyclable materials, paper products, yard waste, wood (a portion of construction and demolition debris), plastics, ferrous materials,

aluminum, and glass comprise a total of approximately 70 percent of the County solid waste stream.

The "Monroe County Recycling Program" was initiated in September 1989. Initial activities included the purchase of four multi-material recycling containers and the establishment of neighborhood recycling centers as recycling drop off sites. Within two years of the initiation of the County's recycling program, the City of Key West and the Middle Keys area, including the City of Marathon, had established curbside collection for 18,000 residential units including both single and multi-family residential units. Since 1989, the County has expanded its recycling program to include all residential communities within the County on a voluntary basis.

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. County, State and federal agencies have also initiated recycling programs. New commercial developments are required to submit a study to show how waste will be reduced and recycled from clearing through on-going business.

As previously noted, the County is contracted with WMI for solid waste haul out. Under the terms and conditions of the contract with WMI, solid waste is collected by franchisees and taken to the three trash transfer facilities. At these facilities, the solid waste is transferred to trucks for hauling out of the County. The solid waste hauled out of the County includes non-recyclable and recyclable materials. Recyclable materials are being and will continue to be separated from the solid waste stream to the maximum extent possible at the source.

The County's residential curbside collection is facilitated by four franchise contractors. Each vendor is contracted to collect recycling from a defined service area and are as follows: (1) Stock Island to Seven Mile Bridge [Waste Management Inc.], (2) North End of Seven Mile Bridge to Mile Maker 72 [Marathon Garbage Services], (3) Mile Marker 91 to the County line [Keys Sanitary Service], and (4) Ocean Reef Club [Ocean Reef Disposal].

The education program for the residents includes television advertisements, newspaper, radio and printed material. 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), the Key Largo Recycle Center also accepts electronic waste (E-waste) and household hazardous wastes.

The hospitality industry, including hotels, motels, guest houses, bars and restaurants, are also encouraged to establish recycling programs. Cardboard, glass, aluminum and office paper make up the largest components of the recyclable fraction of the hospitability industry. Lending institutions, hospitals, and other contributors of major amounts of white paper and computer paper have been encouraged to participate in recycling those materials. Recycling audits done on the premises have helped businesses to determine the amounts of materials with the potential to recycle. Commercial generators of all sizes have established programs to collect the various materials.

Collections of recyclable materials from commercial entities are voluntary and conducted on individual sites, and by individual businesses. Some businesses collect and transport materials to county recycling centers. There are four franchise waste companies offering commercial recycling services for recycling in the Florida Keys.

The County has implemented recycling programs at most County facilities. Materials collected include all materials that are collected curbside. Recycling is encouraged, but not mandatory at present.

The Monroe County School Board has implemented recycling programs at all County school facilities and collects all recyclables that are collected curbside.

In-service training for faculty and staff is offered by Monroe County PWD-DSW/R staff. Recycling curriculum and recycling projects for teachers are offered through cooperative arrangements with the Monroe County School District. The Monroe County School District has a *Solid Waste Reduction Plan* in place. The Florida Keys Community College has also implemented a recycling program.

The United States military facilities located in the County participate in recycling programs at all facilities by collecting office and computer paper, cardboard, and aluminum which are currently being recycled at non-residential facilities. Curbside collection has been established for all military residential areas and includes collection of yard waste which is turned into mulch for use on military facilities.

Yard waste comprises the largest percentage by weight and volume of the County's waste stream. However, yard waste is currently collected as part the solid waste stream and hauled out of the County. Residential yard waste mulching programs were implemented in the past, but discontinues due to limited demand, the spread of contagious tree diseases, and contamination concerns. Yard waste is collected from residential dwellings under various arrangements by the franchise service providers.

Currently, mulching takes place at the three locations within the County, but is limited to County funded maintenance of public lands and right-of-ways. Future consideration of a yard/organics waste program should be revisited in the near future, in order to institute new means and methods to reduce current quantities of organic waste being hauled out of the County.

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.

Currently, the County conducts educational programs that instill awareness of waste management issues; encourage the participation of children in recycling efforts, promote classroom activities, extracurricular events and special competitions. A "Recycling Education and Awareness Program" for grades K-12 is in place and being taught throughout the school system. County staff currently assists, promotes and coordinates educational activities for the public school system. Materials have been developed for use in the classroom which includes puppet programs and video presentations. School presentations are linked to Sunshine State Standards (Florida Department of Education Standards).

Civic groups, homeowner associations, condominium associations, professional associations, the hospitality industry, business entities, and government agencies, including the State parks and military facilities have been targeted for recycling presentations and activities. On-line newsletters, event announcements and brochures have been developed by PWD-DSW/R for the use of these groups.

Recycling presentations, activities and materials have been developed for use by all participating government agencies. They are available upon request and on the County Solid Waste Department's section of the County website.

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.

C. Policy Framework:

Policy 101.1.1: Monroe County shall adopt level of service (LOS) standards for the following public facility types required by Chapter 9J-5, F.A.C: roads, sanitary sewer, solid waste, drainage, potable water, parks and recreation, and paratransit. The LOS standards are established in the following sections of the Comprehensive Plan:

3. The LOS for solid waste is established in Solid Waste Policy 801.1.1;

Policy 215.1.1: Monroe County shall adopt level of service standards (LOS) for the following public facility types required by Chapter 9J-5, F.A.C: roads, sanitary sewer, solid waste, drainage, potable water, parks and recreation, and mass transit. The LOS standards are established in the following sections of the Comprehensive Plan:

3. The LOS for solid waste is established in Solid Waste Policy 801.1.1;

Objective 801.1: Monroe County shall ensure that solid waste collection service and disposal capacity is available to serve development at the adopted level of service standards, concurrent with the impacts of such development.

Policy 801.1.1: Monroe County hereby adopts the following level of service standards to achieve Objective 801.1, and shall use these standards as the basis for determining facility capacity and the demand generated by a development.

Level of Service Standards:

1. Collection Frequency:

Residential: a minimum of one time per two weeks – domestic refuse a minimum of one time per two weeks - yard trash Commercial: by contract

2. Disposal Quantity: 5.44 pounds per capita per day or 12.2 pounds per day per ERU (Equivalent Residential Unit) Haul Out Capacity: 95,000 tons per year or 42,668 ERUs.

3. Duration of Capacity:

Sufficient capacity shall be available at a solid waste disposal site to accommodate all existing and approved development for a period of at three from the projected date of completion of the proposed development or use.

Policy 801.1.2: By January 4, 1997, Monroe County shall adopt Land Development Code which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development unless adequate solid waste collection and disposal facilities needed to support the development at the adopted level of service standards are available concurrent with the impacts of development.

Policy 801.1.3: All improvements for replacement, expansion or increase in capacity of solid waste collection and disposal facilities shall be compatible with the adopted level of service standards for the facilities.

Policy 801.1.4: Monroe County shall rely upon public and/or private solid waste collection systems, with the County providing for solid waste disposal facilities to meet the needs of all incorporated and unincorporated areas of the County excluding the City of Key West.

Objective 801.3: By January 4, 1998, Monroe County shall implement solid waste disposal methods which meet the projected demands for disposal. These disposal demands shall be met either by continuation of the County's current haul out contract

with Waste Management, Inc. (WMI), or by other means as determined by the Monroe County Department of Environmental Management.

Policy 801.3.1: The Solid Waste Task Force or other appropriate committee shall continue in an advisory capacity to the Board of County Commissioners on all solid waste matters.

Policy 801.3.2: By January 4, 1998, Monroe County shall support a Solid Waste and Resource Recovery Authority for the management of the Monroe County solid waste program through either the public sector or privatization system.

Policy 801.3.3: The Cudjoe Expansion landfill shall remain open for emergency landfilling capabilities or future use. The Key Largo, Long Key and Old Cudjoe landfills shall continue to undergo the Florida Department of Environmental Regulation (DER) landfill closure process.

Policy 801.3.4: Monroe County shall continue to support City of Key West's efforts to provide their own solid waste management through the use of the most cost-effective and environmentally sound technology.

Policy 801.3.5: By January 4, 1997, Monroe County, through the Department of Environmental Management, shall complete preliminary engineering and environmental assessments for a sludge, septage and/or leachate treatment and disposal facility on Crawl Key.

Policy 801.3.6: By January 4, 1998 Monroe County, through the Department of Environment Management, shall construct a sludge, septage, and/or leachate treatment and disposal facility on Crawl Key.

Policy 801.3.7: Through 1995, and subject to extension, Monroe County shall contract for the haul-out disposal of solid waste including wet garbage, yard waste and construction debris (minimum of 75,000 up to a maximum of 95,000 tons per year), with the vendor responsible for processing construction debris.

Policy 801.3.8: Monroe County, through the Department of Environmental Management, shall investigate and review for County implementation the latest available technology for resource recovery and other alternative solid waste management technologies to meet the solid waste processing and disposal needs beyond 1995. Particular attention shall be given to the environmental effects and cost of such technologies.

Policy 801.3.9: By January 4, 1997, Monroe County shall select a long-term disposal and processing method that will handle the solid waste for the unincorporated county, Key Colony Beach and Layton, and will begin the development process for additional facilities if necessary.

Policy 801.3.10: By January 4, 1998, Monroe County shall implement solid waste disposal methods to meet the projected disposal needs beyond 1995 either through continuation of the WMI haul out contract or through the installation and initiation of alternative solid waste disposal facilities developed in accordance with Policy 801.3.8.

Policy 801.3.11: By January 4, 1997, Monroe County shall update the provisions of Sec. 9.5-494 of the Monroe County Land Development Code in order to ensure that sufficient impact fee revenues are available to finance future solid waste facility needs.

Policy 801.3.12 Monroe County shall establish an interim policy to avoid consideration of new facility siting involving incineration technology until current DER public health and environmental impact studies are completed and new DER standards for incineration facilities are adopted.

Policy 801.3.13: Monroe County shall consider the environmental sensitivity of land and the location of coastal high hazard areas in the siting of new solid waste facilities.

Objective 1301.10: Monroe County shall increase intergovernmental coordination efforts with the Department of Community Affairs (DCA), the Department of Environmental Regulation (DER), the SFRPC, and the County's municipalities to develop and implement the most cost-effective and environmentally sound methods of regional solid and hazardous waste management.

Policy 1301.10.1: Monroe County shall continue to negotiate an interlocal agreement with the Cities of Key West, Key Colony Beach and Layton for the consolidated handling, processing and disposal of solid waste.

Policy 1301.10.2: Monroe County shall continue coordination efforts with the DER and other involved federal and state agencies to pursue funding for the implementation of Monroe County's Solid Waste and Resource Recovery Management Plans.

Policy 1301.10.3: Monroe County shall coordinate with and pursue with the Florida Association of Counties for the State-wide enactment of beverage container deposit laws.

Policy 1301.10.4: By January 4, 1998, Monroe County shall implement a County-wide mandatory curbside recycling program for all residential units and continue commercial recycling programs for all handling and disposal of newspapers, glass, plastics and aluminum waste products in order to meet mandated state solid waste requirements.

The County’s policies appear to be adequate to provide protections for the environment and the County’s efforts to encourage voluntary recycling are extensive. No comprehensive plan amendments are proposed at this time.

D. Strategies:

- Currently, mulching takes place at the three locations within the County, but is limited to County funded maintenance of public lands and right-of-ways. Consideration of a yard/organics waste program should be revisited in the near future, in order to institute new means and methods, including composting, to reduce current quantities of organic waste being hauled out of the County.

- Although WMI projects that the Broward County Central Landfill's capacity will be approximately met by the year 2027, WMI does have other facilities in the State that will be able to facilitate the County's solid waste disposal needs well past the planning period of this document (2030). Therefore, it will be necessary for the County to research other means and methods to reduce solid waste generation, improve recycling volume, compost and sustainably manage resources in the County and reduce its impacts on other Florida Counties.

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Issue Category #1(h): Marine and Terrestrial Litter

A. Background: Marine and terrestrial litter are the two primary types of solid waste litter within the County; both types create adverse affects, on the natural environment, animal species, the general aesthetics of local communities, and the beauty of the Florida Keys.

B. Analysis: Marine litter originates from a variety of sources including intentional and unintentional releases from recreational boaters, shoreline users, commercial fishing operations, sport fishing and diving charters, and oceanic sources such as merchant ships, cruise ships, and oil drilling vessels. In addition, litter on the land blows into the waterways of the Keys. Fishing line disposal containers are stationed on most fishing bridges within the County.

Terrestrial litter also originates from a variety of sources including both intentional and unintentional releases from trash receptacles, commercial haulers, motorists, pedestrians, and beach goers. Furthermore, animal infiltration of trash receptacles can produce litter within residential communities, commercial area, and park facilities.

Whether the litter is marine or terrestrial, it will have adverse effects on animal life within the County. Entanglement and ingestion of litter can cause bodily injury, illness and death to the wildlife within the Florida Keys. Endangered species such as Key Deer face further danger of survival with the interaction of humans and their litter. Exposure to litter may cause mortality by entanglement and disease. (U.S. Fish and Wildlife Service, National Key Deer Refuge, 2000).

Litter can cause habitat destruction, which will eventually lead to the loss of a sustainable environment for which the animal life needs to survive. Litter not only causes physical damage to the environment, but also damages the aesthetics and allure of the Florida Keys which naturally draws thousands of tourists to each year.

C. Policy Framework:

Policy 203.5.6: By the effective date of this Plan, Monroe County shall recommend methods to improve boater education, based on the inventory of existing boater education programs. The County's boater education program shall be designed and implemented in coordination with the Cooperative Extension Service, Florida Sea Grant, DNR and NOAA. It shall be consistent with recommendations of the Florida Keys National Marine Sanctuary Management Plan. The boater education program shall place particular emphasis upon the following:

5. litter and debris control regulations.

D. Strategies:

- Controlling litter within the County will need to be addressed through improved solid waste collection practices, animal/tamper proof waste receptacles, community cooperation, clean-up efforts, education, and local laws. Section 21-21(a) of the County's LDCs states, "No person shall place, cast, sweep, or deposit anywhere within the county any refuse in such a manner that the same may be carried, spread, or deposited by the elements upon any street, alley, parkway, or other public place or into any occupied or unoccupied property or waterway." Therefore, code enforcement should focus on persons dumping or littering.

- The County's education efforts should illustrate the impacts of litter upon animal species and habitat.

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Issue Category #1(i): Invasive Animals

A. Background: Escape of non-native animal species into the general environment can have devastating impacts on naturally native plant and animal species.

B. Analysis: The spread of the Burmese python and the red lionfish (among others) into the Florida Keys demonstrates the need to address the introduction of exotic wildlife. The County Biologist is a partner with the Florida Keys Invasive Exotics Task Force.

C. Policy Framework:

Objective 207.4: Monroe County shall protect its native wildlife populations from invasive exotic wildlife species.

Policy 207.4.1: By January 4, 1998, the Monroe County Biologist shall coordinate with the FGFWFC and the FWS to develop a list of undesirable exotic wildlife species (exclusive of horses, domestic dogs, and domestic cats).

Policy 207.4.2: By January 4, 1998, Monroe County shall adopt an exotic wildlife ordinance which shall prohibit and/or restrict the sale and handling of listed undesirable exotic species (exclusive of horses, domestic dogs, and domestic cats)

D. Strategies:

- The County should consider adoption of an invasive exotic wildlife ordinance which shall prohibit and/or restrict the sale and handling of listed undesirable exotic species.

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Issue Statement #2: ***Complete Wastewater and Drainage Upgrades.***

Note: Background, Issue Analysis, Policy Framework and Strategies are divided into two (2) categories each for this section: Wastewater and Stormwater.

Issue Category #2(a): Wastewater

A. Background: The sustainability of the marine ecosystem of the Florida Keys (the "Keys") is dependent upon clear water with low nutrient loading. Treatment of sewage and the disposal of wastewater within the County historically have been accomplished through septic tanks, on-site treatment and disposal systems (OSTDS), and small to intermediate sized privately-owned wastewater treatment package plants. With expansion and growth, regional systems consisting of treatment plants and centralized sewer have been built providing a greater level of collection and treatment. Several sewer districts, both private and municipal, have been formed to service more densely populated areas.

Notwithstanding the above accomplishments, the Keys face the challenge of obtaining adequate funding sources to implement the extent of regional systems required to meet guidelines established by State and federal mandates. To further complicate the issue, in more sparsely populated areas, advanced methods of treatment are not generally economically feasible. Regulatory pressure and the implementation of numeric nutrient criteria increase the complexity of providing proper treatment of sewage. Continued focus on appropriate sanitary sewer collection, treatment, and disposal in this region with severely limited solid soils and land use density will minimize ground and surface water contamination.

B. Analysis: Over the last 20 years, aerobic treatment units (ATU) for more advanced onsite treatment and secondary treatment plants have been introduced. Although they provide better treatment than septic tanks, including effluent disinfection, ATUs are not an efficient means of removal of phosphorus and nitrogen.

With the adoption of the *Monroe County Sanitary Wastewater Master Plan* (the "Master Plan") in June of 2000, the County has implemented a program to address these issues. The Master Plan addresses planned facilities, improvements, and expansion of regional facilities as well as programs working with the Department of Health (DOH) to administer code enforcement for septic tanks. The plan focuses on utilizing regional systems for treatment in hot spots (areas of high density) and alternative Best Available Technology (BAT) in cold spots (areas of low density). Although originally planned to provide compliance by July of 2010, the Master Plan has fallen short mainly due to a gap in funding. This section will compare the existing service capacity against the level of service required for compliance with regulatory standards for both existing and projected demands.

The 2000 Master Plan identified 23,000 private onsite systems within unincorporated Monroe County, made up of septic tanks, ATUs, and unknown connections servicing a total of 4.88 million gallons per day (MGD). In addition, 246 small wastewater treatment

plants (WWTP) were identified servicing another 2.40 MGD. The Master Plan called for several measures including the following:

- Replacement or upgrade of onsite systems to Onsite Wastewater Nutrient Reduction Systems (OWNRS);
- Creation of 12 community collection systems, five of which are to be phased into regional systems;
- Address hot spots with community systems by 2010; and
- Upgrade 17 facilities to BAT/Advanced Wastewater Treatment (AWT) by 2010.

In addition, facilities were to be upgraded to accommodate water reuse programs and the distribution system was to be installed. The major drawbacks to reuse cited in the Master Plan include the lack of large users and economic feasibility.

In the County's *Annual Assessment Report Evaluating the Work Program Year 10* (May 2008), the DCA noted the following conclusions from the FDEP report to DCA:

- *While progress had been made, there is a long way to go toward compliance in terms of completion schedules and meeting the July 1, 2010 deadline.*
- *Dozens of small facilities relying on connection to central systems will be out of compliance on that date.*
- *The same will likely be true of a number of homeowners served by septic tanks and OSTDS.*
- *FDEP would do whatever it could within its power to promote compliance assuming that the DOH would do the same to resolve the OSTDS requirements.*

The Keys Wastewater Plan – November 2007 Report, prepared by the Monroe County Engineering Division 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 report included a summary of nine local governments and utility service areas providing centralized systems within unincorporated Monroe County. 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. Subsidizing costs is consistent with County's policy.

The County is reluctant to impose assessments on residents for un-funded mandates that 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 $17,000 per EDU, costs up to three times as much as other systems ranging from $5,000 to $10,000 per EDU. Supplemental funding is necessary to bring the Cudjoe Regional System costs in-line with other systems to avoid an unreasonable burden to a majority of residents.

The County looks to State and Federal assistance to make up the difference. Because of 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.

In December 12, 1995, the Administration Commission found the *2010 Monroe County Comprehensive Plan* not in compliance and ordered facilitated rulemaking/mediation to address outstanding issues. In July 1997, the Administration Commission proposed Rule 28-20.100, F.A.C., which introduced the concept of the Work Program requiring the following activities as it relates to wastewater:

- Continued construction of wastewater facilities in hot spots begun in previous year.
- Design and construction of additional wastewater treatment facilities in accordance with the schedule of a wastewater master plan.
- Implementation of the FKCCS to establish development standards ensuring that all new development not exceed the capacity the ecosystem's ability to sustain impacts.
- Complete elimination of cesspits.

The FKCCS was tasked with providing specific recommendations, including adequate capital funding, protection of the environment, ensuring private property rights, providing for adequate affordable work force housing and meeting the goal of reducing the State's role in regulatory oversight. With respect to wastewater, the FKCCS used benchmarks to correlate impacts of nutrient loading on marine ecosystems and the level of sustainable development.

The four key topics of discussion within the FKCCS include Terrestrial Habitat Protection, Allocation and Distribution of Growth, Affordable Housing, and Funding. Of the four topics, Allocation and Distribution of Growth, and Funding addressed recommendations related to wastewater. The Allocation and Distribution of Growth is addressed through ROGO with the establishment of 2,548 additional residential units within the County to be built over a ten-year period. The distribution of the residential units involves many factors and various stakeholders, but the principles of focusing new development and infill within partially developed areas and guiding future growth towards areas with existing or planned/funded wastewater systems are consistent with the goals of the FKCCS.

Finding adequate funding for the environmental and socioeconomic needs of the Keys is a difficult issue. The County has a relatively small population and a high number of tourists. The burden of playing catch-up with years of inadequate treatment facilities combined with the increase in housing costs associated with the tourist-based economy adds to the issue of affordable housing and economically feasible solutions; however, all current infrastructure requirements and waste disposal standards are to be upheld. Many potential sources for additional funding were presented for discussion including establishing tolls, residential impact fees, bed tax, Ad Valorem Tax, State and federal matching funds, and tourist-based sales tax.

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.

In 2011, House Bill 7253 ratified Rule 28-20.140, F.A.C. The requirements for the Monroe County Work Program were updated in this rule. Under the revised Work Program, specific tasks and timelines are established to bring deficient systems into compliance.

Among the rules are requirements for the Plan to restrict permits for new development or redevelopment unless served by a central sewer system with committed funding; permitted by DEP and physically under construction or with an onsite sewage treatment facility shown to be in compliance with requirements of Section 381.0065(4), F.S. Furthermore, the County must direct new and redevelopment to areas with committed funding, permit, and physically under construction.

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Rules specific to Wastewater Implementation include the following:

- By July 1, 2011, Monroe County shall annually evaluate and allocate funding for wastewater implementation. Monroe County shall identify any funding in the annual update to the Capital Improvements Element of the Comprehensive Plan.
- By July 1, 2011, Monroe County shall annually draft a resolution requesting the issuance of $50 million of the $200 million of bonds authorized under Section 215.619, F.S., and an appropriation of sufficient debt service for those bonds, for the construction of wastewater projects within the Florida Keys.
- By July 1, 2011, Monroe County shall develop a mechanism to provide accurate and timely information and establish the County's annual funding allocations necessary to provide evidence of unmet funding needs to support the issuance of bonds authorized under Section 215.619, F.S., and to assure the timely completion of work as necessary to fulfill any terms and conditions associated with bonds.
- By July 1, 2011, Monroe County shall evaluate its wastewater needs and state and federal funding opportunities and apply annually to at least one state or federal grant program for wastewater projects and connections.
- By July 1, 2011, Monroe County shall develop and implement local funding programs necessary to timely fund wastewater construction and future operation, maintenance and replacement of facilities.
- By December 1, 2013, the County shall provide a report of addresses and the property appraiser's parcel numbers of any property owner that fails or refuses to connect to the central sewer facility within the required timeframe to the Monroe County Health Department, Department of Environmental Protection, and the Department of Community Affairs. This report shall describe the status of the County's enforcement action.
- By December 1, 2013, Monroe County shall work with the owners of wastewater facilities and onsite systems throughout the County and the Department of Health (DOH) and the Department of Environmental Protection (DEP) to fulfill the requirements of Sections 403.086(10) and 381.0065(3)(h) and (4)(l), F.S., regarding implementation of wastewater treatment and disposal. This will include coordination of actions with DOH and DEP to notify owners regarding systems that will not meet the 2015 treatment and disposal standards.

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Wastewater Projects and their associated timelines included in the rule amendment are as follows:

1. Key Largo Wastewater Treatment Facility. Key Largo Wastewater Treatment District is responsible for wastewater treatment in its service area and the completion of the Key Largo Wastewater Treatment Facility.

a. By July 1, 2012, Monroe County shall complete construction of the South Transmission Line;
b. By July 1, 2013, Monroe County shall complete design of Collection basin C, E, F, G, H, I, J, and K;
c. By July 1, 2012, Monroe County shall complete construction of Collection basins E-H;
d. By December 1, 2011, Monroe County shall schedule construction of Collection basins I-K;
e. By July 1, 2011, Monroe County shall complete construction of Collection basins I-K;
f. By July 1, 2011, Monroe County shall complete 50% of hook-ups to Key Largo Regional WWTP;
g. By July 1, 2012, Monroe County shall complete 75% of hook-ups to Key Largo Regional WWTP;
h. By July 1, 2013, Monroe County shall complete all remaining connections to Key Largo Regional WWTP.

2. Hawk's Cay, Duck Key and Conch Key Wastewater Treatment Facility.

a. By July 1, 2012, Monroe County shall complete construction of Hawk's Cay WWTP upgrade/expansion, transmission, and collection system;
b. By July 1, 2013, Monroe County shall complete construction of Duck Key collection system;
c. By July 1, 2012, Monroe County shall initiate property connections to Hawk's Cay WWTP;
d. By December 1, 2012, Monroe County shall complete 50% of hook-ups to Hawk's Cay WWTP;
e. By July 1, 2013, Monroe County shall complete 75% of hook-ups to Hawk's Cay WWTP; and
f. By July 1, 2014, Monroe County shall complete all remaining connections to Hawk's Cay WWTP.

3. South Lower Keys Wastewater Treatment Facility (Big Coppitt Regional System).

a. By July 1, 2012, Monroe County shall complete 75% hookups to South Lower Keys WWTP; and
b. By July 1, 2013, Monroe County shall complete all remaining connections to the South Lower Keys WWTP.

4. Cudjoe Regional Wastewater Treatment Facility.

a. By July 1, 2011, Monroe County shall complete planning and design documents for the Cudjoe Regional Wastewater Treatment Facility, the Central Area (Cudjoe, Summerland, Upper Sugarloaf) collection system and the Central Area Transmission Main;
b. By October 1, 2012, Monroe County shall initiate construction of Wastewater Treatment Facility, Central Area Collection System and Central Area Transmission Main;
c. By July 1, 2014, Monroe County shall complete construction of Wastewater Treatment Facility, Central Area Collection System and Central Area Transmission Main;
d. By February 1, 2012, Monroe County shall initiate construction of Wastewater Treatment, Outer Area Collection System and Transmission Main;
e. By February 1, 2015, Monroe County shall complete construction of Outer Area collection and transmission main;
f. By July 1, 2014, Monroe County shall initiate property connections – complete 25% of hook-ups to Cudjoe Regional WWTP;
g. By July 1, 2015, Monroe County shall complete 50% of hook-ups to Cudjoe Regional WWTP; and
h. By December 1, 2015, Monroe County shall complete remaining hook-ups to Cudjoe Regional WWTP.

C. Policy Framework:

Policy 101.5.4: Monroe County shall implement the residential Permit Allocation and Point System through its Land Development Code based primarily on the Tier system of land classification as set forth under Goal 105. The points are intended to be applied cumulatively. Points shall be assigned to allocation applications that propose development to be connected to a central wastewater treatment system that meets the BAT/AWT treatment standards established by Florida Legislature and Policy 901.1.1.

Objective 202.3: Monroe County shall develop and implement permitting, inspection, and enforcement procedures designed to reduce pollutant discharges into ground and surface waters from wastewater treatment plants. (See Goal 901 and related objectives and policies.)

Policy 701.9.7: By January 4, 1997, Monroe County shall adopt Land Development Code which establish a Permit Allocation and Point System for new residential and non-residential development (See Future Land Use Objectives 101.2, 101.3, and 101.5 and supporting policies). In developing the Point System, Monroe County shall consider assigning a positive point rating to developments utilizing alternative water collection systems such as cisterns, grey water reuse systems and wastewater treatment plant effluent reuse which conserve potable water supply.

GOAL 901: Monroe County shall 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.

Objective 901.1: Monroe County shall ensure that, at the time a development permit is issued, adequate sanitary wastewater treatment and disposal facilities, including wastewater treatment facilities and onsite sewage treatment and disposal systems, are available to support the development at the adopted level of service standards, concurrent with the impacts of such development.

Policy 901.1.1: Monroe County shall ensure that at a time a development permit is issued, adequate sanitary wastewater treatment and disposal facilities are available to support the development at the adopted level of service standards, concurrent with the impacts of such development.

Permanent Level of Service Standards:

(A) The permanent level of service standards for wastewater treatment in Monroe County are as provided in House Bill 1993 adopted by the 1999 Legislature.

(B) The County and the State shall actively engage in an educational program to reduce demand for phosphate products.

(C) The County shall require mandatory pump-out of septic tanks and require regular reports from qualified contractors to ensure proper septage disposal.

Policy 901.1.2: By January 4, 1997, Monroe County shall adopt Land Development Code which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development unless adequate sanitary wastewater treatment and disposal facilities needed to support the development at the adopted level of service standards are available concurrent with the impacts of development.

Policy 901.1.3: All improvements for replacement, expansion, or increase in capacity of sanitary wastewater treatment and disposal facilities shall be compatible with the adopted level of service standards for the facilities.

Policy 901.1.4: Issuance of development permits shall be contingent upon the submission of permits demonstrating compliance with applicable federal, state, and local permit regulations for wastewater treatment and disposal facilities.

Policy 901.1.5: The Permit Allocation and Point System shall award positive points for development proposed to be connected to a central wastewater treatment system that meets the BAT/AWT treatment standards established by Florida Legislature and Policy 901.1.1.

Policy 901.1.6: By January 4, 1998, Monroe County shall adopt permanent level of service standards for package treatment plants and OSDS based on the findings of the Sanitary Wastewater Master Plan and shall amend the Land Development Code to include these standards.

Policy 901.1.5: The Permit Allocation and Point System shall award positive points for development proposed to be connected to a central wastewater treatment system that meets the BAT/AWT treatment standards established by Florida Legislature and Policy 901.1.1.

Policy 901.1.6: By January 4, 1998, Monroe County shall adopt permanent level of service standards for package treatment plants and OSDS based on the findings of the Sanitary Wastewater Master Plan and shall amend the Land Development Code to include these standards.

Objective 901.3: By January 4, 1997, Monroe County, through adoption of Land Development Code including a Permit Allocation System for new residential and non-residential development, shall ensure the maximum use of existing wastewater treatment facilities to discourage the proliferation of urban sprawl.

Policy 901.3.1: The Permit Allocation and Point System for new residential and non-residential development shall award positive points for development proposed to be connected to a central wastewater system that meets BAT/AWT treatment standards established by Florida Legislature and Policy 901.1.1.

Policy 901.3.2 The priorities for the extension and replacement of wastewater collection, treatment and disposal facilities shall be based upon the following priority level guidelines:

> **Level One -** Whether the project is needed to protect public health and water quality, provide facilities and services, or to preserve or achieve full use of existing facilities.
> **Level Two -** Whether the project increases efficiency of use of existing facilities, prevents or reduces future improvement costs, provides service to developed areas lacking full service or promotes infill development.
> **Level Three -** Whether the project represents a logical extension of facilities and services within a designated service area.

Policy 901.3.3: Monroe County shall maintain a five-year schedule of capital needs for wastewater treatment and disposal as part of the County Capital Improvements Program. This program shall be updated annually consistent with Capital Improvements Policy 1401.1.2 and in conjunction with the County's annual budget process to ensure economic feasibility.

Objective 901.4: Monroe County shall implement findings of the Sanitary Wastewater Master Plan, the County shall use the adopted Sanitary Wastewater Master Plan as a guide for implementation of central sewer projects.

Policy 901.4.3: By January 4, 1997, Monroe County shall initiate a program of testing alternative OSDS systems under actual operating conditions in order to ascertain the feasibility of widespread application of such systems with nutrient removal capabilities higher than standard septic systems.

Policy 901.4.4: By the effective date of this Plan, Monroe County shall enter into an agreement with EPA, DER, SFWMD and NOAA regarding the scope of studies required to document pollutant loads from OSDS, cesspits, package treatment plants, and other point and non-point sources on the Florida Keys into surrounding waters. These studies shall be executed according to the terms of the agreement, in coordination with the Water Quality Protection Program for the Florida Keys National Marine Sanctuary. Upon execution of this agreement, the scope of the Sanitary Wastewater Master Plan shall be adjusted accordingly. (See Conservation and Coastal Management Policy 202.1.1.)

Policy 901.4.5: By January 4, 1998, Monroe County shall adopt Land Development Code which establish density criteria for OSDS based on site specific constraints and prescribe the types of systems to be utilized based upon the results of the Sanitary Wastewater Master Plan.

Policy 901.4.6: Upon adoption of the Sanitary Wastewater Master Plan by January 4, 1998, the minimal operational standards for package plants, collection systems, pump stations, and disposal wells shall be those contained in the adopted Master Plan.

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Policy 901.4.7: As part of the Sanitary Wastewater Master Plan, an inventory of all wastewater treatment plants and OSDS areas shall be completed which identifies:

1. the entity having operational responsibility;

2. current rated plant capacity;

3. existing treatment status (number and type of hookups);

4. all future committed capacity (number and type of hookups);

5. all facilities which fall below level of service standards identified in the Master Plan;

6. costs associated with improving those facilities to meet minimum level of service standards;

7. funding sources and construction schedules for those improvements; and

8. average and peak flow design capacity for sanitary sewer facilities.

Policy 901.4.8: Upon adoption of the Sanitary Wastewater Master Plan, the County shall seek legislative action to amend the Florida Administrative Code Chapter 10D-6 to require HRS to administer and enforce the adopted standard for wastewater treatment.

Policy 901.4.9: In the event Central Sewer Service becomes available (as defined by Chapter 10D-6) to areas served by OSDS, owners of OSDS within such areas shall have 365 days to connect to the central system.

Policy 901.4.10: In coordination with FKAA, DER, EPA, NOAA, or other appropriate agencies, Monroe County shall prepare and distribute annual reports indicating the status of the Sanitary Wastewater Master Plan.

Objective 901.4: Monroe County shall implement findings of the Sanitary Wastewater Master Plan, the County shall use the adopted Sanitary Wastewater Master Plan as a guide for implementation of central sewer projects.

Policy 901.4.3: By January 4, 1997, Monroe County shall initiate a program of testing alternative OSDS systems under actual operating conditions in order to ascertain the feasibility of widespread application of such systems with nutrient removal capabilities higher than standard septic systems.

Policy 901.4.4: By the effective date of this Plan, Monroe County shall enter into an agreement with EPA, DER, SFWMD and NOAA regarding the scope of studies

required to document pollutant loads from OSDS, cesspits, package treatment plants, and other point and non-point sources on the Florida Keys into surrounding waters. These studies shall be executed according to the terms of the agreement, in coordination with the Water Quality Protection Program for the Florida Keys National Marine Sanctuary. Upon execution of this agreement, the scope of the Sanitary Wastewater Master Plan shall be adjusted accordingly. (See Conservation and Coastal Management Policy 202.1.1.)

Policy 901.4.5: By January 4, 1998, Monroe County shall adopt Land Development Code which establish density criteria for OSDS based on site specific constraints and prescribe the types of systems to be utilized based upon the results of the Sanitary Wastewater Master Plan.

Policy 901.4.6: Upon adoption of the Sanitary Wastewater Master Plan by January 4, 1998, the minimal operational standards for package plants, collection systems, pump stations, and disposal wells shall be those contained in the adopted Master Plan.

Policy 901.4.7: As part of the Sanitary Wastewater Master Plan, an inventory of all wastewater treatment plants and OSDS areas shall be completed which identifies:

1. the entity having operational responsibility;

2. current rated plant capacity;

3. existing treatment status (number and type of hookups);

4. all future committed capacity (number and type of hookups);

5. all facilities which fall below level of service standards identified in the Master Plan;

6. costs associated with improving those facilities to meet minimum level of service standards;

7. funding sources and construction schedules for those improvements; and

8. average and peak flow design capacity for sanitary sewer facilities.

Policy 901.4.8: Upon adoption of the Sanitary Wastewater Master Plan, the County shall seek legislative action to amend the Florida Administrative Code Chapter 10D-6 to require HRS to administer and enforce the adopted standard for wastewater treatment.

Policy 901.4.9: In the event Central Sewer Service becomes available (as defined by Chapter 10D-6) to areas served by OSDS, owners of OSDS within such areas shall have 365 days to connect to the central system.

Policy 901.4.10: In coordination with FKAA, DER, EPA, NOAA, or other appropriate agencies, Monroe County shall prepare and distribute annual reports indicating the status of the Sanitary Wastewater Master Plan.

Policy 901.5.2: By January 4, 1998, the existing and/or available results of the comprehensive water quality monitoring program shall be analyzed and reported to document specific problem areas which may be in violation of federal or state standards or which may be defined through scientific study, as a threat to the continued maintenance of high levels of water quality or to specified biotic communities. Upon confirmation of any problem areas, priorities for the construction of alternate wastewater facilities shall be reevaluated, within the context of the Monroe County Sanitary Wastewater Master Plan, with those areas in greatest need given highest priority.

Policy 901.5.3: Monroe County shall implement the findings of the Sanitary Wastewater Master Plan; the County shall use the adopted Sanitary Wastewater Master Plan as a guide for implementation of central sewer projects.

Policy 901.5.4: By January 4, 1997, Monroe County shall adopt Land Development Code which ensure that sewage disposal facilities shall be designed and located in a manner that in the event of power failure, untreated effluent will not be discharged into any surface body of water, groundwater or any wetland.

Policy 901.5.5: By January 4, 1997, Monroe County, in cooperation with the appropriate State permitting agencies, shall adopt Land Development Code which ensure that sewage disposal facilities are sited such that any discharge point, whether by shallow or deep well, is located as far as possible from any surface body of water and any FKAA Aquifer Storage Recovery area while still adhering to other setback requirement established by Chapter 10D-6, F.A.C.

Policy 901.5.6: By January 4, 1997, Monroe County shall adopt Land Development Code which require that OSDS drainfields be located on the least environmentally sensitive portion of a parcel proposed for development when more than one habitat type is found within the parcel, the criteria for which shall be defined within the adopted Land Development Code.

Policy 901.5.7: Pending the completion and implementation of the ADID or other similar functional analysis, Monroe County shall prohibit the use of OSDS in buttonwood, salt marsh or wetland area and require the provision of a buffer between OSDS and wetlands. Following the completion of the ADID or other similar revised functional analysis, but no later than January 4, 1999, Monroe County shall determine whether OSDS may be used in disturbed wetlands based on functional assessment and shall adopt Land Development Code to further implement this policy.

Policy 901.5.8: Monroe County shall ensure that wastewater treatment facilities are designed and constructed in accordance with the adopted levels of service, so as to limit the discharge or introduction of pollutants into nearshore waters.

Policy 901.5.9: By January 4, 1998, Monroe County, as part of the Sanitary Wastewater Master Plan shall continually investigate the potential for reuse/recycling of treated wastewater. The Master Plan shall set forth the requirements for the types and locations of developments which shall be required to utilize a water reuse system.

Policy 901.5.10: Monroe County, in conjunction with appropriate federal, state and regional agencies, shall continue to minimize or eliminate the use of products which contain phosphorous in the County.

Policy 901.5.11: By January 4, 1998, Monroe County, during the development of the Sanitary Wastewater Master Plan shall consider and evaluate advanced wastewater treatment as a first option for sewage treatment in the construction, expansion, or replacement of central sewer systems including package treatment. Monroe County shall require the consideration and evaluation of effluent reuse consistent with F.A.C. Rule 17-610 as a first option for effluent disposal.

Policy 901.5.12: By January 4, 1998, all public and privately-owned upland areas shall be inventoried and evaluated to determine the feasibility of these lands for effluent reuse.

Policy 901.5.13: By January 4, 1997, Monroe County, in coordination with DER, shall begin to evaluate the use of hazardous household products including herbicides and pesticides to assess their impacts on sewer facilities and adjacent natural resources, and shall seek, through educational programs, to eliminate the use of any such products identified as creating adverse impacts.

Policy 901.5.14: Monroe County shall revise the Land Development Code to incorporate the conclusions and recommendations of the EPA's water quality protection program as those findings become available.

Policy 901.5.15: The Florida Department of Environmental Regulation and the HRS shall continue their inspection and monitoring program for sewage treatment plants, including package treatment plants. DER shall enforce current state regulations and require the timely improvement or replacement of those systems which do not comply with current regulations as specified in Rule 17-600 F.A.C.

Policy 901.5.16: The following facility design and siting standards shall apply to sewage treatment plants:

1. All new and expanding plants shall set the discharge point back from surface water a minimum of one hundred feet. This shall apply to plants utilizing either injection wells or drainfields.

2. All Class V injection wells (as defined by Florida Statutes and the Florida Administrative Code) shall be drilled to a minimum open hole of ninety feet in depth and cased and grouted to a minimum of sixty feet in depth.

3. All sewage plants except aerobic plants shall provide for wastewater reuse whenever feasible and in compliance with Rule 17-610, F.A.C.

Policy 901.5.17: The minimum required setbacks for zoning districts, as specified in the Land Development Code, may be waived to accommodate wastewater treatment plant expansion where it can be demonstrated that:

1. the expansion is required to bring an existing plant up to current state and county standards or is required to resolve a violation of either of these standards; and

2. there is no other practical alternative such as construction of a new plant.

Policy 901.5.18: All existing development shall connect to public treatment plants where available within one year of the date of plant start-up.

Policy 1401.4.15: Monroe County shall prepare a Sanitary Wastewater Master Plan which shall be completed by January 4, 1998 and implemented beginning in Fiscal Year 1999. The County shall coordinate with the FKAA, the Florida Departments of Environmental Regulation (DER) and Health and Rehabilitative Services (HRS), and the U.S. Environmental Protection Agency (EPA), at a minimum, concerning joint preparation and funding of the Master Plan. Note: Monroe County recognizes its obligations under the stipulated settlement agreement but practicality of timeframe implementations may require modifications of agreement date premises.

Policy 1401.4.1: By January 4, 1998, Monroe County shall revise the Comprehensive Plan Five-Year Schedule of Capital Improvements and the County Capital Improvements Program to include funding for the improvements identified in the Sanitary Wastewater/Stormwater Management Master Plan.

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D. Strategies:

- Some of the recommendations to overcome fiscal impacts suggested in the Wastewater Master Plan are as follows:
    - FKAA and the County should to pursue an equitable way to distribute the costs of wastewater implementation that takes into account the differential costs of varying development densities while recognizing that near shore water quality improvements are a county-wide benefit.
    - Pursue State and federal grants with FKAA to supplement project costs.
    - Acquire necessary land to accommodate future facilities and expansion.
    - Develop standards and hook-up requirements for hot spots in coordination with DOH.

- Also see the recommendations related to Sanitary Sewer contained with *Chapter 3: Element Assessment.*

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Issue Category #2(b): Stormwater:

A. Background: Development and urbanization affect hydrologic cycles, natural systems and drainage patterns. The natural biologic and geologic systems are adapted to, and altered by, the climatic and hydrogeologic regimes of a locale. As human activity disturbs this balance by removing vegetation, altering topography and increasing imperviousness, the intensity and frequency of damaging storm water runoff increases, as does the resulting erosion and flooding. Urbanization also alters the chemical composition of runoff. As rainfall washes over buildings, lawns, roadways, and parking lots, it carries away the detritus of human activity and absorbs anthropogenic compounds from pesticides, fertilizers, metals and petrochemicals.

These consequences of human habitation and activity require that stormwater be controlled and managed to mitigate the adverse effects on the natural environment and to safeguard life and property.

Over the last 50 years, the County has witnessed rapid growth as development has spread beyond the confines of Key West and Key Largo. Over this period, the unincorporated sections of the County have been transformed from very isolated and rural to increasingly urbanized.

Because of the combination of the proximity of the ocean, dense vegetation and permeable soil, many citizens of the County have traditionally given little concern to stormwater runoff. Most rainfall readily infiltrates the undifferentiated sands that comprise the soil of the Florida Keys.

Historically, drainage works in the County primarily consisted of improvements addressing low areas, mosquito ditches cut to drain native wetlands, and boat canals used as primary drainage facilities with building sites draining directly into them by sheet flow, minor ditches or through percolation. On a number of projects, the County has also included the installation of stormwater seepage trenches as part of many of the County Road resurfacing projects. Further, a number of injection wells have been installed as part of drainage improvements within County Roads when possible and funding allowed.

The dredging of navigable canals and borrow pits has also had an effect on the hydrologic regime of the Florida Keys. Besides the obvious impact to the landscape, such activities can have widespread off-site effects. Because canal cuts open new interfaces between the ocean and groundwater, they can have dramatic hydrogeologic consequences.

Ditches along U.S. 1 have served as primary drainage systems on several Keys, transporting stormwater along the axis of the highway to the ocean. The highway was originally constructed on an old railroad with little improvement other than pavement installation. Key Largo, Islamorada and other urbanized segments of U.S. 1

have limited storm drainage systems. As part of a major roadway projects, the FDOT installs storm sewer and retention basins adjacent to U.S. 1 as required to meet current attenuation and water quality requirements.

The overriding stormwater concern for residents of the County has always been the low-lying topography with the threat of inundation by hurricane-driven storm surges. In some areas, particularly in Key West and Marathon, significant localized flooding occurs from longer duration storms which occur almost annually. Virtually the entire landmass of the Florida Keys lies within the 100-year flood plain designated by FEMA and is classified as an area of special flood hazard.

The Mainland: The mainland segment of the County has been largely ignored by development interests because it consists solely of the vast system of marshes, sloughs, tree islands and cypress forests known as the Everglades. This indifference has not, however, protected this wilderness from the effects of human activity. Much of mainland Monroe County was incorporated into the Everglades National Park which was created in 1947. Also in 1947, the U.S. Army Corps of Engineers undertook the C&SF Project. This extensive network of canals and control structures was intended to meet the needs of flood protection, drainage and irrigation of farmland, and water supply to the urban areas along the coast. Although none of the C&SF improvements are within the County, the project modified the hydrology of the Shark River Slough, Rocky Glades, Taylor Slough and Broad River which serve as headwaters to the Everglades National Park.

Completed in the 1960s, the C&SF had unfortunate consequences for the Everglades, including Everglades National Park. This management system altered the hydro period of the Everglades, exacerbating droughts and extending inundations. The C&SFP also altered the quantity of fresh water and transported an increased quantity of nutrients and agrichemicals from the Everglades Agricultural Area through the Everglades National Park and into Florida Bay.

Currently planned improvements to restore the Everglades are in progress as authorized under CERP, one of the largest ecosystem restoration programs in United States. CERP was authorized by the Water Resources Development Act of 2000. The goal of CERP is to restore the South Florida ecosystem, including the Everglades, while providing for other water supply and flood protection needs of South Florida.

The restoration focuses on several major problems affecting Florida Bay and the Florida Keys. These issues include water quantity, flow, increased salinity, water quality, fish and wildlife resource management, water supply and public access. Examples of projects designed to improve the water resources of the County include:

Water Conservation Areas: Protect and improve the natural resources of the Water Conservation Areas (WCA) as an integral part of the Everglades system while maintaining the multiple functions of the WCA.

- Everglades National Park: Provide adequate timing, distribution and flow of rainfall-quality water (phosphorus concentrations equal to or less than 0.03 milligrams per liter (mg/l)) to the Everglades National Park (ENP) which will maintain and perpetuate natural southern Everglades habitats and functional ecosystems.

- C-111 Basin: Manage the C-111 Basin to protect environmental resources and maintain existing public uses, and to provide more natural hydroperiod and flow conditions and adequate water quality to the basin's wetlands, coastal estuaries and the ENP.

- Florida Bay: Protect and improve natural surface water quality, quantity, distribution and timing of water flowing into Florida Bay through the ENP, the C-111 and the Florida Keys so as to maintain the ecosystem integrity and habitat diversity of the receiving waters.

B. Analysis: 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 MCLDC. Subsequently, the MCLDC has been revised, based on recommendations provided in the County's Stormwater Management Master Plan (SMMP), 2001, 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 MCLDC. This new MCLDC also includes water quality controls for existing and proposed residential development and addresses retrofitting of existing facilities and redevelopment activities. This meets the intent of Section 114-3(a) of the MCLDC, to protect the vital water resources of the County.

In conjunction with Section 114-3 of the MCLDC, the County has prepared a Manual of Stormwater Management Practices which provides information on acceptable forms of BMPs. This document was prepared with the assistance of the SFRPC and the SFWMD and includes BMPs consisting of rate control structures, catch basins with skimmers and baffles, and wet and dry detention/retention facilities.

The County's Work Program (Chapter 28-20 F.A.C.) requires, among other things, the implementation of several stormwater improvement projects. No Work Program task has been ignored or not acted upon and all tasks may be considered either complete or in progress. While the number of remaining tasks is limited, these tasks are costly and time consuming to complete. Specific stormwater tasks and their associated timelines are as follows:

- By July 1, 2011, Monroe County shall evaluate and allocate funding for stormwater implementation. Monroe County shall identify any funding in the annual update to the Capital Improvements Element of the Plan;

- By July 1, 2011, Monroe County shall apply for stormwater grants from the SFWMD; and

- By July 1, 2011, Monroe County shall complete Card Sound Road stormwater improvements.

Prior to the 1990's, given the location and configuration of the Keys and the unlimited outfall capacity of the surrounding water bodies, relatively little consideration had been given to stormwater runoff. There is concern that this history of unregulated stormwater runoff contributes to a portion of the nearshore water nutrient and sediment loading. Subsequent regulatory developments have increased focus on stormwater management practices related to water quality and quantity. Designation of the Keys as an Area of Critical State Concern (ACSC) (Section 380.0552 F.S.) in 1974 and designation of the surrounding waters as Outstanding Florida Waters (OFW) (Chapter 62-3, F.A.C.) in 1985 required that a county-wide comprehensive water quality monitoring program be established. In 2001, the County Stormwater Management Master Plan was created, and a portion of its recommendations have been implemented, though not yet complete.

C. Policy Framework:

Policy 101.1.1: Monroe County shall adopt level of service (LOS) standards for the following public facility types required by Chapter 9J-5, F.A.C: roads, sanitary sewer, solid waste, drainage, potable water, parks and recreation, and paratransit. The LOS standards are established in the following sections of the Comprehensive Plan:

5. The LOS for drainage is established in Drainage Policy 1001.1.1;

Objective 101.9: Monroe County shall provide for drainage and stormwater management so as to protect real and personal property and to protect and improve water quality.

Policy 101.9.1: Upon adoption of the Comprehensive Plan, Monroe County shall adopt and implement the level of service standards for stormwater management established in Drainage Policy 1001.1.1. These level of service standards ensure that at the time a development permit is issued, adequate stormwater management facilities are available to support the development concurrent with the impacts of such development. (See Drainage Objective 1001.1 and related policies.)

Policy 101.9.2: By January 4, 1997, Monroe County shall adopt a Stormwater Management Ordinance. This ordinance shall require that all improvements for replacement, expansion or increase in capacity of drainage facilities conform with the adopted level of service standards for new development. (See Drainage Objective 1001.1 and related policies.)

Policy 101.9.3: Monroe County shall maintain a five-year schedule of capital improvement needs for drainage facilities as part of the Capital Improvement Program. This schedule shall be updated annually. (See Drainage Objective 1001.2 and related policies.)

Policy 101.9.4: The County shall use the adopted Stormwater Management Master Plan as a guide for stormwater management to protect personal property and to protect and improve water quality.

Policy 102.5.1: Monroe County shall develop and implement permitting, inspection, and enforcement procedures designed to reduce pollutant discharges into ground and surface waters from:

> 5. stormwater runoff (by January 4, 1997) (See Drainage Goal 1001 and related objectives and policies).

Objective 202.9: By January 4, 1997, Monroe County shall develop and implement permitting, inspection, and enforcement procedures designed to reduce pollutant discharges into ground and surface waters from stormwater runoff. (See Drainage Goal 1001 and related objectives and policies.)

Policy 202.10.3: By January 4, 1997, Monroe County shall adopt a Stormwater Management Ordinance which adopts the level of service standards for the quality and quantity of stormwater discharges in this Comprehensive Plan (See Drainage Policy 1101.1.1). Best management practices (BMPs) developed pursuant to Policy 202.10.2 above for temporary and permanent erosion and sedimentation control shall be incorporated by reference into this ordinance and shall be recommended for use to meet water quality criteria of the ordinance. At a minimum, BMPs shall include minimizing alteration of the natural landscape due to paving and elevational changes and the use of retention basins, detention basins, vegetated swales, and/or exfiltration trenches on site, as appropriate.

Policy 202.10.4: Monroe County shall require use of the adopted best management practices for erosion and sedimentation control, where appropriate, as stipulations for land development orders.

Policy 202.10.5: Monroe County shall identify erosion and sedimentation problem areas within existing subdivisions and disturbed or scarified lands. The Stormwater Management Master Plan will address drainage improvements required for these areas to mitigate erosion and sedimentation problems (See Drainage Objective 1001.3 and related policies).

Policy 212.2.4: Stormwater management criteria applicable to the shoreline setbacks shall encourage Best Management Practices (BMPs) which utilize natural berms and vegetation to control runoff from waterfront property. Berms shall not be installed where shoreline vegetation is present. Where berms are used along artificial waterways, they shall be raised so that there is a gradual slope away from the canal edge. In any case, all stormwater management criteria shall conform to adopted level of service standards for water quality and quantity (See Drainage Element Objective 1001.1 and related policies).

Policy 215.1.1: Monroe County shall adopt level of service standards (LOS) for the following public facility types required by Chapter 9J-5, F.A.C: roads, sanitary sewer, solid waste, drainage, potable water, parks and recreation, and mass transit. The LOS standards are established in the following sections of the Comprehensive Plan:

5. The LOS for drainage is established in Drainage Policy 1001.1.1;

GOAL 1001: Monroe County shall provide a stormwater management system which protects real and personal properties, and which promotes and protects ground and nearshore water quality.

Objective 1001.1: Monroe County shall ensure that at the time a development permit is issued, adequate stormwater management facilities are available to support the development at the adopted level of service standards concurrent with the impacts of such development.

Policy 1001.1.1: Water Quality Level of Service Standards - Minimum Water Quality:

1. All projects shall be designed so that the discharges will meet Florida State Water Quality Standards as set forth in Chapters 17-25 and 17-302, F.A.C, incorporated herein by reference. In addition, all projects shall include an additional 50 percent of the water quality treatment specified below, which shall be calculated by multiplying the volumes obtained in Section (a) by a factor of 1.5 , Retention/Detention Criteria (SFWMD Water Quality Criteria 3.2.2.2):

a) Retention and/or detention in the overall system, including swales, lakes, canals, greenways, etc., shall be provided for one of the three following criteria or equivalent combinations thereof:

(1) Wet detention volume shall be provided for the first inch of runoff from the developed project, or the total runoff of 2.5 inches times the percentage of imperviousness, whichever is greater.

(2) Dry detention volume shall be provided equal to 75 percent of the above amount computed for wet detention.

(3) Retention volume shall be provided equal to 50 percent of the above amounts computed for wet detention.

b) Infill residential development within improved residential areas or subdivisions existing prior to the adoption of this comprehensive plan must ensure that its post-development stormwater run-off will not contribute pollutants which will cause the runoff from the entire improved area or subdivision to degrade receiving water bodies and their water quality as stated above.

c) New Development and Redevelopment projects which are exempt from the South Florida Water Management District permitting process shall also meet the requirements of Chapter 40-4 and 40E-40, F.A.C.

Policy 1001.1.2: By January 4, 1997, Monroe County shall adopt Land Development Code which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development unless adequate stormwater management facilities needed to support the development at the adopted level of service standards are available concurrent with the impacts of development.

Policy 1001.1.3: By January 4, 1997, Monroe County shall adopt a Stormwater Management Ordinance which establishes level of service standards for the quality and quantity of stormwater discharges for single family residential development and redevelopment which utilizes Best Management Practices and Design Guidelines in their implementation (See Natural Groundwater Aquifer Recharge Policy 1101.2.4).

Policy 1001.1.4: By January 4, 1997, in conjunction with the adoption of the Stormwater Management Ordinance, all improvements for replacement, expansion or increase in capacity of drainage facilities shall conform to the adopted level of service criteria for new development.

Policy 1001.1.5: By January 4, 1997, Monroe County shall adopt Land Development Code which ensure county review of all development permits for compliance with adopted stormwater management design criteria prior to approval by the issuing agency.

Policy 1001.1.6: By January 4, 1998, in conjunction with the development of the Stormwater Management Master Plan, Monroe County shall complete an inventory and analysis of existing public and private drainage facilities within the County. (See Objective 1001.3 and related policies) Note: Monroe County recognizes its obligations under the stipulated settlement agreement but practicality of timeframe implementations may require modifications of agreement date premises.

Policy 1001.1.7: By January 4, 1997, Monroe County shall work with the SFWMD through the existing interlocal agreement to adopt and implement appropriate stormwater quality evaluation and estimation criteria and techniques for incorporation into the County's Stormwater Management Ordinance and Land Development Code.

Objective 1001.2: The County shall maintain a five-year schedule of capital improvement needs for drainage facilities as part of the County Capital Improvements Program. This program shall be updated annually consistent with Capital Improvements Policy 1401.1.2 and in conjunction with the County's annual budget process to ensure economic feasibility.

Policy 1001.2.1: Proposed stormwater capital improvements projects shall be evaluated and ranked according to the following priority level guidelines, with special attention to the position of the project in the Monroe County Seven Year Road Plan:

> **Level One** - Whether the project is needed to protect public health and safety, to fulfill the County's legal commitment to provide facilities and services, to protect sensitive environmental areas from documented or anticipated adverse impacts, or to preserve or achieve full use of existing facilities.
> **Level Two** - Whether the project increases efficiency of use of existing facilities, prevents or reduces future improvement costs, provides service to developed areas lacking full service, or promotes infill development.
> **Level Three** - Whether the project represents a logical extension of facilities and services within a designated service area.

Policy 1001.2.2: Projects needed to correct existing deficiencies shall be given priority in the formulation and implementation of the annual work program for the responsible County department. Specific priority will be given to those existing drainage problems which are determined to have the greatest adverse effect on groundwater and nearshore waters or areas designated as Outstanding Florida Waters.

Objective 1001.3: By January 4, 1998, Monroe County, in coordination with SFWMD and DER, shall complete a comprehensive Stormwater Management Master Plan which ensures that stormwater management facilities are developed to attain adopted levels of service for all existing and proposed land uses.
Note: Monroe County recognizes its obligations under the stipulated settlement agreement but practicality of timeframe implementations may require modifications of agreement date premises.

Policy 1001.3.1: Monroe County shall implement the findings of the adopted Stormwater Management Master Plan and use the document as a guide for stormwater management to protect personal property and to protect and improve water quality.

Policy 1001.3.2: By the effective date of this Plan, Monroe County shall enter into an agreement with EPA, DER, SFWMD and NOAA regarding the scope of studies required to document pollutant loads from stormwater runoff from the Florida Keys into surrounding waters. These studies shall be executed according to the terms of the agreement, in coordination with the Water Quality Protection Program for the Florida Keys National Marine Sanctuary. Upon execution of this agreement, the scope of the Stormwater Management Master Plan shall be adjusted accordingly. (See Conservation and Coastal Management Policy 202.1.1.)

Policy 1001.3.3: By January 4, 1998, the County shall evaluate the performance of stormwater management systems which are to be installed in accordance with the Stormwater Management Ordinance. This performance evaluation will be based upon physical sampling and analysis of the discharge water of these structures.

Objective 1001.4: By January 4, 1998, Monroe County shall coordinate with the appropriate regional agencies and adjacent local governments to address regional drainage issues.

Policy 1001.4.1: Monroe County shall, as necessary, enter into interlocal agreements with Dade, Broward and Collier Counties, and with agencies having regional oversight over drainage issues, such as SFWMD and the ACOE. These agreements shall be designed to:

1. protect the functions of natural drainage features that impact the quality of the waters surrounding the Florida Keys; and

2. coordinate the extension or increase in capacity of any interjurisdictional drainage facilities which are necessary to meet the future needs of Monroe County.

Policy 1001.4.2: Prior to any revision of drainage policies and ordinances, Monroe County shall meet with the SFWMD and the SFRPC to ensure that the local regulatory framework is consistent with the planning objectives and regulations of the region.

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D. Strategies:

- The focus of the SMMP was on public facilities, and did not address the needs of many of the private stormwater management systems throughout the County. To this end, in an effort to provide increased control of water quantity, enhance water quality, and effectively manage stormwater, the feasibility of creating a county-wide Stormwater Utility entity, pursuant to Chapter 403, F.S., should be examined. Under the Utility, developed parcels of property could be assessed a fair and equitable user fee based upon that property's amount of impervious surface or other criteria. This user fee could then be used by the utility to correct existing deficiencies and provide for future facilities in the stormwater management system. The utility fee could also provide ongoing revenues for operation and maintenance of the public system.

- Section 114-3 of the MCLDC provides stormwater management criteria compliant with existing federal and State criteria, and Section 114-4 provides for revisions to 114-3 to maintain compliance. Impending State and federal nutrient rules for surface water and forecast climate change-driven changes to sea level and storm patterns may require revision to the LDC..

- 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 Monroe County Department of Public Works should inventory and evaluate their effectiveness and identify flooding issues to resolve common issues.

- The County should periodically sample the discharge from stormwater management systems to determine compliance with the water quality requirements of the MCLDC and modify BMP recommendations as appropriate to improve the performance of future systems.

V. Climate Change/Hazard Mitigation

Issue Statement: ***Monroe County should support and promote "green" initiatives; address climate change; and develop and implement hazard mitigation/adaptation best practices.***

A. Background: Within the U.S., fossil fuel combustion accounts for the majority of carbon dioxide (CO_2) emissions. Fossil fuels are generally combusted for the purpose of producing energy for useful heat and work (U.S. EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2008). The five major fuel consuming sectors contributing to CO_2 emissions from fossil fuel combustion are electricity generation, transportation, industrial, residential, and commercial. Changes in land use and forestry practices can also emit CO_2 (e.g., through conversion of forest land to agricultural or urban use) or can act as a sink for CO_2 (e.g., through net additions to forest biomass). The term "sink" used in this context is any process, activity or mechanism which removes greenhouse gases from the atmosphere. Transportation and electricity generation are typically the largest contributors of CO_2 emissions from fossil fuel combustion.

Global warming is the gradual rise of the Earth's surface temperature. The Earth's average temperature has increased by about 1°F (0.5°C) over the past century. An increase in global warming has occurred in the distant past as the result of natural influences, but today, the term is most often used to refer to the warming as a result of increased emissions of GHGs. There are six GHGs regulated under the Kyoto Protocol. These GHGs are: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Although the direct GHGs CO_2, CH_4, and N_2O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations.

Much of the sunlight that reaches the Earth's surface is reflected upward again as infrared radiation. The heat caused by infrared radiation is absorbed by gases such as water vapor, carbon dioxide, ozone and methane, thus retaining some of that heat in the Earth's atmosphere. This action regulates the Earth's climate. The increased accumulation of GHGs results in more infrared radiation trapped and held in the Earth's atmosphere. It is this warming trend that causes other climate change impacts.

B. Analysis: Anthropogenic (human induced) activity is now widely accepted by the overwhelming majority of the world's scientists as the major cause of recent and predicted future global climate change (Karl et al., 2009; IARU, 2009). Climate change is not only driven by the accumulation in the atmosphere of GHGs from the burning of fossil fuels, but also deforestation, land use, and agricultural practices (Heimlich et al., 2009). These influences on GHG emissions result in changes to regional climate characteristics, including atmospheric and ocean temperatures, humidity, precipitation, wind, and severe weather events. The changes are occurring at different rates and levels across the world.

Historically, societies and ecosystems have responded to climate change by adjusting and adapting to the natural variability of climate conditions, but the rate that climate change has been occurring in the last century has begun outpacing the conditions of the past. Our ability to mitigate[15] GHG emissions will affect the magnitude of the climate change impacts to which we will need to adapt.[16] "Vulnerability" to climate change refers to the exposure, sensitivity, and adaptive capacity of systems to climate change (Intergovernmental Panel on Climate Change).[17] Mitigation of GHG emissions and adaptation to climate change are inextricably linked, and both are required to reduce the impacts we have been, and will be, seeing.[18] Resilience to climate change is the capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy and the environment (Council on Environmental Quality "CEQ" 2010). It is this final response of "resilience" that the County seeks to achieve with this Energy Conservation and Climate Element.

The County is on the front lines of climate change impacts such as sea level rise and increased hurricane intensity. Recognizing the need to simultaneously mitigate GHGs attributable to energy use and prepare for the gradual but accelerating impacts of climate change, the County has already proactively taken several actions.

The County has adopted a GHG target for county operations (Resolution 067-2010), including a reduction of countywide GHGs of 20 percent by 2020 as measured from a 2005 baseline inventory. The County has adopted green building standards for County Facilities with Resolution 147-2010; building upon the energy requirements in the Florida Building Code by incorporating the Florida Green Building Coalition's green commercial building standard for county buildings, as the standard to be used for construction of all public buildings. Finally, the County established the "Employee Green Team" in December 2009 to develop a government operations climate action plan.

Although not traditionally considered a strategy to address energy conservation and climate change, State and federal guidance and regulations pertaining to mitigation planning already require the identification of mitigation goals that are consistent with other goals, mission statements and vision statements (a Local Mitigation Strategy "LMS"). The previous Comprehensive Plan included Goal 217: "Monroe County shall develop and implement a program of hazard mitigation and post-disaster redevelopment to increase

[15] Mitigation is an intervention to reduce the causes of changes in climate, such as through reducing emissions of greenhouse gases in the atmosphere. The White House Council on Environmental Quality, "Progress Report of the Interagency Climate Change Adaptation Task Force: Recommended Actions in Support of a National Climate Change Adaptation Strategy" (October 5, 2010).

[16] Adaptation is the adjustment in natural or human systems to a new or changing environment that exploits beneficial opportunities or moderates negative effects. *Id.*

[17] Differences in geological, oceanographic and biological processes can also lead to substantially different impacts on a single coastal system at different locations. Some global patterns and obvious areas of vulnerability are clear, however, estuaries, coral reefs, and ice-dominated coasts appear most vulnerable to either climate change or associated sea-level rise and changes. Low-lying coastal wetlands, small islands, sand and gravel beaches and soft rock cliffs may also experience significant changes (IPCC, 2001).

[18] *Id.*

public safety and reduce damages and public expenditures." The LMS Working Group first developed a set of goals as part of the 1999 LMS. These goals were reviewed and confirmed for the LMS revision in 2005, with one minor addition. The goals were discussed and reconfirmed for the 2010 Update. Monroe County Local Mitigation Strategy Goals include[19]:

- Preservation of sustainability of life, health, safety and welfare;
- Preservation of infrastructure, including power, water, sewer and communications;
- Maintenance and protection of roads and bridges, including traffic signals and street signs;
- Protection of critical facilities, including public schools and public buildings;
- Preservation of property and assets;
- Preservation of economy during and after disaster, including business viability; and
- Preservation and protection of the environment, including natural and historic resources.

Much of the LMS can provide baseline information in terms of what the County vulnerabilities are related to storm events, and additionally, projected impacts from climate change.

The Green Initiative Task Force was created on June 18, 2008 (Resolution 177-2008) by the Board of County Commissioners ("BOCC".) Originally called the Green Building Code Task Force, the name and mission, was officially changed with the adoption of Resolution 121-2009 on April 15, 2009. Membership of the task force consisted of two appointments made by each Commissioner (the BOCC had the discretion to nominate one member from their own district and one member from the County at large), and one member from each of the municipalities, utilities and the Navy (Resolution 024-2010). The task force was sunsetted on October 1, 2010 (Resolution 345-2008). The task force was coordinated by the Extension Services under the office of the County Administrator (Resolution 446-2009). The scope of the task force was to provide recommendations to the BOCC on environmentally sound practices and techniques to protect the environment as well as address climate change mitigation and adaptation needs. The task force also provided recommendations on green standards for implementation to improve quality of life and create more efficiency in County government.

The Green Initiatives Task Force completed a *Sustainable Vision Statement* in September 2010 with several key recommendations to address energy conservation and climate change. In the development of *Sustainable Vision Statement*, the Green Initiatives Task Force reviewed much of the data shaping energy and climate policy and management approaches in Florida. This data included recent analysis by the SFWMD, the U.S. Army Corps of Engineers, other local government energy/climate change initiatives and State and federal laws. That best available data serves as the basis for this Energy Conservation and Climate Element.

[19] Monroe County and Incorporated Municipalities Key West, Marathon, Key Colony Beach, Layton, and Islamorada Village of Islands, "Local Mitigation Strategy", 2010 Update.

In relation to the Plan, the task force made the following recommendation: "The Monroe County Comprehensive Plan should include strategies to address the impacts of climate change. Adaptive management principles should be used to continually review and revise climate mitigation and adaptation policies, objectives, and Land Development Regulations." Revisions to the Plan may include:

- Create a Climate Change Element or Sub-Element within the Plan which can be a model to other local government efforts;
- Address greenhouse gas reduction and energy conservation strategies that promote compact, bicycle and pedestrian-friendly development; increase public transportation; reduce reliance on automobiles, the construction of energy efficient buildings; and address the potential effects of rising sea levels, tropical storms, storm surge, and other climate change issues; and

- Consider climate change impacts as a factor in determining whether or not to permit additional intensity or density in land use plan changes."

An additional recommendation was also made:

> *Monroe County should continue to support the livable communities concept which promotes functional, walk-able mixed use development designs and projects by providing flexibility in development review for these projects, revising the zoning and land development codes to allow and encourage these projects, establishing incentives for this type of development, and adopting specific goals in the Comprehensive Plan to support and establish sustainable development patterns.*

Because the *Sustainable Vision Statement* was accepted by the BOCC on September 15, 2010, those recommendations also provide a basis for the development of policies in this EAR and the new Plan.

The Southeast Florida Regional Climate Change Compact (the "Compact") is a joint commitment of Monroe, Broward, Miami-Dade and Palm Beach Counties to partner in mitigating the causes and adapting to the consequences of climate change. The Compact was formalized in 2009 following the Southeast Florida Climate Leadership Summit, when elected officials came together to discuss challenges and strategies for responding to the impacts of climate change. The Compact outlines a collaborative effort to participate in a Regional Climate Team toward the development of a Southeast Florida Regional Climate Change Action Plan. Specifically, the Compact includes seven commitments on the part of the participating counties:

- Each county shall work in close collaboration to develop a joint policy position urging the United States Congress to pass legislation that recognizes the unique vulnerabilities of Southeast Florida to the impacts of climate change and to further a joint policy

position that includes specific recommendations regarding the allocation of federal climate change funding based on vulnerability to climate change impacts.

- Each county shall work in close collaboration with the other counties to develop additional legislative policy statements relating to global climate change and future legislation to be considered by Congress for transmittal to the local delegation members.

- Each county shall work in close collaboration to develop joint position statements on proposed State legislation and energy/climate policies.

- Each county shall work to develop joint position statements for future State legislation.

- Each county shall commit appropriate staff resources and expertise, within budget constraints, to participate in a Regional Climate Team with other counties toward the development of a Southeast Florida Regional Climate Change Action Plan.

- Each county shall work to develop a Southeast Florida Regional Climate Change Action Plan. The Action Plan could, at a minimum, include the following components:

    - A baseline of greenhouse gas emissions for Southeast Florida;
    - Strategies for coordinated emission reductions throughout the built environment to include the use of energy efficiency, energy conservation, and the use of demand-side renewable energy resources;
    - Strategies for coordinated emission reductions from the transportation sector to include increased reliance on public transit, emerging vehicle technologies, and advanced biofuels;
    - Strategies for coordinated emission reductions resulting from changes in local and regional land use;
    - Strategies for the coordinated regional preparation for and adaptation to a rapidly changing global environment based upon regional mapping of projected sea-level rise and any resulting amplification of localized impacts of tropical cyclone events. Such strategies shall incorporate climate preparation concerns for the regional economy, regional infrastructure and the built environment, social and cultural needs, and natural systems within the four counties party to this compact; and
    - Each county shall commit to participating with other counties party to this compact in hosting the Second Southeast Florida Regional Climate Change Summit in October 2010.

There are also several work groups and sub-groups compiling information to complete work products including a Greenhouse Gas Work Group, Vulnerability Work Group, Sea Level Rise Work Group. Finally, the Regional Climate Change Action Plan is being developed with a strategy of focusing on priority planning areas, narrowing that focus through vulnerability and risk analysis and integrating it with the concepts of mitigation and adaptation. The Focal Areas of the Plan include: Land and Natural Systems,

Transportation and the Built Environment. A Draft document is anticipated for completion by December 2011.

In 2010, the County, along with the City of Marathon, City of Key West and Islamorada, Village of Islands, received a State grant from the Florida Energy and Climate Commission. The collective grant application known as the "Keys Energy Conservation Initiative" identified different projects for use of the grant funds. The County's projects included: an Energy Efficiency and Conservation Strategy for County Operations and Facilities, energy retrofits at four buildings, and the purchase of five hybrid vehicles for its fleet. Across all jurisdictions, the Grant includes funds for a low-income solar hot water heating installation program and a public awareness and outreach strategy on energy conservation and climate mitigation strategies. The Grant activities will be concluded by 2012.

In January 2011, the BOCC adopted Resolution No. 002 - 2011 forming the Climate Change Advisory Committee. The purpose of the Climate Change Advisory Committee is to make recommendations to the BOCC regarding appropriate mitigation and adaptation policies needed to address climate change issues and to provide input to staff regarding implementation of those components of a Florida Energy & Climate Commission Grant received by the County and multiple partners. The Grant includes funds for community input and intergovernmental coordination on energy and climate issues. The Committee will also provide input on climate action plans and other climate related draft reports as needed.

HB 7207 amending Chapter 163, F.S. also included a new concept in State law known as an "Adaptation action area" or "adaptation area" which means 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 purpose of prioritizing funding for infrastructure needs and adaptation planning." Section 163.3164(1) F.S. The law also provides that at the local government's option, they can develop an adaptation action area designation for "those low-lying coastal zones that are experiencing coastal flooding due to extreme high tides and storm surge and are vulnerable to the impacts of rising sea level:. Local governments that adopt an adaptation action area may consider policies to improve resilience to coastal flooding resulting from high-tide events, storm surge, flash floods, Stormwater runoff, and related impacts of sea level rise. Criteria for the adaptation action area may include, but need not be limited to, areas for which the land elevations are below, at, or near mean higher high water, which have an hydrologic connection to coastal waters, or which are designated as evacuation zones for storm surge, Section 163.3177(6)(g)10, F.S.

Trends in CO_2 emissions from fossil fuel combustion are influenced by many long-term and short-term factors. Year in and year out, the overall demand for fossil fuels generally shifts in response to changes in general economic conditions, energy prices, weather, and the availability of non-fossil alternatives. Longer-term changes in energy consumption patterns, however, tend to be more a function of aggregate societal trends that affect the

scale of consumption (e.g., population, number of cars, size of houses, and number of houses), the efficiency with which energy is used in equipment (e.g., cars, power plants, steel mills, and light bulbs), and social planning and consumer behavior (e.g., walking, bicycling, or telecommuting to work instead of driving) (U.S. EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008). Direct GHG emissions are emissions from sources that are owned or controlled by the reporting entity such as energy use for the electricity generation by utilities. Indirect GHG emissions are emissions that are a consequence of the activities of the reporting entity, but occur at sources owned or controlled by another entity. The residential and commercial end-use sectors are reliant on electricity consumption for lighting, heating, air conditioning, and operating appliances and as such are indirect emissions sources. Direct emissions, used in industrial, commercial and residential sectors, represent the greatest share of U.S. GHG emissions.

Energy use from the transportation sector is approximately 32 percent of CO_2 emissions, 24 percent of CH_4 emissions, and 65 percent of N_2O emissions from fossil fuel combustion, respectively. Among domestic transportation sources, light duty vehicles (including passenger cars and light-duty trucks) represents 62 percent of CO_2 emissions, medium-duty and heavy-duty trucks 22 percent, commercial aircraft seven percent, and other sources nine percent. From 1990 to 2008, transportation GHG emissions rose due to increased demand for travel and the stagnation of fuel efficiency across the U.S. vehicle fleet.

Over the 1990s through early this decade, growth in vehicle travel substantially outweighed improvements in vehicle fuel economy; however, the rate of Vehicle Miles Traveled growth slowed considerably starting in 2005 (and declined rapidly in 2008) while average vehicle fuel economy increased. The number of vehicle miles traveled by light-duty motor vehicles (passenger cars and light-duty trucks) increased 37 percent from 1990 to 2008, as a result of a confluence of factors including population growth, economic growth, urban sprawl, and low fuel prices over much of this period. A similar set of social and economic trends has led to a significant increase in air travel and freight transportation. But, with EPA and the National Highway Traffic Safety Administration (NHTSA) taking regulatory steps toward mandating reductions in GHG emissions, and fuel use from cars and light trucks, coupled with future regulatory steps related to fuel economy standards, transportation related emissions could see future decreases.

The Intergovernmental Panel on Climate Change *2006 Guidelines for National Greenhouse Gas Inventories* (IPCC 2006) recommends consideration of the effects on changes within, and conversions between, certain land-use types such as undeveloped or forest land to development. The impact of considering these changes is significant. Land use, land-use change, and forestry activities in 2008 resulted in a net carbon sequestration offset of approximately 13.5 percent of total U.S. CO_2 emissions.

Alternative development scenarios demonstrate that location, density, proximity, connectivity, diversity of land uses and other concepts can be important in reducing GHG emissions. The overall composition of development patterns, housing and buildings

types such as single-family, multi-unit and multi-story also have an influence over energy use. Transit Oriented Development and Transit Ready Development and transit served neighborhoods are all strategies that have been used in other communities to reduce vehicles miles traveled. When considering GHG emissions from land use, a land-use or management trend factor estimates the rate at which land-use or management changes are occurring within the geographic area during a specific timeframe. The land-use trend factor is then applied to the baseline to reflect the changing land-use or management practices in an area.

Energy use in homes and businesses is typically a large sector of GHG emissions. The U.S. Energy Information Administration (EIA) indicates total energy use from these sectors at 7 percent of electricity sales.[20] In homes, several factors influence energy use: the physical characteristics of the housing units, the appliances utilized including space heating and cooling equipment, demographic characteristics of the household, the types of fuels used, and other information that relates to energy use.

According to the EIA, commercial buildings include all buildings in which at least half of the floor space is used for a purpose that is not residential, industrial, or agricultural; therefore, they include building types that might not traditionally be considered "commercial," such as schools, correctional institutions, and buildings used for religious worship. This includes retail and wholesale stores, hotels and motels, restaurants, and hospitals. Excluded from the sector are the goods-producing industries: manufacturing, agriculture, mining, forestry and fisheries, and construction. Analysis of the structures, activities, and equipment associated with different types of buildings is the clearest way to evaluate commercial sector energy use.

Generally, a large portion of GHG emissions is related to energy use in resource acquisition, manufacturing, transportation, and end‐of‐life life‐cycle stages. The total energy consumed related to waste management activities is a result of direct fuel and electricity consumption associated with raw material acquisition and manufacturing, fuel consumption for transportation, and embedded energy. Not all GHG emissions are related to energy, however, and the effects of GHG are not directly translatable to energy impacts. Alternative materials management practices, source reduction, recycling, combustion, composting, and landfilling strategies all can be used to reduce GHGs. The EPA Office of Solid Waste and Response found that 42 percent of U.S. 2006 GHG emissions were associated with the manufacturing, use and disposal of materials and products. As a result, changing materials management patterns is an important strategy to help reduce or avoid GHG emissions. Reducing the amount of materials used to make products, extending product life spans and maximizing recycling rates are examples of possible materials management strategies that can significantly reduce GHG emissions.

Source reduction, or waste prevention, refers to practices that reduce the amount of materials entering the waste stream, including changes in the design, manufacture, purchase or use of materials. When a material is source reduced, GHG emissions

[20] Electric Power Monthly, Table 5.1, April 22, 2009.

associated with producing the material and/or manufacturing the product and managing the post‐consumer waste are avoided. Consequently, source reduction provides GHG emission benefits by: (1) avoiding the "upstream" GHGs emitted in the raw material acquisition, manufacture and transport of the source‐reduced material; (2) increasing the amount of carbon stored in forests (when wood and paper products are source reduced); and (3) avoiding the downstream GHG emissions from waste management.

EPA defines recycling as "minimizing waste generation by recovering and reprocessing usable products that might otherwise become waste (i.e., recycling of aluminum cans, paper and bottles, etc.)" (EPA, 2008). In evaluating the relative GHG reduction benefits of recycling compared to an existing materials management practice (i.e., evaluating the benefits of recycling relative to source reduction, composting, combustion or landfilling), the recycling GHG emissions must be compared against the corresponding emission factors for the existing management practice. According to the EPA, source reduction techniques, such as double‐sided copying and reducing the weight of products (light‐weighting) are important in reducing energy because source reduction significantly lowers energy consumption associated with raw material extraction and manufacturing processes.

During composting, microbial decomposition aerobically transforms organic substrates into a stable, humus‐like material (Brown and Subler, 2007). Composting results in some carbon storage (associated with application of compost to agricultural soils), as well as minimal CO_2 emissions from transportation and mechanical turning of the compost piles. The GHG reduction benefits from composting include a comparison between composting and other possible disposal options for yard trimmings (i.e., landfilling and combustion).

According to the EIA, the solid waste industry currently produces more than half of America's renewable energy, more than combined energy outputs of the solar, geothermal, hydroelectric, and wind power industries. Landfill-gas-to-energy projects involve capturing methane and waste-to-energy activities displace fossil fuel sources and lower landfill methane emissions by diverting waste from landfills helping to reduce GHG emissions.

In the unincorporated County, disposal of solid waste is currently handled by three transfer station operations where waste is prepared for transportation and disposal at an out of county location. The County provides recycling services for residential properties but businesses must arrange for service with local providers as outlined in the Solid Waste Element.

Almost all impacts from climate change relate to increasing air temperatures with global sea level rise largely attributable to the thermal expansion of the oceans and melting of glaciers and ice sheets.[21] Altered precipitation patterns, heat waves, floods and droughts are

[21]If global atmospheric temperatures rise, the oceans will absorb more of that heat and expand known as "thermal expansion". A greater volume of ocean water due to thermal expansion will lead

all related impacts. Not all impacts will be uniform and there will be some variation by location due to differences in atmospheric and oceanic circulation. Inundation, erosion and flooding are also resulting impacts. Areas with greater precipitation will see more sewer overflows, more runoff and nonpoint pollution, and infrastructure overloading. Areas of lesser precipitation with struggle with meeting water demands and habitat shifts. A great area of uncertainty is the combination and interrelationships of these impacts in the future. In particular, predicted changes in storm intensity and sea level rise create the need for integrated potable water, storm water, and wastewater infrastructure planning and greater interagency coordination.

Approximately 100 years ago, early in the Industrial Revolution, sea level rise began to accelerate, averaging about 2 mm/yr during the 20th century and 3.1 mm/yr since 1993 based on satellite altimetry (Cazenave et al., 2008). On average, globally, the sea level has risen by approximately 200 mm (8 inches) during the past century (IPCC, 2007). As illustrated in **Table 30**, a Florida Institute of Technology Report (Maul, 2008) shows an average rate of sea level rise of 2.27 ± 0.04 mm per year from 1915 to 2005 based upon tide gauge readings in Key West, which has the Western Hemisphere's longest sea level record.

Table 30 - Average Rates of Historical Sea Level Rise (Heimlich et al., 2009)

Location	Rate	Source
Global average sea level rise, 1870-1990	2.0 mm/yr	Church and White, 2006
Global Average sea level rise, 1993-2007	3.1 mm/yr	Cazenave et al., 2008
Miami, Florida, 1931-1999	2.39 ±0.22 mm/yr	US EPA, 2009
Key West, Florida, 1913-1999	2.27 ±0.09 mm/yr	Maul, 2008

Source: Heimlich et al., 2009

The rate of sea level rise is accelerating, although scientists differ on that rate of acceleration; over the past 2,500 years south Florida has experienced an average rate of sea-level rise of 3.8 centimeters per century. From 1932 to 2000, tide-gauge data reveals that the sea level rose by 22 centimeters, a rate equivalent to 30 centimeters per century or 8 times higher than the average rate over the past 2,500 years. Today, analysis of satellite data suggests the sea level is rising 50 percent faster than it was just 15 years ago (IPCC 2007). An increasing number of papers concerning future sea level rise due to climate change are appearing in the scientific literature. Publications and reports about future rates of sea level rise to date apply relatively simple empirical correlations and extrapolations based upon limited historical data.

Sea level rise data is generally considered to be a conservative estimate of the impacts for the following reasons:

to a rise in sea level. Lombard, A.; Cazenave, A.; Le Traon, P., Contribution of Thermal Expansion to 1993-2003 Sea Level Rise (2005).

- Most of the sea level rise in the 20th century was due to thermal expansion as a result of rising global temperatures;
- A relatively small contribution was from the melting of ice sheets and glaciers and may not be a reliable guide for the increasing contributions due to melting in the 21st Century; and
- The mechanisms of glacial melt and flow are not well understood (Heimlich et al., 2009) but numerous scientific publications point to acceleration.

Extensive research is underway on this important issue and better projections will no doubt be forthcoming. There does not appear to have been a significant difference in sea level rise during the 20th Century between Southeast Florida and globally; therefore, published predictions for global sea level rise are applicable locally. **Figure 12** shows the diversity of some of these predictions. **Figure 13** shows the current Unified Sea Level Rise Project agreed to by the participants in the Southeast Regional Climate Compact.

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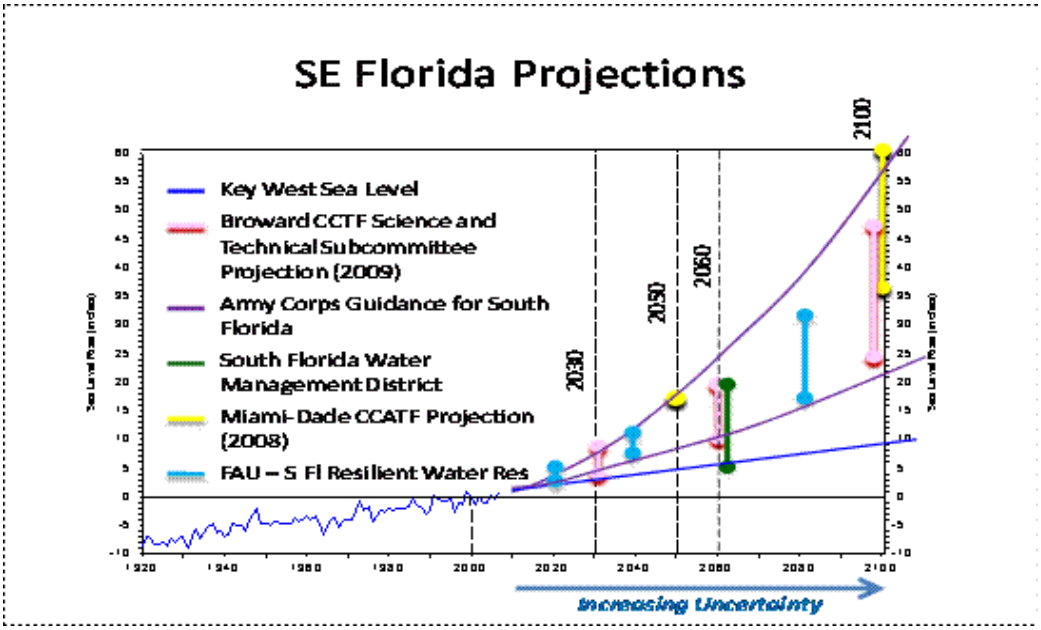
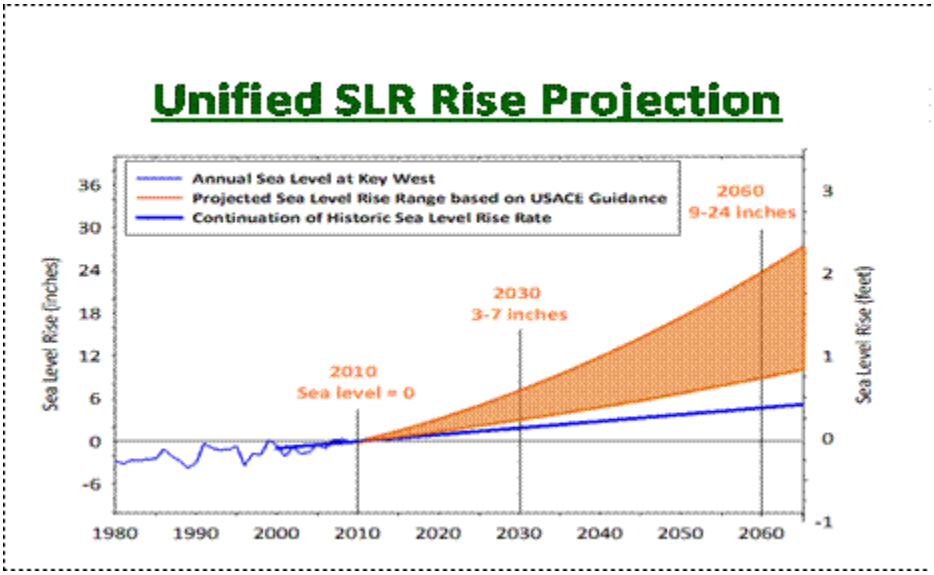


Source: Southeast Florida Regional Climate Change Compact (2011).

Figure 12 – Sea Level Rise Predictions, (SE Regional Climate Compact)



Source: Southeast Florida Regional Climate Change Compact (2011).

Figure 13- Unified Sea Level Rise Projections of the Southeast Regional Climate Compact

The Nature Conservancy (TNC) evaluated the impacts of sea level rise on Big Pine Key and the Florida Keys (Bergh, 2009). In 2007, TNC acquired high-resolution Digital Elevation Models derived from airborne Light Detection and Ranging (LIDAR) data for Big Pine Key and the best-available Digital Elevation Model for the entire archipelago. Future shoreline locations and distribution of generalized habitats of Big Pine Key in the

year 2100 were estimated using sea level rise scenarios described in the scientific literature. Property value loss estimates for Big Pine Key were based on the same 2100 sea level rise projections using 2008 property values. In every scenario, the island becomes smaller, marine and intertidal habitat moves upslope at the expense of upland habitat, and property values are diminished.

In the best-case scenario, 18 cm (7 in.) of sea level rise, 1,840 acres (34 percent) of Big Pine Key are inundated resulting in the loss of 11 percent of the island's upland habitat. This degree of inundation would displace native species dependent on upland habitat and threaten $40 million of property value. Four other scenarios are modeled for Big Pine Key using the same high-resolution data. With a rise of 140 cm (4.6 ft.), the highest modeled rise, about 5,950 acres (96 percent) of the island would be inundated with all upland habitat and $1.6 billion in property value lost (Bergh, 2009).

Under the most optimistic Intergovernmental Panel on Climate Change scenario (a rise of 18 cm over the next 100 years), $11 billion in property value and 58,800 acres are at risk of inundation in the Florida Keys (Bergh, 2009). Under the highest Rahmstorf (2007) estimate (a 140 cm rise by 2100), approximately $35 billion in property value and 142,000 acres are at risk from sea level rise or are already inundated in the Florida Keys (Bergh, 2009).

Plant and animal species and natural processes of ecological systems have evolved to fit specific climate regimes. Certain biological processes (e.g. flowering of plants, migration of birds) and ecological processes (e.g. natural fire regimes, aquifer recharge) are dictated by seasonality and these processes are sensitive to changing climate regimes. Some species may have the ability to adapt to slower changes by dispersing to habitat that meets their needs, but the insular nature of the Keys will prevent species that cannot fly or swim long distances from dispersing naturally and more abrupt climate related shifts may threaten even highly mobile plant and animal species. Ecological disturbances related to climate change (e.g. flooding, storms) also invite an increase in non-native species which compete for resources with native species.

The effects of sea level rise on the natural habitats of the Keys are already apparent. In the publication, "Sea Level Rise and the Reduction in Pine Forests in the Florida Keys," Ross et al. (1994) surveyed upper Sugarloaf Key elevations, vegetation distribution, groundwater salinity and other factors and examined historic aerial photographs from 1935 to 1991, ultimately learning that the area of pine forest on Sugarloaf Key declined from an initial 88 hectares ("ha") (217 acres) before 1935 to 30 ha (74 acres) by 1991. Transformation of pine forest to more salt-tolerant vegetation types proceeded continuously over that time period and advanced from lower to higher elevation, leading the authors to attribute the decline in pine forest area to sea level rise.

Simply stated, as sea level rises, water over land displaces tidal habitat, which moves upslope and in turn displaces transitional habitat, which moves upslope and displaces upland habitat (Bergh, 2009). As sea level rises, some habitats will change rapidly and others will disappear. Although not well documented in the literature yet, it is widely

believed that many native plants and animals, particularly the already imperiled species, those with limited ability to disperse naturally and those dependent upon freshwater or other climate or sea level-sensitive habitat requirements for all or a portion of their lifecycle will have an increasingly precarious existence as sea level rises.

There is ongoing debate regarding whether global warming will increase the frequency or intensity of hurricanes. Regardless, hurricanes are likely to be more destructive to coastal areas because an elevated sea level will cause higher storm surges that will penetrate further inland. Hurricane Wilma caused $215 million in damage to the County. (2005) Based on work by Harrington and Walton (2008), when a similar storm hits the County after sea level rise of 1.02 ft, the damage costs are predicted to be 39 percent higher ($298 million). When a similar storm hits the County after sea level rise of 2.13 ft, the damage costs are predicted to be 72 percent higher ($370 million). The County is more susceptible to increased damage costs than neighboring Miami-Dade County. For the latter storm described above, the percent increases in damage costs from storm surge are substantially higher for the County (72 percent) than Miami-Dade County (31 percent) (Harrington and Walton, 2008).

Hurricane return periods were evaluated by FEMA in a Flood Insurance Study for the County (FEMA, 2005). The purpose of the County *Flood Insurance Study* was to develop flood risk data for various areas of the County, to establish actuarial flood insurance rates, and assist the county in promoting sound floodplain management. Hurricane Wilma resulted in a 2.76-foot (0.84 m) high surge in the County. Based on FEMA's study, it was classified as a 7.35-year hurricane event. For sea level rise scenarios of 0.28 ft (8.53 cm) and 1.02 ft (0.31 m) (Florida State University's Beaches and Shores Resource Center estimates for years 2030 and 2080), the same hurricane storm surge as Wilma would be reduced from 7.35 years to 6.04 years and 3.61 years, respectively.

For a 0.49-foot (14.9 cm) and 2.13-foot (0.65 m) scenario (Intergovernmental Panel on Climate Change estimates for years 2030 and 2080), the same hurricane storm surge would be reduced to 5.22 years and 1.65 years, respectively. It is important to note that at a given elevation, sea-level rise increases the likelihood of storm-surge flooding and synergistic effects between these two variables could cause upland habitat to be reduced more rapidly than predicted. For example, sea-level rise has rendered pine forests in the Keys more vulnerable, by reducing the area capable of capturing precipitation and recharging fresh groundwater supplies.

Droughts that sometimes follow late- season hurricanes can further diminish the volume of freshwater available to dilute salts deposited by storm surge. A second mechanism that may exacerbate the situation is that the background level of the water table is brought closer to the surface resulting in reduced drainage capacity. The interaction between sea

level rise and storm surge will soon reach a tipping point with respect to the maintenance of freshwater ecosystems in the County.[22]

Oceans are being acidified by carbonic acid formed from dissolved carbon dioxide and a corresponding decrease in pH; this is detrimental to marine resources. The oceans have absorbed about 50 percent of the carbon dioxide released from the burning of fossil fuels, resulting in chemical reactions that lower ocean pH. This has caused an increase in hydrogen ion (acidity) of about 30 percent since the start of the industrial age through a process known as ocean acidification. A growing number of studies have demonstrated adverse impacts on marine organisms, including (1) the rate at which reef-building corals produce their skeletons decreases, (2) the ability of marine algae and free-swimming zooplankton to maintain protective shells is reduced, and (3) the survival rate of larval marine species, including commercial fish and shellfish, is reduced. The reduced rate of coral reef building could lead to diminished resiliency from bleaching, disease, and coral death. Reef building rates could decrease to levels insufficient to maintain reefs in any oceans when atmospheric carbon dioxide levels reach approximately 840 parts per million, which may be reached by the year 2100 (NOAA, 2008).

While the precise level of sea level rise, or speed with which it rises, may not be known, sea level rise will reduce the amount of fresh water available for potable water use. The County's wellfields in Miami-Dade County are at risk from sea level rise impacts because of the low elevation of southern Miami-Dade County and the elevation of the groundwater within the Biscayne Aquifer close to the surface level. The easterly wellfields of Miami-Dade County are at risk from saltwater intrusion caused by sea level rise, and to the west, inundation of the southern Everglades with seawater would also affect the Biscayne Aquifer (Heimlich et al., 2009). This impact will be even more pronounced during the dry season potentially impacting the location and continued productivity of certain wellfields. The relationship between future growth and alternative water supply planning will become an even more important consideration as traditional water resources will become impacted in the future from sea level rise.

In the future, increased water conservation through demand management will become even more important as supplies could become scarce. Equally important is that reduction of water use, treatment and distribution through more aggressive water conservation mitigates the use of energy to maintain infrastructure. Cutting the demand for landscape irrigation, generally the highest type of water use, becomes more of a priority to meet both goals. Given the County's history related to water conservation, additional focus should be placed on more upgrades to the efficiency of water use such as in buildings and irrigation infrastructure.

Wastewater Impacts: Wastewater treatment contributes CO_2, CH_4, and N_2O in quantities totaling approximately 3.4 percent of total US GHGs. CO_2 and N_2O are generated in aerobic (e.g. activated sludge) treatment. CH_4 and CO_2 are generated in anaerobic (e.g.

[22] Michael S Ross, Joseph J O'Brien, R Glenn Ford, Keqi Zhang, and Anne Morkill, "Disturbance and the rising tide: the challenge of biodiversity management on low-island ecosystems", Front Ecol Environ 2009; 7, doi:10.1890/070221.

biosolids digestion) treatment. Wastewater treatment facilities use a great deal of electricity to run the equipment. Greater power consumption efficiency in wastewater treatment can significantly lower GHG emissions.

Encouraging full utilization of the energy products from the wastewater treatment process, such as biosolids and methane gases can mitigate some of the impacts from process energy use. The decomposition of the sludge generated in the treatment of wastewater causes significant contributions of methane to the atmosphere. Sludge can be shipped off-site to a landfill or treated on-site by composting, incineration or digestion. Methane emissions generated in these processes are normally lost to the atmosphere, but the process of anaerobic digestion allows the methane to be captured. Due to global interest in reducing greenhouse gas emissions, it is anticipated that anaerobic digesters could be installed to reduce methane emissions from wastewater treatment facilities more commonly. Methane is not only a greenhouse gas; it is also a source of energy when it is burned. As a result, power generators can be installed at wastewater treatment facilities to burn the methane emitted from anaerobic digesters and the electricity can be used to power equipment at the facility.

Impacts to treatment processes, system hydraulics and conveyance facilities may occur at pump stations, plants and distribution lines. Another impact to wastewater infrastructure could stem from increased chlorides in raw wastewater which will result in different treatment requirements depending on whether the wastewater is injected or reused. Flooding may impact wastewater infrastructure as well necessitating protective improvements to maintain capacity and processing of wastewater. In particular, it is noted that the anticipated service life of infrastructure becomes an increasingly important consideration given anticipated climate change.

As sea level rise occurs, drainage and stormwater structures will diminish in their effectiveness to direct and capture stormwater flows. Since the rate of sea level rise is uncertain, this loss of effectiveness will take place over a gradual progression reducing the difference between water levels on either side of a flood control structure (Heimlich et al., 2009). Eventually, a structure could lose its entire operational capacity if the water levels upstream and downstream are equal. Effects of the loss of this operational capacity could occur with as little as three to six inches of sea level rise predicted as soon as the next 10 to 25 years (Heimlich et al., 2009). Additionally, the capacity of the ground to absorb stormwater is reduced.

The lower topography of a region will result in even more challenges for operating flood control structures. The gradual loss of operational capacity of flood control structures could be exacerbated by the increased frequency and intensity of major storm events. These considerations will need to be factored into the design of flood control structures with further specific vulnerabilities identified.

More intense storms will result in increased storm water and non-point runoff. Water quality vulnerabilities will also occur such as increased algae growth, higher levels of water quality indicators such as fecal coliform bacteria and turbidity, pH changes and

higher water temperatures. Aquatic life will be impacted by the change in water temperature and changes in seasonality; changes in nutrient loading; and increased eutrophication. Warmer water temperatures will reduce assimilative capacities of surface waters and increase the impacts of certain pollutants, leading to more impaired waters and more complex water quality and regulatory challenges.

Other infrastructure could be impacted in the future including, but not be limited to, hospitals, libraries, transportation facilities, multi-modal stations and commercial centers. Additional infrastructure impacts that also need to be considered include: historic or archaeological resources, existing landfills, abandoned dump sites, remnant septic tanks and underground storage or petroleum tanks. Determining the life expectancy of a project, as related to capital investment, is also a critical factor to consider for decisions related to the development, or improvement to, infrastructure in the face of sea level rise and other climate change impacts. Economic decisions related to the funding of capital improvements will have to be made in the context of strategies to mitigate impacts to infrastructure.

It is also important to consider the value of the County's "green infrastructure" and the corollary benefits it provides when considering energy and climate issues. Practices such as aggressive onsite water conservation, wetlands and habitat enhancement/maintenance, transportation systems with alternative paving materials and onsite stormwater retention have long been known for their benefits related to heat island effect, water quality improvement, improved air quality, lower energy demand and increased carbon storage. But now, green infrastructure approaches have been recognized to help achieve GHG mitigation and climate change adaptation goals because their benefits are also generally related to their ability to moderate the impacts of climate change such as extreme precipitation or temperature.[23] In many instances, maintenance and enhancement of green infrastructure involves stewardship of the natural setting (e.g. preventing and controlling exotic species invasions, maintaining fire regimes, restoring wetlands, etc.). This concept is also known as Ecosystem Based Adaptation (EBA). For instance in the context of the County, the reefs, natural beaches, coastal berms, wetlands and other natural communities are just as important for protecting people and the built environment from the negative consequences of climate change as "grey infrastructure" such as seawalls, stormwater drains.

A concurrent benefit is that green infrastructure attributes provide these resiliency benefits at a much lower cost than constructed infrastructure components.[24] Green infrastructure approaches can be implemented at the macro level with larger centralized public projects or at the micro level on private property.[25] Economic values can also be placed on green infrastructure assets in terms of carbon sequestration and the cost savings with maintaining certain habitat functions as opposed to constructed solutions such as sea

[23] Foster, Lowe and Winkelman, "The Value of Green Infrastructure for Urban Climate Adaptation", February 2011.
[24] *Id.*
[25] *Id.*

walls.[26] The County could benefit from considering how green infrastructure practices can achieve resiliency goals with less adverse impact and cost.

C. Policy Framework

There are no policies within the existing Plan related to this topic.

D. Strategies

- The County will address energy conservation, climate change, mitigation and adaptation in the context of the Comprehensive Plan and in its role as a signatory to The Southeast Regional Climate Compact.

- The County should discourage sprawl by considering a development's impact or furtherance of the conservation of water and energy.

- Council on Environmental Quality (CEQ) suggests that where climate change effects are likely to be important, but there is significant uncertainty about such effects, it may be useful to consider the effects of a proposed action or its alternatives against a baseline of reasonably foreseeable future conditions that is drawn as distinctly as the science of climate change effects will support. Baseline information is helpful on two levels. First it is helpful in terms of understanding and prioritizing energy use to reduce GHG emissions. Second, it is helpful in terms of understanding what is vulnerable to the impacts of climate change. Without such baseline information on the mitigation or adaptation level, it is difficult to assess the types of strategies to employ to alleviate future impacts.

- To date, the County has initiated an effort to quantify energy use for its facilities and operations. While local government GHG emissions are typically a small percentage of the overall communitywide footprint, this sector of emissions is critical for two reasons. First the County leads by example. Second, knowing a local government's GHG emissions provides a mechanism to prioritize GHG emissions and energy use. Typically, water and wastewater facilities are among the largest and most energy-intensive systems owned and operated by local governments and account for approximately 30-50 percent of municipal energy use according to EPA. Streamlining, retrofitting and implementing efficiency projects at the County level, based on prioritized energy use data, will be critical to meet the County's GHG target for county operations (Resolution 067-2010). Additional countywide GHG emissions data should be collected as it will be useful to help meet the County's goal of a 20 percent countywide reduction of GHGs by 2020 as measured from a 2005 baseline inventory.

[26] For instance a 20% tree canopy over a house results in annual cooling savings of 8-18%. *Id.*

- The consequences of climate change impacts and strategies to address those impacts must be planned for in the future. This includes identification of infrastructure deemed to be "vulnerable" or susceptible to adverse impacts and the resilience factors to be considered. The capacity of that infrastructure to maintain levels of service can then be evaluated. An Asset Management Plan, or harmonizing the County's Local Mitigation Strategy (LMS) process with achieving this goal, could establish a comprehensive baseline of infrastructure under the County's control. This process should also include an inventory of green infrastructure under the County's control. Building upon the existing LMS, additional protection, accommodation, adaptation or resiliency strategies could then be developed to address access and operation of this infrastructure.

- Complicating the identification of vulnerable infrastructure and facilities, social and economic diversity issues will also warrant further review. Different populations will be impacted in various ways and this will be evidenced by issues related to access to affordable housing, infrastructure dependence, wealth and age. The County should consider identifying physical as well as social impacts.

- Upon mapping and prioritizing areas that may be vulnerable to sea level rise impacts, protection, accommodation and retreat strategies can be developed. Protection strategies could include the green infrastructure principles discussed as a means of managing systems to prevent the landward migration of tidally influenced water bodies. This could include shoreline stabilization via shoreline armoring, protection of wetlands and other natural communities that minimize erosion or a combination of engineered and nature-based solutions. This could require analysis of current and future land acquisition practices and priorities for same. Accommodation strategies may include adaptation of buildings or infrastructure to the periodic impacts of storm surges that also account for rise of sea levels. This could include increased or improved management of flood management systems. Retreat strategies include relocation of structures and infrastructure from areas that will be subject to increased and repeated impacts. A County planning effort such as this will also provide necessary information to dovetail with the various Work Groups of the Southeast Regional Climate Compact and the existing LMS. The County should obtain more data based on specific planning horizons. This will assist in determining which strategies to implement and consider in the future.

- The County should consider striving to reach the goal of becoming a resilient community by anticipating, preparing for, responding to, and recovering from significant multi-hazard threats with minimum damage to social well-being, the economy and the environment. To reach this goal, the County should consider employing the "Guiding Principles for Climate Change Adaptation" developed by the CEQ:[27]

    - Adopt integrated approaches;
    - Prioritize the most vulnerable;
    - Use best-available science;
    - Build strong partnerships;
    - Apply risk-management methods and tools;
    - Apply ecosystem-based approaches;
    - Maximize mutual benefits; and
    - Continuously evaluate performance.

- Many of these Guiding Principles are already being implemented by the County such as using best available science and building partnerships and adoption of integrated approaches through maintaining the LMS. But, it is also important to continue monitoring for impacts from climate change throughout the County to achieve better understanding of the timeframe and rate at which impacts will be experienced. This can be done through updating the energy use and infrastructure asset baselines mentioned earlier.

- The County should consider utilizing the recommendations of the Green Initiatives Task Force, the new Climate Change Advisory Committee, and the strategies developed from the Southeast Regional Climate Compact, to develop a more robust climate change response strategy incorporating the concept s of mitigation of GHG emissions, adaptation and resilience to climate change impacts based on the CEQ Guiding Principles.

- The County should consider reviewing the clearing limits in established under Policy 101.4.22. Conserving the remaining natural vegetated habitats, and reducing the amount of vegetation to be removed when a site is developed.

- The County should consider using native shade trees and landscaping to expand green spaces in scarified and developed areas.

[27] Council on Environmental Quality, Implementing Climate Change Adaptation Planning in Accordance with Executive Order 13514, "Federal Agency Climate Change Adaptation Planning", Support Document, March 4, 2011.

- Instead of sod in turf grass lawns, easements, and rights-of-way, the County should consider using native plants and trees to provide greater carbon sequestration.

- The County should consider researching the use of green infrastructure principals such as vegetated roofs and other sustainability practices in construction and renovations.

- The County should encourage water conservation strategies (including but not limited to use of cisterns, stormwater on-site collection systems used for irrigation, and bio-swales) that reduce the demand for surface water treatment in the natural environment while maintaining the viability of freshwater wetlands and upland forested natural communities.

- The shift of the County's land acquisition efforts in recent years to focus on the higher quality hammocks is a natural resource factor affecting energy conservation and as such the County should consider establishing a recurring funding source for effective long-term management of acquired lands which can increase or maintain their carbon sequestration attributes.

- The County should consider developing GOPs for a separate Energy and/or Climate Change Element.

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IV. Public Facilities Funding

Issue Statement: ***Assure adequate capital funding to complete necessary improvements or purchase lands for conservation or affordable housing purposes.***

A. Background: During the series of public workshops to develop the major issues upon which the EAR would focus, concerns were voiced regarding the County's ability to pay for needed wastewater and drainage projects. Additionally, the County maintains a Capital Improvements Program which identifies public capital facility projects to be funded over a five year period. This program identifies each project the County plans to undertake during that time frame, along with estimates of the costs of each project. The Capital Improvements Program serves as a guide for planning the County's public facility projects, and is implemented through an annual capital budget. The County plans for certain facility types through its Capital Improvements Program; while others are provided by independent agencies or by private development.

The MCLDC, Section 114-2 mandates an annual assessment of the roads, solid waste, potable water and school facilities serving the unincorporated portion of the County. In the event that these public facilities have fallen or are below the level of service (LOS) required by the MCLDC, development activities must conform to special procedures to ensure that public facilities are not further burdened. The MCLDC clearly states that building permits shall not be issued unless the proposed use is or will be served by adequate public or private facilities. The *Public Facilities Capacity Assessment Report* distinguishes between areas of adequate, inadequate and marginally adequate facility capacity. Inadequate facility capacity is defined as those areas with capacity below the adopted LOS standard. Marginally adequate capacity is defined as those areas at the adopted LOS standard or that are projected to reach inadequate capacity within the next 12 months.

Chapter 163, F.S. requires that public facilities and services, including sanitary sewer, solid waste, drainage, potable water, and mass transit (if applicable), be available concurrent with the impacts of development. MCLDC, Section 114-2, addresses four of the public facility types (roads, solid waste, potable water, and schools) The Technical Document update (July 2011) establishes new levels of service for all of the facility types with the exception of mass transit. Because mass transit service is not provided by the County, a level of service standard for mass transit is not established; however, *Chapter 5.0 Mass Transit* of the updated (July 2011) Technical Document does establish a level of service for providing paratransit service to the transportation disadvantaged.

B. Analysis: With the exception of the wastewater treatment systems and stormwater projects, the County has adequate funding to meet the capital improvement needs of the residents and property owners of the unincorporated areas of the County.

The following list of improvements was derived from the recent (July 2011) update of the Technical Document section of the County's Plan:

1. Roads: The Division of Public Works is responsible for maintaining and improving County roads, while the Florida Department of Transportation (FDOT) is responsible for maintaining U.S. 1. No roadway improvement projects impacting the level of service are required or planned for County-owned roads.

FDOT Five Year Work Program (Year 2010- Year 2014) includes numerous projects in the County including the installation of bike paths; roadway reconstruction, widening and resurfacing; and adding turn lanes. Several bridge improvements are also planned, including:

- S.R. 5/Overseas Highway/U.S. 1 Indian Key Channel Bridge Project: At Mile Marker 78
  - This project is repairing concrete on the underside of the bridge;
  - Project start date: July 2010 ; and
  - Project estimated completion date: Spring 2011.
  -
  - S.R. 5/Overseas Highway/U.S. 1 Big Pine Key/Spanish Harbor Channel Bridge Repair Project: From Mile Marker (MM) 33.0 to 33.7
  - This project is repairing the bridge. Work also includes painting the walls;
  - Project start date: August 2010; and
  - Project estimated completion date: Spring 2011.

- S.R. A1A/South Roosevelt Boulevard/Riviera Canal/Thompson Creek Channel Bridge Repair Project: At Mile Marker (MM) 2.5
  - This project is repairing the bridge and repaving the bridge;
  - Project start date: July 2010; and
  - Estimated project completion date: April 2011.

- S.R. 5/Overseas Highway/U.S. 1 Tom's Harbor Channel Bridge Repair Project: At Mile Marker (MM) 60.6
  - This project is repairing the underside of the bridge;
  - Project start date: July 12, 2010; and
  - Estimated project completion date: June, 2011.

Mass Transit: The County does not currently operate or have plans to construct mass transit facilities. Therefore, no mass transit capital improvements are required. Although the County does provide paratransit service to the transportation disadvantaged, the costs of providing this service are considered operating rather than capital expenses.

2. Ports: A "port facility" is a harbor or shipping improvements used predominantly for commercial purposes. The only port facility meeting this definition in unincorporated Monroe County, is located on Stock Island. This port is privately owned and operated.

3. Aviation: Within the County, there are eight airport facilities. One of these, Key West International Airport (KWIA) is the only commercial airport currently serving the community. The Florida Keys Marathon Airport (FKMA) provides only general aviation

services, although non-scheduled air taxi service is provided. 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 Key West).

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 ("The Keys").

There are currently no major programmed and/or budgeted projects planned for the near future at KWIA.

At FKMA, there are currently two proposed future airport enhancements: (1) a new hangar by the former Paradise Hangar, and (2) a new Emergency Center Operations facility. While these two facilities are planned for future implementation, neither are currently programmed or budgeted.[28]

4. Potable Water: Potable water service is provided to the County by the FKAA, an autonomous entity created by Chapter 76-441, F. S., as amended. The FKAA has a long range capital improvements plan which addresses both distribution systems and transmission and supply systems improvements through the year 2020. The program's projected expenditures total is $208.6 million, with $47.5 million earmarked for distribution system improvements and $33.5 million earmarked for pump and storage improvements. The FKAA capital improvements plan is to be funded by system development fees and the existing surcharge on water sales.

The FKAA assesses System Development Fees to new and existing customers who modify, add to or construct facilities which impose a potential increased demand on the water system. This fee is charged in order to equitably adjust the fiscal burden of new pipeline and to expand or improve appurtenant facilities between existing customers and new water users. All system development fees are allocated to the direct and indirect cost of capital improvements made necessary by actual and expected increased demand on the water system. In addition, the FKAA is authorized to charge tapping fees, meter test fees, and investigation fees.

5. Solid Waste: Solid waste collection, recycling and disposal in the County is managed by the Public Works Division. Until 1991, the County's solid waste disposal methods consisted of incineration and landfilling on sites on Key Largo, Long Key, and Cudjoe Key. In December 1990, the County entered into a five-year renewable contract with Waste Management, Inc. (WMI) to haul the County's solid waste to the contractor's private landfill in Broward County. In conjunction with this change in the County's solid waste disposal methods, capital expenditures were made to close the three landfills, establish transfer stations at the landfill sites for processing of waste prior to transport out of the County, and initiate recycling programs. Costs of the current haul out contract and recycling programs are considered to be operating rather than capital expenses.

28 URS, Inc., September 2010.

6. Sanitary Sewer: Treatment of sewage and the disposal of wastewater within the County historically have been accomplished through septic tanks, on-site treatment and disposal systems (OSTDS), and small to intermediate sized privately-owned wastewater treatment package plants. With expansion and growth, regional systems consisting of treatment plants and centralized sewer have been built providing a greater level of collection and treatment. Several sewer districts, both private and municipal, have been formed to service more densely populated areas.

The *Monroe County Sanitary Wastewater Master Plan* (SWMP) was adopted in June of 2000 called for several measures including the following:

- Replacement or upgrade of onsite systems to Onsite Wastewater Nutrient Reduction Systems (OWNRS);
- Creation of 12 community collection systems, five of which are to be phased into regional systems;
- Address hot spots with community systems by 2010; and
- Upgrade 17 facilities to BAT/Advanced Wastewater Treatment (AWT) by 2010.

In addition, facilities were to be upgraded to accommodate water reuse programs and the distribution system was to be installed. The major drawbacks to reuse cited in the Master Plan include the lack of large users and economic feasibility. Although originally planned to provide compliance by July of 2010, the Master Plan has fallen short mainly due to a gap in funding.

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 currently remains unresolved.

Through the SWMP, many regional improvements including facilities and collection systems have been identified; and these planned improvements are in various stages of completion. The primary obstruction hindering implementation has been funding.

7. Drainage: Recognizing the present inadequacy regarding surface water management in the County, a Stormwater Management Master Plan (SMMP) was completed in 2001 to assess the need for design of drainage systems in the developed portions of the County; however, the focus of the SMMP is on public facilities, and does not address the needs of many of the private stormwater management systems throughout the County.

The County's present stormwater management practices have been revised, partially as a result of information and recommendations provided in the SMMP. However, these

revised practices have not been adequate to solve all of the problems associated with stormwater management.

The SMMP did identify a significant number of stand alone improvements, some of which have been implemented, that have had positive water quantity and quality impacts in localized areas. A number of SMMP referenced projects are in various stages of completion. Projects identified that have been completed or are in process include: El Prado Circle on Big Coppitt Key, Card Sound Road (SR905A), Marathon Government Center, Burton Drive at U.S. 1 in Tavernier, Jo-Jean Way in Tavernier and Veterans Park in Little Duck Key. It should be further noted, projects associated with U.S. 1 right-of-way are the responsibility of FDOT. The County has partnered with the FDOT on numerous occasions and look forward to maintaining this partnership.

8. Parks and Recreation: The Recreation and Open Space Element, from the July 2011 Technical Document classify recreational areas as being either "activity-based" or "resource-based". Activity-based (or user-based) recreation lands or facilities are not dependent upon a specific resource and are typically developed with recreation and support facilities which can be provided almost anywhere for the convenience of the user. Resource-based recreation lands and facilities focus around a significant natural or preserved resource and include appropriate recreation activities which occur in a particular natural setting of that resource. The Recreation and Open Space Element establishes level of service standards for both activity-based and resource-based recreational land. The projections for recreational lands and facilities for the year 2010 and subsequent years 2015 through 2030 generally show the recreation needs are adequately provided for and will meet future needs of the functional population of the County.

9. Developer Funded Improvements: Developers in the County primarily pay impact fees, connection fees and proportionate fair share funding. Wastewater treatment is provided either on site or through connections to existing systems.

With the exception of wastewater, recreation and open space facilities, local roads and stormwater, capital improvements necessary to maintain the Level of Service are generally provided by external agencies, e.g., potable water (provided by FKAA); US-1 improvements, funded by FDOT and school facilities (Monroe County School Board).

10. Land Acquisition for Conservation and Affordable Housing Purposes: The County's **policies** appear to be adequate related to habitat preservation and a prioritization of land acquisition. The Monroe County Land Authority sets aside 35 percent of its budget to purchase lands for administrative relief for those applicants who qualify.

Additionally, the County's policies relative to land acquisition for affordable housing have been implemented and are ongoing in nature. However, due to land costs and the limited availability for appropriate sites, pursuant to Policy 601.1.14, the Land Authority has had limited opportunities, since the last EAR (August 2004), to purchase lands for affordable housing.

11. Impact Fees: Impact fees are designed to pay for the infrastructure needs that result from development. The fee charged must reflect the cost of the improvements and fee expenditures must directly benefit the fee payer. Impact fees may not be collected or used for public facility deficiencies that existed prior to the development's impact. Historic fees collected by the County are illustrated in **Table 31.** Impact fees are not a large part of the County's budget. The County began charging impact fees in fiscal year 1986 to fund libraries, police, solid waste, parks, and transportation. The County is expected to collect roughly $129,000 in combined impact fees in 2011 (**Table 32**).

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Table 31 – Impact Fee Revenues, Detailed by Fund, 2000 -2010

FUND	Roads	Parks/Rec	Solid Waste	Police	Library
Fiscal Year					
2000	$295,432.00	$75,190.00	$18,314.00	$41,560.00	$59,661.00
2001	$147,866.00	$52,365.00	$15,752.00	$27,254.00	$49,804.00
2002	$268,480.00	$41,490.00	$12,878.00	$24,673.00	$41,655.00
2003	$138,728.00	$59,398.00	$11,185.00	$24,345.00	$44,222.00
2004	$173,090.00	$76,728.00	$13,442.00	$26,693.00	$55,441.00
2005	$168,707.00	$66,640.00	$11,871.00	$24,011.00	$54,242.00
2006	$161,386.00	$46,921.00	$9,884.00	$21,234.00	$58,858.00
2007	$145,393.00	$56,440.00	$9,954.00	$22,961.00	$48,634.00
2008	$104,178.00	$38,080.00	$14,408.00	$31,508.00	$31,618.00
2009	$119,206.00	$40,460.00	$9,635.00	$19,651.00	$38,928.00
2010	$72,975.00	$32,640.00	$6,342.00	$14,773.00	$98,749.00

Source: Monroe County Office of Management & Budget, Dec. 2010.

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Table 32 – Impact Fee Revenue Projections, Detailed by Fund

Fund	FY – 2011	FY – 2012	FY – 2013	FY – 2014	FY – 2015	TOTAL
Roads	$63,000.00	$63,000.00	$63,000.00	$63,000.00	$63,000.00	$315,000.00
Park and Recreation	$24,000.00	$24,000.00	$24,000.00	$24,000.00	$24,000.00	$120,000.00
Solid Waste	$7,000.00	$7,000.00	$7,000.00	$7,000.00	$7,000.00	$35,000.00
Police	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$75,000.00
Library	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$100,000.00
TOTALS	**$129,000.00**	**$129,000.00**	**$129,000.00**	**$129,000.00**	**$129,000.00**	**$645,000.00**

Source: Monroe County Office of Management & Budget, Dec. 2010.

C. Policy Framework

Policy 101.5.4 provides for 2 points in the ROGO system for payment to the Land Acquisition Fund.

Objective 101.6 states that, "Monroe County shall expand the Monroe County Land Authority acquisition program to provide for the purchase of land from property owners who have not been awarded building permit allocations in the Permit Allocation System."

Policy 101.6.1 states that, "Monroe County, the state, or other acquisition agency shall, upon a property owner's request, purchase the property for fair market value or permit the minimum reasonable economic use of the property."

Policy 101.6.2 states that by fiscal year 1998, the Monroe County Land Authority shall dedicate a minimum of 35 percent of its annual budget each year for the purpose of acquiring land from qualified property owners as defined by Policy 101.6.1. Funds accumulated from this source shall be reserved for the acquisition of land from qualified property owners, but may also be used to acquire other properties when deemed appropriate by the Land Authority.

Policy 101.6.3: By January 4, 1998, Monroe County shall identify potential funding sources and seek funding from state, federal, and/or private sources to be used for acquisition of land from qualified property owners as defined by Policy 101.6.1.

Policy 101.6.4: The County will coordinate with DCA to ensure that DCA continues to support enhanced land acquisition efforts in the Keys based on needs identified in this comprehensive plan. This coordination shall ensure continued support of state acquisition efforts under CARL, Preservation 2000 and the Florida Communities Trust programs. The County encourages the Department to work at the state level to create a dedicated acquisition fund for Tier 1 lands on Big Pine Key and No Name Key based on the results of the Carrying Capacity Study, the requirements of the incidental take permit and Habitat Conservation Plan and the Master Plan for Big Pine Key and No Name Key. The County and the Department will also support appropriate legislative changes which will

have the effect of enhancing the Land Authority efforts throughout the County, and the South Florida Water Management District's acquisitions on Big Pine Key. Similarly, cooperation will continue with private acquisition efforts, such as The Nature Conservancy and the Florida Land and Sea Trust.

Policy 101.6.5: Monroe County, the state, or other acquisition agency shall pursue land acquisition through voluntary purchase of lands from private property owners denied a building permit through the Permit Allocation System, as the preferred option for administrative relief pursuant to Policy 101.6.1, if the subject permit is for development located within: 1. a designated Tier I area; 2. a designated Tier III Special Protection Area; or, 3. a designated Tier III area on a non-waterfront lot suitable for affordable housing. Refusal of the purchase offer by a property owner shall not be grounds for the granting of a ROGO or NROGO allocation award.

Objective 102.4: Monroe County in cooperation with the state and other acquisition agencies shall prepare a Land Acquisition Master Plan by July 1, 2005 containing a strategy for securing funding, and a determination of those sources considered appropriate for acquisition and management of conservation lands, retirement of development rights and identification and purchase of sites for affordable and employee housing and recreational purposes. Acquisition priorities should be consistent with the tiered system adopted by this plan and as required by the State Work Program in Policy 101.2.13 in order to identify lands appropriate for voluntary purchase consistent with the comprehensive plan policies.

Objective 105.2: Monroe County shall implement with assistance of the state and federal governments a 20-year Land Acquisition Program to: 1) secure for conservation and passive recreation purposes remaining privately-owned environmentally sensitive lands; 2) retire development rights on privately-owned vacant lands to limit further sprawl and equitably balance the rights of property owners with the long-term sustainability of the Keys man-made and natural systems; and, 3) secure and retain lands suitable for affordable housing. This objective recognizes the finite limits of the carrying capacity of the natural and man-made systems in the Florida Keys to continually accommodate further development and the need for the significant expansion of the public acquisition of vacant developable lands and development rights to equitably balance the rights and expectations of property owners.

Policy 105.2.1: Monroe County shall designate all lands outside of mainland Monroe County, except for the Ocean Reef planned development, into three general categories for purposes of its Land Acquisition Program and smart growth initiatives in accordance with the criteria in Policy 205.1.1. These three categories are: Natural Area (Tier 1); Transition and Sprawl Reduction Area (Tier II) on Big Pine Key and No Name Key only; and Infill Area (Tier III). The purposes, general characteristics, and growth management approaches associated with each tier are as follows:

1. Natural Area (Tier I): Any defined geographic area where all or a significant portion of the land area is characterized as environmentally sensitive by the policies of this Plan and

applicable habitat conservation plan, is to be designated as a Natural Area. New development on vacant land is to be severely restricted and privately owned vacant lands are to be acquired or development rights retired for resource conservation and passive recreation purposes. However, this does not preclude provisions of infrastructure for existing development. Within the Natural Area designation are typically found lands within the acquisition boundaries of federal and state resource conservation and park areas, including isolated platted subdivisions; and privately-owned vacant lands with sensitive environmental features outside these acquisition areas.

2. Transition and Sprawl Reduction Area (Tier II): Any defined geographic area on Big Pine Key and No Name Key, where scattered groups and fragments of environmentally sensitive lands, as defined by this Plan, may be found and where existing platted subdivisions are not predominately developed, not served by complete infrastructure facilities, or not within close proximity to established commercial areas, is to be designated as a Transition and Sprawl Reduction Area. New development is to be discouraged and privately owned vacant lands acquired or development rights retired to reduce sprawl, ensure that the Keys carrying capacity is not exceeded, and prevent further encroachment on sensitive natural resources. Within a Transition and Sprawl Reduction Area are typically found: scattered small non-residential development and platted subdivisions with less than 50 percent of the lots developed; incomplete infrastructure in terms of paved roads, potable water, or electricity; and scattered clusters of environmentally sensitive lands, some of which are within or in close proximity to existing platted subdivisions.

3. Infill Area (Tier III): Any defined geographic area, where a significant portion of land area is not characterized as environmentally sensitive as defined by this Plan, except for dispersed and isolated fragments of environmentally sensitive lands of less than four acres in area, where existing platted subdivisions are substantially developed, served by complete infrastructure facilities, and within close proximity to established commercial areas, or where a concentration of non-residential uses exists, is to be designated as an Infill Area. New development and redevelopment are to be highly encouraged, except within tropical hardwood hammock or pineland patches of an acre or more in area, where development is to be discouraged. Within an Infill Area are typically found: platted subdivisions with 50 percent or more developed lots situated areas with few sensitive environmental features; full range of available public infrastructure in terms of paved roads, potable water, and electricity; and concentrations of commercial and other non-residential uses within close proximity. In some Infill Areas, a mix of non-residential and high-density residential uses (generally 8 units or more per acre) may also be found that form a Community Center.

Policy 105.2.2: Monroe County shall prepare an overlay map(s) designating geographic areas of the County as one of the three Tiers in accordance with the guidance in Policy 105.2.1, which shall be incorporated as an overlay on the zoning map(s) with supporting text amendments in the Land Development Regulations. These maps are to be used to guide the Land Acquisition Program and the smart growth initiatives in conjunction with the Livable CommuniKeys Program (Policy 101.20.1).

Policy 105.2.3: The priority for acquisition of lands and development rights under the County's Land Acquisition Program shall be as follows: Tier I (Natural Area)-first priority; Tier II (Transition and Sprawl Reduction Area) and patches of tropical hardwood hammock or pinelands of one acre or greater in area within Tier III-second priority; and Tier III (Infill Area)-third priority, except acquisition of land for affordable housing shall also be a first priority. These acquisition priorities shall be applied consistent with the Policy 105.2.10 that directs the focus of the County's acquisition efforts to the acquisition or retirement of development rights of privately owned vacant platted subdivision lots within Tiers I and II. Federal, state and local funding will be used for purchasing privately owned vacant lands for Tier II.

Policy 105.2.4: Monroe County shall prepare a specific data base tied to its Geographic Information System, containing information needed to implement, monitor, and evaluate its Land Acquisition Program, smart growth initiatives, and Livable CommuniKeys Program.

Policy 105.2.5: Monroe County shall, in coordination with federal and state agencies, implement a land acquisition program to acquire all remaining privately-owned vacant lands within areas designated as a Natural Area (Tier I).

Policy 105.2.14: Monroe County shall identify and secure possible local sources to yield a steady source of funds and secure increased funding from state and federal, and/or private sources for the Land Acquisition Program and the management and restoration of acquired resource conservation lands. With the uncertainty concerning the County's ability to successfully secure sufficient funding from state and federal governments for their fair share of the financial support for the Land Acquisition Program and the demands placed on the County's limited financial resources to address wastewater and other critical issues, it is recognized that the Land Acquisition Program may extend well beyond 20 years.

Policy 105.2.15: Where appropriate, as part of the Livable CommuniKeys Planning Process, Community Centers shall be designated within areas designated as Tier III (Infill Area). A Community Center is characterized as a defined geographic area with a mix of retail, personal service, office and tourist and residential uses (generally of greater than 8 units per acre). Community Centers shall be designated as receiving areas for transfer of development rights and shall receive special incentives in the non-residential permit allocation system.

Objective 105.3: Monroe County shall implement its 20-Year Land Acquisition Program and smart growth initiatives in conjunction with its Livable CommuniKeys Program and shall make appropriate amendments to this Plan and the Land Development Regulations including, but not necessarily limited to the residential and non-residential permit allocation systems.

Objective 204.4: By January 4, 1998, Monroe County shall establish a program for acquiring high quality undisturbed salt marsh and buttonwood wetlands. (See Future Land Use Objective 102.4 and related policies.)

Policy 204.4.1: The Monroe County Growth Management Division in coordination with the Monroe County Land Authority and other federal and state agencies will continue with wetlands acquisition through Florida Forever program, and other funding mechanisms such as the Monroe County Land Acquisition Fund.

Objective 205.5: Monroe County, together with private, state, and federal agencies, shall establish a program for acquiring native upland habitat to implement Goal 105 and the recommendations in the FKCCS. (See Future Land Use Objective 102.4 and related policies).

Policy 205.5.1: The Monroe County Division of Growth Management shall work cooperatively with the Monroe County Land Authority and other responsible state and federal agencies in developing and administering the acquisition program. Acquisition shall be undertaken to implement the Monroe County Land Acquisition Master Plan (Objective 102.4).

Policy 207.12.2: Sites identified pursuant to Policy 207.12.1 shall be identified as priority acquisition sites for conservation purposes. Particular emphasis shall be placed upon acquisition of identified wetland and native upland sites which are located within Improved Subdivisions. Acquisition shall be considered through the Florida Forever program and other funding mechanisms such as the Monroe County Land Acquisition Fund.

Policy 601.1.13: The Land Authority will coordinate with developers of affordable housing projects when land acquisition proposals or donation requests are submitted to the Land Authority. The Land Authority will acquire and donate land for projects if they are deemed appropriate and acceptable by the Land Authority as meeting the intent of: 1. the affordable housing provisions in the Land Authority's charter; 2. the goals, objectives and policies of this Plan; and 3. the land use designations specified on the Future Land Use Map and in the Monroe County Land Development Regulations.

Policy 601.1.14: The Land Authority shall not list or donate lands as potential affordable housing sites if the lands exhibit any of the following characteristics: 1. Any portion of the land lies within a known, probable, or potential threatened or endangered species habitat, as specified on the most recent Protected Animal Species Maps; or 2. Any portion of the land within the area to be cleared contains Habitat Type/Habitat Quality Group 3 or 4, as specified in Policy 101.5.4, Section 6.

D. Strategies

- The County should consider conducting an impact fee study to determine if the impact fee schedule should be modified.

- The County should explore new funding sources to assist in paying for its capacity related to public facilities and services. This may include adopting new revenue sources (e.g., road toll) and promoting business throughout the County which will expand the tax revenue base.

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V. Affordable Housing

Issue Statement: ***Promote the development of affordable, attainable and senior living housing that is well-planned, attractive and energy efficient.***

A. Background: One of the most challenging issues facing Monroe County is affordable housing. A few of the issues relating to affordable housing in the County are the high cost of land; a limited number of affordable ROGO allocations; and competition for a limited amount of subsidies. Affordable housing may be defined as the ability of a household to purchase a home. As defined by the U.S. Department of Housing and Urban Development (HUD), affordable housing is one in which cost does not exceed 30 percent of a household's gross income. If the cost exceeds 30 percent of the household's gross income, the household is considered to be cost burdened. There are two major factors that define whether a dwelling unit is affordable: household income and cost. Two primary affordable housing indicators are the affordability index and the number of cost burdened households.

The affordability index measures the ability of the median income household in an area to afford a median priced house. In addition to the median income and median house price in an area, the index construction requires the current mortgage interest rate, assumptions about the down payment required to purchase the median price dwelling unit, and the maximum percentage of household income that can be spent on housing. An index of 100 indicates the typical (median) family in the area has sufficient income to purchase a single-family dwelling unit selling at the median price.

The Shimberg Center of Affordable Housing Studies developed an affordability index for all Florida counties in a 2004 study. Median house prices were calculated from the Monroe County Property Appraiser datasets. Median household incomes come from the 2000 decennial US Census. Although important, median sale prices in a county or Metropolitan Statistical Area (MSAs) do not alone determine housing affordability. A second important factor is the income of area residents. The highest household incomes in Florida are generally in the coastal counties that also contain many high priced housing units. However, median household incomes and single-family house prices in an area are only moderately correlated, which can lead to significant differences in housing affordability across counties and MSAs. According to the Shimberg Center study, the County has the lowest affordability index with the least affordable homes. However, the affordability index focuses only on the average incomes and housing prices and does not consider the lowest income householders that would typically rent.

Cost burden is another method of evaluating housing affordability and probably more reliable because it accounts for all income including those that would buy and those that would rent. As mentioned, a household that is cost burdened is one that is paying more than 30 percent of their gross income in housing cost (30 percent is established by HUD as a parameter for an affordable home). Housing cost includes taxes and insurance for owners and utility costs for owners and renters. The Shimberg Study concluded that while 20 percent of owners in the State of Florida are cost burdened, 41.6 percent of

renters are cost burdened or paying more than 30 percent of their income towards housing cost.

B. Analysis: The infrastructure currently in place is adequate to meet the projected population to meet the future needs of County functional population in an effective, economical manner. With only 84 dwelling units anticipated each year from 2010 to 2030, the supporting infrastructure will continue to be maintained to provide the adopted level-of-service standards throughout the community. The County does scheduled maintenance and repair of infrastructure facilities for which it is responsible. The County will maintain an appropriate millage rate to pay for services provided to residents. The County provides the same level, amount, and quality of infrastructure to all residents in all areas without regard to income levels.

Each Livable CommuniKeys Plans includes objectives to maintain housing opportunities for all segments of the population while maintaining the availability of affordable housing and workforce housing for local residents, while preserving the character of the community.

The County relies entirely on the private sector, supplemented by outside government programs, to ensure the provision of adequate housing, while it does not construct housing, it does provide incentives for development. According to the Shimberg Center of Affordable Housing (SCAH), a minimum of 60 percent of the permanent population will need affordable housing assistance or will be making incomes at or below the 120 percent of the area median income. There is a need for affordable housing for those permanent households that are making up to 120 percent of the area median income for renters and up to 160 percent of the area median income for owners.

Currently, the County awards up to 20% of its allocations for affordable housing; (up to 71 ROGO allocations) however, not all of them are being used due to the high cost of land and time. Low-cost housing is difficult to provide; however, there are a number of housing assistance programs available to the residents of the County, including Section 8 and low interest loans; and the County participates in the Community Development Block Grant program and the HOME Investment Partnerships program. The County will, additionally, take the actions available (e.g. residential density bonuses, waiver of fees) to encourage the development of very-low, low, and moderate income housing, where the need for it is identified.

Monroe County Affordable Housing Defined: As defined in Sec 101-1, of the LDC, affordable housing is considered to be one which:

1) Meets all applicable requirements of HUD minimum property standards as to room sizes, fixtures, landscaping and building materials, when not in conflict with applicable laws of the county; and

2) Monthly rent, not including utilities, does not exceed 30 percent of that amount which represents either 50 percent (very low income) or 80 percent (low income) or 100

percent (median income) or 120 percent (moderate income) of the monthly median adjusted household income for the County.

3) Affordable Rental Housing

- Very low income - a rental dwelling unit which monthly rent, not including utilities, does not exceed 30 percent of the amount that represents 50 percent of the monthly median adjusted household income for the county.

- Low income- a rental dwelling unit which monthly rent, not including utilities, does not exceed 30 percent of the amount that represents 80 percent of the monthly median adjusted household income for the county.

- Median income - a rental dwelling unit which monthly rent, not including utilities, does not exceed 30 percent of the amount that represents 100 percent of the monthly adjusted median household income for the county.

- Moderate income - a rental dwelling unit which monthly rent, not including utilities, does not exceed 30 percent of the amount that represents 120 percent of the monthly median adjusted household income for the county.

4) Owner Occupied Affordable Housing

- Very Low Income - a dwelling unit occupied only by a household whose total household income does not exceed 50 percent of the median monthly household income for the county.

- Low Income - a dwelling unit occupied only by a household whose total household income does not exceed 80 percent of the median monthly household income for the county.

- Median Income - a dwelling unit occupied only by a household whose total household income does not exceed 100 percent of the median monthly household income for the county.

- Moderate Income - a dwelling unit occupied only by a household whose total household income does not exceed 160 percent of the median monthly household income for the county.

The County's low paying jobs in the service and tourism industry have failed to keep up with the increasing housing cost even before the recession. Typically, according to the Shimberg Study and HUD, the moderate income range for qualifying for affordable housing assistance is 120 percent of the area median income; however, since the housing prices in the County are disproportionately high, the County and the State allows households making 160 percent of the area median income to qualify for affordable housing assistance (House Bill 1363 Ch. 2006-69, s. 27, Laws of Fla.) for home purchase.

Housing Value and Affordability: As seen in **Table 33**, the median value of specified owner-occupied units, for the County as a whole, according to the 2000 Census, was $241,200. This is an increase of nearly 60 percent from 1990. As seen in the American Community Survey (ACS) for 2006-2008, the 2000 median house value increased by 154 percent in 2008 ($613,900). According to the Shimberg Institute, the average home sales price in 2009 declined to $572,607. The 2009 decline in selling price reflects the economic recession.

Table 33 - Historic Median Housing Value for Monroe County

Year	Value	Percent Change
1970	$16,500	--
1980	$62,200	276.9%
1990	$151,200	143.1%
2000	$241,200	59.5%
2008	$613,900	154.5%
2009	$572,607	-6.7%

Source: U.S. Census, 1970, 1980, 1990, 2000, American Community Survey 2006-2008, and Shimberg Center for 2009 average home sales price.

According to HUD data, the County's area median income in 2010 was $68,400. **Table 34** depicts the household income levels qualifying for affordable housing based on assumed family size for households with a single income provider working 40 hours for both renter and owner housing. This is the best available data and is provided by the County Growth Management Division.

Table 34 - Qualifying Incomes for Single Income Provider (40 hours)

Unit Size	Household size	Owner/ Tenant	Owner/ Tenant	Owner/ Tenant	Tenant	Owner
		Very Low (50 % of AMI)	Low (80 % of AMI)	Median (100 % of AMI)	Moderate (120% of AMI)	Moderate (160% of AMI
Efficiency	1 Person	$24,085	$38,535	$48,169	$57,803	$77,070
1 bedroom	2 Persons	$27,581	$44,129	$55,161	$66,194	$88,258
2 bedroom	3 Persons	$30,811	$49,297	$61,622	$73,946	$98,595
3 bedroom	4 Persons	$34,200	$54,720	**$68,400**[29]	$82,080	$109,440

Source: Monroe County Growth Management, 2010, MCLDC Sec 101-1

For a household comprised of adults related by marriage or domestic partnership registered with the County, only the highest 60 hours of the combined employment hours

[29] Area median income based on HUD.

are counted, and considered to be 75 percent of the adjusted gross income. The income of dependents regardless of age is not counted in calculating a household's income (MCLDC Sec. 130.161). Income levels for domestic partnerships are illustrated on **Table 35** and are the best available data as provided by the County Growth Management Division.

Table 35 - Qualifying Incomes for Married or Domestic Partnership Households (60 hours)

Unit Size	Household size	Owner/ Tenant Very Low (50 % of AMI)	Owner/ Tenant Low (80 % of AMI)	Owner/ Tenant Median (100 % of AMI)	Tenant Moderate (120% of AMI)	Owner Moderate (160% of AMI
Efficiency	1 Person	$32,112	$51,380	$64,225	$77,070	$102,760
1 bedroom	2 Persons	$36,774	$58,838	$73,548	$88,258	$117,677
2 bedroom	3 Persons	$41,081	$65,729	$82,162	$98,594	$131,459
3 bedroom	4 Persons	$45,600	$72,960	$91,200	$109,440	$145,920

Source: Monroe County Growth Management, 2010, MCLDC Sec. 130.161

To compute the monthly maximum rental rates, 30 percent of the household income is divided by 12 (months). **Table 36** illustrates the maximum rental rates by income level in 2010 for single income providers.

Table 36 - Tenant Maximum Rental Rates for Single Income Provider

Unit Size	Very Low (50 % of AMI)	Low (80 % of AMI)	Median (100 % of AMI)	Moderate (120% of AMI)
Efficiency	$602	$ 963	$1,204	$1,445
1 bedroom	$646	$1,033	$1,292	$1,550
2 bedroom	$772	$1,235	$1,543	$1,852
3 bedroom	$883	$1,413	$1,766	$2,119
4 bedroom	$990	$1,584	$1,980	$2,376

Source: Monroe County Growth Management, 2010.

To compute the monthly maximum rental rates, 30 percent of the household income is divided by 12 (months). **Table 37** illustrates the maximum rental rates by income level in 2010 for married or domestic partnership households.

Maximum selling price for an affordable housing unit based on the 2010 median income of $68,400 is illustrated in **Table 38.** As defined by the MCLDC 101-01, the maximum sales price, for an owner occupied affordable housing unit, means a price not exceeding 3.75 times the annual median household income for the County for a one bedroom or efficiency unit, 4.25 times the annual median household income for the County for a two bedroom unit, and 4.75 times the annual median household income for the County for a three or more bedroom unit.

Table 38 - Maximum Selling Price for Affordable Units in 2010

Unit Size	Multiplier	Max Sales Price
Efficiency/1 Bedroom	3.75	$256,500
2 Bedroom	4.25	$290,700
3 Bedroom	4.75	$324,900

Source: Monroe County Growth Management, 2010.

For a median income household made up of two person income providers related by marriage or domestic partnership, the income would be approximately $73,548. For this household, it would be difficult to purchase a market rate home. Typically, the ability to purchase a dwelling unit is calculated by the household income multiplied by three. Therefore, the same household of two income providers would be able to afford a $220,644 market rate home. However, the average market rate price in 2009 was recorded at $572,607. This is an affordability gap of $351,000 . Affordability gap is calculated by subtracting the housing price ($572,607) by the purchase ability ($220,644).

If the same family were to be qualified to purchase an affordable dwelling unit, and were to purchase efficiency or 1 bedroom apartment, the selling price would have to be no greater than $275,806, applying the 3.75 multiplier as seen in **Table 38**.

Owner Occupied Housing Value: The distribution of specified owner-occupied units within the County and the median value trends are shown in **Table 39** and are based on unincorporated County data acquired an April 2010 from the Florida Housing Data Clearinghouse (FHDC). The FHDC provides public access to data about housing in Florida. Data for unincorporated County was acquired from the FHDC and is based on 2000 Census data.

Table 39 - Distribution of Owner-Occupied Housing by Value, 2000

Housing Value	Number of Units	Percent Distribution
<$50,000	31	0.4%
$50,000-$99,999	350	4.9%
$100,000-$149,999	1,240	17.2%
$150,000-$199,999	1,470	20.4%
$200,000-$299,999	1,874	26.0%
$300,000-$499,999	1,447	20.1%
$500,000-$999,999	495	6.9%
>$1,000,000	291	4.0%
Total	**7,198**	**100.0%**

Source: Florida Housing Data Clearinghouse, April 2010
Note: Excluding mobile homes

The 2010 data in **Table 39** indicates that less than one percent of units were valued below $50,000 according to the Florida Housing Data Clearinghouse less than five percent were valued below $99,999; approximately 94 percent of units were valued at over $100,000. When comparing owner occupied housing value to the 2000 median value, there were 42.9 percent of the owner occupied housing that falls below the median value ($241,200).

As a comparison, the distribution of specified owner-occupied units within the County and the median value trends for 1990, are as reported in the "Housing Element" of the Technical Document of the *2010 Monroe County Comprehensive Plan* as adopted in 1995, are shown in **Table 40**. It is important to note that at the time the 1990 data was collected, the City of Marathon and the Village of Islamorada were not incorporated; therefore unincorporated 1990 totals will be higher when compared to unincorporated 2000 totals.

Table 40 - Distribution of Owner-Occupied Housing by Value, 1990

Housing Value	Number of Units	Percent Distribution
<$59,999	609	5.0%
$60,000-$99,999	2,441	20.2%
$100,000-$149,999	2,914	24.2%
$150,000-$199,999	2,346	19.5%
>$200,000	3,749	31.1%
Total	**12,059**	**100.0%**

Source: "Housing Element" of the Technical Document, Table 7.5 of the *2010 Monroe County Comprehensive Plan* taken from the U.S. Census Bureau 1990. Note: This excludes mobile homes.

Monthly Cost of Owner-Occupied Units: **Table 41** and **Table 42**, presents the distribution of specified owner-occupied housing cost in the County by mortgage status and non-mortgage status for year 2000. According to the FDCH, in 2000, about 57.1 percent of renters paid between $1,000 and $1,999 per month.

Only 8.7 percent of the owners with non-mortgage status paid more than $1,000 per month. About 45.7 percent of non-mortgage status owners paid between $400 and $699 per month.

It is important to mention that mortgage status and non-mortgage status are collected from a 1-in-6 sample and weighted to represent the total population**.**

Table 41- Mortgage Status and Selected Monthly Owner Costs[30] Unincorporated Monroe County, 2000

Range	Number of Units	Percent Distribution
Less than $299	7	0.2%
$300 - $399	0	0.0%
$400 - $499	27	0.6%
$500 - $599	59	1.4%
$600 - $699	170	3.9%
$700 - $799	188	4.3%
$800 - $899	247	5.7%
$900 - $999	294	6.8%
$1,000 - $1,249	756	17.4%
$1,250 - $1,499	839	19.3%
$1,500 - $1,999	887	20.4%
$2000-$2499	373	8.6%
$2500-$2999	239	5.5%
$>$3000	253	5.8%
Total[31]	**4,339**	**100.0%**

Source: Florida Housing Data Clearinghouse, April 2010

As a comparison, the 1990 mortgage status and selected monthly owner costs for Monroe County, are as reported in the "Housing Element" of the Technical Document of the *2010 Monroe County Comprehensive Plan* as adopted in 1995, are shown in **Table 42**. It is important to note that at the time the 1990 data was collected, the City of Marathon and the Village of Islamorada were not incorporated.

[30] Selected monthly owner costs, such as mortgage payments and utilities, are a measure of the cost of homeownership. When combined with income, selected monthly owner costs offer an excellent measure of affordability and excessive shelter costs.

[31] Sample data or collected from a 1-in-6 sample and weighted to represent the total population.

Table 42 - Mortgage Status and Selected Monthly Owner Costs Monroe County, 1990

Range	Number of Units	Percent Distribution
Less than $299	188	2.8%
$300 - $399	189	2.9%
$400 - $499	288	4.3%
$500 - $599	414	6.3%
$600 - $699	615	9.3%
$700 - $799	553	8.4%
$800 - $899	587	8.9%
$900 - $999	640	9.7%
$1,000 - $1,249	1,174	17.8%
$1,250 - $1,499	688	10.4%
$1,500 - $1,999	540	8.2%
$2,000 or more	730	11.0%
Total	6,606	100.0%

Source: "Housing Element" of the Technical Document, Table 7.6 of the *2010 Monroe County Comprehensive Plan*

Table 43 - Non Mortgaged Status and Selected Monthly Owner Costs, Unincorporated Monroe County, 2000

Range	Number of Units	Percent Distribution
<$100	23	0.8%
$100-$149	61	2.1%
$150-$199	90	3.1%
$200-$249	131	4.6%
$250-$299	138	4.8%
$300-$349	282	9.9%
$350-$399	254	8.9%
$400-$499	599	21.0%
$500-$599	411	14.4%
$600-$699	295	10.3%
$700-$799	173	6.1%
$800-$899	131	4.6%
$900-$999	23	0.8%
>$1,000	248	8.7%
Total [32]	**2,859**	**100.0%**

Source: Florida Housing Data Clearinghouse, April 2010.

Rental Rates: The FHDC provides the distribution of units by contract rent. Contract rent is the monthly rent agreed to, or contracted for, regardless of any furnishings,

[32] Sample data or collected from a 1-in-6 sample and weighted to represent the total population. It will not equate to the housing unit count in Table 7.5.

utilities, or services that may be included. The distribution of specified renter-occupied units is illustrated in **Table 44**.

Table 44 - Distribution of Renter Occupied Units by Contract Rent Range, 2000

Rent Range	Number of Units	Percent Distribution	Price Comparison
<$200	68	1.5%	
$200-$299	121	2.7%	
$300-$499	456	10.3%	**14.5%**
$500-$749	1,159	26.1%	
$750-$999	1,247	28.1%	
$1,000-$1,499	841	18.9%	
$1,500 or More	228	5.1%	
No Cash Rent	325	7.3%	**85.5%**
Total	**4,445**	**100.0%**	**100.0%**

Source: Florida Housing Data Clearinghouse, April 2010.

As a comparison, the 1990 mortgage status and selected monthly owner costs for the County, as reported in the "Housing Element" of the Technical Document component of the *2010 Monroe County Comprehensive Plan* adopted in 1995, are shown in **Table 45**. It is important to note that at the time the 1990 data was collected, the City of Marathon and the Village of Islamorada were not incorporated. Therefore, 1990 numbers of units will be higher.

Table 45 - Distribution of Renter Occupied Units by Contract Rent Range, 1990

Rent Range	Number of Units	Percent Distribution	Price Comparison
<$199	2,533*	20.2%	
$200-$299	681	5.4%	
$300-$499	3,323	26.4%	**52.0%**
$500-$699	3,559	28.3%	
>$700	2,482	19.7%	**48.0%**
Total	**12,578**	**100.0%**	

Source: "Housing Element" of the Technical Document, Table 7.7,
2010 Monroe County Comprehensive Plan.
*includes No Cash Rent

As a comparison, it is evident from **Table 44** and **Table 45**, that the percent distribution of rental price below $500 has decreased by more than half from 1990 to 2000. In 1990 rental price below $500 distribution was 52.0 percent and 14.5 percent in 2000.

Rent-to-Income Ratios: According to the HUD, the threshold for affordable housing is a rent-to-income ratio of 30 percent. In other words, when gross monthly housing cost exceeds 30 percent of monthly household income, the household is considered to be paying too much for housing versus other essential living expenses. This is known as a household that is cost burdened.

Based on the 30 percent cost burdened threshold, the general trend is that the lower the household income range (less than $10,000 on **Table 46**), the higher the degree of being cost burdened. 92 percent of households making an income below $10,000 are cost burdened. In the other spectrum, at the income range of $75,000 or more, the rate of households that were cost burdened was only 6.3 percent. This trend is consistent with the exception of income range $50,000 - $74,999, where all renter households were cost burdened. Renter households, with annual incomes below $34,999, accounted for 59 percent of total renter households, but represented 75 percent of households being cost burdened. Of the 3,310 renter household sample, 54.0 percent was cost burdened. These trends are depicted in **Table 46**.

Table 46 - Rent-to-Income for Renter-Occupied Units, 1999

Gross Rent as a % of Household Income	< $10,000	$10,000-$19,999	$20,000-$34,999	$35,000 - $49,999	$50,000 - $74,999	$75,000 or more
< 29%	32	95	352	648	0	403
30 – 34.9%	0	28	115	100	46	27
>35%	378	594	356	107	29	0
Total	410	717	823	855	75	430
Not Computed	166	78	69	0	45	19
Percent Cost Burdened	**92.2%**	**86.8%**	**57.2%**	**24.2%**	**100.0%**	**6.3%**

Source: Florida Housing Data Clearinghouse accessed April 2010

As a comparison, the 1989 Rent-to Income for Renter-Occupied Units, are as reported in the "Housing Element" of the Technical Document component of the *2010 Monroe County Comprehensive Plan* as adopted in 1995, are shown in **Table 47**. The trend of the lower income being the most cost burdened when compared the 1999. However, renters at the various income ranges were less cost burdened back in 1989. Of the 11,183 renter households in 1989, 47.0 percent was cost burdened. This represents a five percent increase of cost-burdened renters in 1999. This restates the affordable housing need.

Table 47- Rent-to-Income for Renter-Occupied Units, 1989

Gross Rent as a % of Household Income	< $10,000	$10,000-$19,999	$20,000-$34,999	$35,000 - $49,999	$50,000 – and more
< 29 %	210	489	2,070	1576	1,192
30 – 34.9%	81	319	474	121	34
35% or More	1,197	1,927	894	169	0
Total	1,488	2,735	3,438	1,866	1,226
Not Computed	340	361	681	233	195
Percent Cost Burdened	**85.9%**	**82.1%**	**39.8%**	**15.5%**	**2.8%**

Source: "Housing Element" of the Technical Document, Table 7.8 of the *2010 Monroe County Comprehensive Plan* taken from the U.S. Census Bureau 1990.

Owner-to-Income Ratios: Based on the HUD threshold of households paying more than 30 percent of their income as being cost burdened, the same trend is observed for owners. Lower income owner occupied households (with incomes below $10,000) were the most cost burdened at 92 percent. In contrast, at the $75,000 or more income range, 11.4 percent of households were cost burdened. Owner households with annual incomes below $34,999 accounted for 29 percent of total owner occupied households, but represent 66 percent of households which were cost burdened. 2,356 of the 7,412 owner households or 32 percent of the owner households were cost burdened. Owner-to-income ratios are shown on **Table 48**.

Table 48 - Monthly Owner Cost by Income, 1999

Mortgage Payment as % of Household Income	< $10,000	$10,000-$19,999	$20,000-$34,999	$35,000 - $49,999	$50,000 - $74,999	$75,000 or more
< 29%	21	211	388	636	1,218	2,256
30 – 34.9%	0	7	74	87	183	94
35% or More	237	402	484	374	219	195
Total	258	946	946	1,097	1,620	2,545
Not Computed	112	0	0	0	0	0
Percent Cost Burdened	**91.9%**	**66.0%**	**59.0%**	**42.0%**	**24.8%**	**11.4%**

Source: Florida Housing Data Clearinghouse, April 2010

When comparing renter cost to income (**Table 47**) and owner cost to income (**Table 48**), it is evident that the lowest income households are the most cost burdened, more so for renters. Also, all renters at the $50,000 - $74,999 income range are cost burdened in comparison to only a quarter of those who own in that same income range.

Housing Delivery Programs: Below is a list of programs that deal with the provision of subsidized and affordable housing.

Federal Programs:

- The Community Development Block Grant (CDBG): This program has been in existence since 1974. The program is a significant source of funds for affordable housing; however, this is not the sole focus of such grants. CDBG funds can be used for a variety of community development initiatives, including affordable housing construction, home repair assistance for existing low-income homeowners, and economic development initiatives designed to spur business investment and economic growth in distressed neighborhoods. Funding is awarded according to a formula that attempts to quantify the amount of need in a community compared with other communities, using several economic and demographic measures. Communities receiving grants are required to solicit and encourage citizen participation, particularly from the proposed beneficiaries, in developing a final plan for using the funds.

- Home Investment Partnerships (HOME): This is a block grant program administered by HUD designed to provide flexible funding support for affordable low-income housing in the affordable housing solutions for low-income families. HOME funds can be used to acquire and renovate deteriorated properties or construct new housing for rent or sale. The funds can also be used for down payment assistance grants to individual homebuyers, as well as to other programs. The beneficiaries of HOME-funded programs must have incomes below 80 percent of the HUD-determined area median family income, and most uses of HOME funds have more specific income guidelines. The flexibility of the HOME program is designed to empower communities to find the best available uses for the money, and requires significant interagency cooperation. HOME funds must be matched with a 25% local contribution, which can take the form of cash from municipal bond issues or donated labor and construction materials from the private sector. Another form of local contribution can be vacant or abandoned properties-donated by private donors or the county-which after HOME-funded renovation and/or construction, would be sold to low-income homebuyers. Additionally, jurisdictions receiving HOME funding are required to commit at least 15 % of funding to projects which will be owned or developed by experienced, local, community-based nonprofit organizations called Community Housing Development Organizations (CHDOs) by HUD, but often known as Community Development Corporations (CDCs). HOME-funded housing is required to remain affordable for low-income residents for at least 5 to 20 years, depending on the type of project and proportion of funding provided by HOME.

- The American Dream Down Payment Initiative (ADDI): This is a corollary program to HOME designed specifically to aid low-income first-time homebuyers with funds for closing costs and a down payment. Families meeting the criteria are eligible for up to $10,000 or 6 percent of the purchase price (whichever is greater) of a home. Some of the funds may also be used for remedying health hazards such as lead-based paint in the home prior to occupancy. The ADDI program is administered in conjunction with the HOME program, but allocations are figured separately, and different rules apply.

- The Housing Opportunities for Persons with AIDS (HOPWA): This program provides special housing assistance for low-income persons diagnosed with HIV or AIDS. Assistance ranges from short-term rental assistance aimed at preventing homelessness, to ongoing longer-term rental assistance, to the acquisition, construction, and provision of supporting housing, which provides integrated services for health care, mental health, chemical dependency, and general case management. According to HUD, HOPWA funds are an important catalyst for partnerships; on average, approximately $2 is leveraged for every $1 provided by HOPWA. Baseline HOPWA funds are awarded based on a statutory formula program, but additional funds are available based on a competitive grant process awarding additional funds to highly successful or innovative programs.

- The Emergency Shelter Grants (ESG): This program provides federal funding for homeless shelters through HUD grants to local governments, which then disburse the grant monies to local nonprofits. ESG funds are required to be locally matched dollar for dollar. The matched funds are most likely to be found in the form of private fundraising by the recipient nonprofit organizations, but can also include other federal, State, and local grants as well as in-kind donations of real estate and volunteer time. ESG funds are also granted to State governments, but different rules apply.

- Federal Emergency Management Agency (FEMA): FEMA provides grants and assistance programs to local governments, such as the Disaster-Specific Assistance Program; Hazard-Related Grants and Assistance Programs, and Non-Disaster Programs.

- Section 8 Voucher Program: Under the voucher program, individuals or families with a voucher find and lease a unit (either in a specified complex or in the private sector) and pay a portion of the rent (based on income, but generally no more than 30 percent (40 percent being the maximum at time of lease-up) of the family's income). A voucher may be either "project-based" (where its use is limited to a specific apartment complex; public housing agencies [PHAs] may reserve up to 2% of its vouchers) or "tenant-based" (where the tenant is free to choose a unit in the private sector, is not limited to specific complexes).

Florida Program:

- State Housing Initiatives Partnership (SHIP): State housing initiatives partnership SHIP is the first-and only-permanently funded, state housing program in the nation to provide funds directly to local governments to increase affordable housing opportunities in their communities. The program channels 69 % of the documentary stamp tax revenues created by the Sadowski Act directly to counties and entitlement cities in Florida on a noncompetitive basis. Designed as an incentive for the formation of public-private partnerships for building, rehabilitating and preserving affordable housing, the SHIP program provides a financial means to develop and implement housing programs that are locally designed.

- SHIP funds may be used to provide emergency repairs to very low, low and moderate income households following a natural disaster as declared by the President of the United States, Governor of the State of Florida or by the Monroe County Board of County Commissioners. Funds can be used to purchase emergency supplies to weatherproof damaged home; interim repairs to avoid further damage; tree and debris removal required to make the individual housing unit habitable; construction of wells or repair of existing wells where public water is not available; post disaster assistance with non-insured repairs; and soft costs required to process assistance applications. The program is only implemented after a natural disaster.

- SHIP funds may be also used as part of the local contribution for programs that construct multi-family special needs rental housing. The SHIP funds that are used in these types of projects will be in the form of a deferred payment loan for 15 years at a one percent to five percent interest rate, depending upon cash flow of the project.

- State Apartment Incentive Loan (SAIL) Program: SAIL stimulates production of affordable, multi- and single-family rental housing for very low-income individuals and families in Florida. SAIL is a development incentive program, which leverages State loan funds, local government contributions, developer equity, and private bond financing. The State Apartment Incentive Loan program (SAIL) provides low-interest loans on a competitive basis to affordable housing developers each year. This money often serves to bridge the gap between the development's primary financing and the total cost of the development. SAIL dollars are available to individuals, public entities, not-for-profit or for-profit organizations that propose the construction or substantial rehabilitation of multifamily units affordable to very low income individuals and families.

- Florida Homeownership Assistance Program (HAP): Down payment Assistance Loan Program: This helps individuals and families with low incomes purchase their own homes by providing $2,500 at 0 percent interest, non-amortizing,

second mortgage loans for down payments and closing costs. The following programs are provided under HAP:

- *Permanent Loan Program* - This provides 0 percent interest, non-amortizing, second mortgage loans covering 25 percent of the purchase price of a home. These loans assist qualified borrowers with down payment/closing costs and reduce the principal on their first mortgage.

- *Construction Loan Program*-A nonprofit developer or sponsor is eligible to borrow the lesser of either the total funds available in an application cycle, or 33 percent of the cost of the project to construct or substantially rehabilitate a minimum of four homes. At least 30 percent of the units must be set aside for low-income borrowers and 30 percent for very low-income borrowers.

- Predevelopment Loan Program (PLP): This program provides financial assistance for predevelopment costs, site acquisition, and development of land for housing affordable to individuals or families with very low and low incomes.

- Florida Affordable Housing Guarantee Program: This program provides guarantees on taxable loans and tax-exempt loans to stimulate innovative, private sector lending for multi- and single-family affordable housing.

- Low-Income Rental Housing Tax Credit (LIHTC) Program: This program gives developers federal tax credits in exchange for acquisition and substantial rehabilitation for substantially rehabilitating or for new construction of rental housing projects for low or very low income rental housing units must be set aside for individuals or families.

- Multi-Family Mortgage Revenue Bond Program: This program uses taxable and tax-exempt bonds to provide below-market interest rate loans to non-profits and for profits for developers of apartment units that set aside at least 20 percent of the units for households earning 50 percent or less of the AMI or forty percent for households earning 60 percent of the AMI.

- Single-Family Mortgage Revenue Bonds (MRB) Program: This uses the proceeds from mortgage revenue bonds from statewide qualified lending institutions to offer below-market mortgage loans to first-time home buyers with low, moderate and or middle incomes. (FAC Rule 67-25, F.A.C.)

Monroe County Programs: There are various County agencies with a role in affordable housing development; these are:

- Monroe County Planning and Environmental Resources Department: This Department works with property owners to develop and preserve Affordable Housing in unincorporated Monroe County. This department recommends and provides comprehensive plan amendments and MCLDCs relating to affordable housing.

- Monroe County Land Authority (MCLA): The MCLA is a land acquisition agency created pursuant to Section 2-397 of the LDC, Section 380.0661 F.S. of the Florida Statutes, and the Florida Keys and Key West Area of Critical State Concern designations. The agency is empowered to acquire and dispose of property for a range of public purposes, including recreation, affordable housing, environmental protection, and the protection of private property rights. As of September 30, 2009, the MCLA has expended $21 million on site acquisition, $28.5 million for affordable housing (Source: MCLA).

- Monroe County Housing Authority: The Housing Authority is responsible for low income and affordable rental apartments throughout the County, and oversees the SHIP program which provides 2nd mortgages to income-qualified home buyers.

As per the Monroe County Housing Authority, a variety of housing programs provide for subsidized housing in unincorporated Monroe County. These programs include State Apartment Incentive Loan Program (SAIL), Monroe County Land Authority Program (MCLA), Low Income Tax Housing Tax Credit (LIHTC), Federal Emergency Management Agency Program (FEMA) and other U.S. Housing and Community Development programs (HUD).

A total of 470 dwelling units are subsidized by several programs in unincorporated Monroe County, which are listed in **Table 49** and **50**. A total of 85 units are scheduled to be built. All of the units and developments listed in this section are rental.

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Table 49 - Subsidized Housing Developments, 2010

Development Name	Program Jurisdiction	Number of Units	Location
H. Bethel Apartments	FEMA/MCLA	18	Stock Island
Stock Island Apartments	LIHTC/SAIL	130	Stock Island
Meridian West	LIHTC/SAIL/MCLA	102	Stock Island
Flagler Village (a)	LIHTC	49	Stock Island
Atlantic Pines	LIHTC/SAIL	14	Big Pine Key
Scattered Sites	FEMA/MCLA	5	Big Coppitt Key
Blue Water (a)	LIHTC/MCLA	36	Tavernier
Newport Village	HUD	50	Key Largo
Tradewinds Hammocks	LIHTC/SAIL/MCLA	66	Key Largo
Total		**470**	--

Source: Monroe County Housing Authority, 2010
(a) To be built.
FEMA - Federal Emergency Management Agency
MCLA - Monroe County Land Authority
LIHTC - Low Income Housing Tax Credit Program
SAIL - State Apartment Incentive Loan Program
HUD - U.S. Department of Housing and Urban Development

Section 8 federal funds are used to subsidize housing through cash vouchers in lieu of rent payments, loan assistance programs, rental rehabilitation aid, and other general assistance programs. A total of 143 dwelling units in the County are funded through this program, as shown in **Table 50.**

Table 50 - Section 8 Subsidized Housing Developments, 2010

Development Name	Program Jurisdiction	Number of Units	Location
Section 8 Choice Vouchers	HUD	56	Lower Keys
Section 8 Choice Vouchers	HUD	87	Upper Keys
Total		**143**	--

Source: Monroe County Housing Authority, 2010

Subsidized Housing and the Rate of Growth (ROGO) Process: The process of receiving a building permit in the County is a competitive process. ROGO is a tool utilized by the County to control growth throughout the Keys. However, additional consideration is given to affordable housing permit applications. Each applicant competes against the other applicants located within the same subarea. There is one exception to this process, applicants for affordable housing. Affordable housing applicants compete against all applicants for affordable housing permits keys wide. Allocations are awarded each quarter in each subarea with the exception of Big Pine Key and No Name Key where allocations are awarded annually.

Group Homes: The Florida Department of Children & Families licenses one group home within the County. It is a Residential Child Caring Agency in Key West, Florida, with a capacity of six children, ages 11 to 17.

Mobile Home Parks: The majority of mobile home parks are located in the municipalities. An account for both unincorporated and incorporated mobile home parks as accessed through the Florida Department of Business and Professional Regulation file name *mhmailings.csv* is provided in **Table 51**. A total of 1,378 units are located in the mobile home parks in the count as a whole.

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Table 51 - Mobile Home Parks

Unincorporated		
Name	**Location**	**Units**
Coco Palms	Cudjoe Key	18
Captain Jax RV Resort	Key Largo	24
Largo Lively Inc	Key Largo	58
Paradise Point Mobile Home Park	Key Largo	15
Waters Edge Colony Mobile Home Park	Stock Island	66
Coconut Grove Mobile Home Park	Stock Island	33
Island Life Village	Stock Island	106
Liz's Trailer Park	Stock Island	19
Sunset Harbor Manufactured Home Community	Stock Island	86
Tropic Palms Mobile Home Park	Stock Island	25
Sugarloaf Mobile Home Resort	Sugar Loaf Key	22
Summerland Palms Trailer Park	Summerland	22
Driftwood Trailer Park	Tavernier	15
Total Unincorporated		**509**
Incorporated		
Name	**Location**	**Units**
Poinciana Mobile Home Park Inc	Key West	79
Stadium Mobile Home Park	Key West	278
Galway Bay Mobile Home Park	Marathon	70
Jolly Roger Travel Park & Motel	Marathon	88
Sundance Trailer Village & Efficiencies	Marathon	35
Terra Marine Trailer Park	Marathon	23
Trailerama Mobile Home Park	Marathon	117
Ocean Breeze Park West	Marathon	47
Grassy Key RV Park & Resort	Grassy Key	18
Peaceful Palms	Islamorada	15
San Pedro Trailer Park	Islamorada	14
Seabreeze Mobile Home Park	Islamorada	35
Village Mobile Park Inc	Islamorada	32
Windley Key Trailer Park	Islamorada	18
Total Incorporated		**869**
Countywide Total		**1,378**

Source: Florida Department of Business and Professional Regulation file name mhmailings.csv accessed through http://www.myfloridalicense.com/dbpr/sto/file_download/public-records-CTMH.html on February 24, 2011.
Note: Approved or acknowledged mobile home parks and owners. Terminated, rejected or withdrawn projects are not included

As previously discussed the availability of affordable housing is one of the most challenging issues in Florida and around the nation. There is resounding documentation of the housing affordability problems the County is facing. As reported by the *Monroe County Affordable and Workforce Housing Report*, dated November 2007, the County is the most cost burdened small-county in the nation and has the most expensive single family

homes and condominiums in the State. According to a recent *Harvard University Joint Center for Housing Studies*, the proportion of Americans spending more than half their incomes (severely cost burdened) on housing increased from 12 percent in 2000 to 16 percent in 2008.

According to the *Monroe County Affordable and Workforce Housing* report, the County has the highest affordability gap of all counties in Florida. The "affordability gap" is the difference between the buying power of a median income household and the median sales price of a single family home. The County's median income is $68,400 (HUDuser.org 2010); assuming a 40 hour per week, 50 week year, this translates into an hourly salary of $34.20. Based on the 2010 median income, a one income earner family would be able to afford a monthly payment of a mortgage or rent of $1,710 (no more than 30 percent of income). A customary measure of how much home a family can afford is the family income multiplied by three. Therefore, a household which income is $68,400 would be able to afford a $205,200 priced dwelling unit. In contrast, the median value in 2009 according to the Shimberg Center was $572,608. This is an affordable gap of 370 thousand dollars.

The *Monroe County Affordable and Workforce Housing* report further states that 34.8 percent of home-owning Monroe County families are cost burdened, meaning they pay 30 percent of their income for housing, exclusive of insurance and taxes. Of the households that are cost burdened (34.8 percent), 17.4 percent of families are severely cost burdened, meaning they pay more than 50 percent of their income for housing. These trends exemplify the need to increase opportunities for affordable housing options. With the market crash more houses have been foreclosed and more permanent residents are moving out of the County with a population shift of permanent residents to seasonal who are able to afford pricier homes.

The affordable housing need is assigned to the households making 0 to 120 percent of the area median income for permanent population only. As a requirement for receiving an affordable housing ROGO allocation, the residents occupying that affordable unit must be permanent County residents. The following analysis looks at affordable housing need by planning area only for the permanent residents.

Permanent Population Affordable Housing Need by Income Level: Based on the SCAH, the number of households in the various income levels has been projected. The tables below are meant for illustration of households in the various income groups to determine the number of households that would need affordable housing assistance or those that would be making 120 percent of the area median income or less. Tables are not meant for estimating future area median income. It is important to restate that the estimated affordable housing need is correlated to the ROGO allocations and permanent population. Therefore, permanent population is utilized in this analysis.

Lower Keys: As shown in **Table 52**, an average of 5,545 households would need and qualify for affordable housing assistance in the Lower Keys. Based on SCAH in 2010, 60.9 percent of households would qualify for affordable housing assistance. By the year

2030, the percentage will increase to 62.4 percent. These percentages may be understated since for owner occupied housing, the qualifying income in the County is 160 percent of the area median income. It is not possible to determine how many households in the above moderate income range (incomes above 120 of the area median income) would qualify. Some of the households that fall in the above moderate income range may qualify for affordable housing, if they were owners.

Table 52 - Estimated Number of Households Needing Affordable Housing by Income Level – Lower Keys Planning Area

Income Level	2010		2015		2020		2025		2030	
	HH	%	HH	%	HH	%	HH		HH	%
Extremely Low (0-30% AMI)	938.4	10.4%	988.5	10.8%	1,016.0	11.2%	1,020.5	11.4%	1,023.4	11.5%
Very Low (30.1-50% AMI)	1,034.9	11.5%	982.4	10.8%	1,008.3	11.2%	1,030.6	11.5%	1,040.8	11.7%
Low Income (50.1-80% AMI)	1,419.6	15.7%	1,460.1	16.0%	1,457.7	16.1%	1,450.9	16.2%	1,442.6	16.3%
Moderate Income (80.01-120% AMI)	2,106.7	23.3%	2,129.5	23.4%	2,092.3	23.2%	2,057.2	23.0%	2,028.0	22.9%
Above Moderate Income (>120% of AMI)	3,535.4	39.1%	3,558.5	39.0%	3,461.6	38.3%	3,394.8	37.9%	3,337.2	37.6%
HH needing affordable housing assistance	5,499.6	60.9%	5,560.5	61.0%	5,574.4	61.7%	5,559.2	62.1%	5,534.8	62.4%

Source: Shimberg Center for Affordable Housing, 2010; Fishkind & Associates, Inc., 2010, *Unincorporated Monroe County Population Projections*
Note: Calculations are based on Shimberg Center for Affordable Housing percent allotment and distribution of permanent population households.

Middle Keys: As shown in **Table 53**, an average of 296 households would qualify for affordable housing assistance in the Middle Keys. Based on SCAH in 2010, 60.9 percent of households would qualify for affordable housing assistance; by the year 2030, the percentage will increase to 62.4 percent. These percentages are understated since for owner occupied housing, the qualifying income in the County is 160 percent of the area median income. It is not possible to determine how many households in the above moderate income range
(Incomes above 120 percent of the area median income) would qualify. Some of the households that fall in the above moderate income range may qualify for affordable housing, if they were owners.

Table 53 - Estimated Number of Households Needing Affordable Housing by Income Level – Middle Keys Planning Area

Income Level	2010		2015		2020		2025		2030	
	HH	%	HH	%	HH	%	HH		HH	%
Extremely Low (0-30% AMI)	50.1	10.4%	52.8	10.8%	54.2	11.2%	54.5	11.4%	54.7	11.5%
Very Low (30.1-50% AMI)	55.2	11.5%	52.5	10.8%	53.8	11.2%	55.0	11.5%	55.6	11.7%
Low Income (50.1-80% AMI)	75.7	15.7%	78.0	16.0%	77.8	16.1%	77.5	16.2%	77.1	16.3%
Moderate Income (80.01-120% AMI)	112.4	23.3%	113.7	23.4%	111.6	23.2%	109.8	23.0%	108.3	22.9%
Above Moderate Income (>120% of AMI)	188.6	39.1%	190.0	39.0%	184.6	38.3%	181.2	37.9%	178.3	37.6%
HH needing affordable housing assistance	293.4	60.9%	297.0	61.0%	297.0	61.6%	296.7	62.1%	295.6	62.4%

Source: Shimberg Center for Affordable Housing, 2010; Fishkind & Associates, Inc., 2010, *Unincorporated*
Monroe County Population Projections
Note: Calculations are based on Shimberg Center for Affordable Housing percent allotment and distribution of permanent population households.

Upper Keys: As shown in **Table 54**, an average of 4,026 households would qualify for affordable housing assistance in the Upper Keys. Based on SCAH in 2010, 60.9 percent of households that would qualify for affordable housing assistance; by the year 2030 the percentage will increase to 62.4 percent. These percentages are understated since for owner occupied housing, the qualifying income in the County is 160 percent of the area median income. It is not possible to determine how many

households in the above moderate income range (above 120 percent of the area median income) would qualify. Some of the households that fall in the above moderate income range may qualify for affordable housing, if they were owners.

Table 54 - Estimated Number of Households Needing Affordable Housing by Income Level – Upper Keys Planning Area

Income Level	2010		2015		2020		2025		2030	
	HH	%	HH	%	HH	%	HH		HH	%
Extremely Low (0-30% AMI)	681.2	10.4%	717.6	10.8%	737.6	11.2%	740.8	11.4%	743.0	11.5%
Very Low (30.1-50% AMI)	751.3	11.5%	713.2	10.8%	732.0	11.2%	748.2	11.5%	755.6	11.7%
Low Income (50.1-80% AMI)	1030.6	15.7%	1060.0	16.0%	1058.3	16.1%	1053.3	16.2%	1,047.3	16.3%
Moderate Income (80.01-120% AMI)	1529.4	23.3%	1545.9	23.4%	1519.0	23.2%	1493.4	23.0%	1,472.3	22.9%
Above Moderate Income (>120% of AMI)	2566.5	39.1%	2583.3	39.0%	2513.1	38.3%	2464.4	37.9%	2,422.7	37.6%
HH needing affordable housing assistance	3992.5	60.9%	4036.7	61.0%	4046.9	61.6%	4035.6	62.1%	4,018.3	62.4%

Source: Shimberg Center for Affordable Housing, 2010; Fishkind & Associates, Inc., 2010, *Unincorporated*
Monroe County Population Projections
Note: Calculations are based on Shimberg Center for Affordable Housing percent allotment and distribution of functional population households.

In essence, in year 2010 the number of household requiring affordable housing assistance is 60.9 percent; by the year 2030 the percentage will increase to 62.4 percent, based on the SCAH.

Permanent Population Estimated Cost Burdened Households: As explained in the "*Price Rent Characteristics and Affordability*" subsection of the Housing Element of the Technical Document (July 2011), an indicator of affordable housing need is the number of households that are cost burdened (paying more than 30 percent of their income in housing cost) as established by HUD. In other words, when gross monthly housing cost exceeds 30 percent of monthly household income, the household is considered to be paying too much for housing versus other essential living expenses. The households presented in this analysis pertain to permanent population given that in order to qualify for affordable housing the occupants need to be permanent residents. The percent allotment is derived from the SCAH. As seen in **Table 55**, the cost burdened household is approximately 36 percent and are distributed as shown below.

Table 55 - Permanent Population Cost Burdened Households 2010-2030

Cost Burdened	2010		2015		2020		2025		2030	
	# of households	%of Total	# of households	%of Total	# of households	%of Total	# of households	%of Total	# of households	%of Total
Paying 30.01-50%	3,071	19.1%	3,050	18.8%	2,991	18.6%	2,932	18.4%	2,889	18.3%
Paying 50+%	2,813	17.5%	2,839	17.5%	2,814	17.5%	2,772	17.4%	2,747	17.4%
Total Cost Burdened HH	5,884	36.6%	5,890	36.3%	5,805	36.1%	5,704	35.8%	5,636	35.7%
Total HH	16,076	100.0%	16,225	100.0%	16,079	100.0%	15,933	100.0%	15,786	100.0%

Source: Shimberg Center for Affordable Housing, 2010; Fishkind & Associates, Inc., 2010
Unincorporated Monroe County Population Projections
Note: Calculations are based on Shimberg Center for Affordable Housing percent allotment and distribution of permanent population households.

The following tables illustrate were cost burdened households are distributed in relationship to the planning areas.

Lower Keys: Of the households generated by permanent population in the LKPA, 36.6 percent are cost burdened according to SCAH. By the year 2030 the cost burdened household decreases to 35.7 percent. The decrease may be due in part to a shift in population from permanent to seasonal. A distribution of households paying more than 30 percent of their income in housing is shown in **Table 56.**

Table 56 - Permanent Population Cost Burdened Households 2010-2030 - Lower Keys Planning Area

Cost Burdened	2010		2015		2020		2025		2030	
	# of households	%of Total	# of households	%of Total	# of households	%of Total	# of households	%of Total	# of households	%of Total
Paying 30.01-50%	1,726	19.1%	1,713	18.80%	1,681	18.60%	1,648	18.40%	1,624	18.30%
Paying 50+%	1,581	17.5%	1,595	17.50%	1,581	17.50%	1,558	17.40%	1,544	17.40%
Total Cost Burdened HH	3,307	36.6%	3,308	36.3%	3,262	36.1%	3,206	35.8%	3,167	35.7%
Total HH	9,035	100.0%	9,113	100.0%	9,036	100.0%	8,954	100.0%	8,872	100.0%

Source: Shimberg Center for Affordable Housing, 2010; Fishkind & Associates, Inc., 2010,
Unincorporated
Monroe County Population Projections
Note: Calculations are based on Shimberg Center for Affordable Housing percent allotment and distribution of permanent population households.

Middle Keys: Of the households generated by permanent population in the MKPA 36.6 percent are cost burdened according to SCAH. By the year 2030 the cost burdened household decreases to 35.7 percent. The decrease may be due in part to a shift in population from permanent to seasonal. A distribution of households paying more than 30 percent of their income in housing is shown in **Table 57.**

Table 57 - Permanent Population Cost Burdened Households 2010-2030 - Middle Keys Planning Area

Cost Burdened	2010		2015		2020		2025		2030	
	# of house holds	%of Total	# of household s	%of Total	# of household s	%of Total	# of household s	%of Total	# of household s	%of Total
Paying 30.01-50%	92	19.1%	92	18.80%	90	18.60%	88	18.40%	87	18.30%
Paying 50+%	84	17.5%	85	17.50%	84	17.50%	83	17.40%	82	17.40%
Total Cost Burdened HH	176	36.6%	177	36.3%	174	36.1%	171	35.8%	169	35.7%
Total HH	482	100.0%	487	100.0%	482	100.0%	478	100.0%	474	100.0%

Source: Shimberg Center for Affordable Housing, 2010; Fishkind & Associates, Inc., 2010, *Unincorporated*
Monroe County Population Projections
Note: Calculations are based on Shimberg Center for Affordable Housing percent allotment and distribution of functional population households.

Upper Keys: Of the households generated by permanent population in the UKPA 36.6 percent are cost burdened according to SCAH. By the year 2030 the cost burdened household decreases to 35.7 percent. The decrease may be due in part to a shift in population from permanent to seasonal. A distribution of households paying more than 30 percent of their income in housing is shown in **Table 58.**

Table 58 - Permanent Population Cost Burdened Households 2010-2030 - Upper Keys Planning Area

Cost Burdened	2010		2015		2020		2025		2030	
	# of house holds	%of Total	# of household s	%of Total	# of household s	%of Total	# of household s	%of Total	# of household s	%of Total
Paying 30.01-50%	1,253	19.1%	1,245	18.80%	1,220	18.60%	1,196	18.40%	1,179	18.30%
Paying 50+%	1,148	17.5%	1,159	17.50%	1,148	17.50%	1,131	17.40%	1,121	17.40%
Total Cost Burdened HH	2,401	36.6%	2,403	36.3%	2,368	36.1%	2,327	35.8%	2,299	35.7%
Total HH	6,559	100.0%	6,620	100.0%	6,560	100.0%	6,500	100.0%	6,441	100.0%

Source: Shimberg Center for Affordable Housing, 2010; Fishkind & Associates, Inc., 2010, *Unincorporated*
Monroe County Population Projections Note: Calculations are based on Shimberg Center for Affordable Housing percent allotment and distribution of functional population households.

In summary, the County should seek to encourage affordable housing options for households which are cost burdened. In year 2010, 36.6 percent of the households are cost burdened. The trend slightly lowers in the year 2030.

Private Sector Provision of Housing: It is expected that all of the future housing needs identified in this analysis can and will be met by the private sector. The demand for homes on coastal lands makes construction of such homes economically attractive to builders and developers.

A developer must first apply for a ROGO allocation in order to develop a dwelling unit. Then the applicant must apply for a building permit. Of the total ROGO allocations awarded, no less than 20 percent are assigned for affordable units. The County can award up to 197 ROGO allocations a year including 71 for affordable allocations. Between ROGO Years 1-17, an average of 222 ROGO allocations was awarded each year. Of the allocations awarded, affordable housing awards represent 25 percent of the total award.

An important component of provision of housing is the number that will be needed for families that are cost burdened and in the qualifying incomes need affordable housing. Since the affordable housing analysis indicates that there is a need for affordability for 60 percent, at a minimum, developers should continue to receive incentives for providing affordable housing.

Housing Supply by Type: In order to obtain the estimated and projected household by type, the percent allotment from the South Florida Regional Council 2008 estimates are used in combination with the number of functional dwelling units projected. Additionally, the mobile home replacement for single family dwelling units trend from 2001-2010 and as shown in **Table 7.39**, is integrated into the projection. It is then estimated, that 311 mobile homes will be replaced by a single family unit every five years.

For the purpose of this analysis, the projected household numbers only reflects the single family, multi-family and mobile homes (not to be confused with mobile home parks) since development of new hotel/motel units, campgrounds and recreational vehicle spaces requires a residential ROGO allocation. The County has declared a moratorium on the allocation of ROGO for these types of use. There is currently a moratorium on ROGO designation for these units until May 4, 2014.

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Table 59 - Dwelling Units by Type, 2010-2030

	2010		2015		2020		2025		2030	
	#	%	#	%	#	%	#	%	#	%
Single Family	22,921	62.5%	23,599	63.5%	24,201	64.4%	24,805	65.3%	25,410	66.2%
Multi Family	8,178	22.3%	8,309	22.4%	8,412	22.4%	8,513	22.4%	8,614	22.5%
Mobile, Boat, RV	5,574	15.2%	5,263	14.2%	4,952	13.2%	4,641	12.2%	4,330	11.3%
Total	36,674	100.0 %	37,172	100.0%	37,566	100.0 %	37,960	100.0%	38,354	100.0%

Source: Fishkind & Associates, Inc., 2010, *Unincorporated Monroe County Population Projections*; South Florida Regional Planning Council 2008, *Housing Type Projections for 2008*; Monroe County Building Department, 2010, *Mobile Home Replacement 2000-2009 data*.

As seen in **Table 59**, above, there is a decreasing trend for mobile homes given the mobile home replacements by single family homes. It is estimated that 311 mobile homes are replaced for a single family structure every 5 years. There is a dichotomy when it comes to addressing affordable housing issues. Although mobile homes are being replaced by single family units, mobile homes offer a solution to providing affordable housing. Then again, no new mobile home parks are allowed given the County's CHHA designation

Projected Need by Cost: To determine the projected cost, the historic average median incomes from 1999 to 2010 were assessed through HUD. It is estimated that the average median income for the County will increase by 3.4 percent every year. This is based strictly on historic area median income and does not take into consideration market forces, market crash or current recession. Using the affordable housing cost spreadsheets generated by the County Growth Management Division, which calculate affordable price by 30 percent of income, the affordable monthly rent are projected for the planning horizon on **Table 60.**

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Table 60 - Affordable Maximum Monthly Rental Rates per AMI projections 2015-2030

Unit Size	Incomes			
	Very Low	Low	Median	Moderate
2015 – AMI $80, 846 (est.)				
Efficiency	$712	$1,139	$1,423	$1,708
1 Bedroom	$763	$1,221	$1,527	$1,832
2 Bedroom	$912	$1,459	$1,824	$2,189
3 Bedroom	$1,044	$1,670	$2,087	$2,505
4 Bedroom	$1,170	$1,872	$2,340	$2,809
2020 – AMI $ 95,557 (est.)				
Efficiency	$841	$1,346	$1,682	$2,019
1 Bedroom	$902	$1,444	$1,804	$2,165
2 Bedroom	$1,078	$1,725	$2,156	$2,587
3 Bedroom	$1,234	$1,974	$2,467	$2,961
	$1,383	$2,213	$2,766	$3,320
2025 – AMI $ 112,944 (est.)				
Efficiency	$994	$1,591	$1,988	$2,386
1 Bedroom	$1,066	$1,706	$2,133	$2,559
2 Bedroom	$1,274	$2,039	$2,548	$3,058
3 Bedroom	$1,458	$2,333	$2,916	$3,499
4 Bedroom	$1,635	$2,616	$3,270	$3,924
2030 – AMI $ 133,496 (est.)				
Efficiency	$1,175	$1,880	$2,350	$2,820
1 Bedroom	$1,260	$2,017	$2,521	$3,025
2 Bedroom	$1,506	$2,409	$3,012	$3,614
3 Bedroom	$1,723	$2,757	$3,447	$4,136
4 Bedroom	$1,932	$3,092	$3,865	$4,638

Source: www.HUDuser.org for estimating AMI. Monroe County Growth Management, 2010, *AFH matrix future cost.xls,* for cost calculations.

As seen in **Table 61** the affordable selling prices are projected for the County. As defined by MCLDC 101-01 the maximum sales price, owner occupied affordable housing unit, means a price not exceeding 3.75 times the annual median household income for the county for a one bedroom or efficiency unit, 4.25 times the annual median household income for the county for a two bedroom unit, and 4.75 times the annual median household income for the county for a three or more bedroom unit.

Table 61 - Affordable Maximum Selling Price 2015-2030

2015 – AMI $80, 846 (est.)		
Unit Size	**Multiplier**	**Max Sales Price**
Efficiency/1 Bedroom	3.75	$303,173
2 Bedroom	4.25	$343,596
3 Bedroom	4.75	$384,019
2020 – AMI $ 95,557 (est.)		
Efficiency/1 Bedroom	3.75	$358,339
2 Bedroom	4.25	$406,117
3 Bedroom	4.75	$453,896
2025 – AMI $ 112,944 (est.)		
Efficiency/1 Bedroom	3.75	$423,540
2 Bedroom	4.25	$480,012
3 Bedroom	4.75	$536,484
2030 – AMI $ 133,496 (est.)		
Efficiency/1 Bedroom	3.75	$500,610
2 Bedroom	4.25	$567,358
3 Bedroom	4.75	$634,106

Source: *www.HUDuser.org* for estimating AMI. Monroe County Growth Management, 2010, *AFH matrix future cost.xls*, for cost calculations.

Projected Need by Income Range: Income ranges are discussed in Section 7.3.4 *"Projected Number of Households by Income"* of the Technical Document (July 2011) and the analysis is based on SCAH data. Analysis was done two ways, for functional population and permanent population. Permanent population was analyzed separate since it is permanent population who would receive affordable housing assistance. In summary, at least 60.9 percent of households in 2010 will be at or below the moderate income range (80.01 to 120 percent of the area median income). By the year 2030, the number of households at or below the moderate income range will be at 62.4 percent.

Rental vs. Home Ownership: Due to the high cost of land and limited subsidies available, the County should focus its affordable housing efforts toward encouraging the development of rental housing over home ownership. It is evident that renters are in more need of affordable housing assistance.

Locations for Affordable/Workforce Housing: The provision of adequate land for affordable housing is stated in "*Land Requirements for Housing Need"* of the Technical Document. In summary, there is a surplus of acreage in Tier III (infill areas) that would allow for the needed affordable housing.

Given that mobile homes provide an affordable option, the County may want to consider continuing providing the land sites where mobile home development is located and determine if this is a financially feasible option.

C. Policy Framework:

GOAL 601: Monroe County shall adopt programs and policies to facilitate access by all current and future residents to adequate and affordable housing that is safe, decent, and structurally sound, and that meets the needs of the population based on type, tenure characteristics, unit size and individual preferences.

Objective 601.1: By January 4, 1998, Monroe County shall complete initial implementation of the following defined policies, including establishment of a structured monitoring program, to reduce by 50% the current estimated affordable housing need for households in the very low and low income classifications (HUD definitions) 2002.

Policy 601.1.1: Within one year of the effective date of this Plan, Monroe County shall complete an assessment of affordable and special housing needs utilizing detailed housing data from the 1990 U.S. Census and an assessment of target areas and population segments representing priority affordable housing needs as a basis for establishing specific quantifiable near and long-term affordable housing programs. Results of the assessment shall be used to update the Comprehensive Plan's affordable housing policies.

Policy 601.1.2: By January 4, 1997, Monroe County shall adopt Land Development Regulations which establish a point system in conjunction with the permit allocation system for apportioning future development on an annual basis. The point system shall assign a positive point rating to affordable housing projects.

Policy 601.1.3: In conjunction with the Monroe County Housing Authority, assign Housing planning responsibilities within the County Planning Department by January 4, 1998. Examples of the Housing planning duties would include providing informational and technical assistance to the public on affordable housing programs, completing housing inventories and assessments, working to increase local utilization of state and federal funding programs, coordinating redevelopment plans, and serving as a liaison to the Monroe County Housing Authority. The County shall develop a Comprehensive Housing Affordability Strategy (CHAS) through the Planning Department in compliance with U.S. HUD guidelines in conjunction with the State of Florida CHAS, no later than January 1997.

Policy 601.1.4: Expand the County's participation in Federal and State housing assistance programs to rehabilitate owner and rental housing for low and moderate income residents by seeking grants, loans, and technical assistance in conjunction with the Monroe County Housing Authority by January 4, 1998.

Policy 601.1.5: By January 4, 1998, Monroe County shall define programs to maximize opportunities for private sector involvement in the formation of community-based non-profit organizations to actively participate in the provision of low and moderate income affordable housing.

Policy 601.1.6: By the effective date of this Plan, the Monroe County Land Authority shall compile a list of buildable properties owned or targeted for acquisition by the Land Authority which potentially could be donated or made available for affordable housing. This list will be updated annually and made available to the public. The guidelines established in Policies 601.1.13 and 601.1.14 shall be considered in the formulation of this list.

Policy 601.1.7: All affordable housing projects which receive development benefits from Monroe County, including but not limited to affordable housing points in the Permit Allocation System and donations of land, shall be required to maintain the project as affordable on a long-term basis pursuant to deed restrictions or other mechanisms specified in the Land Development Regulations, and administered by Monroe County or the Monroe County Housing Authority. For the purposes of developing such Land Development Regulations, the following guidelines shall apply: "Moderate Income" is the amount which represents one hundred-twenty percent (120%) of the median annual household income for Monroe County. "Low Income" is the amount which represents eighty percent (80%) of the median annual household income for Monroe County. "Very Low Income" is the amount which represents fifty percent (50%) of the median annual household income for Monroe County. "Cost-burdened" describes a household which pays a monthly rent or monthly mortgage payment, including taxes and insurance that exceeds thirty percent (30%) of the median annual household income for Monroe County.

Policy 601.1.8: If Monroe County funding, or if County-donated land is to be used for any affordable housing project, alternative sites shall be assessed according to the following guidelines: 1. The location of endangered species habitat, as specified on the most recent Protected Animal Species maps. Sites within known, probable, or potential threatened or endangered species habitat shall be avoided. 2. The environmental sensitivity of the vegetative habitat. The habitat sensitivity shall be determined according to the ranking specified in the Environmental Design Criteria section of the Land Development Regulations. Unless no feasible alternative is available, disturbed sites shall be selected. 3. The level of service provided in the vicinity for all public facilities. Areas which are at or near capacity for one or more public facility should be avoided. 4. Proximity to employment and retail centers. Sites within five miles of employment and retail centers shall be preferred.

Policy 601.1.9: The County Growth Management Division and the County Housing Authority shall identify funding sources that could be made available to support community-based non-profit organizations such as Habitat for Humanity in their efforts to provide adequate housing at a cost affordable to low-income residents.

Policy 601.1.10: The County shall strive to participate in the State Housing Incentives Partnership program as specified in the 1992 William Sadowski Affordable Housing Act. By January 4, 1997 Monroe County will adopt a Local Housing Assistance Ordinance which establishes a local housing partnership; a local housing trust fund; administrative responsibilities; and a Local Housing Advisory Committee. Thereafter, the County shall

write and implement a Local Housing Assistance Plan and a Local Housing Incentives Plan as specified in the Act.

Policy 601.1.11: By the effective date of this Plan, Monroe County shall adopt Land Development Regulations which provide that twenty percent (20%) of residential building permits will be reserved for single or multi-family affordable housing. (See Technical Document, Section 7.2.1 and Future Land Use Policy 101.2.4) Affordable housing eligible for this separate allocation must meet the criteria established in the Land Development Regulations.

Policy 601.1.12: By January 4, 1997, Monroe County shall adopt Land Development Regulations which may include density bonuses, impact fee waiver programs, and other possible regulations to encourage affordable housing.

Policy 601.1.13: The Land Authority will coordinate with developers of affordable housing projects when land acquisition proposals or donation requests are submitted to the Land Authority. The Land Authority will acquire and donate land for projects if they are deemed appropriate and acceptable by the Land Authority as meeting the intent of: 1. the affordable housing provisions in the Land Authority's charter; 2. the goals, objectives and policies of this Plan; and 3. the land use designations specified on the Future Land Use Map and in the Monroe County Land Development Regulations.

Policy 601.1.14: The Land Authority shall not list or donate lands as potential affordable housing sites if the lands exhibit any of the following characteristics: 1. Any portion of the land lies within a known, probable, or potential threatened or endangered species habitat, as specified on the most recent Protected Animal Species Maps; or 2. Any portion of the land within the area to be cleared contains Habitat Type/Habitat Quality Group 3 or 4, as specified in Policy 101.5.4, Section 6.

Policy 601.1.15: Monroe County shall annually monitor the eligibility of the occupants of housing units which have received special benefits, including but not limited to those issued under the affordable housing provisions specified in the Land Development Regulations or those issued through the Permit Allocation System. If occupants no longer meet the eligibility criteria specified in Policy 601.1.11 and in the Land Development Regulations, and their eligibility period has not expired, then Monroe County may take any one or a combination of the following actions: 1. require the payment of impact fees, if they were waived; 2. proceed with remedial actions through the Department of Code Enforcement, as a violation of the Monroe County Code; 3. take civil court action as authorized by statute, common law, or via agreement between an applicant and the County; and/or 4. require the sale or rental of the unit(s) to eligible occupants.

GOAL 601: Monroe County shall adopt programs and policies to facilitate access by all current and future residents to adequate and affordable housing that is safe, decent, and structurally sound, and that meets the needs of the population based on type, tenure characteristics, unit size and individual preferences. [9J-5.010(3)(a)]

Objective 601.1: By January 4, 1998, Monroe County shall complete initial implementation of the following defined policies, including establishment of a structured monitoring program, to reduce by 50% the current estimated affordable housing need for households in the very low and low income classifications (HUD definitions) 2002. [9J-5.010(3)(b)1 and 3]

Policy 601.1.1: Within one year of the effective date of this Plan, Monroe County shall complete an assessment of affordable and special housing needs utilizing detailed housing data from the 1990 U.S. Census and an assessment of target areas and population segments representing priority affordable housing needs as a basis for establishing specific quantifiable near and long-term affordable housing programs. Results of the assessment shall be used to update the Comprehensive Plan's affordable housing policies.

Policy 601.1.2: By January 4, 1997, Monroe County shall adopt Land Development Regulations which establish a point system in conjunction with the permit allocation system for apportioning future development on an annual basis. The point system shall assign a positive point rating to affordable housing projects.

Policy 601.1.3: In conjunction with the Monroe County Housing Authority, assign Housing planning responsibilities within the County Planning Department by January 4, 1998. Examples of the Housing planning duties would include providing informational and technical assistance to the public on affordable housing programs, completing housing inventories and assessments, working to increase local utilization of state and federal funding programs, coordinating redevelopment plans, and serving as a liaison to the Monroe County Housing Authority. The County shall develop a Comprehensive Housing Affordability Strategy (CHAS) through the Planning Department in compliance with U.S. HUD guidelines in conjunction with the State of Florida CHAS, no later than January 1997.

Policy 601.1.4: Expand the County's participation in Federal and State housing assistance programs to rehabilitate owner and rental housing for low and moderate income residents by seeking grants, loans, and technical assistance in conjunction with the Monroe County Housing Authority by January 4, 1998. [9J-5.010(3)(c)7]

Policy 601.1.5: By January 4, 1998, Monroe County shall define programs to maximize opportunities for private sector involvement in the formation of community-based non-profit organizations to actively participate in the provision of low and moderate income affordable housing. [9J-5.010(3)(c)1]

Policy 601.1.6: By the effective date of this Plan, the Monroe County Land Authority shall compile a list of buildable properties owned or targeted for acquisition by the Land Authority which potentially could be donated or made available for affordable housing. This list will be updated annually and made available to the public. The guidelines established in Policies 601.1.13 and 601.1.14 shall be considered in the formulation of this list. [9J-5.010(3)(b)1, 3 & 5]

Policy 601.1.7: All affordable housing projects which receive development benefits from Monroe County, including but not limited to affordable housing points in the Permit Allocation System and donations of land, shall be required to maintain the project as affordable on a long-term basis pursuant to deed restrictions or other mechanisms specified in the Land Development Regulations, and administered by Monroe County or the Monroe County Housing Authority. For the purposes of developing such Land Development Regulations, the following guidelines shall apply: "Moderate Income" is the amount which represents one hundred-twenty percent (120%) of the median annual household income for Monroe County. "Low Income" is the amount which represents eighty percent (80%) of the median annual household income for Monroe County. "Very Low Income" is the amount which represents fifty percent (50%) of the median annual household income for Monroe County. "Cost-burdened" describes a household which pays a monthly rent or monthly mortgage payment, including taxes and insurance that exceeds thirty percent (30%) of the median annual household income for Monroe County.

Policy 601.1.8: If Monroe County funding, or if County-donated land is to be used for any affordable housing project, alternative sites shall be assessed according to the following guidelines: 1. The location of endangered species habitat, as specified on the most recent Protected Animal Species maps. Sites within known, probable, or potential threatened or endangered species habitat shall be avoided; 2. The environmental sensitivity of the vegetative habitat. The habitat sensitivity shall be determined according to the ranking specified in the Environmental Design Criteria section of the Land Development Regulations. Unless no feasible alternative is available, disturbed sites shall be selected; 3. The level of service provided in the vicinity for all public facilities. Areas which are at or near capacity for one or more public facility should be avoided; 4. Proximity to employment and retail centers. Sites within five miles of employment and retail centers shall be preferred. [9J-5.010(3)(c)(5)]

Policy 601.1.9: The County Growth Management Division and the County Housing Authority shall identify funding sources that could be made available to support community-based non-profit organizations such as Habitat for Humanity in their efforts to provide adequate housing at a cost affordable to low-income residents. [9J-5.010(3)(c)1]

Policy 601.1.10: The County shall strive to participate in the State Housing Incentives Partnership program as specified in the 1992 William Sadowski Affordable Housing Act. By January 4, 1997 Monroe County will adopt a Local Housing Assistance Ordinance which establishes a local housing partnership; a local housing trust fund; administrative responsibilities; and a Local Housing Advisory Committee. Thereafter, the County shall write and implement a Local Housing Assistance Plan and a Local Housing Incentives Plan as specified in the Act.

Policy 601.1.11: By the effective date of this Plan, Monroe County shall adopt Land Development Regulations which provide that twenty percent (20%) of residential building permits will be reserved for single or multi-family affordable housing. (See Technical Document, Section 7.2.1 and Future Land Use Policy 101.2.4) Affordable

housing eligible for this separate allocation must meet the criteria established in the Land Development Regulations. [9J-5.010(3)(c)5]

Policy 601.1.12: By January 4, 1997, Monroe County shall adopt Land Development Regulations which may include density bonuses, impact fee waiver programs, and other possible regulations to encourage affordable housing.

Policy 601.1.13: The Land Authority will coordinate with developers of affordable housing projects when land acquisition proposals or donation requests are submitted to the Land Authority. The Land Authority will acquire and donate land for projects if they are deemed appropriate and acceptable by the Land Authority as meeting the intent of: 1. the affordable housing provisions in the Land Authority's charter; 2. the goals, objectives and policies of this Plan; and 3. the land use designations specified on the Future Land Use Map and in the Monroe County Land Development Regulations.

Policy 601.1.14: The Land Authority shall not list or donate lands as potential affordable housing sites if the lands exhibit any of the following characteristics: 1. Any portion of the land lies within a known, probable, or potential threatened or endangered species habitat, as specified on the most recent Protected Animal Species Maps; or 2. Any portion of the land within the area to be cleared contains Habitat Type/Habitat Quality Group 3 or 4, as specified in Policy 101.5.4, Section 6.

Policy 601.1.15: Monroe County shall annually monitor the eligibility of the occupants of housing units which have received special benefits, including but not limited to those issued under the affordable housing provisions specified in the Land Development Regulations or those issued through the Permit Allocation System. If occupants no longer meet the eligibility criteria specified in Policy 601.1.11 and in the Land Development Regulations, and their eligibility period has not expired, then Monroe County may take any one or a combination of the following actions: 1. require the payment of impact fees, if they were waived; 2. proceed with remedial actions through the Department of Code Enforcement, as a violation of the Monroe County Code; 3. take civil court action as authorized by statute, common law, or via agreement between an applicant and the County; and/or 4. require the sale or rental of the unit(s) to eligible occupants.

Policy 1301.5.5: The Growth Management Division shall work with the County Housing Authority to encourage development of elderly and institutional housing and identify funding sources for community-based non-profit organizations to provide affordable housing for low-income residents.

D. Strategies

- The County should consider mapping the locations of all existing deed restricted affordable housing units.
- The County should consider continuing implementing the Affordable Housing ordinance.
- County should consider transferring the qualifying of the affordable housing applicants to the MC Housing Authority.

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VIII. Public Involvement/Information

Issue Statement: ***Promote robust public involvement and information sharing regarding land use issues throughout the planning and development process.***

A. Background: The Plan is designed to actively engage and maximize participation by the County residents, business owners, interest groups, and community groups in shaping the Plan, as guided and regulated by Chapter 163, F.S. The County has a rich history of public interest and involvement in growth management issues that has shaped the approach to development and use of land within the County, as seen in programs such as the Livable CommuniKeys. Continued public involvement and input in land use issues is of utmost importance to the citizens of the County.

B. Analysis: The County has established though the Plan, the MCLDC, and by other means, a healthy public involvement process to allow the public to gain information, view existing and proposed documents and plans, and provide input on land use and development matters. Much of the County is guided by the Livable CommuniKeys Program, which began in 1997. The individualized Livable CommuniKeys Plans for the various areas of the County acknowledge the distinctive nature of the planning areas and takes into consideration the needs and desires of each community through the extensive public involvement that took place to create each LCP.

As proposed land use and development/redevelopment related applications are submitted to the County, the public involvement process begins early. For proposed changes to the land use district maps and future land use maps, property owner's that are located within a 300 foot radius of the affected property receive written notice by mail informing them of the subject application and scheduled public hearing dates, time and location.

One of the first meetings that occurs when a development application, text and/or map amendment application is submitted to the County is a Development Review Committee meeting. The DRC meets at least twice a month and their duties are to review all applications for development approval and report its recommendations to the Planning Commission, Planning Director and/or the Board of County Commissioners. A staff report is prepared for each application and provisions are established in the MCLDC that allow "*public comments by members not in the Department of Planning may be in writing and delivered to the Development Review Committee, the Planning Director, and communicated to the applicant*". [Section 102-21 (c) (2) e.] The DRC maintains minutes and records as required by State law.

Regulations are also established in the MCLDC for all public hearings for development applications, text or map amendments, to be advertised in a local newspaper and signs posted on the subject property 15 days prior to the public hearing to notify the public. All public hearings and notices are also posted on the County's website to keep the public informed, as required by the MCLDC. The MCLDC also contains provisions for rights of all persons and states: "*any person may appear at a public hearing and submit evidence, either individual or as a representative of an organization. . .*" [Section 110-

6(c)(2)]. In addition, the County provides information of all upcoming public hearings on their local television Channel 76.

C. Policy Framework: The *Monroe County 2010 Comprehensive Plan* contains Section *5.0 Monitoring and Evaluation Procedures*, which includes the following pertaining to public involvement:

Citizen Participation in the Planning Process (5.5)

The Monroe County Planning Commission(PC) and Board of County Commission (BOCC) shall hold advertised public hearings on all matters relating to the monitoring, evaluation, implementation, and amending of the Comprehensive Plan. The purpose of these public hearings will be to encourage public participation in the comprehensive planning process and to inform real property owners and the general public of actions which may affect the use of their property. The procedures described in 5.1 through 5.4 above include several opportunities for citizen participation in the planning process. These opportunities include:

1. Annual BOCC public hearing(s) to review the Plan Implementation Report and adopt the Annual Operating Budget;

2. Annual BOCC public hearing(s) to review and adopt the Concurrency Management Report and the Five-Year Capital Improvement Program;

3. Planning Commission public hearing(s) (at least every five years) to review the EAR and transmit recommendations to the BOCC; and

4. BOCC public hearing(s) to review and adopt the EAR.

To the extent that any of BOCC public hearings serve to amend or update the Comprehensive Plan, the requirements of Chapter 163.3184(15)(b) will be followed (See 5.5.1 below). At each of these public hearings, citizens will be afforded the opportunity to submit verbal and written comments.

Notification (5.5.2)

Monroe County will assure that the general public and real property owners are notified of all official actions which may affect the use of their property, including:

1. all BOCC and Planning Commission public hearings related to the monitoring, evaluation, and implementation of the Comprehensive Plan and the adoption of any amendments to the Monroe County Year 2010 Comprehensive Plan; and
2. any additional public meetings or workshops related to comprehensive planning process.

Monroe County shall notify the general public and real property owners through the publication of a notice in a newspaper of general circulation in the area, consistent with established Monroe County notification procedures.

Dissemination of Materials (5.5.3)

Consistent with current practices, Monroe County shall continue to provide all materials prepared during the comprehensive planning process and to be discussed at Planning Commission and BOCC public hearings to the general public. These materials will be available for public inspection at established locations throughout the Upper, Middle and Lower Keys, including public libraries and government centers.

The following GOPs pertain to public input and/or involvement:

Policy 101.20.1: Monroe County shall develop a series of Community Master Plans. Master Plans will be developed in accordance with the following principles: *(Note 1. - 4. are not related here)* 5. Each Community Master Plan will include appropriate mechanisms allowing citizens continued oversight and involvement in the implementation of their plans. Through the Community Master Plans, programs for ongoing public involvement, outreach, and education will be developed.

Policy 102.4.3*:* The Land Authority and Growth Management Division shall develop a priority list of acquisition sites. This list shall be updated annually with public input. In formulating this list, the County shall prioritize Tier I lands over Tier II (Big Pine Key and No Name Key) and Tier III lands. Outside the boundaries of Tier I, land with fragmented hammocks or pinelands of greater than one-acre in area and wetlands identified in Policy 102.4.2, 2 shall be the second highest priority for acquisition. Acquisition of land for affordable housing in Tier III that does not involve any clearing within an upland tropical hammock or pineland of one acre or greater in area shall also be a top priority.

Policy 205.5.2: A list of priority native upland habitat acquisition sites in Tier I shall be drafted and reviewed annually with public input taken. This list shall be developed by Monroe County in consultation with representatives of FDEP, FDCA, USFWS, SFWMD, FWC and others as appropriate.

Policy 1201.10.2: The preparation of the Parks and Recreation Plan will include a public participation program in order to determine the demand for recreation areas and facilities.

GOAL 1303: Monroe County shall increase the involvement of the citizens of the County and government related entities that operate within the County in the comprehensive planning and growth management process.

Objective 1303.1: Monroe County shall provide for and facilitate public participation and awareness in the comprehensive planning process.

Policy 1303.1.1: Monroe County shall continue to utilize an information exchange program, including the full utilization of an updated mailing list, to provide for the communication of issues in summary form between the County and all interested parties.

Policy 1303.1.2: Monroe County shall develop public awareness of the Comprehensive Plan by providing for public education programs designed to promote a widespread understanding of the Plan's purpose and intent.

D. Strategies

- The County has adequate public involvement provisions established; however, the County may want to consider the addition of a community meeting requirement for land development applications. This meeting would occur after the pre-application meeting, but prior to the public hearings, at a location near the project site, to allow for community input directly with the applicant. The cost of this process would be borne by the applicant. Although the applicant would organize the meeting, a representative of the County's Growth Management Department would facilitate the public discussion.

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IX. Intergovernmental Coordination

Issue Statement: ***Provide effective and efficient intergovernmental, interdepartmental and interagency coordination.***

Note: The Background, Issue Analysis, Policy Framework, and Strategies are divided into four (4) categories each for this section: Intergovernmental Coordination, Interdepartmental Data Sharing and Development Review, FKAA Supply of Adequate Water Pressure for Fire Service, and Florida Keys Carrying Capacity Study and Model.

Issue Category(a): Intergovernmental Coordination

A. Background: The purpose of intergovernmental coordination is to create partnerships with municipalities, local governments, and other public agencies to ensure efficient, effective, and equitable management of local and regional resources. Improved intergovernmental coordination can reduce or eliminate the duplication of services by different jurisdictions of government. Services may include public facilities/services as well as infrastructure, such as water, sewer, and stormwater. The formation of partnerships may also promote and enhance planning initiatives by local government that involves other government or public entities and affords support by local government for activities that promote shared goals. If those goals are not shared, coordination affords an opportunity to resolve these opposing purposes.

B. Analysis: The County interacts with many facets of government, agencies, districts, and groups. Coordination between constituent cities, local governments, and State and regulatory agencies may be addressed through the provision of timely and accurate information. Intergovernmental coordination can be viewed as a means of simplification. By making intergovernmental relations less complex, questions of equity can more easily be dealt with; that is, the less complex a system is, the more accessible the system becomes to ordinary citizens whom the system is intended to serve.

C. Policy Framework

Objective 801.6: Monroe County shall increase intergovernmental coordination efforts with the Department of Community Affairs (DCA), the Department of Environmental Regulation (DER), the South Florida Regional Planning Council (SFRPC), and the County's municipalities to develop and implement the most cost-effective and environmentally sound methods of regional solid waste management.

1. Policy 101.3.3: The Permit Allocation System for new non-residential (NROGO) development shall specify procedures for: 1. the annual adjustment of the square footage allocated for new non-residential development to be permitted during

the next year based upon, but not limited to: *(Note, a. – c. are not relevant here)* d) receipt or transfer of floor area by intergovernmental agreement.

Policy 102.4.5: An intergovernmental organization and management structure shall be developed to implement the expanded acquisition program, including representatives of the Growth Management Division, Land Authority, municipalities and state and federal agencies.

Policy 216.3.2: Immediately following plan adoption, Monroe County shall initiate an intergovernmental agreement with Dade County and other appropriate agencies (e.g., Board of Regents, American Red Cross) in an attempt to provide sufficient approved spaces outside of Monroe County for all county residents who will seek shelter from a Category 3 or greater hurricane. In particular Monroe County shall request that the Board of Regents identify sufficient shelter spaces based on professionally accepted standards, in the updated campus master plan for Florida International University to be prepared in 1992-93.

Objective 801.6: Monroe County shall increase intergovernmental coordination efforts with the Department of Community Affairs (DCA), the Department of Environmental Regulation (DER), the South Florida Regional Planning Council (SFRPC), and the County's municipalities to develop and implement the most cost-effective and environmentally sound methods of regional solid waste management.

Policy 1201.2.1: Land required to eliminate existing deficiencies in neighborhood and community parks shall be made available through one or a combination of the following mechanisms: *(Note, 1. – 4. and 6. are not relevant here)* 5. intergovernmental agreements with agencies of the state and federal governments for use of existing publicly-owned lands or facilities by county residents.

The same mechanisms shall be used for purposes of providing adequate land to satisfy the demand for parks and recreation facilities resulting from future residential development.

Monroe County shall not rely upon joint use facilities to eliminate existing deficiencies or meet future LOS requirements until interlocal, intergovernmental, or private joint use agreements are executed which demonstrate that the facilities will be available for general use to Monroe County residents to meet peak season, weekend, or time of day recreation demands.

Policy 1201.3.4: A park master plan shall be completed for all new neighborhood and community parks by September 30th of the year following the acquisition of real property or rights therein for purposes of outdoor recreation. Exceptions shall occur when park master plans are required as a condition of an intergovernmental agreement, interlocal agreement, joint use agreement or long-term lease

arrangement; in such instances the master plan shall be prepared prior to acquisition of property rights to serve outdoor recreation.

GOAL 1301: Monroe County shall promote and encourage intergovernmental coordination between the County; the municipalities of Key West, Key Colony Beach, and Layton; the Counties of Dade and Collier; regional, state, and federal governments and private entities in order to anticipate and resolve present and future concerns and conflicts.

Objective 1301.1: Monroe County shall establish or maintain coordination mechanisms to ensure that full consideration is given to the impacts of development allowed by the Monroe County Comprehensive Plan upon the plans of adjacent municipalities, adjacent counties of Dade and Collier, the region, the State and the Federal Governments, as well as the impacts of those entities' plans on the County.

Policy 1301.1.1: By January 4, 1997, Monroe County shall increase the amount and effectiveness of coordination mechanisms with the South Florida Regional Planning Council (SFRPC) by receiving the Council's comments on the revised Monroe County Comprehensive Plan and the land development regulations and addressing these comments in plan revisions.

Policy 1301.1.2: Monroe County shall coordinate with Dade County, Florida Department of Natural Resources (DNR) and the South Florida Water Management District (SFWMD) on all land and water management plans affecting Card Sound.

Policy 1301.1.3: Monroe County shall resolve conflicts including but not limited to annexation issues, with Broward, Collier and Dade Counties, the Cities of Key West, Key Colony Beach, and Layton, and the State of Florida through the South Florida Regional Planning Council's informal mediation process.

Policy 1301.1.4: By January 4, 1998, Monroe County shall initiate an interlocal agreement with Dade County providing for notification and review procedures in order to provide a mechanism for Monroe County comment on land use and regulatory issues concerning the potable water wellfield, aquifer, and aquifer recharge areas.

Policy 1301.1.5: Monroe County and the Florida Keys Aqueduct Authority (FKAA) shall work cooperatively with the SFWMD and Dade County to ensure the protection and availability of an adequate raw water supply to meet Monroe County needs through 2010 from the Florida City wellfield by: 1. renewing of consumptive use permit by January 4, 1998 and thereafter as required by SFWMD; and 2. if necessary, conducting an exploratory study of the feasibility of reverse osmosis and other technologies.

Policy 1301.1.6: By January 4, 1997, Monroe County and the City of Key West shall set up and implement, by interlocal agreement, an entity called the Monroe County Technical Coordination Committee. The committee will consist of six officials, three representing the City of Key West and three representing Monroe County, appointed at

the discretion of the City Manager and County Administrator. These officials will represent the concerns of the following offices with each government:

1. Community Services
2. Public Works
3. Planning

The Committee will meet at least twice a year with the following agenda, with subsequent summary reports provided to the County Administrator and City Manager:

1. Land Use/Development Impact Review
2. Transportation Management
3. Affordable Housing
4. Public Facilities
5. Public Safety
6. Solid Waste (to include recycling)
7. Recreation and Open Space
8. Potable Water
9. Drainage
10. Natural Groundwater Aquifer Recharge
11. Conservation
12. Coastal Management
13. Permit Allocation
14. Hurricane Evacuation and Recovery

Policy 1301.1.7: By January 4, 1997 and each year thereafter on an ongoing basis Monroe County and FKAA will coordinate an evaluation and appraisal of the Monroe County Comprehensive Plan, adopted levels of service, annual public facility capacity analysis, and the Consumptive Use Permit.

Policy 1301.1.8: Monroe County shall, through means in policies 1301.1.3, 1301.1.6 and 1301.1.9, improve communication and conflict resolution among the County, its municipalities, and the State of Florida within the context of the County's designation as an area of critical state concern. Improvement shall be measured based on the ability of developing joint resolutions in areas of mutual concern.

Policy 1301.1.9: By January 4, 1997, Monroe County shall request that the Department of Community Affairs (DCA) initiate intergovernmental agreements with the Department of Health and Rehabilitative Services, Department of Natural Resources, and Department of Environmental Regulation in order to assist them in their efforts to streamline their effectiveness by clearly establishing a coordinated agency review procedure that establishes each agency's responsibilities within Monroe County as stated in Chapter 163, F.S., Chapter 380, F.S. and Section 381.272, F.S. The agreements will establish coordinated permit procedures and greater understanding of mutual concerns and long-term goals.

Policy 1301.1.10: On a semi-annual basis, Monroe County shall meet with representatives of federal, state, regional and local agencies that have regulatory authority in the County, and periodically review those agencies' written rules in order to keep up-to-date and informed as to how other agencies' regulatory activities affect implementation of Monroe County's Comprehensive Plan. Monroe County shall be responsible for developing a list to be revised annually of contact persons within all agencies which have jurisdiction in Monroe County. In addition, the periodic review of agency rules by the County shall be in writing and provided to the relevant agency to assure further understanding.

Policy 1301.1.11: Monroe County shall attempt to ensure that development activities that require permits from federal, state, regional, and county regulatory authorities are done through a coordinated interagency review.

Policy 1301.12: By January 4, 1997, Monroe County shall establish a complete list of existing and planned intergovernmental and interagency agreements, which shall be updated annually.

Policy 1301.1.13: All permitting agencies shall be required per Chapter 163, F.S. to observe and adhere to the Monroe County Comprehensive Plan and regulations if more stringent than their own.

Policy 1301.1.14: Monroe County shall continue to participate wherever possible in SFWMD planning and management activities. Monroe County shall continue to review and comment on SFWMD's proposed plans and regulation amendments, and to delegate representatives to SFWMD's Advisory Committees. Monroe County shall also seek, through County Commission resolution, to maintain equal representation on the SFWMD Governing Board.

Policy 1301.1.15: Monroe County shall consult with the Florida Keys Aqueduct Authority to confirm the availability of water supply prior to the issuance of a building permit.

Policy 1301.1.16: Monroe County shall initiate an Interlocal agreement with the Florida Keys Aqueduct Authority (FKAA) to establish a mechanism whereby the FKAA and the County identify the availability of water supply needed to serve existing and new development within the Unincorporated Area, monitor the utilization of water supply, and implement such alternative water supply projects, traditional water supply projects, conservation project and reuse necessary to meet Monroe County's water supply needs.

Objective 1301.2: Through the adoption of one or more intergovernmental agreements, Monroe County shall coordinate with municipalities and other appropriate entities in order to plan and implement programs to improve water quality.

Policy 1301.2.1: Monroe County shall, by specified dates given below implement the following water quality improvement programs by intergovernmental agreement:

Entity/Entities	Subject (or their designees)	Date
Wastewater treatment inspection/compliance program for all OSDS, package plants, and wastewater treatment plants	Florida Department of Environmental Protection (DEP) & Florida Department of Health and Rehabilitative Services (HRS)	1/4/97
Regulation and enforcement program for live-aboard disposal system discharge	U.S. Coast Guard, Marine and Port Advisory Committee, BOCC, NOAA, DEP, U.S. Environmental Protection Agency (EPA), and incorporated municipalities	1/4/97
Identification and replacement of deficient OSDS	HRS	1/4/97
Engineering study of drainage in the Florida Keys	SFWMD, DEP	1/4/97
Interjurisdictional drainage facilities impacting on the Everglades and Florida Bay	Dade, Broward, Collier, and Palm Beach Counties and SFWMD	1/4/97
Nearshore and Florida Bay water quality monitoring program	SFWMD, EPA, DEP, and Florida Keys National Marine Sanctuary (FKNMS)	1/4/98
Preparation of the Sanitary Wastewater/Stormwater Master Plan	FKAA, SFWMD	1/4/97
Water Quality and permitting issues related to canal system aeration, backfilling, and unplugging	DEP, ACOE, NOAA, EPA	1/4/98
Scientific studies of stress on seagrass ecosystems	NOAA, EPA, and DEP	following completion of FKNMS Plan
Scientific studies of stress on coral reef ecosystems	NOAA, EPA, and DEP	following completion of FKNMS Plan
Coordination of existing and potential land management problems affecting water quality and fisheries	Nat'l Park Service, SFWMD, Collier and Dade Counties	1/4/97

Objective 1301.3: Level of service standards established by the Comprehensive Plan shall be reviewed with the entity actually responsible for providing the facilities to ensure that adequate capacity is available to meet the needs of existing and future residents.

Policy 1301.3.1: When conflicts with other local governments arise, including but not limited to the following topics:

1. establishing when, how and which public facilities' LOS standards shall be measured across jurisdictional lines;

2. evaluating the impact on levels of service caused by development within each jurisdiction, to ensure concurrency, and to assess the development's impacts on land use;

3. allocating the relative proportions of future development;

4. establishing a system to monitor future development within the jurisdictions; and

5. mediating disputes between the jurisdictions regarding the allocation of future development.

Monroe County shall initiate and utilize the South Florida Regional Planning Council's (SFRPC) informal mediation process to resolve conflicts.

Policy 1301.3.2: Monroe County shall, through its development review process, consider the impacts of proposed developments on the LOS standards of adjacent local governments and the Counties of Dade and Collier.

Policy 1301.3.3: As part of the planning process, Monroe County shall consider the impacts of projected development on the comprehensive plans of incorporated communities within the County.

Policy 1301.3.4: By January 4, 1997, Monroe County shall initiate an interlocal agreement with Dade County to evaluate the impact of development on levels of service within one mile of County borders, ensure concurrency and assess impact on existing and proposed land use.

Objective 1301.4: Establish or maintain coordination mechanisms to ensure transportation related programs, plans, and facility improvements are fully considered by the appropriate federal, state, regional or local agency.

Policy 1301.4.1: Monroe County shall continue operating the Monroe County Transportation Program and coordinating the program with the Key West Port and Transit Authority, and the Florida Department of Transportation 5-Year Transportation Plan.

Policy 1301.4.2: Monroe County shall continue to seek funds for the transportation disadvantaged and other transit and paratransit operations from all applicable federal, state, regional, and other sources and shall continue to provide gas tax revenues to public transit and paratransit services.

Policy 1301.4.3: Monroe County shall coordinate all port or related facilities with the plans of the United States Army Corps of Engineers, resource planning and management plan prepared pursuant to Chapter 380, Florida Statutes and approved by the Governor and Cabinet, and the Florida Department of Transportation 5-Year Plan as adopted. [

Policy 1301.4.4: Monroe County shall coordinate port related improvements with the Key West Port and Transit Authority (PATA) by designating a member of the staff of the Planning Department to act as a liaison with PATA.

Policy 1301.4.5: Monroe County shall coordinate all aviation or related facilities with the plans of the Federal Aviation Administration, military services, resource planning and management plan prepared pursuant to Chapter 380, Florida Statutes and approved by the Governor and Cabinet, the Florida Department of Transportation 5-Year Plan, and the Continuing Florida Aviation System Planning Process as adopted.

Policy 1301.4.6: Monroe County shall maintain and update a master plan for each public airport pursuant to the rules of the Federal Aviation Administration.

Policy 1301.4.7: Monroe County shall work with the Florida Department of Transportation and Federal Aviation Administration to secure airport improvement grants.

Policy 1301.4.8: Monroe County shall coordinate expansions and operation of the Key West airport with the U.S. Navy.

Policy 1301.4.9: Monroe County shall coordinate with the Florida Department of Transportation (FDOT) to ensure that U.S. 1 roadway capacity improvements are placed on FDOT's five year plan to reduce hurricane evacuation clearance times to 24 hours by the year 2010 (See Capital Improvements Policies 1401.1.4 and 1401.1.5).

Policy 1301.4.10: Monroe County, through its Planning Department Staff/Scenic Highway Coordinator, will assist the Florida Keys Scenic Corridor Alliance and the Florida Department of Transportation (FDOT) to support the implementation of the Vision, Goals, Objectives and Strategies of the Florida Scenic Highway Corridor Master Plan and the recommendations of the Florida Scenic Highway Interpretive Master Plan.

Policy 1301.4.11: Monroe County, through its Planning Department Staff/ Scenic Highway Coordinator, will assist the Florida Keys Scenic Corridor Alliance and the Florida Department of Environmental Protection to support the implementation of the Florida Keys Overseas Heritage Trail Master Plan.

Objective 1301.5: Ensure that implementation, monitoring, and evaluation of the Monroe County Comprehensive Plan is coordinated with the plans and programs of:

The Land Authority of Monroe County,
The Monroe County Property Appraiser's Office
The District School Board of Monroe County
The Florida Department of Transportation
The South Florida Regional Planning Council
The South Florida Water Management District
The Florida Department of Environmental Regulation
The Florida Keys Aqueduct Authority
The City Electric Service,
The Florida Department of Health and Rehabilitative Services
The Florida Keys Electric Cooperative
The Monroe County Sheriff's Department
Monroe County Housing Authority
The Key West Port and Transit Authority

and other providers of health, safety, and educational services not having regulatory authority over the use of land.

Policy 1301.5.1: Monroe County shall request that private providers of health, safety, and educational services review and comment regarding this comprehensive plan.

Policy 1301.5.2: Monroe County shall continue to share data with the City Electric Service, Florida Keys Aqueduct Authority, the Monroe County Property Appraiser, SFWMD and other agencies for use in GIS applications.

Policy 1301.5.3: The existing coordination mechanism between the Monroe County Land Authority and the Florida Department of Community Affairs shall be maintained. By January 4, 1998, the Land Authority shall research and publish a report examining the potential to expand its operations and effectiveness, particularly within the context of the needs identified in this Comprehensive Plan, including the Land Authority becoming the responsible authority for acquiring and administering a TDR program. The report shall identify specific actions (if any) which Monroe County should take to assist the Land Authority.

Policy 1301.5.4: By January 4, 1997 Monroe County, in updating its drainage policies and ordinances, shall meet with the SFWMD and the SFRPC to ensure that the local regulatory framework is consistent with the planning objectives and regulations of the region.

Policy 1301.5.5: The Growth Management Division shall work with the County Housing Authority to encourage development of elderly and institutional housing and identify funding sources for community-based non-profit organizations to provide affordable housing for low-income residents.

Policy 1301.5.6: Monroe County shall coordinate with the District School Board of Monroe County on the siting and expansion of required facilities.

Policy 1301.5.7: Monroe County shall, on an annual basis during the preparation of the Concurrency Management Report, coordinate with the Municipal Services District, the Florida Keys Aqueduct Authority, City Electric and the Florida Keys Electric Cooperative to determine the acreage and location of land needed to accommodate projected service expansions.

Policy 1301.5.8: Monroe County shall, on an annual basis, coordinate with hospitals in the County to ensure the availability of adequate land to meet hospital expansion and improvement requirements.

Objective 1301.6: Monroe County shall establish or maintain mechanisms of coordination and cooperation to ensure the protection and restoration of wetlands.

Policy 1301.6.1: Monroe County shall participate in the Florida Keys Advance Identification of Wetlands (ADID) Program.

Policy 1301.6.2: As part of the ADID Program, Monroe County shall continue to cooperate with the EPA, the U.S. Army Corps of Engineers (ACOE), the Florida Game and Fresh Water Fish Commission (FGFWFC), and the U.S. Fish and Wildlife Service (USFWS) to develop a wetlands functional assessment protocol. This assessment protocol shall be tailored for use in the Florida Keys and shall be based upon habitat suitability, water quality, and flood flow alteration functions of marine and freshwater wetlands.

Policy 1301.6.3: As part of the ADID Program, Monroe County, EPA, USFWS, and FGFWFC will jointly carry out the functional analysis of wetlands. This shall be completed on all wetland vegetative cover areas within improved subdivisions and on selected sites outside improved subdivisions, according to statistically valid selected sample locations for each wetland vegetative cover type.

Policy 1301.6.4: Monroe County shall work cooperatively with the ACOE, EPA, DER, DNR, FGFWFC, and others as appropriate, to determine funding sources to support the wetlands restoration program.

Policy 1301.6.5: Monroe County shall cooperate with the FGFWFC in its effort to map freshwater wetlands and disturbed wetlands.

Policy 1301.6.6: The Monroe County Growth Management Division in conjunction with the Monroe County Land Authority and other federal and state agencies will develop and administer the wetlands acquisition program as part of the Monroe County Land Acquisition Master Plan.

Objective 1301.7: Monroe County shall implement mechanisms to identify and resolve intergovernmental coordination needs pertaining to environmental issues and natural resource protection.

Policy 1301.7.1: By January 4, 1997, Monroe County shall initiate an interlocal agreement with the U.S. Fish and Wildlife Service (USFWS) and SFWMD to identify and map the freshwater lenses of the Florida Keys and their associated recharge areas. Previously conducted studies by the Audubon Society and the SFWMD will be utilized to the greatest extent possible. An analysis of the condition of the lenses shall also be completed. The mapping shall be incorporated onto the Geographical Information System.

Policy 1301.7.2: Monroe County shall coordinate with applicable State agencies to promote utilization of grey water storage systems and utilization for all exterior irrigation and flushing purposes.

Policy 1301.7.3: By September 30th of each year, Monroe County, in coordination with local DER representatives, shall review the annual air quality monitoring data for Monroe County. Any violations of the NAAQS or trends in ambient air quality shall be reported to the Board of County Commission.

Policy 1301.7.4: The County shall coordinate its upland habitat mapping and evaluation efforts with the U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, Florida Department of Environmental Regulation, Florida Department of Natural Resources, South Florida Water Management District, Florida Game and Fresh Water Fish Commission, and the National Audubon Society (Research Department).

Policy 1301.7.5: Monroe County, in cooperation with appropriate state and/or federal agencies, shall identify current and future land use activities causing or potentially causing adverse impacts on sensitive natural features and resources within state and federal conservation lands and develop a management plan for the protection of each Conservation Land Protection Area.

Policy 1301.7.6: Monroe County shall assist the DCA in developing a coordinated agency review pursuant to section 380.051, Florida Statutes. The Monroe County Growth Management Division shall continue to conduct meetings with the Department of Environmental Regulation, the National Oceanographic and Atmospheric Administration, the Department of Natural Resources, and the U.S. Army Corps of Engineers to identify the environmental issues and contradictions in rules and authorities related to the permitting process for marinas, docking facilities, piers, mooring sites, hardened vertical shoreline structures, and dredging in the Florida Keys. Within one year of the effective date of this comprehensive plan, after issues have been identified, Monroe County shall revise its Land Development Regulations. (See Policies 103.2.13, 203.6.1, 212.4.7, 212.5.10, and 212.6.5.)

Policy 1301.7.7: Monroe County shall coordinate its boating impacts management activities with those of the National Marine Sanctuary Management Plan, the Department of Natural Resources, the Coast Guard, and the U.S. Fish and Wildlife Service.

Policy 1301.7.8: Monroe County shall work cooperatively with the U.S. Fish and Wildlife Service to promote the recovery of plant species designated by the federal government as threatened and endangered.

Policy 1301.7.9: By January 4, 1998 Monroe County shall implement an ongoing coordination program with the National Park Service, the South Florida Water Management District, Dade County and Collier County to address existing and potential land management problems in the region which may affect the conservation, use and protection of unique vegetative communities and species of special status on mainland Monroe County.

Policy 1301.7.10: Monroe County shall implement the following species of special status identification and protection programs in coordination and cooperation with all pertinent agencies and organizations, including but not limited to the following:

Subject	Entity/Entities
Prepare management guidelines for federally-designated wildlife species	DEP, FGFWFC, and USFWS
By January 4, 1998 prepare a list of undesirable exotic wildlife populations	FGFWFC and USFWS
Identify probable concentrated range of wildlife species of special status	DEP, The Nature Conservancy, FGFWFC, and USFWS
Promote recovery of threatened and endangered species by coordinating development review and protection of horizon sites	FGFWFC and USFWS
By January 4, 1998 update the list of offshore island rookeries and nesting areas where development shall be prohibited	DEP, National Audobon Society, USFWS, NOAA, and FGFWFC
Determine protection and habitat preservation measures to assist with recovery of the Indigo Snake, Key Largo Wood Rat, Silver Rice Rat, Key Largo Cotton Mouse and the Lower Keys Marsh Rabbit	USFWS and FGFWFC

Policy 1301.7.11: Monroe County shall work cooperatively with the Department of Environmental Regulation and the Department of Natural Resources to identify alternatives for adaptive reuse and reclamation of abandoned mining pits in the Florida Keys.

Policy 1301.7.12: By January 4, 1998, Monroe County shall initiate discussions with the FKAA and providers of electricity and telephone service to assess the measures which could be taken to discourage or prohibit extension of facilities and services to Coastal Barrier Resource Systems (CBRS) units.

Policy 1301.7.13: Monroe County shall encourage and participate in the development and implementation of pollution response plans. These shall include participation in an oil response team (See Policy 207.8.6), and plans for hazardous materials emergencies (See Policy 801.5.2).

Policy 1301.7.14: Monroe County shall, by January 4, 1998, identify the technical assistance available from the U.S. Department of Agriculture, Soil Conservation Service for development and implementation of a soil erosion and sedimentation control program.

Policy 1301.7.15: Monroe County shall coordinate with DNR and encourage total acquisition of North Key Largo under the CARL program.

Policy 1301.7.16: The Monroe County Growth Management Division shall continue its active involvement with the ongoing Florida Keys interagency committee. Through this established process, Monroe County shall solicit comments from and offer comments to DER, DNR, NOAA, SFWMD, USFWS, FGFWFC, ACOE and DCA on permitting, planning, regulatory revisions, and other agency-related issues.

Objective 1301.8: By January 4, 1997, Monroe County shall initiate the necessary interlocal coordination mechanisms to improve hurricane evacuation times and assure the provision of an adequate number of shelter facilities for evacuating Monroe County residents.

Policy 1301.8.1: Monroe County shall seek interlocal agreements with one or more appropriate agencies for installation and funding sources of at least four tide gauges at critical locations throughout the Keys.

Policy 1301.8.2: Monroe County shall initiate an interlocal agreement, with the incorporated municipalities and other appropriate agencies including the National Weather Service, to draft and implement a comprehensive program for expanded resident and visitor hurricane awareness and evacuation procedures. The program will identify education needs and adequate funding sources to include, at a minimum, staffing requirements, distribution of hurricane public awareness brochures, media coverage, and public service announcements in English and Spanish.

Policy 1301.8.3: By January 4, 1998, Monroe County shall coordinate with the Florida Department of Transportation to draft and implement a program which will establish priorities for elevation of low segments of U.S. Highway 1. The program shall, at a minimum, identify funding sources and scheduling.

Policy 1301.8.4: By January 4, 1997, Monroe County shall develop a plan which will identify the appropriate agencies required for coordination and funding of one Category 5 Emergency Operations Center (EOC), at a minimum, in each of the three EOC districts.

Policy 1301.8.5: By January 4, 1997, Monroe County shall coordinate with the Department of Community Affairs' Division of Emergency Management, the South Florida Regional Planning Council, and Dade County to identify sufficient approved shelter spaces outside of Monroe County for all county residents who will require shelter from a Category III or greater hurricane. Priority consideration shall be given to expansion of the currently designated shelter at Florida International University in order to consolidate Monroe County shelter spaces in one location.

Policy 1301.8.6: By January 4, 1998, Monroe County shall enter into an interlocal agreement with Dade County and other appropriate agencies (e.g., the Board of Regents) to provide sufficient additional approved spaces outside of Monroe County capable of withstanding Category III or stronger hurricanes and their associated surges for all county residents who will require shelter from a Category III or greater hurricane.

Policy 1301.8.7: By January 4, 1998, Monroe County shall coordinate with the U.S. Coast Guard to identify areas of mutual concern during a hurricane evacuation and identify the appropriate coordination mechanisms and procedures.

Objective 1301.9: Monroe County shall by January 4, 1998, implement an ongoing coordination program with other city, state and federal governmental agencies to make available city, state and federally-owned parks and recreational facilities for use by county residents. (See Recreation and Open Space Objective 1201.8 and related policies.) [9J-5.014(3)(b)2 and 4]

Objective 1301.10: Monroe County shall increase intergovernmental coordination efforts with the Department of Community Affairs (DCA), the Department of Environmental Regulation (DER), the South Florida Regional Planning Council (SFRPC), and the County's municipalities to develop and implement the most cost-effective and environmentally sound methods of regional solid and hazardous waste management.

Policy 1301.10.1: Monroe County shall continue to negotiate an interlocal agreement with the Cities of Key West, Key Colony Beach and Layton for the consolidated handling, processing and disposal of solid waste.

Policy 1301.10.2: Monroe County shall continue coordination efforts with the DER and other involved federal and state agencies to pursue funding for the implementation of Monroe County's Solid Waste and Resource Recovery Management Plans.

Policy 1301.10.3: Monroe County shall coordinate with and pursue with the Florida Association of Counties for the state-wide enactment of beverage container deposit laws.

Policy 1301.10.4: By January 4, 1998, Monroe County shall implement a County-wide mandatory curbside recycling program for all residential units and continue commercial recycling programs for all handling and disposal of newspapers, glass, plastics and aluminum waste products in order to meet mandated state solid waste requirements.

Policy 1301.10.5: By January 4, 1998, Monroe County shall participate in a Region-wide hazardous waste program consistent with the SFRPC Regional Comprehensive Policy Plan.

D. Strategies – Intergovernmental Coordination

Comments related to intergovernmental coordination were collected at the Scoping Meeting and through interviews with County staff. The verbatim suggestions for coordination activities are provided below:

South Florida Water Management District: Coordination is extensive considering the District's coordination of the County's water supply plan and its role as water quality manager; however future opportunities for coordination include:

- The SFWMD will begin the process of updating the Lower East Coast Water Supply Plan next year. The process will be closely coordinated with local governments and FKAA.

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United States Army Corps of Engineers: Coordination is adequate; however future opportunities for coordination could be extensive:

- The County should coordinate with the Army Corps of Engineers to establish a review process to monitor permit compliance.
- The County should coordinate with the Army Corps of Engineers to improve the photic zones in and over dredged basins.
- The County should coordinate with the FKNMS and Park Service to promote in kind mitigation for resource loss.
- The County should coordinate with appropriate external agencies to develop a response plan for manmade and natural disasters which allow pre-authorizations to restore beaches and clean natural areas.

Everglades and Dry Tortugas National Parks: The County currently does not coordinate directly with the National Park Service; however, the County's Growth Management Division should incorporate and participate in the National Parks General Management Plans that are currently being operated.

Miami-Dade County Department of Planning and Zoning: Monroe County's coordination with Miami-Dade County is adequate, but limited. An additional opportunity for coordination includes:

- Continue to coordinate transit service between Miami-Dade and Monroe Counties and coordinate hurricane evacuation efforts, especially as the SFRPC's modeling efforts conclude in the next two to three months.

Florida Keys Aqueduct Authority: Coordination with the FKAA is currently adequate; however additional coordination activities include:

- The existing Interlocal Agreement for fire hydrants outlines how the FKAA is a partner with Monroe County in development and operation of wastewater facilities in unincorporated lower keys. This agreement is adequate in its effectiveness. It works, however it's not necessary and "*just adds more bureaucracy to the process"*.

- Interagency involvement is needed between FKAA, municipalities, neighboring utilities (near the FKAA wellfield) to address wellfield protection issues.

- There is currently a monthly Utility Coordination meeting to address current and future utility work. From that meeting, a GIS user group meeting has evolved to share GIS data.

South Florida Regional Planning Council: Coordination is currently adequate; . however, additional coordination activities could be expanded:

- If issues arise in reviewing the Strategic Regional Policy Plan (SRPP) for South Florida, the SFRPC is available to coordinate and potentially address regional issues of interest to Monroe County through future updates to the SRPP.

Florida Department of Transportation: Coordination with FDOT is adequate, although presently a conflict exists regarding roadway construction activities. FDOT's representation has been limited. Potential for better coordination is extensive due to the role of U.S. 1 in the County.

- Monroe County must weigh the priority and benefit of the hurricane evacuation as the local desire for livable communities. A potential restriction in the capacity up stream may have an overall impact to the evacuation time for the keys.

- Control coordination regarding road improvement projects.

Naval Air Station-Key West: Coordination with NAS-Key West is fair, but could be strengthened through additional goals, objectives and policies (GOPs) to improve intergovernmental coordination between the County and the military. Policies should include greater coordination during the building permit review process for development adjacent or proximate to military installation, and include the military as an ex-officio member of the Development Review Committee (DRC) since the DRC is a decision making body for development approvals.

Note: The above is a direct quote from the written documentation received at the Scoping Meeting. However, for clarification purposes, the Planning Commission is the decision making body (not the DRC) for development approvals. Additionally, the County is currently addressing military compatibility strategies; amendments were transmitted in December 2011 to the DEO.

General Comments: 1) The County, local municipalities, and agencies should be encouraged to work together to provide the best services to at the lowest costs. 2) Coordination between Monroe County and Florida Power and Light is important with respect to the proposed project to expand FPL's Turkey Point nuclear facility.

Overall, since the last EAR (2004), the County has successfully implemented the goals, objectives, and policies (GOPs) of the Intergovernmental Coordination Element.

- Encourage more frequent participation by FDOT to better coordinate FDOT activities along US1 with the community's plans and projects.
- The County should consider creating a consolidated list of all interlocal agreements. The current system of searching and obtaining interlocal agreements through the Monroe County Clerk of Court website does not produce an exclusive listing that is user friendly and easy to find.
- Update all "date certain" policies concerning interlocal agreements and coordination.
- The County should promote the County's parks as community attractions.
- The County should request that FKAA speak before the PC regarding future water demands and the efficacy of the Interlocal Agreements with the County.
- The County should review the Interlocal Agreement with Miami-Dade re: wellfield protection and water supply; is it adequate? Does it protect the County's interests?

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Issue Category(b): Interdepartmental Data Sharing and Development Review

A. Background: The County has established internal coordination processes for review and coordination between departments, including the Development Review Committee (DRC).

B. Analysis: The DRC consists of the Development Review Coordinator, Directors of Monroe County's Planning and Environmental Resources, Planning and Development Review Manager, Senior Administrator, Marine Resources and Sr. Administrator Environmental Resources, the Director of Engineering and Public Works, the Fire Marshal, Health Department, County Engineer and Biologist and any other County employee or official designated by the County Administrator or Planning Director. Other members include representatives of each local, Regional, State or Federal agency which has an intergovernmental agreement with the County for coordinated development review.

The committee meets at least twice a month. The duties of the DRC are as follows:

1) Reviews all applications for development approval and reports its recommendations to the Planning Commission, Planning Director and Board of County Commissioners.

2) Reviews all applications for Land Development Code and the Comprehensive Plan amendments.

3) Maintain minutes and records as required by State law.

C. Policy Framework:

GOAL 1302: Monroe County shall improve coordination within County government agencies in order to provide better service to the citizens of Monroe County.

Objective 1302.1: By January 4, 1997, Monroe County Government and its Divisions of Public Safety, Community Services, Growth Management, and Public Works shall inventory, analyze, create, and improve formal and informal coordination mechanisms.

Policy 1302.1.1: By January 4, 1998, discussions between the Divisions of Public Safety, Community Services, Growth Management, and Public Works shall formalize existing or new coordination mechanisms to avoid conflicts and improve delivery of services to the citizens of Monroe County. These coordination mechanisms will address the following issues:

1. The development review process, permit allocation process and the concurrency management process;

2. The responsibilities of the Department of Code Enforcement;

3. Hurricane preparedness and response plans;

4. Public safety needs, including law enforcement coordination

5. requirements; and

6. The County's need for a utilities coordination group similar to that which exists in the City of Key West. [9J-5.015(3)(c)3]

Policy 1302.1.2: Upon adoption by the Monroe County Board of County Commissioners of revised land development regulations, the Growth Management Division shall establish written standard operating procedures to expedite all proposed amendments to the land development regulations and comprehensive plans in the most efficient and least time consuming manner possible, as per Chapter 380, F.S. In addition, the Growth Management Division will establish procedures to ensure that all plan amendments and land development regulation amendments are reviewed for consistency with the adopted plan and minimum state laws and rules.

D. Strategies - Interdepartmental Data Sharing and Development Review

Coordination between departments appears to be adequate, therefore no strategies are recommended.

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Issue Category(c): FKAA Supply of Adequate Water Pressure for Fire Service

A. Background: Usually communities use the public water supply for fire protection. Large fire hydrants connected to large diameter water pipes deliver the necessary flow rate for fighting fires; however, the Florida Keys Aqueduct Authority (FKAA) has not had sufficient water pressure to provide fire protection throughout the Keys. Hydrants can provide only enough water for "first aid" in starting to control a fire until adequate water from other sources can be brought to the site.

The following **Table 62** provides the parameters for the new and proposed (upgraded) systems.

Table 62: Fire Protection Parameters for Selected Distribution Systems throughout the Keys

Distribution System	Fire Flow Rate for 2-hour Duration (gpm)	Required Storage Volume (gal)
Lake Surprise – Between Adams Cut and Lake Surprise	1,000	120,000
Rock Harbor	1,000	120,000
Tavernier	500	60,000
Plantation Key	500	60,000
Lower Matecumbe	500	60,000
Duck Key/Grassy Key	750	90,000
Marathon, Crawl Key	1,000	120,000
Marathon, 69th Street	500	60,000
Marathon, Vaca Cut	1,000	120,000
Marathon, 33rd Street	1,000	120,000
Ramrod Key	500	60,000
Summerland Key	500	60,000
Upper Sugarloaf Key	500	60,000
Lower Sugarloaf Key	500	60,000
Stock Island Distribution	1,000	120,000

Source: FKAA 20-Year Water System CIP Master Plan, December 2006
Monroe County, FL, 10 Year Water Supply Facilities Work Plan, May 2009

B. Analysis: 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 the majority of the water distribution system is not designed to provide fire flow and FKAA does not guarantee fire flow and the purpose of the fire hydrants will be to provide various locations to fill fire fighting apparatus. The agreement also states 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. Hydrants that are determined to be technically feasible will be installed.

C. Policy Framework:

Objective 701.8: FKAA shall improve its capacity to provide for fire flows in the areas outlined in Policy 701.8.1 to ensure the protection of the public health, welfare and safety.

Policy 701.8.1: By the year 2000, the FKAA, in accordance with its Capital Improvements Program, shall continue to upgrade the distribution system toward the goal of providing fire flow capabilities in the following areas: Proposed Fire Flow Areas:

1. Key West and Stock Island (current fire flow areas)
2. Everywhere on U.S. 1, except non-developable areas
3. Ocean Reef
4. Key Colony Beach
5. Layton
6. Marathon
7. Duck Key
8. Tavernier

Proposed Fire Flow Requirements by Land Use Zone:

1. Suburban Residential 750 GPM
2. Mobile Home, Recreational Vehicle 1,500 GPM
3. Urban Commercial, Suburban Commercial, and Commercial 2,000 GPM

All commercial facilities not along U.S. 1 shall provide "on site" fire abatement, as currently required. In all other areas the FKAA aqueduct system shall not be considered even as a future primary fire abatement source. However, all line upgrades shall be designed and constructed so as to provide approximately 250 GPM to extreme locations.

Policy 701.8.3: Since fire flow improvements in the areas identified by Policies 701.8.1 and 701.8.2 will result in significant fire insurance premium reductions for affected areas, charges for fire flow improvements in these areas shall be charged to these areas only, as opposed to general system absorption of such charges.

D. Strategies - FKAA Supply of Adequate Water Pressure for Fire Service

- Continue to implement the policies above, including the recommendations for adequate water pressure.

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Issue Category(d): Florida Keys Carrying Capacity Study and Model

A. Background: The County's coordination activities with the SFRPC for the Carrying Capacity Study is the basis for this background data. On December 12, 1995 the Administration Commission (Commission) found the *Monroe County 1992 Comprehensive Plan*, as proposed, not in compliance, and noticed a proposed rule (Rule 28-20.100, F.A.C.). The Commission ordered facilitated rulemaking/mediation to address outstanding issues. The disputed provisions of the Rule required further action. Mediation was conducted resulting in subsequent rule changes.

The Final Order in 1995 initiated the Florida Keys Carrying Capacity Study (FKCCS). In 1996 the Work Program required the development of a carrying capacity analysis study completed by July 2002. The US Army Corps of Engineers and DCA formed a partnership to jointly fund and complete the study and work began on the Carrying Capacity Impact Analysis Model (CCIAM) and the study. The goal of the FKCCS, excerpted from Rule 28-20.100, F.A.C. was as follows:

> *"The carrying capacity analysis shall be designed to determine the ability of the Florida Keys ecosystem and the various segments thereof, to withstand all impacts of additional land development activities."*

B. Analysis: The draft final report was issued in 2001 and it was peer reviewed by the National Research Council determining that the CCIAM was not ready to determine the ability of the Keys ecosystem to withstand all impacts of additional development activities as required by Rule 28-20.100 F.A.C. The Carrying Capacity Study and model were revised and it was determined that the CCIAM may be a useful tool in some circumstances but it had limitations. In particular, the CCIAM is unable to determine the impact on nearshore water quality. This peer review committee agreed on the following four recommendations of the study:

- Prevent encroachment into native habitat because of severe depletion by historic development activities;
- Continue restoration and land acquisition programs, implement the wastewater and storm water master plans, and continue ongoing research and management activities in the Florida Keys National Marine Sanctuary (FKNMS);
- Concentrate on redevelopment and infill for future development; and
- Increase efforts to manage remaining habitats and resources.

In November 2002, DCA initiated a Florida Keys Carrying Capacity/Rule 28.20, F.A.C. Work Group to assist in the implementation of these recommendations. Year Six of the Work Program (July 13, 2002 – July 12, 2003), enacted in Rule 28-20.100, F.A.C., directed the County to implement the FKCCS by adopting amendments to ROGO, the MCLDC, the Future Land Use Map (FLUM) series and the maximum permitted densities.

C. Policy Framework:

Policy 101.6.4: The County will coordinate with DCA to ensure that DCA continues to support enhanced land acquisition efforts in the Keys based on needs identified in this comprehensive plan. This coordination shall ensure continued support of state acquisition efforts under CARL, Preservation 2000 and the Florida Communities Trust programs. The County encourages the Department to work at the state level to create a dedicated acquisition fund for Tier 1 lands on Big Pine Key and No Name Key based on the results of the Carrying Capacity Study, the requirements of the incidental take permit and Habitat Conservation Plan and the Master Plan for Big Pine Key and No Name Key. The County and the Department will also support appropriate legislative changes which will have the effect of enhancing the Land Authority efforts throughout the County, and the South Florida Water Management District's acquisitions on Big Pine Key. Similarly, cooperation will continue with private acquisition efforts, such as The Nature Conservancy and the Florida Land and Sea Trust.

Objective 102.9: In cooperation with other responsible state and federal agencies, the County shall complete and implement a cooperative land management program for publicly owned lands acquired through implementation of the *Monroe County Land Acquisition Master Plan* (Objective 102.2), Goal 105 and the *Florida Keys Carrying Capacity Study*.

Objective 205.1: Monroe County shall utilize the computerized geographical information system (GIS) and the data, analysis and mapping generated in the Florida Keys Carrying Capacity Study (FKCCS), FMRI, habitat maps and field evaluation to identify and map areas of upland vegetation in the Florida Keys and to prepare Tier Overlay District Maps as required in Policy 105.2.2.

Objective 205.2: To implement Goal 105 of this Plan and the recommendations in the Florida Keys Carrying Capacity Study (FKCCS), Monroe County shall adopt revisions to the Land Development Regulations which further protect and provide for restoration of the habitat values of upland native vegetated communities, including hardwood hammocks and pinelands.

D. Strategies - Florida Keys Carrying Capacity Study and Model

- The County has implemented the requirements of the Work Program related to the FKCCS, therefore, no amendments are proposed at this time.

CHAPTER 5: SPECIAL TOPICS

1. School Concurrency

The Monroe County District School Board (the "District") oversees the operation of 13 public schools including three high schools, one middle school, two middle/ elementary schools, six elementary schools, and one school for exceptional students.
The names, locations, and service areas of these schools are presented in **Table 63**. The schools are distributed among three subdistricts.

- Subdistrict 1 serves the Upper Keys from Key Largo to Matecumbe Key.
- Subdistrict 2 serves the Middle Keys from Long Key to the Seven Mile Bridge.
- Subdistrict 3 serves the Lower Keys from Bahia Honda to Key West.

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Table 63 – Public School System

Facility Name/Type	Location	Service Area
Subdistrict 1 (Upper Keys)		
Key Largo (Elementary Middle)	Key Largo	Dade County Line to MM 93
Plantation Key (Elementary Middle)	Plantation Key	MM 93 to Long Key
Treasure Village Montessori	Islamorada	Dade County Line to Marathon
Coral Shores (High)	Plantation Key	Dade County Line to Long Key
Subdistrict 2 (Middle Keys)		
Switlik (Elementary)	Marathon Key	Conch Key to 7 Mile Bridge
Marathon	Marathon Key	Conch Key to Big Pine Key
Subdistrict 3 (Lower Keys)		
Sand (Exceptional)	Key West	Sugarloaf Key to Key West
Adams (Elementary)	Stock Island	Rockland Key to Stock Island
Archer/Reynolds (Elementary)	Key West	Key West
Big Pine Academy* (Elementary)	Big Pine	Grassy Key to Big Coppitt Key
Poinciana (Elementary)	Key West	Key West
Sigsbee (Elementary)	Key West	Key West
Sugarloaf (Elementary/Middle)	Sugarloaf Key	Ohio Key to Boca Chica
O'Bryan (Middle)	Key West	Key Haven to Key West
Key West (High)	Key West	Lower Torch Key to Key West
Monroe County		
Montessori Charter (Elementary)*	Key West	Entire County
Keys Center (Middle/High)	Key West, Marathon, Islamorada	Entire County
Monroe County DJJ	Key West	Entire County

There is one charter school that does not provide bussing and serves the entire county. The Keys Center is an alternative program provided within the High Schools in the county and the Juvenile Detention facility provides education to the detained youth. There are no public schools located in mainland Monroe County.

The Florida Inventory of School Houses (FISH) capacity for the County's schools is 11,229 students. During 2009-2010, the County's student population utilized 67.19 percent of the available capacity. Overall, the projected growth utilization rate is 0.12 percent for the years 2009-2010 through 2013-2014.

In April 2010, the BOCC and the cities of Key West, Marathon, Key Colony Beach, Layton, Islamorada, and the District approved a waiver from the previous school concurrency planning requirements of Florida's growth management laws.

There are several coordination mechanisms between the County and the School Board, including a School Board representative as an ex-officio member of the Planning Commission. Additionally, there are interlocal agreements between the County and the School Board:

1. Joint Use Park Interlocal Agreement

   This agreement provides for the development of a joint use park on the Sugarloaf School grounds.

2. Interlocal Agreement for Public School Facility Planning in Monroe County

   This agreement is between Monroe County, Islamorada, Village of Islands, Key Colony Beach, Layton, Key West, Marathon, and the School Board for the purpose of public school facility coordination as required by Ch. 163 F.S.

School concurrency is no longer statutorily required.

2. Water Supply Planning

In 2009, the County adopted the 10-Year Water Supply Plan consistent with *The Lower East Coast Basin Water Supply Plan* (LECBWSP).

The LECBWSP has been revised, including identification of alternative water supply projects. It is scheduled for approval by the South Florida Water Management District's Governing Board by September 2012. The County must prepare the *10-Year Water Supply Facilities Work Plan* and update the Plan by March 2014 (18 months after the District Governing Board approves the regional water supply plan).

The County will continue to utilize the following goals in addressing system needs:

Policy 701.1.6: Monroe County shall implement a concurrency management system that is consistent with the South Florida Water Management District Lower East Coast Regional Water Supply Plan and FKAA 20-year Water System Capital Improvement Master Plan. (Ord. 022-2009)

Policy 701.1.7: Monroe County shall prepare and maintain a 10-year Water Supply Work Plan that identifies alternative water supply projects, traditional water supply projects, conservation, and reuse necessary to meet the Monroe County Unincorporated Area water supply needs, consistent with the South Florida Water Management District Lower East Coast Regional Water Supply Plan and the Florida Keys Aqueduct Authority 20-year Water System Capital Improvement Master Plan. (Ord. 022-2009)

Policy 701.1.8: Monroe County shall update the 10-year Water Supply Work Plan every 5 years or within 18 months after the governing board of the South Florida Water Management District approves an updated regional water supply plan. (Ord. 022-2009)

The County does not have any local responsibility for potable water supply or distribution facilities. Both water supply and distribution are provided to the County according to the terms of an interlocal agreement with FKAA. The County has no responsibility regarding the supply of potable water to its citizens.

The County through its association with the Florida Keys Aqueduct Authority (FKAA) has identified alternative water supply resources such as the salt water desalination, water conservation and reuse techniques. Because this community does not own or operate any portion of the water supply, treatment, or distribution system, the requirement to "evaluate the degree to which the County has implemented the work plan for building public, private, and regional water supply facilities" is not applicable. However, the County has successfully implemented the GOPs related to water supply planning, including development of the 10-Year Water Supply Work Plan and, through its Adequate Public Services Ordinance, assures that development review approvals are coordinated with FKAA. No amendments are recommended at this time.

3. Coastal High-Hazard Area

In 2006, the Florida Legislature redefined the Coastal High Hazard Area (CHHA) as, "…the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake and Overland Surges from Hurricanes (SLOSH) computerized storm surge model" (Section 163.3178(2)(h), F.S.).

The SFRPC recently completed the SLOSH modeling for the Miami-Dade, Broward and Monroe County region delineating the storm tide limits.

The draft CHHA boundary is shown on Map Series 3.7, located in the Map Atlas as prepared for the July 2011 Technical Document Update. The storm tide limits are mapped and included as **Appendix 6**.

Planning for post-disaster redevelopment is of paramount importance in the County because a large percentage of the County's land area is located within the CHHA and thus is vulnerable to hurricane damage from a relatively minor (Category 1) hurricane. More intense hurricanes would have higher storm surges and thus would likely inundate a larger area, resulting in more extensive damage.

The majority of land within the CHHA is either owned for conservation purposes or is vacant. Much of the existing development in the County is concentrated along U.S. 1 in areas that are located outside of the CHHA. However, a significant portion of the CHHA is developed for a variety of uses including residential (single-family detached homes, mobile homes, multi-family apartments, and mixed-use residential areas), commercial (general commercial, tourist commercial, and commercial fishing), institutional, public, and military uses.

Because of the low-lying nature of the Keys, a large percentage of the County is located within the CHHA. The area outside of the CHHA is largely confined to a linear zone along much of U.S. 1.

Future development throughout much of unincorporated Monroe County, including the areas within the CHHA, is controlled by ROGO and the Tier Overlay Ordinance. In addition, points are deducted on applications that propose development within a "V" flood zone on the FEMA flood insurance rate maps.

Since 2004, the County has not amended future land uses in a manner that resulted in a reduction of residential density or intensity in the CHHA that made existing residential units non-conforming. The CHHA is limited to recreational and residential uses in accordance with the Future Land Use Map. Changes to land use that have occurred in the CHHA were a result of the acquisition of low-density residential property by the County for preservation and or recreation, conservation and open space purposes.

The County does have GOPs in the Future Land Use Element and Conservation and Coastal Management Element of the Plan that addresses growth management and the CHHA. They are as follows:

Objective 101.14: By January 4, 1997, Monroe County shall adopt Land Development Regulations which direct future growth away from areas subject to periodic flooding.

Policy 101.14.1: Monroe County shall discourage developments proposed within the CHHA.

Policy 101.14.2: Monroe County shall prohibit the placement of mobile homes within the CHHA except on an approved lot within an existing mobile home park or subdivision zoned for such use.

Objective 217.1: Monroe County shall develop and implement a program of hazard mitigation in the CHHA which reduces floodplain alteration and damage or loss due to natural disasters.

Policy 217.1.1: Monroe County shall define the CHHA as the area subject to inundation by the SLOSH (Sea, Lake and Overland Surges from Hurricanes) associated with a Category 1 storm. The CHHA shall be incorporated into the county Geographic Information System for use in managing future land use.

Policy 217.2.1: As provided by its Hurricane Preparedness Evacuation and Shelter Plan, Monroe County shall annually coordinate post-disaster recovery operations to clarify the roles and responsibilities of County Departments, State and federal agencies, private and public utilities, and other applicable entities. Deficiencies shall be identified and Monroe County shall immediately initiate interlocal agreements or interdepartmental directives as necessary to remedy the existing deficiencies.

Objective 217.3: By January 4, 1997, Monroe County shall adopt Land Development Regulations which direct future growth away from the CHHA.

Policy 217.3.1: The Permit Allocation and Point System shall assign a negative point rating to developments proposed within the CHHA (See Policy 101.5.4). (See Future Land Use Element Objectives 101.2, 101.3, and 101.5 and related policies.)

Policy 217.3.2: Monroe County shall prohibit the construction of mobile homes within the CHHA except on an approved lot within an existing mobile home park or subdivision zoned for such use as of the effective date of this plan.

Objective 1401.2: With the following exceptions, public expenditures within the CHHA shall be limited to the restoration or enhancement of natural resources and parklands, expenditures required to serve existing development such as the maintenance or repair of existing infrastructure, and expenditures necessary for public health and safety:

1. Public expenditures within the CHHA may be permitted where required to meet adopted level of service standards or to maintain or reduce hurricane evacuation clearance times and where no feasible alternatives to siting the required facilities within the CHHA exist.

2. Public expenditures within the CHHA may be permitted for improvements and expansions to existing public facilities, which improvements or expansions are designed to minimize risk of damage from flooding.

Policy 1401.2.1: By January 4, 1997, Monroe County shall adopt Land Development Regulations which limit public expenditures in the CHHA by requiring consideration of feasible siting and design alternatives for public facilities and infrastructure.

Policy 1401.2.2: No public expenditures shall be made for new or expanded facilities in areas designated as units of the Coastal Barrier Resources System, undisturbed saltmarsh and buttonwood wetlands, or offshore islands not currently accessible by road, with the exception of expenditures for conservation and parklands consistent with natural resource protection, and expenditures necessary for public health and safety.

The County must amend Policy 217.2.1 to adopt the CHHA overlay to the Future Land Use Map.

4. Compatibility with Military Installations

The County is currently addressing this requirement. Amendments were transmitted to the DEO in December 2011**.**

5. Transportation Concurrency

Concurrency Exception Areas

There are no concurrency exception areas or multimodal transportation districts within the County.

Common Methodology

The U.S. 1 Level of Service Task Force, a multi-agency group comprised of the County, FDOT, and DCA, prepared the methodology used for monitoring conditions on U.S. 1 in the Florida Keys.

The Task Force formulated the methodology in 1993 and amended in 1997 (U.S. 1 Methodology).

The U.S. 1 Methodology developed utilizes an empirical relationship between the volume-based capacities and the speed-based LOS methodology. It established a procedure for using travel speeds on U.S. 1 as a means of assessing LOS and reserve capacity. The method considers both the overall LOS of the entire 108-mile stretch of U.S. 1 from Key West to the mainland, as well as the LOS for 24 smaller roadway segments.

Based on the current methodology to assess LOS on U.S. 1 in the Florida Keys, LOS is based on a comparison between average posted speed limits and average travel speed between average posted speed limits and average travel speeds for individual segments along U.S. 1.

Data collected annually during the spring (peak seasonal population) to assess the LOS on U.S. 1 is compiled and analyzed in accordance with the Task Force's methodology that has been vetted and approved by many agencies, including FDOT. The methodology and the resultant analysis do not include peak hour, peak direction data or analysis.

Measurements of the travel speeds on U.S. 1 are established by conducting travel time runs from Key West to the mainland during peak tourist season, defined as the 6-week period beginning the second week of February and ending the fourth week of March each year.

The minimum acceptable LOS for U.S. 1 is C, while the overall (108-miles) travel speed on U.S. 1 is established as 45 miles per hour to equate to LOS C, regardless of the posted speed limit of a segment. As noted in the 2011 U.S. 1 Arterial Travel Time and Delay Study by the County: "Under the adopted growth management process if the overall LOS for U.S. 1 falls below the LOS C Standard, then no additional land development will be allowed in the Florida Keys."

The County's existing GOPs have been successfully implemented. No comprehensive plan amendments are recommended at this time.

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CHAPTER 6: ASSESSMENT OF CHANGES TO FLORIDA STATUTES [163.3191(2)(F)]

Introduction

Chapter 163.3191(1), F.S. requires that the EAR contain an evaluation and assessment of relevant changes to Chapter 163, F.S. since adoption of the last EAR-base Plan amendments on May 1, 2007. This analysis (**Appendix 3**) was conducted utilizing all of the relevant changes that have occurred to these documents since that time.

When an inconsistency is identified, such as a requirement not currently addressed in the Plan, the appropriate element is identified for update as part of the upcoming EAR-based Plan amendments.

Changes to Chapter 163, F.S.

As previously stated, in the Summer of 2011, HB 7207 (Ch. 2011-139, Laws of Florida) significantly revised Chapter 163, F.S. Previously the EAR process was required to review comprehensive plans for consistency with state, regional and local policies on planning and growth management and changing conditions and trends. Now the EAR process only requires an analysis of changes to state requirements in Chapter 163, F.S. and changes in local conditions. Because Rule 9J-5, F.A.C. was repealed from the Florida Administrative Code, no analysis is required through the EAR process of changes to that Rule.

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APPENDIX 1 – SCOPING MEETING INVITATION

<Insert Date>

<Insert Invitee Name and Address>

Dear < >:

Monroe County is in the process of preparing the required Evaluation and Appraisal Report (EAR) of its Comprehensive Plan. The process of identifying community issues to be included in the EAR has been started, but input from representatives of your agency or municipality is needed to successfully continue the process. A preliminary list of the community issues is attached.

We are hosting our EAR scoping meeting on Thursday, May 13, 2010 at 1:00 p.m. The meeting will be held at the Marathon Government Center in the BOCC Chamber, located at 2798 Overseas Highway, Marathon, FL 33050.

The purpose of the meeting is to ensure that: all important EAR issues are identified; your agency/municipality concerns are addressed; and to share information and ideas, as described in 163.3191 (3) F.S. You will be asked to assist the County in developing strategies to address issues that are within your jurisdiction or expertise.

It is very important to us that you, or another representative of your agency/municipality, attend this meeting.

Please email kdunne@keithandschnars.com or call the Project Hotline at (800) 488-1255 to confirm that you will attend. I look forward to seeing you on May 13, 2010.

Sincerely,

Christine Hurley, AICP
Growth Management Director

APPENDIX 2 – LETTER OF UNDERSTANDING

STATE OF FLORIDA

DEPARTMENT OF COMMUNITY AFFAIRS

"Dedicated to making Florida a better place to call home"

CHARLIE CRIST
Governor

THOMAS G. PELHAM
Secretary

October 29, 2010

The Honorable Sylvia Murphy
Mayor, Monroe County
102050 Overseas Highway, Suite 234
Key Largo, Florida 33037

Re: Letter of Understanding for the Monroe County Evaluation and Appraisal Report

Dear Mayor Murphy:

The Department has reviewed your letter outlining the scope of work for the preparation of the County's Evaluation and Appraisal Report (EAR). The Department agrees with the summary of the issues set forth in the attached document. This letter serves as confirmation of our understanding. However, we have the following recommendations concerning the proposed Scope of Work.

- The County's major issues list includes the compatibility with military installations. In addressing compatibility, the Department recommends that the County carefully consider the requirements of Chapter 163, Florida Statutes, as they were amended by the 2010 Florida Legislature and evaluate the need for sound attenuation standards and other techniques to ensure the compatibility of development proximate to military installations.

- The County has included "Continued Public Waterfront Access; Protect and Expand Water Dependent/Water Related Uses" as a major issue. The Department recommends the inclusion of criteria that encourages the preservation of recreational and commercial working waterfronts.

- Economic Sustainability is listed as a major issue. The County will be examining the goals, objectives and policies in the comprehensive plan to evaluate numerous aspects of economic sustainability. As part of the evaluation, the Department encourages an evaluation of the need to establish a commercial land use designation.

- Included in the major issue, "Natural Resource Protection," is an evaluation of the effectiveness of the Tier system. The Department recommends delaying the evaluation of the Tier system until the next evaluation of the comprehensive plan. This would provide additional time to implement and observe changes resulting from the tier designation challenge that will not be fully implemented prior to 2011.

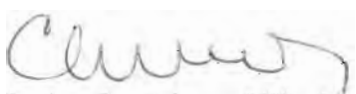
2555 SHUMARD OAK BOULEVARD ♦ TALLAHASSEE, FL 32399-2100
850-488-8466 (p) ♦ 850-921-0781 (f) ♦ Website: www.dca.state.fl.us
♦ COMMUNITY PLANNING 850-488-2356 (p) 850-488-3309 (f) ♦ FLORIDA COMMUNITIES TRUST 850-922-2207 (p) 850-921-1747 (f) ♦
♦ HOUSING AND COMMUNITY DEVELOPMENT 850-488-7956 (p) 850-922-5623 (f) ♦

- The EAR is an opportunity to compare the content of the comprehensive plan with current statutory requirements to ensure that the plan is up to date. The Department recommends that the County evaluate changes made to Section 380.0552(7)(j), Florida Statutes, which requires that growth be directed to areas served by central wastewater treatment facilities. In so doing, the County should also evaluate the need to establish a minimum score for applications for non-residential development in order to guide development away from environmentally sensitive areas when there is a lack of competition for the non residential building allocation.

- The EAR will also need to address all of the remaining applicable requirements set forth under Section 163.3191(2), Florida Statutes.

We appreciate the effort you and your staff have shown in developing the EAR scoping issues for Monroe County. We look forward to continuing to work with you as you prepare your EAR. If you or your staff have any questions or need additional assistance, please contact Rebecca Jetton, Area of Critical State Concern Program Manager, at (850) 922-1766.

Sincerely,



Charles Gauthier, AICP, Director
Division of Community Planning

Enclosure

CG/rj

cc: Ms. Christine Hurley, AICP, Growth Management Director
Ms. Carolyn A. Dekle Executive Director, South Florida Regional Planning Council

APPENDIX 3 – DATE CERTAIN POLICY ASSESSMENT MATRIX

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Future Land Use	Policy 101.1.2	By January 4, 1997, Monroe County shall adopt Land Development Regulations which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development unless adequate public facilities needed to support the development at the adopted LOS standards are available concurrent with the impacts of development.	Completed; See MCLDC Sec. 114-2	Revise to "maintain"
Future Land Use	Objective 101.2	Monroe County shall reduce hurricane evacuation clearance times to 24 hours by the year 2010.	Ongoing. County recently updated Miller Model; County/DCA coordination ongoing re: model assumptions	Revise to reflect language in 2010 Work Program: Rule 28-20
Future Land Use	Policy 101.2.5	Monroe County recognizes the discrepancy of units between the County's proposed allocation to the Cities and the Cities' vested development assumptions. By January 4, 1997, the County shall initiate an interlocal agreement with the Cities to resolve the discrepancy within three (3) years.	Completed	Delete
Future Land Use	Policy 101.2.6	Monroe County shall prohibit new transient residential units including hotel or motel rooms, campground spaces, or spaces for parking a recreational vehicle or travel trailer until July 31, 2010.	Ongoing	Consider lifting moratorium and adding new policies that create a "pool" in LCPA when no ROGO application outside of Tier I land is received. Consider if "pool" could be available for units throughout the keys; see EAR for other transient unit options.
Future Land Use	Policy 101.2.7	Monroe County shall have coordinated with the Florida Department of Transportation (FDOT) to ensure that improvements needed to expand the 18 mile stretch of US 1 are placed in FDOT's adopted five-year work program by 1998.	Completed	Delete
Future Land Use	Policy 101.2.8	By January 4, 2000, Monroe County shall have coordinated with FDOT to identify funding and include the improvements needed to expand the segment of US 1 between mile markers 80 and 90 in the FDOT adopted five-year work program to have construction completed by 2010.	Completed	Delete
Future Land Use	Policy 101.2.9	Monroe County will coordinate with the Florida Department of Community Affairs' Division of Emergency Management and the County's Director of Emergency Management to have Card Sound Road designated as an alternative hurricane evacuation route by the time the improvements to Card Sound Road are completed in 1998. Monroe County shall divert 40% of evacuating traffic to Card Sound road upon completion of planned roadway improvements by 1998.	Completed	Review diversion rate against Evac. Plan; Delete or revise to reflect "continue to divert…"
Future Land Use	Policy 101.2.11	By July 17, 2001, the County shall prepare an Evaluation and Appraisal Report (EAR) of this plan. As part of the EAR process, in coordination with the South Florida Regional Planning Council, Key West, Layton and Key Colony Beach, the County will evaluate the effectiveness of its programs in ensuring: 1. that residents and visitors will evacuate when an evacuation order is issued; 2. that the number of evacuating vehicles will be lower than currently projected in the Southeast Florida Hurricane Evacuation Study; and 3. the accuracy of the visitor population figures.	Completed as part of Miller Model Update	Delete???; in future evaluation and appraisals of CP, Monroe County should continue to coordinate with municipalities and DCA and SRPC and…
Future Land Use	Policy 101.2.13	Monroe County shall establish an interim Permit Allocation System for new residential development. Work Program from Year 1.	Completed	Delete???; new work program???

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Future Land Use	Policy 101.3.5	By July 2005, Monroe County shall complete a market demand analysis and economic assessment to determine the demand for future non-residential development in Monroe County and planning sub-areas. The non-residential development allocation and Future Land Use Map (FLUM) designations for non-residential uses may be revised based upon the results of this study, and other relevant policy and economic studies and data and provide the basis for preparing specific amendments to the comprehensive plan to incorporate goals, objectives and policies on economic development including tourism. The analysis will address existing non-residential uses, vacancy rates, economic trends and demand for non-residential uses by planning sub-area.	No market study needed; Economic Assessment completed July, 2011	Consider deleting and incorporating the recommendations of the Economic Trends and Opportunities Report
Future Land Use	Policy 101.6.2	By fiscal year 1998, the Monroe County Land Authority shall dedicate a minimum of 35 percent of its annual budget each year for the purpose of acquiring land from qualified property owners as defined by Policy 101.6.1. Funds accumulated from this source shall be reserved for the acquisition of land from qualified property owners, but may also be used to acquire other properties when deemed appropriate by the Land Authority.	Ongoing	Revise to reflect "Continue to dedicate a minimum of 35%…"
Future Land Use	Policy 101.6.3	By January 4, 1998, Monroe County shall identify potential funding sources and seek funding from state, federal, and/or private sources to be used for acquisition of land from qualified property owners as defined by Policy 101.6.1.	Ongoing	Revise to delete date and reflect "…shall continue to seek funding…"
Future Land Use	Policy 101.7.1	By January 4, 1998, Monroe County shall conduct a needs assessment of potential redevelopment areas. This assessment shall analyze land use changes, property values, structural conditions, business climate, renter/owner ratios, commercial and residential vacancy rates, and other indicators of economic vitality and physical living conditions for which information is available.	Not Implemented	Delete?
Future Land Use	Policy 101.7.2	By January 4, 1998, Monroe County shall complete a community plan for Stock Island which shall address redevelopment needs identified by the needs assessment of potential redevelopment areas. Preparation and funding of this plan shall be coordinated with the City of Key West.	Completed	Delete
Future Land Use	Policy 101.7.3	By January 4, 1998, the Board of County Commissioners shall consider adopting a Finding or Findings of Necessity as specified in the Florida Community Redevelopment Act, Chapter 163, Part III, F.S. for any area or areas where such a Finding is deemed appropriate and is supported by documented need.	Not implemented	Consider for deletion or modification to reflect "Community Center" overlay recommendations of the LCPs
Future Land Use	Policy 101.7.4	By January 4, 1998, Monroe County shall prepare and adopt redevelopment plans for any area or areas for which the Board of County Commissioners adopts a Finding of Necessity.	Not implemented	Consider for deletion
Future Land Use	Policy 101.9.2	By January 4, 1997, Monroe County shall adopt a Stormwater Management Ordinance. This ordinance shall require that all improvements for replacement, expansion or increase in capacity of drainage facilities conform with the adopted level of service standards for new development. (See Drainage Objective 1001.1 and related policies.) [9J-5.006(3)(c)4]	Completed	Revise to reflect suggestions in Chapter 3 "Drainage" Element Assessment
Future Land Use	Policy 101.10.2	By January 4, 1998, Monroe County shall seek an interlocal agreement with Dade County. This agreement shall provide Monroe County with an opportunity to comment on land use and regulatory issues related to the Florida City Wellfield, aquifer and aquifer recharge area. It shall set forth procedures for review of land use and regulatory activities identified as having potentially significant impacts on the aquifer recharge and water supply systems. Criteria for determination of significant impacts shall be included in the interlocal agreement. [9J-5.006(3)(c)6]	Ongoing	Protections through Miami-Dade Wellfield Ordinance; Revise to reflect, "…maintain an interlocal…"; change to "Miami-Dade"

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Future Land Use	Policy 101.11.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations which establish a Point System to encourage a compact pattern of development (See Objective 101.5 and supporting policies).	Completed	Delete???; delete date and revise to "maintain/implement"?
Future Land Use	Policy 101.12.1	By January 4, 1997, Monroe County shall adopt a Concurrency Management System in accordance with Policy 1401.4.5 of the Capital Improvements Element to ensure that facilities required to provide utility services to new development in order to maintain adopted LOS standards are authorized at the same time that new development is authorized. [9J-5.006(3)(c)3]	Completed	Revise to reflect, "… maintain a Concurrency Management System…"
Future Land Use	Policy 101.13.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations which establish a Permit Allocation and Point System for new residential and non-residential development (See Policies 101.2.1, 101.3.1, and 101.5.1).	Completed	Delete???; delete date and revise to "maintain"?
Future Land Use	Policy 101.13.2	By January 4, 1998, Monroe County shall evaluate the existing TDR program and adopt Land Development Regulations which address identified deficiencies in the program. The following issues shall be considered in evaluating the program: 1. revision to the current tax policy whereby owners of sites which have transferred development rights continue to pay taxes on such rights until development orders have been issued for the transferred rights at the receiver sites; 2. establishment of criteria for designation of sender and receiver sites based upon factors such as the environmental characteristics of the land; 3. establishment of mechanisms to enhance the value and marketability of TDRs such as assigning density bonuses to receiver sites; 4. clarification of the status of sites which have transferred development rights, including the possible requirements that sender sites be dedicated as public or private open space through conservation easement or other mechanism. At a minimum, the LDRs shall be revised to require that a restrictive covenant be recorded on the sender site deed at the time of the Allocation Award for the Permit Allocation System; and 5. establishment of a management and accounting system to track TDRS	1. Completed 2. Completed 3. Completed 4. Completed	1. See Policy 101.13.1 2 - 4: MCLDC 130-160
Future Land Use	Objective 101.14	By January 4, 1997, Monroe County shall adopt Land Development Regulations which direct future growth away from areas subject to periodic flooding.	Completed	Revise to "...maintain LDRs..."
Future Land Use	Policy 101.15.1	By January 4, 1998, Monroe County shall complete an evaluation of the existing Sign Ordinance and adopt revisions to the Land Development Regulations required to correct identified deficiencies and eliminate non-conforming signage conditions. [9J-5.006(3)(c)1]	Completed	Delete
Future Land Use	Objective 101.16	By January 4, 1998, Monroe County shall adopt guidelines and criteria consistent with nationally recognized standards and tailored to local conditions which provide for safe and convenient on-site traffic flow, adequate pedestrian ways and sidewalks, and sufficient on-site parking for both motorized and non-motorized vehicles.	Completed	See LCPs; ???
Future Land Use	Policy 101.16.1	By January 4, 1998, Monroe County shall adopt Land Development Regulations which provide for safe and convenient on-site traffic flow, adequate pedestrian ways and sidewalks, and sufficient on-site parking for both motorized and non-motorized vehicles.	Completed	LDC Section 114-66 to 114-70
Future Land Use	Policy 101.17.1	By January 4, 1997, the Monroe County Growth Management staff shall create an up-to-date socioeconomic and physical database linked to the County Geographic Information System (GIS) for use in managing future land use. The database shall incorporate 1990 Census information.	Completed	Delete
Future Land Use	Objective 102.3	By January 4, 1997, Monroe County shall adopt Land Development Regulations which will direct new development to areas having appropriate topography and soil conditions and to where site disturbance and man's activities will have fewer adverse effects on natural vegetation, terrestrial wildlife, natural landforms and marine resources.	Completed	Revise to "maintain Land Development Regulations..."

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Future Land Use	Objective 102.4	Monroe County in cooperation with the state and other acquisition agencies shall prepare a Land Acquisition Master Plan by July 1, 2005 containing a strategy for securing funding, and a determination of those sources considered appropriate for acquisition and management of conservation lands, retirement of development rights and identification and purchase of sites for affordable and employee housing and recreational purposes. Acquisition priorities should be consistent with the tiered system adopted by this plan and as required by the State Work Program in Policy 101.2.13 in order to identify lands appropriate for voluntary purchase consistent with the comprehensive plan policies.	Completed and Adopted	Delete
Future Land Use	Policy 102.5.1	Monroe County shall develop and implement permitting, inspection, and enforcement procedures designed to reduce pollutant discharges into ground and surface waters from: 1. on-site disposal systems (by January 4, 1998) (See Sanitary Sewer Goal 901 and related objectives and policies); 2. secondary sewage treatment plants and injection wells (by January 4, 1998) (See Sanitary Sewer Goal 901 and related objectives and policies); 3. moored/anchored vessels (liveaboards) in near-shore waters (by January 4, 1998) (See Conservation and Coastal Management Objective 202.4 and related policies); 4. marinas and fueling facilities (by January 4, 1998) (See Conservation and Coastal Management Element Objective 202.5 and related policies); and 5. stormwater runoff (by January 4, 1997) (See Drainage Goal 1001 and related objectives and policies).	Completed	Consider for deletion or revise to "maintain enforcement procedures…"
Future Land Use	Policy 102.5.3	By January 4, 1998, Monroe County shall develop and implement a boating impacts management program designed to reduce adverse impacts on water quality and living marine resources associated with recreational boating. (See Conservation and Coastal Management Objective 203.6 and related policies.) [9J-5.006(3)(c)4 and 6]	Ongoing	Revise to "…maintain boat impacts program…".
Future Land Use	Policy 102.5.4	By January 4, 1997, Monroe County shall adopt revisions to the Monroe County Land Development Regulations which will implement county policies controlling pollutant discharges into surface waters from dredge and fill activities. (See Conservation and Coastal Management Objective 202.8 and related policies.)	Completed	Revise to "...maintain LDRs..."
Future Land Use	Policy 102.5.6	By January 4, 1998, Monroe County shall take actions to promote mosquito control techniques which will reduce the entry of pollutants from aerial pesticide applications into ground and surface waters in concert with ongoing efforts of EPA and the Florida Keys National Marine Sanctuary. (See Conservation and Coastal Management Objective 202.11 and related policies.)	Study completed	Delete???; delete date and revise to "maintain"?
Future Land Use	Policy 102.5.8	By January 4, 1998, Monroe County shall undertake activities which supportexisting state and federal laws pertaining to the handling, transportation and disposal of hazardous wastes. (See Solid Waste Objective 801.5 and related policies.)	Ongoing	Revise to "..continue to undertake…"
Future Land Use	Policy 102.6.2	By January 4, 1997, Monroe County shall adopt Land Development Regulations pertaining to the Mainland Native Area District which: "1. prohibit construction of any roads or canals in mainland Monroe County that would permit new access into the mainland wilderness area or would alter the natural flow regimes of the Everglades or Big Cypress Swamp; and" 2. prohibit development that would introduce human activities or habitations into the undisturbed portions of Everglades National Park or Big Cypress Swamp National Preserve."	Completed	Delete???; delete date and revise to "maintain"?

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Future Land Use	Policy 102.7.1	By January 4, 1998, Monroe County shall expand its Geographic Information System to include the following: 1. offshore islands in the Upper, Middle and Lower Keys (in public and private ownership); 2. upland and wetland vegetation data for offshore islands in private ownership; 3. land use data for offshore islands in private ownership; and 4. public facilities and services.	Ongoing	Tier system mapping; county digitialization of offshore ialands
Future Land Use	Policy 102.7.2	By January 4, 1997, Monroe County shall adopt Land Development Regulations which will further restrict the activities permitted on offshore islands. These shall include the following: 1. development shall be prohibited on offshore islands (including spoil islands) which have been documented as an established bird rookery or nesting area (See Conservation and Coastal Management Policy 207.1.3.); 2. campgrounds and marinas shall not be permitted on offshore islands; 3. new mining pits shall be prohibited on offshore islands; 4. permitted uses by-right on islands (which are not bird rookeries) shall include detached residential dwellings, camping (for the personal use of the owner of the property on a temporary basis), beekeeping, accessory uses, and home occupations (subject to a special use permit requiring a public hearing); 5. temporary primitive camping by the owner, in which no land clearing or other alteration of the island occurs, shall be the only use of an offshore island which may occur without necessity of a permit; 6. the use of any motorized vehicles including, but not limited to, trucks, carts, buses, motorcycles, all-terrain vehicles and golf carts shall be prohibited on existing undeveloped offshore islands; 7. planting with native vegetation shall be encouraged whenever possible on	1-8. Completed	Delete???; included in LDRs
Future Land Use	Policy 102.8.3	By January 4, 1997, shoreline hardening structures, including seawalls, bulkheads, groins, rip-rap, etc., shall not be permitted along shorelines of CBRS units.	Completed	MCLDC 118-76; Delete Date
Future Land Use	Policy 102.8.4	By January 4, 1998, privately-owned undeveloped land located within the CBRS units shall be considered for acquisition by Monroe County for conservation purposes through the Monroe County Natural Heritage and Park Program	Ongoing	Revise to delete date and reflect "…shall continue to considered for acquisition…"
Future Land Use	Policy 103.2.3	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations pertaining to development siting and clustering so as to avoid impacts on sensitive habitats and to provide for the retention of contiguous open space by requiring the following: 1. when a parcel proposed for development contains more than one (1) habitat type, all development shall be clustered on the least sensitive portion(s) of the parcel (as is currently required); and 2. development permitted on the least sensitive portion(s) of a parcel shall be clustered within that portion(s) of the parcel.	Completed	Revise to delete date and reflect " shall maintain Land Development Regulations…"
Future Land Use	Policy 103.2.8	By January 4, 1998, Monroe County shall complete and implement a cooperative land management program for private and county-owned lands located within and adjacent to state and federal government-owned parks and conservation lands which are within or affected by land uses in North Key Largo, including: 1. Crocodile Lake National Wildlife Refuge; 2. John Pennekamp Coral Reef State Park; 3. North Key Largo Hammock State Botanical Site and CARL Project; and 4. Biscayne Bay - Card Sound State Aquatic Preserve. (See Objective 102.9 and related policies.)	Completed	Revise to delete date and reflect "shall maintain Land Devlelopment Regulations

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Future Land Use	Objective 103.4	By January 4, 1997, the Land Development Regulations will be revised to address the issues in the focal point plans for all four ACCC designations as stipulated in Objectives 103.1 to 103.3 and related policies.	Completed	Delete
Future Land Use	Policy 103.4.1	By January 4, 1997, the Land Development Regulations will be revised to eliminate the ACCC designations from Holiday Isle, Big Pine Key, North Key Largo, and Ohio Key.	Completed	Delete
Future Land Use	Policy 104.1.1	By January 4 1998, the Monroe County Growth Management Division shall establish an inventory of all known historic and archaeological resources using information provided by the Florida Master Site File and the Archaeological and Historical Conservancy surveys of the Florida Keys.	Completed	Delete
Future Land Use	Policy 104.1.3	By January 4, 1998, Monroe County shall complete a comprehensive historic architectural survey to inventory and document historic architectural resources. This survey shall also identify historic housing and define the bounds of any potential historic districts such as those preliminary identified on Conch Key, in Islamorada, and in Marathon.	Completed	Delete
Future Land Use	Policy 104.1.4	By January 4, 1998, the Monroe County Growth Management Division, working with local historic preservation organizations, shall complete and submit Master Site File forms to the State Department of Historic Resources for any historic resources, particularly architectural resources, which are not currently included in the Florida Master Site File.	Completed	Delete
Future Land Use	Policy 104.1.5	By January 4, 1998, the Monroe County Growth Management Division shall develop a computerized inventory system for compiling, updating and accessing information pertaining to historic resources. The computerized data base shall include descriptive information provided by the Florida Master Site File and any National Register or Florida Keys Historic Register designations. Included as part of this proposed system shall be an interface with the County's Geographic Information System to provide mapped locations of sites listed on the National Register or Florida Keys Historic Register (See Objective 104.2 and related policies).	Completed	Included in July 2011 Update of Technical Document
Future Land Use	Policy 104.2.2	By January 4, 1998, Monroe County Growth Management Division shall prepare documentation to nominate the following resources to the Florida Keys Historic Register of historic places:"1. all resources listed on the National Register of Historic Places which are located in unincorporated Monroe County;" 2. archaeological sites identified as worthy of preservation; and 3. Tavernier Historic District.	Completed	Delete

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Future Land Use	Policy 104.2.4	By January 4, 1998 Monroe County shall submit documentation for nominating the following resources to the National Register of Historic Places: 1. old overseas railroad bridges identified in the AHC Architectural Windshield Survey (Thematic Resource nomination); 2. hurricane houses and public buildings (the Islamorada Library and the Tavernier Health Department) constructed as WPA projects in addition to the hurricane memorial in Islamorada; and 3. archaeological sites identified in the AHC 1988 survey as eligible for nomination to the National Register (Individual Historic Site nominations).	Completed	Delete
Future Land Use	Policy 104.3.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations constituting a Historic Preservation Ordinance to provide protection for historic resources listed on the Florida Keys Historic Register.	Completed	Delete
Future Land Use	Policy 104.5.2	By January 4, 1997, historical and archaeological information produced by or for the County such as the historic inventory, National Register listings, Florida Keys Historic Register listings, archaeological surveys, and historic architectural surveys shall be made available to the public at various locations throughout the County including libraries, schools, senior centers, museums and County offices.	Ongoing	Revise to delete date.
Future Land Use	Policy 104.5.3	By January 4, 1998, Monroe County and the Historic Florida Keys Preservation Board shall seek funding from the Tourist Development Council to create and implement a historic marker program and a historic map/guide to increase public awareness and appreciation of the County's history and historic resources.	Completed Overseas Heritage Trail Plan	Delete
Future Land Use	Policy 104.5.4	By January 4, 1998, the County and the Historic Florida Keys Preservation Board shall institute a procedure to notify property owners of properties listed or eligible for listing on the Florida Keys Historic Register or National Register and apprise owners of the associated benefits of listing.	Ongoing	Revise to delete date
Future Land Use	Policy 104.6.4	By January 4, 1998, the County shall identify available public and private funding sources for historic preservation activities and submit proposals for the following projects: "1. Perform emergency repairs and tenting for termites for historic structures on Pigeon Key;" 2. Perform structural surveys and begin renovations of significant buildings on Pigeon Key; and 3. Develop architectural guidelines for Tavernier once a local historic district is established.	Completed	Delete
Future Land Use	Policy 104.6.5	By January 4, 1998, the County shall submit funding proposals for the following historic preservation projects: 1. Conduct a historic architectural building survey for unincorporated Monroe County which shall identify potential historic districts and historic housing resources; 2. Renovation and preservation of other County-owned historic resources; and 3. Create and implement a program to promote historic resources listed on the Florida Keys Historic Register with historic markers and accompanying map/guide.	1. Completed 2. Ongoing. 3. Completed	1. Delete 2. Revise to delete date; and "continue to seek funding for the renovation and preservation of County-owned historic resources. 3. Revise to "…continue to promote historic resources…"

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Future Land Use	Policy 104.6.6	By January 4, 1998, the County shall submit funding proposals for the following historic preservation projects: 1. Develop architectural guidelines for any historic districts listed on the Florida Keys Historic Register; 2. Develop a computerized system for the inventory of historic resources including all Florida Master Site File records, local and national register status and GIS location maps. 3. Expand documentation of the Keys history through the collection of written records and recording recollections of remaining early settlers in written, video or audio form; and 4. Complete detailed documentation and research for remaining historic resources which may be eligible for the Local or National Register.	Completed	Delete
Conservation and Coastal Mgmt.	Objective 202.4	By January 4, 1998, Monroe County shall develop and implement siting and discharge regulations, fee requirements, and enforcement provisions designed to reduce pollutant discharges into surface waters from moored/anchored vessels (live-aboards) in nearshore waters to the extent allowed by law.	Completed	Delete? Or Revise to delete date and "maintain"?
Conservation and Coastal Mgmt.	Policy 202.4.1	By January 4, 1997, Monroe County shall adopt revisions to the Monroe County Code pertaining to live-aboard vessels which: 1. adopt existing federal regulations for required marine sanitation; 2. define the term "live-aboard vessel" in terms of type and duration of vessel use (to be consistent with or more strict than pending DNR rule defining "live-aboard vessel"); 3. prohibit living on board vessels of any type in residential districts; 4. require non-conforming live-aboard vessels in use as of January 4, 1997, to comply with all applicable regulations on or before January 4, 1998; 5. require that new marinas at which a live-aboard vessel is proposed to be docked provide a pump-out station; 6. require all marinas, regardless of size, to provide signage conspicuously posted at dockage sites which educate the live-aboard public about the importance of pumping out and which give clear directions to the nearest pump-out stations; 7. prohibit construction of docks which permit commercial docking of boats with on-board toilets unless the dock facility is equipped with a sewage pump-out; and 8. prohibit construction of docks which permit docking of a live-aboard vessel unless such vessel has an operable holding tank.	1.Completed 2. Completed 3. Completed 4. Completed 5. Ongoing 6. Ongoing 7. Ongoing 8. Ongoing	Delete this policy??? Or revise to delete date and "maintain"? 1. See MCLDC 26-37(e). 2. See MCLDC 26-3 (b)2); 3. See MCLDC 26-3 (b)(1); 4. See MCLDC 102-57; 5. See MCLDC 114-19; 6. See MCLDC 26-3; 7. See MCLDC 114-19; 8. See MCLDC 26-3
Conservation and Coastal Mgmt.	Policy 202.4.2	By January 4, 1998, Monroe County, with the assistance of the Marine and Port Authority Committee, shall present a report to the BOCC concerning live-aboard vessels. This report shall: 1. recommend criteria for siting live-aboard mooring areas; 2. identify potential locations of live-aboard mooring areas; 3. identify live-aboard sanitation requirements; 4. identify maximum vessel allowances in live-aboard mooring areas 5. identify methods for registration and fee collection; 6. propose definitions for live-aboard status; 7. identify pollutant loadings from live-aboards; 8. identify needs for public pump-out facilities; and 9. determine the extent of local government jurisdiction pertaining to the use of waters of the Florida Keys.	Completed	Delete.

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Conservation and Coastal Mgmt.	Policy 202.4.4	By January 4, 1998, Monroe County shall adopt revisions to the Monroe County Code pertaining to liveaboard vessels which establish the following: 1. live-aboard vessel siting criteria; 2. maximum vessel allowances; 3. no discharge zones within harbors and near-shore waters; 4. sanitation requirements; 5. requirements for live-aboard provisions (such as parking and solid waste disposal); 6. establishes a registration and fee structure for live-aboard moorings (to offset costs of mooring buoys, enforcement efforts and public pump-outs); 7. concurrency provisions, and 8. impact fee provisions.	Not fully implemented.	Revise to Delete Date
Conservation and Coastal Mgmt.	Policy 202.4.5	By January 4, 1998, Monroe County shall adopt a plan for providing public pump-out facilities in county-owned locations.	Completed	Delete
Conservation and Coastal Mgmt.	Policy 202.5.1	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations requiring new marinas having ten (10) or more slips (wet or dry), or at which a live-aboard vessel is proposed to be docked, to provide an on-site pump-out station and appropriate sewage treatment to accommodate the number of slips present according to DER and HRS standards.	Completed	Revise to Delete Date
Conservation and Coastal Mgmt.	Policy 202.5.2	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations requiring existing marinas making application for site improvements to provide a plan for retrofitting existing facilities to include an on-site pump-out station and sewage treatment. This requirement shall apply to all marinas having ten (10) or more slips (wet or dry), or at which a live-aboard vessel is docked. Implementation of this plan shall be a condition of permit issuance for site improvements at existing marinas. The plan shall be fully implemented within one year of permit issuance.		*Delete??? Date???*
Conservation and Coastal Mgmt.	Policy 202.5.3	Existing marinas having ten (10) or more slips (wet or dry), or at which a live-aboard vessel is docked, which have not been retrofitted by January 4, 1998, shall submit a plan to Monroe County for retrofitting existing facilities to include an on-site pump-out station and sewage treatment. This plan shall be submitted by January 5, 1998, and shall be fully implemented by January 4, 1999. Existing marinas subject to the retrofitting requirement shall be identified through the Marina Survey (See Policy 212.4.2). The County shall notify owners of compliance requirements in writing by January 4, 1997.	Ongoing	Review for deletion or consider revising to reflect Marina Siting Plan recommendations
Conservation and Coastal Mgmt.	Policy 202.5.4	By January 4, 1998, Monroe County shall require an annual operating permit for all marinas having ten (10) or more slips (wet or dry) or at which a live-aboard vessel is docked.	Ongoing	
Conservation and Coastal Mgmt.	Policy 202.5.5	By January 4, 1998, Monroe County shall develop and implement an enforcement program designed to ensure compliance with existing state and federal regulations pertaining to adequate spillage prevention, containment, and clean-up of fuel or hazardous material at marina sites and fueling facilities.	Complete	Revise to reflect, "…continue to implement.."
Conservation and Coastal Mgmt.	Objective 202.7	By January 4, 1998, Monroe County shall develop and implement a boating impacts management program designed to reduce adverse impacts on water quality and living marine resources associated with recreational boating.	Ongoing	
Conservation and Coastal Mgmt.	Objective 202.8	By January 4, 1997, Monroe County shall adopt Land Development Regulations which implement county policies controlling pollutant discharges into surface waters from dredge and fill activities.	Completed	Revise to "…maintain LDRs..."
Conservation and Coastal Mgmt.	Objective 202.9	By January 4, 1997, Monroe County shall develop and implement permitting, inspection, and enforcement procedures designed to reduce pollutant discharges into ground and surface waters from stormwater runoff. (See Drainage Goal 1001 and related objectives and policies.)	Completed	Revise to "…maintain boating impacts program…".

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Conservation and Coastal Mgmt.	Objective 202.10	By January 4, 1997, Monroe County shall develop and initiate implementation of a soil erosion and sedimentation control program. This program shall be designed to reduce pollutant discharges into surface waters due to soil erosion and sedimentation.	Completed	Delete
Conservation and Coastal Mgmt.	Policy 202.10.3	By January 4, 1997, Monroe County shall adopt a Stormwater Management Ordinance which adopts the level of service standards for the quality and quantity of stormwater discharges in this Comprehensive Plan (See Drainage Policy 1101.1.1). Best management practices (BMPs) developed pursuant to Policy 202.10.2 above for temporary and permanent erosion and sedimentation control shall be incorporated by reference into this ordinance and shall be recommended for use to meet water quality criteria of the ordinance. At a minimum, BMPs shall include minimizing alteration of the natural landscape due to paving and elevational changes and the use of retention basins, detention basins, vegetated swales, and/or exfiltration trenches on site, as appropriate.	Completed	Revise to reflect adoption; delete date.
Conservation and Coastal Mgmt.	Policy 202.10.6	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations pertaining to shoreline stabilization (See Objective 212.6 and related policies.)	Completed See MCLDC Section 114-3	Delete
Conservation and Coastal Mgmt.	Objective 202.11	By January 4, 1998, Monroe County shall immediately take actions to promote mosquito control techniques which will reduce the entry of pollutants from aerial pesticide applications into ground and surface waters.	Study Completed	Delete
Conservation and Coastal Mgmt.	Policy 202.12.3	By January 4, 1998, Monroe County shall establish a requirement by development regulations that all new and replacement petroleum and gasoline storage facilities be double walled.	Regulated by the State	Delete
Conservation and Coastal Mgmt.	Objective 202.14	By January 4, 1998, Monroe County shall make a determination as to the appropriate use of aerators, backfilling, the opening of dead end canals, and the utilization of weed restriction devices as a means of improving water quality in canal systems and shall request, if appropriate, a special rule for the Florida Keys pertaining to the use of same.	Not implemented	See information from CCME Technical Document (July 2011)
Conservation and Coastal Mgmt.	Objective 202.15	By January 4, 1998, Monroe County shall make a determination as to the water quality impacts associated with unplugging residential canals and shall request, if appropriate, a special rule for the Florida Keys pertaining to opening of canal plugs.	Not implemented	See information from CCME Technical Document (July 2011)
Conservation and Coastal Mgmt.	Objective 202.16	By January 4, 1998, Monroe County shall implement an ongoing coordination program with other local governments and with state and federal agencies to address existing and regional water management practices on the Florida mainland which may affect: 1. the conservation, use and protection of water quality, marine benthic communities, and fisheries in Florida Bay; and 2. the wetlands, unique vegetative communities, and species of special status on mainland Monroe County.	Ongoing; Implemented Interlocal; LECWSP; 10Yr Water Supply Plan	Revise to delete date & reflect status
Conservation and Coastal Mgmt.	Policy 203.2.4	By July/August 1993, Monroe County shall seek to enter into an agreement with NOAA, EPA and DER regarding support of scientific studies of stresses on seagrass ecosystems in the Florida Keys region. This agreement shall be developed following completion of the Florida Keys National Marine Sanctuary Management Plan. This plan shall identify the research needs to be addressed in this agreement.	Completed	Delete
Conservation and Coastal Mgmt.	Policy 203.2.6	By January 4, 1998, Monroe County shall enter digital information describing the location of seagrass beds in the Florida Keys into the County's Geographic Information System. These data shall be made available from the Florida Keys National Marine Sanctuary Management Program.	Completed; updated as new data available	Delete date; consider revision to "maintain and update GIS mapping, as new data becomes available
Conservation and Coastal Mgmt.	Policy 203.3.1	By January 4, 1998, Monroe County shall seek to enter into an agreement with NOAA, EPA and DER regarding support of scientific studies of stresses on coral reef ecosystems in the Florida Keys region. This agreement shall be developed following completion of the Florida Keys National Marine Sanctuary Management Plan. This plan shall identify the research needs to be addressed in this agreement.	Completed; updated as new data available	Delete

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Element	Policy#	Language	Status	Recommendation
Conservation and Coastal Mgmt.	Policy 203.3.3	By January 4, 1998, Monroe County shall enter digital information describing the location of coral communities in the Florida Keys into the County's Geographic Information System. These data shall be made available from the Florida Keys National Marine Sanctuary Management Program.	Completed; updated as new data available	Delete date; consider revision to "maintain and update GIS mapping, as new data becomes available
Conservation and Coastal Mgmt.	Policy 203.4.1	By January 4, 1998, Monroe County shall implement an ongoing coordination program with the NPS, SFWMD, Collier County and Dade County designed to address existing and potential land management problems in the region which may affect the conservation, use and protection of water quality and fisheries in Florida Bay. (See Objective 202.16 and related policies.)	Ongoing through Interlocals; Miami-Dade Wellfield Ord.; formal and informal review processes	Delete
Conservation and Coastal Mgmt.	Policy 203.4.5	By January 4, 1998, Monroe County shall adopt a mangrove trimming ordinance for the Florida Keys. (See Policy 203.1.2.)	Completed	MCLDC 118-3; Delete Date, revise to "maintain a mangrove trimming ordinance..."
Conservation and Coastal Mgmt.	Policy 203.4.6	By January 4, 1998, Monroe County shall develop and implement a boating impacts management program which shall address the problem of propeller damage to seagrasses. (See Objective 203.6 and related policies.)	Ongoing	Delete date; consider revision to "maintain…"
Conservation and Coastal Mgmt.	Objective 203.5	By January 4, 1998, Monroe County shall develop and implement a boating impacts management program.	Ongoing	Revise to delete date and "…maintain…"
Conservation and Coastal Mgmt.	Policy 203.6.3	By January 1998, Monroe County shall coordinate its boating impacts management activities with those of NOAA, DNR Marine Patrol, DNR Park Service, and the U.S. FWS.	Ongoing	Revise to delete date;
Conservation and Coastal Mgmt.	Policy 203.6.4	By January 4, 1997, Monroe County shall request NOAA, EPA, DNR, and DER to develop a plan to correct the deficiencies identified in the Florida Keys Monitoring Study dated July 1987 (205J).	Completed	Delete
Conservation and Coastal Mgmt.	Objective 204.1	By January 4, 1998, Monroe County shall develop an information system to be used as the basis for regulating land development activities in wetland areas, to identify potential wetland restoration sites, and to identify high quality wetland sites for possible future acquisition by the County, State and/or private non-profit conservation organizations.	Completed GIS database mapping of wetlands	Delete
Conservation and Coastal Mgmt.	Policy 204.2.10	By January 4, 1998 or upon completion of the functional assessment of wetlands in the ADID program, Monroe County shall revise the land development regulations to include additional environmental standards pertaining to open space ratios, permitted uses, filling, and setbacks as may be deemed appropriate to protect wetland habitats.	Completed	Delete
Conservation and Coastal Mgmt.	Objective 204.3	By January 4, 1998, Monroe County shall initiate a program to restore disturbed marine and freshwater wetlands. (See Goal 210 and related objectives and policies.)	Completed LAMP	Revise to delete date and "…maintain…"
Conservation and Coastal Mgmt.	Objective 204.4	By January 4, 1998, Monroe County shall establish a program for acquiring high quality undisturbed salt marsh and buttonwood wetlands.	Completed LAMP	Revise to delete date and "…maintain…"
Conservation and Coastal Mgmt.	Objective 205.3	By January 4, 1998, Monroe County shall implement an expanded program for identification and protection of plant species of special status. These shall include plants designated as threatened and endangered by the FWS and those designated as threatened, endangered or commercially exploited by the Florida Department of Agriculture.	Completed; GIS Mapping Complete	Delete
Conservation and Coastal Mgmt.	Objective 205.4	By January 4, 1998, Monroe County shall implement an ongoing coordination program with the NPS, SFWMD, Collier County and Dade County designed to address existing and potential land management problems in the region which may affect unique vegetative communities on mainland Monroe County. (See Objective 202.16 and related policies).	Ongoing through Interlocals; Miami-Dade Wellfield Ord.; formal and informal review processes	Delete
Conservation and Coastal Mgmt.	Objective 205.6	By January 4, 1998, Monroe County shall initiate a program to restore and maintain disrupted native upland vegetation systems on public lands.	Completed LAMP; Ongoing County Land Steward's Program	Revise to delete date and "…maintain…"
Conservation and Coastal Mgmt.	Objective 206.2	By January 4, 1998, Monroe County shall initiate a program to restore and maintain disturbed beach/berm resource areas on public lands. (See Objective 210.1 and related policies.)	Completed LAMP; Ongoing County Land Steward Program	Revise to delete date and "…maintain…"
Conservation and Coastal Mgmt.	Objective 206.4	By January 4, 1998, Monroe County shall establish a program for acquiring undisturbed beach/berm resource areas (See Future Land Use Objective 102.4 and related policies).	Completed LAMP; Ongoing County Land Steward Program	Revise to delete date and "…maintain…"

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Element	Policy#	Language	Status	Recommendation
Conservation and Coastal Mgmt.	Objective 207.1	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which shall protect wildlife and wildlife habitat from adverse impacts of development.	Completed ROGO and Tier	Delete
Conservation and Coastal Mgmt.	Objective 207.2	By January 4, 1998, Monroe County shall provide guidance to private landowners to reduce disturbances to wildlife species designated by the FWS and the State as threatened or endangered.	Ongoing	Revise to delete date.
Conservation and Coastal Mgmt.	Policy 207.3.1	Big Pine and No Name Keys shall be high priority areas for controlling free-roaming dogs. In addition, by January 4, 1998, the County Biologist shall identify other areas within the County where priority should be placed in enforcing animal control laws so as to protect native wildlife populations.	Completed HCP	Delete
Conservation and Coastal Mgmt.	Policy 207.3.3	By January 4, 1998, the Monroe County Animal Control Department shall develop and begin implementation of an Animal Control Plan. This plan shall address long-term staffing and facility needs within the Upper, Middle and Lower Keys for protecting residents and native wildlife populations from the hazards of free-roaming domestic pets.	Status unclear	*The County no longer has an Animal Control Department. It did have one before 1999. In March 1998, the County started to contract with independent contractors by contracting out the Upper Keys animal control. By June of 1999, the remainder of the Keys animal control had been privatized and the department was eliminated, with contract oversight being handled, first by Public Works, shifting to Community Services in the Tom Willi administration, then back to Public Works. In 2006, a major re-write of the animal control ordinances finally dealt with the fact that the service had been privatized. What was Ch. 3, as amended by that ordinance was later converted to Ch. 4 of the County Code. Delete??*
Conservation and Coastal Mgmt.	Policy 207.4.1	By January 4, 1998, the Monroe County Biologist shall coordinate with the FGFWFC and the FWS to develop a list of undesirable exotic wildlife species (exclusive of horses, domestic dogs, and domestic cats).	Completed List; Invasive Exotic Task Force Implemented	Delete??? Or Revise or delete date?
Conservation and Coastal Mgmt.	Policy 207.4.2	By January 4, 1998, Monroe County shall adopt an exotic wildlife ordinance which shall prohibit and/or restrict the sale and handling of listed undesirable exotic species (exclusive of horses, domestic dogs, and domestic cats).	Completed; See MC Code 4-76(B)(2)	Delete
Conservation and Coastal Mgmt.	Objective 207.5	By January 4, 1998, Monroe County shall implement an expanded program for mapping occurrences and habitat of species of special status. These shall include wildlife species designated as threatened and endangered by the FWS and those designated as threatened, endangered or species of special concern by the FGFWFC.	Completed; GIS Mapping Complete	Delete
Conservation and Coastal Mgmt.	Objective 207.6	By January 4, 1998, Monroe County shall implement a cooperative program with the FWS, DNR, and FGFWFC to promote the recovery of wildlife species designated by the federal government as threatened and endangered.	Ongoing; Implemented a number of programs: ROGO/Tier/Land Clearing/Tree Removal, etc.	Delete
Conservation and Coastal Mgmt.	Policy 207.7.3	By January 4, 1998, Monroe County shall identify Key deer habitat areas as priority acquisition sites for conservation purposes. Emphasis shall be placed upon acquisition of movement corridors, sources of freshwater, and undisturbed native vegetation areas which are located within Improved Subdivisions and which are outside of the acquisition areas identified by the FWS (for the National Key Deer Refuge), DNR (for the Coupon Bight CARL Project), and SFWMD (for the Big Pine Key Save Our Rivers project). Acquisition shall be considered through the Monroe County Natural Heritage and Park Program. (See Future Land Use Objective 102.4 and related policies).	Completed: LAMP; HCP; Incidental Take Permit	Delete Date
Conservation and Coastal Mgmt.	Policy 207.7.4	By January 4, 1998, Monroe County shall meet with federal agencies, state agencies, and private non-profit conservation organizations, to determine how the County can support programs for acquisition of land for conservation purposes within habitat areas of the Key deer.	Completed; implemented LAMP	Delete or Delete date and revise to "Continue"?
Conservation and Coastal Mgmt.	Policy 207.7.8	By January 4, 1998, the County Biologist shall designate Key deer habitat on Big Pine Key, No Name Key, and other keys as appropriate, as priority areas for enforcement of animal control laws (pursuant to Policy 207.3.1). Adequate staff shall be provided at the animal shelter on Big Pine Key to enforce animal control laws (determined pursuant to Policy 207.3.3).	Unclear status	The Big Pine shelter is closed, but still leased by the County in the event it needs to be re-opened. However, the contractor for the service area including Sugarloaf to Long Key, does have responsibility for providing adequate animal control enforcement on BPK. Delete??
Conservation and Coastal Mgmt.	Policy 207.7.12	By January 4, 1997, Monroe County shall meet with the FWS to determine measures which can be taken by the County to support the FWS in enforcing existing no feeding laws pertaining to the Key deer.	Unclear status; illegal or inadvertent feeding discussed in CCME Technical Document Update (July 2011)	Delete??
Conservation and Coastal Mgmt.	Policy 207.7.14	By January 4, 1998, Monroe County shall initiate volunteer programs to encourage landowners to voluntarily remove Brazilian pepper, Australian pines and other invasive plants from their properties.	Program established, work is ongoing; Invasive Exotic Task Force	Delete Or Delete date and revise to "Maintain"?

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Element	Policy#	Language	Status	Recommendation
Conservation and Coastal Mgmt.	Policy 207.7.15	By January 4, 1998, Monroe County shall distribute management guidelines for Key deer (developed pursuant to Policy 207.2.1) to private landowners on Big Pine Key.	Ongoing	Delete?? or revise to delete date and " continue to distribute…"
Conservation and Coastal Mgmt.	Policy 207.8.1	By January 4, 1997, Monroe County shall revise the Land Development Regulations to include revised development standards pertaining to permitted uses, siting of structures, disturbances, removal of invasive vegetation, and restoration of native vegetation in beach/berm areas. (See Objective 206.1 and related policies).	Completed	Delete?? or revise to delete date and " continue to implement…"
Conservation and Coastal Mgmt.	Policy 207.8.2	By January 4, 1998, Monroe County shall initiate a program to restore and maintain disturbed beach/berm areas on public lands. (See Policies 210.1 through 210.9).	Completed LAMP, Rec/OS Master Plan	Delete
Conservation and Coastal Mgmt.	Policy 207.8.3	By January 4, 1998, Monroe County shall develop and implement a boating impacts management program for protection of marine turtles and manatees. (See Objective 203.6 and related policies).	Develop/implement complete, program is ongoing	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Policy 207.8.4	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which will reduce pollutant discharges into surface waters from dredge and fill activities. (See Objective 202.8 and related policies).	Completed Stormwater MasterPlan; Stormwater Ord.	Delete
Conservation and Coastal Mgmt.	Policy 207.8.6	By January 4, 1998, Monroe County shall adopt a turtle protection ordinance. Regulations of this ordinance shall apply to existing and new development and shall generally accomplish the following: 1. prohibit activities disruptive to marine turtles; 2. establish standards for preventing interior lighting from illuminating nesting areas during the nesting season; 3. establish standards for mechanical beach cleaning; and 4. protect marine turtles from predation	Completed	Delete or revise to "…shall maintain a turtle protection ord.
Conservation and Coastal Mgmt.	Policy 207.8.10	By January 4, 1998, Monroe County shall identify undisturbed beach nesting habitat of marine turtles as priority acquisition sites for conservation purposes. Particular emphasis shall be placed upon acquisition of undisturbed beaches which are located within Improved Subdivisions. Acquisition shall be considered through the Monroe County Natural Heritage and Park Program. (See Future Land Use Objective 102.4 and related policies).	LAMP Completed; identification and acquisition efforts are ongoing	Delete Date
Conservation and Coastal Mgmt.	Policy 207.8.11	By January 4, 1998, Monroe County shall consider requests by the Boating Impacts Workshop to adopt speed controls in nearshore waters and/or creation of a boating restricted or boating protection zone.	Completed; boating protection ongoing	Delete
Conservation and Coastal Mgmt.	Policy 207.9.1	By January 4, 1998, the Monroe County Biologist, in cooperation with DNR, FGFWFC, FWS, and the National Audubon Society Research Department shall update the list of offshore island bird rookeries where development shall be prohibited. Until the list is updated, the offshore islands which are established bird rookeries shall be defined as any offshore island designated as a known habitat for a nesting bird on the latest update of the Protected Animal Species Map. (See Policy 207.1.3, 207.9.1 and 1301.7.10.)	Completed; FWS GIS data base incorporated into County GIS	Delete?? Or Revise to delete date and "…maintain maps"?
Conservation and Coastal Mgmt.	Policy 207.9.2	By January 4, 1998, the Monroe County Biologist, in cooperation with DNR, FGFWFC, and the National Audubon Society Research Department shall compile a list of nesting sites in the Lower, Middle and Upper Keys known to be used by federally-designated birds, including the southern bald eagle (Haliaeetus leucocephala), roseate tern (Sterna dougalii), piping plover (Charadrius melodus), perrigrine falcon (Falco perregrinus tundrius), and least tern (Sterna antillarum).	Completed; FWS GIS data base incorporated into County GIS	Delete?? Or Revise to delete date and "…maintain maps"?
Conservation and Coastal Mgmt.	Policy 207.9.3	By January 4, 1998, the Monroe County Biologist shall prepare management guidelines for private landowners to address the special sensitivity during the nesting period of the southern bald eagle (Haliaeetus leucocephala), osprey (Pandion haliaetus), the brown pelican (Pelecanus occidentalus), and the roseate tern (Charadrius melodus). Development of these guidelines shall be undertaken in coordination with the Florida Game and Freshwater Fish Commission and the FWS.	Status unclear	
Conservation and Coastal Mgmt.	Policy 207.9.4	By January 4, 1997, Monroe County shall retain existing regulations of Section 9.5-478 of the Land Development Regulations (Monroe County BOCC, 1990) which limit land uses and establish wildlife habitat protection measures for wintering grounds of the piping plover (Charadrius melodius) on Ohio Key.	Retained	Delete Or Delete date and revise to "Maintain"?

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Element	Policy#	Language	Status	Recommendation
Conservation and Coastal Mgmt.		By January 4, 1998, Monroe County shall identify the following as priority acquisition sites for conservation purposes: 1. nesting sites of the southern bald eagle (Haliaeetus leucocephala), osprey (Pandion haliaetus), the brown pelican (Pelecanus occidentalus), and the roseate tern (Sterna dougallii); and 2. wintering grounds for the peregrine falcon (Falco peregrinus) and the piping plover (Charadrius melodus). Acquisition shall be considered through the Monroe County Natural Heritage and Park Program. (See Future Land Use Objective 102.4 and related policies.)	LAMP Completed; identification and acquisition efforts are ongoing	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Policy 207.10.1	By January 4, 1998, Monroe County, in cooperation with the FWS and FGFWFC, shall identify the native upland habitats used by the Schaus swallowtail butterfly which are not protected in publicly-owned conservation lands	Completed; FWS GIS data base incorporated into County GIS	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Policy 207.10.2	By January 4, 1998, sites identified pursuant to Policy 207.10.1 shall be identified as priority acquisition sites for conservation purposes. Acquisition shall be considered through the Monroe County Natural Heritage and Park Program. (See Future Land Use Objective 102.4 and related objectives and policies.) [	LAMP Completed; identification and acquisition efforts are ongoing	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Policy 207.11.2	By January 4, 1998, Monroe County shall take actions to work with the Monroe County Mosquito Control Board to direct spraying of mosquito control pesticides away from critical habitat of the Stock Island Tree Snail.	Completed; aerial spraying is limited to only when heavy infestation	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Policy 207.11.3	By January 4, 1998, Monroe County shall cooperate with the FWS in locating potential introduction sites for the Stock Island Tree Snail.	Completed; FWS GIS data base incorporated into County GIS	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Policy 207.12.1	By January 4, 1998, Monroe County, in cooperation with the FWS and FGFWFC, shall identify wetland and native upland habitats which are documented habitat for the following: 1. eastern indigo snake (Drymachron corais couperi) (sites from No Name Key to Sugarloaf Key, on Big Torch Key, Middle Torch Key, Big Pine Key and Plantation Key); 2. silver rice rat (Orzomys argentatus) (sites on Cudjoe, Summerland, Big Torch, Middle Torch, Saddlebunch, Little Pine, Raccoon, Water, and Johnson Keys); 3. Lower Keys marsh rabbit (Sylvilagus palustris hefneri) (sites on Sugarloaf, Welles, Annette, Boca Chica, Big Pine and Hopkins Keys); 4. Key Largo wood rat (Neotoma floridana smalli) (on Key Largo); 5. Key Largo cotton mouse (Peromyscus gossypinus allapaticola) (on Key Largo); and 6. American crocodile (Crocodylus acutus). [9J-5.012(3)(c)1; 9J-5.013(2)(c)5 and 6]	Completed; FWS GIS data base incorporated into County GIS	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Policy 207.12.4	By January 4, 1998, the Monroe County Biologist shall coordinate with FGFWFC to identify specific measures which could be implemented by the County to better protect the eastern indigo snake from illegal collection for the pet trade. The Environmental Crimes Task Force shall be responsible for implementing identified measures.	Status unclear	
Conservation and Coastal Mgmt.	Policy 207.12.5	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which shall establish the open space requirement for undisturbed salt marsh and buttonwood wetlands at one hundred (100) percent. (See Policy 204.2.1).	Completed; see MCLDC Sec.118-4	Delete or delete date and revise to "…shall maintain the open space requirement…". Included in other policies
Conservation and Coastal Mgmt.	Policy 207.12.7	By January 4, 1998, the Monroe County Biologist shall coordinate with the FWS and FGFWFC to determine the protection and habitat preservation measures which could be implemented by Monroe County to assist with recovery of these designated species.	Completed, ROGO, Tier System, LAMP	Delete
Conservation and Coastal Mgmt.	Policy 207.13.1	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which shall continue to establish the open space requirement for freshwater ponds and freshwater wetlands at one-hundred (100) percent (Monroe County BOCC, 1990). (See Policy 204.2.1)	Complete; See MCLDC 118-4	Delete; Included in other policies
Conservation and Coastal Mgmt.	Policy 207.13.2	By January 4, 1998, Monroe County shall meet with the FWS, DNR and SFWMD to determine how Monroe County can support acquisition of freshwater wetlands and critical recharge areas in the Lower Keys by FWS, DNR, and SFWMD.	Complete.	Delete or revise to delete date and, "shall continue to support acquisition of freshwater…"

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Element	Policy#	Language	Status	Recommendation
Conservation and Coastal Mgmt.	Policy 207.13.3	By January 4, 1998, Monroe County shall identify additional privately-owned lands with freshwater wetlands (not within the acquisition areas of the FWS, DNR or SFWMD) which provide important alligator habitat as priority acquisition sites for conservation purposes.	Completed Tier Mapping; FWS maps have been incorporated into MC GIS; also LAMP.	Delete
Conservation and Coastal Mgmt.	Policy 207.13.4	By January 4, 1998, Monroe County shall identify the freshwater lens systems and associated recharge areas on Big Pine Key and adjacent keys. Special measures shall be implemented to protect the quantity and quality of groundwater recharge to the freshwater lenses. (See Natural Groundwater Aquifer Recharge Element Objective 1101.2 and related policies).	Completed	Delete.
Conservation and Coastal Mgmt.	Objective 208.1	By January 4, 1997, Monroe County shall develop and implement a soil erosion and sedimentation control program. (See Objective 202.10 and related policies).	Completed. See MCLDC Sec. 118-10	Delete
Conservation and Coastal Mgmt.	Objective 208.2	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which establish additional health, safety and environmental protection standards for the extraction or use of mineral resources.	Completed; See MCLDC Sec. 118-41	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Objective 208.3	By January 4, 1998, Monroe County shall revise the Land Development Regulations to protect fresh groundwater lenses from accelerated saltwater intrusion due to limestone mining activity	Completed; See MCLDC Sec. 118-41	Delete or revise to delete date and, add "...shall maintain LDRs that protect fresh grounwater…"
Conservation and Coastal Mgmt.	Objective 208.4	By January 4, 1998, Monroe County shall prepare an inventory of abandoned mining sites and develop a plan for the cleanup and productive reuse of abandoned mining sites.	Not implemented	See recommendations in Chapter 3 CCME Assessment
Conservation and Coastal Mgmt.	Objective 209.4	By January 4, 1998, Monroe County shall complete and implement a cooperative land management program for private and county-owned lands located within and adjacent to parks and conservation lands which are owned by the state and federal governments in the Florida Keys. (See Future Land Use Objective 102.9 and related policies.)	Complete. LAMP adopted.	Delete,
Conservation and Coastal Mgmt.	Objective 210.1	By January 4, 1998, Monroe County shall initiate a program to restore and maintain disrupted marine, wetland, beach/berm and native upland vegetation systems on Monroe County public lands.	Complete. LAMP adopted.	Delete,
Conservation and Coastal Mgmt.	Objective 211.3	By January 4, 1998, Monroe County shall identify the freshwater lens system and associated recharge areas of the Florida Keys and shall implement programs regulating the storage and use of hazardous materials in recharge areas, prohibiting new water withdrawals, and phasing out existing water withdrawals to protect against saltwater intrusion. (See Natural Groundwater Aquifer Recharge Objectives 1101.2 and 1101.3 and related policies).	Complete. Freshwater Lens mapped.Public Works education program for hazardous materials; no new wells or withdrawals permitted by SFWMD	Delete,
Conservation and Coastal Mgmt.	Objective 212.1	By December 31, 2006, Monroe County shall develop and implement measures for regulating shoreline uses consistent with the following order of priorities: a) water-dependent uses; b) water-related uses; and c) uses that are not dependent upon or related to shoreline access.	Not implemented	Implement recommendations from the Marine Management Strategic Plan
Conservation and Coastal Mgmt.	Policy 212.1.1	By December 31, 2003, Monroe County shall develop a Shoreline Use Priorities Plan which shall provide for siting of water-dependent and water-related uses consistent with the following order of priority: 1) water-dependent uses, 2) water-related uses, and 3) uses that are not dependent upon or related to shoreline access. The plan shall accomplish the following: 1. establish performance standards for shoreline development, consistent with criteria for marina siting (See Objective 212.4 and related policies); 2. identify environmentally suitable waterfront areas and recommend strategies for reserving such areas for water-dependent and water-related development sites consistent with estimated need; 3. analyze conflicts among existing shoreline uses and recommend strategies for reducing or eliminating such conflicts; and 4. identify strategies for encouraging appropriate mixed use development that includes water-dependent and water-related uses and is compatible with existing land uses. [9J-5.012(3)(c)8]	Partially implemented. RPC completed for the County the Marine Management Strategic Plan which includes implementation strategies and performance standards.	Plans complete; consider deletion; incorporate recommendations and strategies from these Plans.

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Element	Policy#	Language	Status	Recommendation
Conservation and Coastal Mgmt.	Policy 212.1.2	By December 31, 2006, Monroe County shall: 1. adopt an amendment to the Comprehensive Plan which incorporates recommendations of the Shoreline Use Priorities Plan; and 2. adopt Land Development Regulations which regulate existing and new shoreline development consistent with the recommendations of the Shoreline Use Priorities Plan.	Partially implemented. RPC completed for the County theMarine Management Strategic Plan which includes implementation strategies and performance standards.	Plans complete; consider deletion; incorporate recommendations and strategies from these Plans.
Conservation and Coastal Mgmt.	Objective 212.3	By January 4, 1998, Monroe County shall develop and implement siting and discharge regulations, fee requirements and enforcement provisions pertaining to moored/anchored vessels (live-aboards) in nearshore waters. (See Objective 202.4 and related policies.)	See MCLDC Sec. 26-3; Sec. 102-60;Sec. 114-19;Sec.130-79;	Delete
Conservation and Coastal Mgmt.	Objective 212.4	By January 4, 1998, Monroe County shall complete an analysis of the need for additional marina facilities and shall develop criteria for marina siting which shall meet or exceed state standards.	Marine Management Strategic Plan	Delete Date, developing criteria, updating the maring siting plan
Conservation and Coastal Mgmt.	Objective 212.5	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations pertaining to mooring fields and structures built over water (including, but not limited to, boat docks, fishing piers, swimming piers and observation decks).	Completed; See MCLDC Ch. 26 Article II; MCLDC Ch. 118	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Objective 212.6	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations pertaining to shoreline stabilization.	Completed See MCLDC Section 114-3	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Policy 213.1.1	By December 31, 2006, Monroe County shall complete a Public Access Plan for unincorporated Monroe County. The Public Access Plan shall estimate the existing capacity of and need for the following types of public access facilities: 1. public access points to the beach or shoreline through public lands; 2. public access points to the beach or shoreline through private lands; 3. parking facilities for beach or shoreline access; 4. coastal roads and facilities providing scenic overlooks; 5. marinas; 6. boat ramps; 7. public docks; 8. fishing piers; and 9. traditional shoreline fishing areas.	Not implemented; however, the recent (July 2011) update to the Technical Document (Recreation and Open Space) contains inventory of the public access points	Delete Or Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Policy 213.1.2	By December 31, 2006, Monroe County shall adopt Land Development Regulations which: 1. implement recommendations of the Public Access Plan; 2. provide for the enforcement of public access to beaches renourished at public expense by prescription, prescriptive easement, or any other legal means; 3. provide for the enforcement of public access requirements of the Coastal Zone Protection Act of 1985; 4. specify standards for transportation and parking facilities for beach and shoreline access. 5. include environmental design criteria which reflect environmental constraints.	Not implemented.	Based upon results of the Technical Document revise to amend date to "By May 2015, the County shall adopt…"
Conservation and Coastal Mgmt.	Policy 213.1.4	By December 31, 2006, Monroe County shall incorporate public access facilities into the GIS for use in future public access and shoreline planning.	Completed with the recent update to the Technical Document (July 2011), public access points mapped in the County's GIS data base.	Delete.
Conservation and Coastal Mgmt.	Policy 215.1.2	By January 4, 1997, Monroe County shall adopt Land Development Regulations which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development unless adequate public facilities needed to support the development at the adopted LOS standards are available concurrent with the impacts of development.	Completed. See MCLDC Sec. Sec. 114-2	Delete.

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Element	Policy#	Language	Status	Recommendation
Conservation and Coastal Mgmt.	Policy 215.1.3	By January 4, 1997, the Monroe County Capital Improvements Program shall be revised to include the infrastructure improvements identified in the Comprehensive Plan Five-Year Schedule of Capital Improvements which are required to serve development or redevelopment in the coastal area at the densities proposed by the Future Land Use Element, in accordance with the adopted LOS standards referenced in Policy 215.1.1. The Capital Improvements Program shall be monitored and updated annually to ensure that facilities and services are available concurrent with the impacts of development. Development approval may be phased to allow the provision of public facilities and services necessary to maintain the adopted levels of service.	CIP Completed and updated annually during the budget process.	Delete date and revise to "Maintain"?
Conservation and Coastal Mgmt.	Objective 215.2	By January 4, 1997, Monroe County shall initiate programs which require exploration of feasible alternatives to funding of public facilities and infrastructure which will result in the loss of or damage to significant coastal or natural resources, including, but not limited to, wilderness areas, wildlife habitats, and natural vegetative communities.	Completed; See MCLDC Sec. 130-126 and Sec. 130-127	Delete.
Conservation and Coastal Mgmt.	Policy 215.2.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations which require consideration of feasible design and siting alternatives for new public facilities and infrastructure proposed within the coastal zone in order to minimize adverse impacts to natural resources.	Completed; See MCLDC Sec. 130-126 and Sec. 130-127	Delete.
Conservation and Coastal Mgmt.	Policy 216.1.1	Delete or revise date to "By May 2015"	Completed. See MCLDC Ch. 138 (ROGO and NROGO)	Delete or revise to delete "within one year" and replace "adopt" with "maintain"
Conservation and Coastal Mgmt.	Policy 216.1.10	By January 4, 1998, Monroe County shall coordinate with the Florida Department of Transportation to draft and implement a program which will establish priorities for elevation of low segments of US 1. The program shall, at a minimum, identify funding sources and scheduling. Priority consideration shall be given to elevation of the 18-mile stretch of US 1 northbound from Key Largo.	Complete.	Delete.
Conservation and Coastal Mgmt.	Policy 216.1.11	By January 4, 1997, Monroe County shall adopt Land Development Regulations which require that all new and redeveloped marinas provide a hurricane contingency plan for review and approval before permits can be issued.	Not implemented. Review recommendations for implementation within the Marina Siting Plan	Delete or Revise date to "By May 2015"
Conservation and Coastal Mgmt.	Policy 216.1.14	By January 4, 1998, Monroe County shall complete a Post-Disaster Recovery Plan which will include a structured procedure aimed at debris removal preparedness during hurricane evacuation and re-entry (See Objective 217.2 and related policies).	Completed	PDRP completed August 1,2003, Debris Management Plan / Comprehensive Emergency Management Plan (2003)/LMS (October 2010)
Conservation and Coastal Mgmt.	Policy 216.1.17	By January 4, 1998, Monroe County shall develop programs to reduce the number of evacuating vehicles including, but not limited to programs to encourage ride-sharing and transit usage and, consistent with applicable law, evacuating vehicle registration requirements.	Completed. See Tech Doc. Update: Mass Transit (July 2011)	Delete.

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Element	Policy#	Language	Status	Recommendation
Conservation and Coastal Mgmt.	Objective 216.2	By January 4, 1998, Monroe County shall implement a plan to correct existing and projected shelter deficiencies for Category 1 and 2 storms.	Status unclear; delete date to "maintain"	*Under review by Department of Emergency Management*
Conservation and Coastal Mgmt.	Policy 216.2.1	By January 4, 1997, Monroe County shall determine the existing level of deficiency in number and location of shelter spaces for Category 1 and 2 storms according to the projected residential and transient population. Existing buildings shall also be identified that could serve as shelters along with actions needed to bring them up to American Red Cross and Emergency Management specified standards. By January 4, 1998, a plan of action for correcting deficiencies shall be presented for adoption by the BOCC. The plan shall be monitored and updated on an annual basis.	Status unclear	
Conservation and Coastal Mgmt.	Objective 216.3	By January 4, 1998, Monroe County shall develop and implement a plan providing sufficient approved shelter spaces outside Monroe County for all county residents who will require shelter from a Category 3 or greater hurricane.	Status unclear	
Conservation and Coastal Mgmt.	Policy 216.3.1	By January 4, 1997, Monroe County shall coordinate with the Department of Community Affairs' Division of Emergency Management, the South Florida Regional Planning Council, Dade County, the Red Cross and other appropriate agencies to identify sufficient approved shelter spaces outside of Monroe County for all county residents who will require shelter from a Category 3 or greater hurricane. Priority consideration shall be given to expansion of the currently designated shelter at Florida International University in order to consolidate Monroe County shelter spaces in one location.	Status unclear; delete date to "maintain"	
Conservation and Coastal Mgmt.	Policy 216.3.4	By January 4, 1998, Monroe County shall evaluate and confirm the space available at all identified shelters and determine an estimate of shelter deficiencies.	Status unclear	
Conservation and Coastal Mgmt.	Objective 217.2	By January 4, 1998, Monroe County shall develop a Post-Disaster Redevelopment Plan which addresses priorities for immediate recovery and long-term redevelopment including reducing the exposure of human life to natural hazards.	Completed Local Mitigation Strategy + PDRP	Delete
Conservation and Coastal Mgmt.	Policy 217.2.2	By January 4, 1998, Monroe County shall develop a Post-Disaster Redevelopment Plan which specifies procedures for implementing programs for immediate repair, replacement, and cleanup, and long-term rebuilding and redevelopment. The plan shall also include procedures for the identification of damaged infrastructure and consideration of alternatives to its repair or replacement in the CHHA. Monroe County will review and evaluate policies contained in Post Disaster Redevelopment Planning: Model Plan for Three Florida Scenarios as it prepares its Post Disaster Redevelopment Plan.	Completed Local Mitigation Strategy + PDRP	Delete or revise to change "develop" to "maintain"; name from Post-Disaster Redevelopment Plan" to "Local Mitigation Strategy"; delete date.
Conservation and Coastal Mgmt.	Objective 217.3	By January 4, 1997, Monroe County shall adopt Land Development Regulations which direct future growth away from the Coastal High Hazard Area (CHHA).	Completed. See MCLDC Ch. 138 (ROGO and NROGO)	Delete Date and revise to "... shall direct growth away…"
Conservation and Coastal Mgmt.	Policy 217.4.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations which limit public expenditures in the CHHA by requiring consideration of feasible siting and design alternatives for public facilities and infrastructure.	Completed. See MCLDC Ch. 138 (ROGO and NROGO)	Delete.
Conservation and Coastal Mgmt.	Objective 218.1	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which shall require an Environmental Impact Assessment (EIA) for all major development projects.	Not implemented; however, requirements for DRIs are included in Sec. 110-76	Delete.
Traffic Circulation	Policy 301.2.4	By January 4, 1998, Monroe County shall complete a study that considers the feasibility of improving portions of the old Overseas Highway into a series of frontage roads and alternative routes to US-1.	Not implemented. Use of old Oversea Highway is discussed in LCPs	Delete or review to determine if further studies are needed.
Traffic Circulation	Policy 301.2.5	By January 4, 1998, Monroe County staff shall meet with FDOT to discuss programming the recommended TSM improvements on Plantation, Upper Matecumbe, and Big Pine Keys as identified in the Data and Analysis Section of the Traffic Circulation Element.	Complete. All FDOT planned and programmed improvements inventoried in July 2011 update of Technical Document in Traffic Element and the Tech Doc. For the Capital Improvements Element .	Delete

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Element	Policy#	Language	Status	Recommendation
Traffic Circulation	Policy 301.3.1	By January 4, 1997, Monroe County shall prepare a plan for coordinated bicycle path and pedestrian way improvements emphasizing access to schools, parks, and shopping centers.	Completed. Bike and Ped Plan is updated periodically.	Delete or revise to delete date and add "…maintain and update the plan as needed."
Traffic Circulation	Policy 301.3.2	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which require proportionate fair-share assessment impact fees, including the costs for building bicycle and pedestrian paths along US-1.	Completed. See MCLDC Sec. 126-2	Delete.
Traffic Circulation	Policy 301.4.2	By January 4, 1997, Monroe County shall survey the trip length, trip purpose, and motorist profile characteristics for existing traffic at various points along US-1, in conjunction with the development of a long-range transportation plan computer model for the County.	Annual reports are prepared "US 1 Time and Travel Delay Study"	Delete.
Traffic Circulation	Policy 301.7.1	By January 4, 1997, Monroe County shall provide specific right-of-way width information for the critical segment of US 1 in Monroe County to the FDOT where widening to four lanes is required to reduce hurricane clearance times. Further, Monroe County staff shall participate in right-of-way planning and preservation efforts including, but not limited to, the FDOT corridor-wide master plan for District 6.	Complete. US 1 Corridor Management Plan adopted.	Delete.
Traffic Circulation	Policy 301.7.2	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations which prohibit unauthorized use of public rights-of-way.	Complete. See MCLDC Sec. 19-1	Delete.
Traffic Circulation	Policy 301.8.1	By January 4, 1997, Monroe County shall submit to the FDOT proposed access classifications for all segments of US-1, consistent with the guidelines established by the FDOT in Rule 14-97. Monroe County staff shall coordinate with the FDOT in preparing the final access classifications by meeting with FDOT staff, reviewing proposed changes to the county's access classifications, and participating in FDOT public hearings. The land development regulations prepared pursuant to this comprehensive plan shall ensure that future driveway and roadway connections to US 1 provide for shared driveway access and minimum use of new curb cuts, where appropriate, as provided in Rule 14-97 F.A.C. [9J-5.007(3)(c)2] Until such time as the FDOT establishes permanent access standards pursuant to Rule 14-97, Monroe County shall continue to require the same roadway access standards that are currently contained in Section 9.5-421 through 9.5-425 of the Land Development Regulations, which are hereby incorporated by reference.	Complete. See MCLDC Sec. 19-41	Delete.
Traffic Circulation	Policy 301.8.2	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations to include guidelines and criteria consistent with nationally-recognized standards which provide for safe and convenient on-site traffic flow, adequate pedestrian ways and sidewalks, as well as sufficient on-site parking for both motorized and non-motorized vehicles.	Completed. See MCLDC Ch. 114	Delete date and revise to "Maintain"?
Mass Transit	Policy 401.1.1	By December 31, 2006, Monroe County shall adopt Land Development Regulations requiring retail shopping facilities, offices and similar uses generating over two thousand (2,000) trips per day be built to accommodate mass transit by being designed to include such features as adequate turning radii for large vehicles, direct access to sheltered areas with seating that can serve as a bus stop and pedestrian access to adjacent properties.	Status unclear	
Mass Transit	Policy 401.1.2	Within twelve (12) months of the effective date of the Comprehensive Plan, Monroe County shall adopt land development regulations that favor the clustering of major trip generators and transit oriented uses.	Not implemented	Delete.
Mass Transit	Policy 401.1.3	Within twelve (12) months of the effective date of the Comprehensive Plan, Monroe County shall adopt land development regulations that encourage all developers to assist the transition to transit by such efforts as providing car pools, transit facilities, and pedestrian/bicycle paths.	Completed. See MCLDC Sec. Chapter. 110	Delete "Within 12 months…" and revise to "Maintain"?
Ports, Aviation and Related Facilities	Policy 501.2.4	By January 4, 1997, Monroe County shall adopt the Land Development Regulations to regulate structures over one hundred feet and to require the structures to be lit during the day and night. Whenever possible, such structures shall be located in close proximity to each other and away from populated areas so as to not pose a threat to aircraft providing aerial spraying for mosquito control.	Completed. See MCLDC Ch. 130.	Delete
Ports, Aviation and Related Facilities	Policy 501.2.5	By 2000, Monroe County shall study the possible purchase of the land between the existing east property line of the Marathon Airport and 107th Street in order to eliminate potential airport hazards.	Status unclear	Under review by Reggie Paros

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Element	Policy#	Language	Status	Recommendation
Ports, Aviation and Related Facilities	Policy 501.3.3	By January 4, 1997, Monroe County shall adopt Land Development Regulations to regulate new structures and the use of land within two hundred and fifty feet of the 65 LDN contour around public airports to reduce land uses susceptible to the adverse effects of airport noise	Completed see MCLDC Ch. 130	Delete.
Ports, Aviation and Related Facilities	Policy 501.9.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations containing provisions for permitting development of aviation facilities during emergencies.	Completed see MCLDC Ch. 130.	Delete.
Ports, Aviation and Related Facilities	Policy 502.1.6	Within twelve months of the effective date of the Comprehensive Plan, Monroe County shall consider an ordinance allowing the Monroe County Department of Emergency Management to designate existing marinas on inhabited keys with full access to the road network to serve as emergency ports. Within twenty four months of the effective date of the Comprehensive Plan, Monroe County shall adopt Land Development Regulations or other mechanisms protecting designated sites.	Status unclear	
Ports, Aviation and Related Facilities	Policy 502.3.2	By January 4, 1997, Monroe County shall improve stormwater facilities on Fourth, Fifth, and Peninsular Avenues on Stock Island in order to prevent flooding.	See Stormwater Mgment Plan.	Delete based upon status of completion
Ports, Aviation and Related Facilities	Policy 502.5.1	By January 4, 1997, Monroe County shall adopt land development regulations establishing design guidelines for development along truck routes and within twelve months of the effective date of the Comprehensive Plan Monroe County shall amend the Land Development Regulations defining permitted uses along truck routes.	Not implemented.	Delete.
Ports, Aviation and Related Facilities	Policy 502.6.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations containing provisions for permitting development of port facilities during emergencies.	Not implemented.	Delete.
Housing	Objective 601.1	By January 4, 1998, Monroe County shall complete initial implementation of the following defined policies, including establishment of a structured monitoring program, to reduce by 50% the current estimated affordable housing need for households in the very low and low income classifications (HUD definitions) 2002	Completed Affordable Housing Needs Study; monitoring program for initial and continued qualification of applicants; 50 year deed restriction	Delete.
Housing	Policy 601.1.1	Within one year of the effective date of this Plan, Monroe County shall complete an assessment of affordable and special housing needs utilizing detailed housing data from the 1990 U.S. Census and an assessment of target areas and population segments representing priority affordable housing needs as a basis for establishing specific quantifiable near and long-term affordable housing programs. Results of the assessment shall be used to update the Comprehensive Plan's affordable housing policies.	Completed Affordable Housing Needs Study; monitoring program for initial and continued qualification of applicants; 50 year deed restriction	Delete.
Housing	Policy 601.1.2	By January 4, 1997, Monroe County shall adopt Land Development Regulations which establish a point system in conjunction with the permit allocation system for apportioning future development on an annual basis. The point system shall assign a positive point rating to affordable housing projects.	Completed. ROGO and NROGO; incentives for affordable housing	Delete.
Housing	Policy 601.1.3	In conjunction with the Monroe County Housing Authority, assign Housing planning responsibilities within the County Planning Department by January 4, 1998. Examples of the Housing planning duties would include providing informational and technical assistance to the public on affordable housing programs, completing housing inventories and assessments, working to increase local utilization of state and federal funding programs, coordinating redevelopment plans, and serving as a liaison to the Monroe County Housing Authority. The County shall develop a Comprehensive Housing Affordability Strategy (CHAS) through the Planning Department in compliance with U.S. HUD guidelines in conjunction with the State of Florida CHAS, no later than January 1997.	Completed. Funding administered through and Housing Plan prepared by Monroe County Housing Authority	Delete.
Housing	Policy 601.1.5	By January 4, 1998, Monroe County shall define programs to maximize opportunities for private sector involvement in the formation of community-based non-profit organizations to actively participate in the provision of low and moderate income affordable housing.	Not implemented.	Delete.
Housing	Policy 601.1.12	By January 4, 1997, Monroe County shall adopt Land Development Regulations which may include density bonuses, impact fee waiver programs, and other possible regulations to encourage affordable housing.	Complete. See MCLDC Sec. 130-161.1	Delete.

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Element	Policy#	Language	Status	Recommendation
Housing	Policy 601.2.2	By January 4, 1998, Monroe County shall produce a Planning Procedures Manual to ensure the timely dissemination and explanation of land development regulations. Thereafter, the Manual will be revised within three months of the date when subsequent Plan or Land Development Regulations amendments are approved.	Status unclear	
Housing	Objective 601.3	By January 4, 1998, Monroe County shall increase implementation efforts to eliminate substandard housing and to preserve, conserve and enhance the existing housing stock, including historic structures and sites.	Substandad housing under Fl Statute for Nusance Abatement;Historic housing: See MCLDC Chpt. 130 and 134.	Delete date and revise to "continue to increase..."?
Housing	Objective 601.4	By January 4, 1998, Monroe County shall implement efforts to ensure that the Land Development Regulations do not prohibit sites in residential areas for the location of group homes and foster care facilities licensed or funded by the Florida Department of Health and Rehabilitative Services.	Not implemented. See Chapter 130. Defined by the County as "Institutional Residential" This not allowed in all residential districts, but are limited to MF-MU-SC-SR and UC zoning districts.	F.S. defines as Community Residential uses. Revise to comply with F.S. 419.009 (f)(2) that requires the "community residential uses of (6 or fewer residents) to be allowed in all single-family and multi-family zoning districts. Delete date, revise policy to reflect F.S. requirements
Housing	Policy 601.4.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations which permit group homes and foster care facilities licensed or funded by the Florida Department of Health and Rehabilitative Services in all land use categories which permit residential development where consistent with other goals, objectives, and policies of this Comprehensive Plan.	Not implemented. See Chapter 130. Defined by the County as "Institutional Residential" This not allowed in all residential districts, but are limited to MF-MU-SC-SR and UC zoning districts.	F.S. defines as Community Residential uses. Revise to comply with F.S. 419.009 (f)(2) that requires the "community residential uses of (6 or fewer residents) to be allowed in all single-family and multi-family zoning districts.
Housing	Policy 601.4.2	By January 4, 1997, Monroe County shall adopt Land Development Regulations which include locational criteria for the establishment of housing for the elderly and institutional housing such as proximity to health care facilities and services, accessibility to public transportation and proximity to facilities providing essential goods and services as well as compatibility with adjacent land uses.	Not implemented. Location limitations currently include: a.An existing curb cut; b.A signalized intersection; or c.A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least 400 feet;	Delete.
Housing	Policy 601.5.1	By January 4, 1997, Monroe County shall adopt uniform relocation standards for displaced households	Not implemented.	Review for deletion or revision to change date to May 2015.
Housing	Objective 601.6	By January 4, 1998, Monroe County shall formulate housing implementation programs corresponding to each of the specific objectives defined within this element, including: 1. the expansion of public information assistance; 2. incentive programs, to be implemented in conjunction with the Permit Allocation System, to promote the development of affordable and elderly housing; and 3. the elimination of substandard housing.	Completed. Incentives in ROGO and NROGO system. Affordable housing information provided by MC Housing Authority. MC Land Authority Land Acquisition Plan has been developed; Substandard housing addressed through Nuisance Abatement regulations within Florida Statutes.	Delete
Housing	Policy 601.6.1	By January 4, 1998, Monroe County shall establish monitoring criteria and procedures for housing implementation programs to be formulated as a result of the various objectives and policies set forth in this plan.	The County has established an income qualification and deed restriction monitoring program	Delete
Potable Water	Policy 701.1.3	By January 4, 1997, Monroe County shall adopt Land Development Regulations which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development unless adequate potable water supply, treatment, and distribution facilities needed to support the development at the adopted level of service standards are available concurrentwith the impacts of development.	Completed. See MCLDC Sec. 114-2	Delete or revise to remove date and replace "adopt" with "maintain".
Potable Water	Policy 701.4.2	By January 4, 1998, Monroe County shall seek an interlocal agreement with FKAA and Dade County. This agreement shall provide Monroe County with an opportunity to comment on land use and regulatory issues related to the Florida City Wellfield, aquifer and aquifer recharge area. It shall set forth procedures for review of land use and regulatory activities identified as having potentially significant impacts on the aquifer recharge and water supply systems especially concerning hazardous waste generation. Criteria for determination of significant impacts shall be included in the interlocal agreement	Ongoing	Protections through Miami-Dade Wellfield Ordinance; Revise to reflect, "…maintain an interlocal…"; change to "Miami-Dade"

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Element	Policy#	Language	Status	Recommendation
Potable Water	Policy 701.6.1	By January 4, 1997, Monroe County shall, by resolution, support the development by FKAA of a total system storage capacity equal to 10 days of treated water flow at 50% of the annual average daily flow by the year 2005.	Completed.	Delete.
Potable Water	Policy 701.6.2	By January 4, 1997 Monroe County shall, by resolution, support the FKAA in their efforts to continue to develop an Aquifer Storage Recovery System, to aid in the provision of adequate storage capacity for emergency purposes.	Completed.	Delete
Potable Water	Policy 701.8.1	By the year 2000, the FKAA, in accordance with its Capital Improvements Program, shall continue to upgrade the distribution system toward the goal of providing fire flow capabilities in the following areas:	Not implemented. See updated (July 2011) Technical Document "CCME" and "Potable Water" elements.	Delete Date; revise to reflect "County & FKAA, in accordance with its Capital Improvements Program shall…as funds are available"
Potable Water	Policy 701.8.2	By January 4, 1997, the Monroe County Office of the Fire Marshall, in accordance with the FKAA, shall develop fire districts for subsequent implementation if feasible.	Completed. Established Key Largo Fire Rescue & EMS District	Delete.
Potable Water	Policy 701.9.1	By January 4, 1997, the Monroe County Growth Management Division, with input from the FKAA and SFWMD, and other affected organizations shall adopt Land Development Regulations, which implement a xeriscape landscape ordinance, a permanent irrigation ordinance, and plumbing fixture efficiency standards consistent with the mandatory elements of the FKAA Water Conservation Plan and the SFWMD Model Landscape Code for South Florida. Prior to the adoption of the xeriscape landscape ordinance, permanent irrigation ordinance and plumbing efficiency standards, drafts of these ordinances and standards will be submitted to the SFWMD for review and comment, and when applicable the recommendations will be incorporated in the water conservation measures.	Partially implemented. No xeriscape or plumbing fixture efficiency standards.	Review. Does County wish to establish a xeriscape ordinance?
Potable Water	Policy 701.9.7	By January 4, 1997, Monroe County shall adopt Land Development Regulations which establish a Permit Allocation and Point System for new residential and non-residential development (See Future Land Use Objectives 101.2, 101.3, and 101.5 and supporting policies). In developing the Point System, Monroe County shall consider assigning a positive point rating to developments utilizing alternative water collection systems such as cisterns, grey water reuse systems and wastewater treatment plant effluent reuse which conserve potable water supply.	Completed. ROGO and NROGO; and Tier System	Delete.
Potable Water	Policy 701.10.1	By January 4, 1998, Monroe County shall evaluate existing FKAA policies related to identification and adoption of capital improvements. Improvements consistent with achieving Objective 701.10 shall be incorporated into Monroe County's annual Concurrency Management Report prepared in accordance with Capital Improvements Policy 1401.4.9.	Completed.	Delete or revise to delete date and add, " annually evaluate…
Solid Waste	Policy 801.1.2	By January 4, 1997, Monroe County shall adopt Land Development Regulations which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development unless adequate solid waste collection and disposal facilities needed to support the development at the adopted level of service standards are available concurrent with the impacts of development.	Completed. See MCLDC Sec. 114-2	Delete date; revise to "Maintain Concurrency…"
Solid Waste	Objective 801.3	By January 4, 1998, Monroe County shall implement solid waste disposal methods which meet the projected demands for disposal. These disposal demands shall be met either by continuation of the County's current haul out contract with Waste Management, Inc. (WMI), or by other means as determined by the Monroe County Department of Environmental Management.	Completed.	Revise to delete date and add, "…shall continue to implement…"
Solid Waste	Policy 801.3.2	By January 4, 1998, Monroe County shall support a Solid Waste and Resource Recovery Authority for the management of the Monroe County solid waste program through either the public sector or privatization system.	Completed.	Revise to delete date and add, "…shall continue to implement…"
Solid Waste	Policy 801.3.5	By January 4, 1997, Monroe County, through the Department of Environmental Management, shall complete preliminary engineering and environmental assessments for a sludge, septage and/or leachate treatment and disposal facility on Crawl Key.	Not implemented.	Delete.

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Element	Policy#	Language	Status	Recommendation
Solid Waste	Policy 801.3.6	By January 4, 1998 Monroe County, through the Department of Environment Management, shall construct a sludge, septage, and/or leachate treatment and disposal facility on Crawl Key.	Not implemented.	Delete.
Solid Waste	Policy 801.3.7	Through 1995, and subject to extension, Monroe County shall contract for the haul-out disposal of solid waste including wet garbage, yard waste and construction debris (minimum of 75,000 up to a maximum of 95,000 tons per year), with the vendor responsible for processing construction debris.	Complete; Signed haul out contract, which is periodically renewed.	Delete.
Solid Waste	Policy 801.3.9	By January 4, 1997, Monroe County shall select a long-term disposal and processing method that will handle the solid waste for the unincorporated county, Key Colony Beach and Layton, and will begin the development process for additional facilities if necessary	Haul out contract; All trash is hauled out of the County to Broward County.	Delete.
Solid Waste	Policy 801.3.10	By January 4, 1998, Monroe County shall implement solid waste disposal methods to meet the projected disposal needs beyond 1995 either through continuation of the WMI haul out contract or through the installation and initiation of alternative solid waste disposal facilities developed in accordance with Policy 801.3.8.	Implemented.	Delete.
Solid Waste	Policy 801.3.11	By January 4, 1997, Monroe County shall update the provisions of Sec. 9.5-494 of the Monroe County Land Development Regulations in order to ensure that sufficient impact fee revenues are available to finance future solid waste facility needs.	Completed. No new facilities planned.	Delete.
Solid Waste	Objective 801.4	Monroe County shall achieve a 30 percent diversion rate of the municipal solid waste stream by January 4, 1998 and a 40 percent diversion rate by the year 2000 through recycling.	Not implemented. MC current recycle diversion rate is less than 20%	Delete. Revise to reflect new LOS in updated Technical Document (July 2011) Solid Waste Element
Solid Waste	Policy 801.4.1	By January 4, 1997, Monroe County shall assess collection practices, net material recovery, program costs and public participation, and rates of curbside collection pilot programs. The results of this assessment shall be considered in the design and implementation of a subsequent, county-wide, mandatory, curbside recycling program for residential and commercial locations.	Not fully implemented. County has extensive education programs related to recycling; however, recycling is still voluntary.	Delete or revise if County desires to require mandatory recycling.
Solid Waste	Policy 801.4.2	By January 4, 1997, Monroe County shall evaluate the Master Recycler Program to determine its success and continued applicability in achieving the state mandated recycling goal	Complete.	Delete.
Solid Waste	Policy 801.4.3	By January 4, 1997, Monroe County shall implement a county-wide mandatory curbside recycling program, unless an alternate method of recycling is put in place in conjunction with the disposal method selected pursuant to policies 801.3.8 and 801.3.9.	Not Implemented	Delete or revise if County desires to require mandatory recycling.
Solid Waste	Policy 801.4.6	Until January 1, 1996, Monroe County, through the provisions of the solid waste haul out contract, shall continue to operate the preprocessing and material recovery facilities which separate yard, wood, construction and demolition debris. After January 1, 1996, when the current haul out contract expires, preprocessing and material separation shall be continued or alternative methods shall be implemented.	Completed. Preprocesing continued	Delete.
Solid Waste	Policy 801.4.8	Monroe County shall continue to separate construction and demolition debris and shall separate at least 50% of the newspaper, aluminum cans, glass, and plastic bottles from the waste stream and offer them for recycling by January 4, 1998.	Status Unclear	Under review by Public Works
Solid Waste	Policy 801.5.4	By January 4, 1997, Monroe County shall amend the Building Code to require storage and containment requirements for those structures utilizing hazardous materials. Containment requirements shall include, but not be limited to, construction of impervious floors, without drains, to insure containment and facilitate the cleanup of any spill or leak.	Not implemented. Governed by F.S.	Delete
Solid Waste	Policy 801.5.5	By January 4, 1997, Monroe County shall adopt Land Development Regulations which address the location of all hazardous waste "small quantity generators" with respect to adjacent uses. Criteria for the location of hazardous waste small quantity generators will be specifically indicated as allowed/prohibited by individual county zoning designation.	Not implemented. Controlled by F.S.	Delete.
Solid Waste	Policy 801.5.6	By January 4, 1998, the Monroe County Building Department shall provide copies of the certificates of occupancy to the Department of Environmental Management and the Monroe County Fire Department to notify them when buildings or sites become occupied by hazardous materials users and potential hazardous waste generators, as identified on the DEM listing, are issued certificates of occupancy	Ongoing	Revise to delete or revise to "continue to distribute…"change Dept Name."

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Element	Policy#	Language	Status	Recommendation
Solid Waste	Policy 801.5.7	By January 4, 1998, Monroe County shall participate in a Region-wide hazardous waste program consistent with the SFRPC Regional Comprehensive Policy Plan.	Status unclear	Under review by Public Works
Sanitary Sewer	Policy 901.1.2	By January 4, 1997, Monroe County shall adopt Land Development Regulations which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development unless adequate sanitary wastewater treatment and disposal facilities needed to support the development at the adopted level of service standards are available concurrent with the impacts of development	Completed. See MCLDC Sec. 114-2	Delete date; revise to "Maintain Concurrency…"
Sanitary Sewer	Policy 901.1.6	By January 4, 1998, Monroe County shall adopt permanent level of service standards for package treatment plants and OSDS based on the findings of the Sanitary Wastewater Master Plan and shall amend the Land Development Regulations to include these standards.	Completed. See Tech Doc. Update: Sanitary Sewer (July 2011)	Delete date; revise to "maintain and update as necessary…"
Sanitary Sewer	Objective 901.3	By January 4, 1997, Monroe County, through adoption of Land Development Regulations including a Permit Allocation System for new residential and non-residential development, shall ensure the maximum use of existing wastewater treatment facilities to discourage the proliferation of urban sprawl.	Completed See ROGO and NROGO ord.	Delete.
Sanitary Sewer	Policy 901.4.3	By January 4, 1997, Monroe County shall initiate a program of testing alternative OSDS systems under actual operating conditions in order to ascertain the feasibility of widespread application of such systems with nutrient removal capabilities higher than standard septic systems.	Completed. See MCLDC Ch. 20	Delete.
Sanitary Sewer	Policy 901.4.5	By January 4, 1998, Monroe County shall adopt Land Development Regulations which establish density criteria for OSDS based on site specific constraints and prescribe the types of systems to be utilized based upon the results of the Sanitary Wastewater Master Plan.	Completed. See MCLDC Ch. 20	Delete.
Sanitary Sewer	Policy 901.4.6	Upon adoption of the Sanitary Wastewater Master Plan by January 4, 1998, the minimal operational standards for package plants, collection systems, pump stations, and disposal wells shall be those contained in the adopted Master Plan.	Completed. See MCLDC Ch. 20	Delete.
Sanitary Sewer	Policy 901.4.7	As part of the Sanitary Wastewater Master Plan, an inventory of all wastewater treatment plants and OSDS areas shall be completed which identifies:	Completed.	Delete.
Sanitary Sewer	Policy 901.5.1	By January 4, 1997, in conjunction with the development of the Sanitary Wastewater Master Plan, the County shall initiate an interlocal agreement with the DER and other state and federal agencies to develop a water quality monitoring program. The program shall identify and analyze the individual and cumulative impacts of development, especially wastewater treatment systems, and establish remedial actions to correct identified deficiencies which degrade nearshore water quality. Monroe County shall consider and utilize to the furthest extent possible, the management plan being developed by NOAA under the direction of DER and EPA. All monitoring procedures shall be approved by the DER and EPA for compliance with Quality Assurance requirements (F.A.C., 17-160 and 40 CFR Part 136), to ensure that proper quality control guidelines are followed during data collection and reporting.	Completed.	Delete.
Sanitary Sewer	Policy 901.5.2	By January 4, 1998, the existing and/or available results of the comprehensive water quality monitoring program shall be analyzed and reported to document specific problem areas which may be in violation of federal or state standards or which may be defined through scientific study, as a threat to the continued maintenance of high levels of water quality or to specified biotic communities. Upon confirmation of any problem areas, priorities for the construction of alternate wastewater facilities shall be reevaluated, within the context of the Monroe County Sanitary Wastewater Master Plan, with those areas in greatest need given highest priority.	Completed.	Delete.
Sanitary Sewer	Policy 901.5.4	By January 4, 1997, Monroe County shall adopt Land Development Regulations which ensure that sewage disposal facilities shall be designed and located in a manner that in the event of power failure, untreated effluent will not be discharged into any surface body of water, groundwater or any wetland.	Completed. See MCLDC Ch. 20	Delete.

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Element	Policy#	Language	Status	Recommendation
Sanitary Sewer	Policy 901.5.5	By January 4, 1997, Monroe County, in cooperation with the appropriate State permitting agencies, shall adopt Land Development Regulations which ensure that sewage disposal facilities are sited such that any discharge point, whether by shallow or deep well, is located as far as possible from any surface body of water and any FKAA Aquifer Storage Recovery area while still adhering to other setback requirement established by Chapter 10D-6, F.A.C.	Completed. See MCLDC Ch. 20	Delete.
Sanitary Sewer	Policy 901.5.6	By January 4, 1997, Monroe County shall adopt Land Development Regulations which require that OSDS drainfields be located on the least environmentally sensitive portion of a parcel proposed for development when more than one habitat type is found within the parcel, the criteria for which shall be defined within the adopted Land Development Regulations.	Completed. See MCLDC Ch. 20	Delete.
Sanitary Sewer	Policy 901.5.9	By January 4, 1998, Monroe County, as part of the Sanitary Wastewater Master Plan shall continually investigate the potential for reuse/recycling of treated wastewater. The Master Plan shall set forth the requirements for the types and locations of developments which shall be required to utilize a water reuse system.	Completed.	Delete.
Sanitary Sewer	Policy 901.5.11	By January 4, 1998, Monroe County, during the development of the Sanitary Wastewater Master Plan shall consider and evaluate advanced wastewater treatment as a first option for sewage treatment in the construction, expansion, or replacement of central sewer systems including package treatment. Monroe County shall require the consideration and evaluation of effluent reuse consistent with F.A.C. Rule 17-610 as a first option for effluent disposal.	Completed.	Delete.
Sanitary Sewer	Policy 901.5.12	By January 4, 1998, all public and privately-owned upland areas shall be inventoried and evaluated to determine the feasibility of these lands for effluent reuse.	Status unclear	Since the State Legislature decided to make the FKAA the sole wastewater authority for the unincorporated county, other than Stock Island which has pre-existing service from KW Resorts Utility, policy 901.5.12 should probably be deleted.(SH)
Sanitary Sewer	Policy 901.5.13	By January 4, 1997, Monroe County, in coordination with DER, shall begin to evaluate the use of hazardous household products including herbicides and pesticides to assess their impacts on sewer facilities and adjacent natural resources, and shall seek, through educational programs, to eliminate the use of any such products identified as creating adverse impacts.	Completed (ongoing)	Delete
Sanitary Sewer	Policy 1001.1.2	By January 4, 1997, Monroe County shall adopt Land Development Regulations which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development unless adequate stormwater management facilities needed to support the development at the adopted level of service standards are available concurrent with the impacts of development.	Completed See MCLDC Sec. 114-2	Delete or revise to delete date and add "maintain Concurrency.."
Sanitary Sewer	Policy 1001.1.3	By January 4, 1997, Monroe County shall adopt a Stormwater Management Ordinance which establishes level of service standards for the quality and quantity of stormwater discharges for single family residential development and redevelopment which utilizes Best Management Practices and Design Guidelines in their implementation (See Natural Groundwater Aquifer Recharge Policy 1101.2.4).	Completed.	Delete.
Sanitary Sewer	Policy 1001.1.4	By January 4, 1997, in conjunction with the adoption of the Stormwater Management Ordinance, all improvements for replacement, expansion or increase in capacity of drainage facilities shall conform to the adopted level of service criteria for new development.	Completed.	Delete or revise to delete date and replace "adopt" with "maintain"
Sanitary Sewer	Policy 1001.1.5	By January 4, 1997, Monroe County shall adopt Land Development Regulations which ensure county review of all development permits for compliance with adopted stormwater management design criteria prior to approval by the issuing agency.	Completed.	Delete or revidse to delete date and replace "adopt" with "maintain"
Sanitary Sewer	Policy 1001.1.6	By January 4, 1998, in conjunction with the development of the Stormwater Management Master Plan, Monroe County shall complete an inventory and analysis of existing public and private drainage facilities within the County. (See Objective 1001.3 and related policies) [9J-5.011(2)(c)1] Note: Monroe County recognizes its obligations under the stipulated settlement agreement but practicality of timeframe implementations may require modifications of agreement date premises.	Not Implemented.	County should either implement or delete policy.

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Element	Policy#	Language	Status	Recommendation
Sanitary Sewer	Policy 1001.1.7	By January 4, 1997, Monroe County shall work with the SFWMD through the existing interlocal agreement to adopt and implement appropriate stormwater quality evaluation and estimation criteria and techniques for incorporation into the County's Stormwater Management Ordinance and Land Development Regulations.	Complete.	Delete.
Sanitary Sewer	Objective 1001.3	By January 4, 1998, Monroe County, in coordination with SFWMD and DER, shall complete a comprehensive Stormwater Management Master Plan which ensures that stormwater management facilities are developed to attain adopted levels of service for all existing and proposed land uses. [9J-5.011(2)(c)1 and 5] Note: Monroe County recognizes its obligations under the stipulated settlement agreement but practicality of timeframe implementations may require modifications of agreement date premises.	Complete.	Delete.
Sanitary Sewer	Policy 1001.3.2	By the effective date of this Plan, Monroe County shall enter into an agreement with EPA, DER, SFWMD and NOAA regarding the scope of studies required to document pollutant loads from stormwater runoff from the Florida Keys into surrounding waters. These studies shall be executed according to the terms of the agreement, in coordination with the Water Quality Protection Program for the Florida Keys National Marine Sanctuary. Upon execution of this agreement, the scope of the Stormwater Management Master Plan shall be adjusted accordingly. (See Conservation and Coastal Management Policy 202.1.1.)	Complete.	Delete.
Sanitary Sewer	Policy 1001.3.3	By January 4, 1998, the County shall evaluate the performance of stormwater management systems which are to be installed in accordance with the Stormwater Management Ordinance. This performance evaluation will be based upon physical sampling and analysis of the discharge water of these structures.	Ongoing	Delete
Sanitary Sewer	Objective 1001.4	By January 4, 1998, Monroe County shall coordinate with the appropriate regional agencies and adjacent local governments to address regional drainage issues.	Ongoing	Revise to delete date and "Monroe County shall continue to coordinate…"
Nat. Grdwater/ Aquifer Recharge	Objective 1101.2	By January 4, 1998, Monroe County shall map the freshwater lens systems and associated recharge areas in the Florida Keys and shall adopt regulations which protect the lenses from loss of recharge potential and from threats of groundwater contamination.	Mapping Completed. See MCLDC Sect. 106	Delete.
Nat. Grdwater/ Aquifer Recharge	Policy 1101.2.1	By January 4, 1997, Monroe County shall adopt a Stormwater Management Ordinance. This ordinance shall establish level of service standards for the quality and quantity of stormwater discharges. The ordinance shall encourage use of site-specific natural drainage features to the maximum extent possible before utilizing structural stormwater control. The protection of freshwater lens recharge areas, and associated freshwater wetlands where identified, shall be of primary concern in design of a development project.	Completed.	Delete.
Nat. Grdwater/ Aquifer Recharge	Policy 1101.2.3	By January 4, 1997, Monroe County shall initiate an interlocal agreement with the USFWS and SFWMD to map and evaluate the freshwater lenses of the Florida Keys and their associated recharge areas. Previously conducted studies by the National Audubon Society Research Department, Southern Illinois University, and the SFWMD will be utilized to the greatest extent possible. An analysis of the condition of the lenses shall also be completed.	Mapping Completed. See MCLDC Sect. 106	Delete.
Nat. Grdwater/ Aquifer Recharge	Objective 1101.3	By the year 2000, the use of well water in the Florida Keys for public consumption and commercial use shall be phased out in order to ensure the health and safety of the public and to ensure the preservation of the existing freshwater lens system.	Completed.	Delete.
Nat. Grdwater/ Aquifer Recharge	Policy 1101.3.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations which prohibit new wells for drawing water from the freshwater lens systems for private residential and private commercial purposes in the Florida Keys. Exceptions shall be allowed for wells for approved periodic water testing.	Completed. Wells are permitted by DEP and SFWMD which do not allow any new wells.	Delete.
Nat. Grdwater/ Aquifer Recharge	Policy 1101.3.2	By January 4, 1998, in conjunction with the development of the Sanitary Wastewater Master Plan, Monroe County shall identify existing wells used for drawing water for private residential and private commercial purposes.	Completed.	Delete.

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Element	Policy#	Language	Status	Recommendation
Recreation and Open Space	Policy 1201.1.4	By January 4, 1997, Monroe County shall adopt Land Development Regulations providing a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no permits will be issued for new development or redevelopment which would cause recreation lands and facilities to operate below the adopted level of service.	Completed See MCLDC Sec. 114-2	Delete date; revise to "Maintain Concurrency…"
Recreation and Open Space	Policy 1201.2.2	By January 4, 1998, Monroe County shall identify potential sites which could be used for the provision of park and recreation facilities.	Completed Parks & Rec. Master Plan	Delete date
Recreation and Open Space	Policy 1201.2.5	By January 4, 1998, conceptual plans shall be developed for candidate park sites. These plans shall be adequate for purposes of assessing suitability of candidate sites for park development, the nature of facilities which could be accommodated on the site, and preliminary costs of park development. The conceptual site plans shall be made available to the Monroe County Board of County Commissioners (BOCC) for review during consideration of park acquisition alternatives.	Completed Parks & Rec. Master Plan	Delete
Recreation and Open Space	Policy 1201.3.3	By January 4, 1998, Monroe County shall complete a master plan for each existing county-owned neighborhood and community park.	Completed Parks & Rec. Master Plan	Delete
Recreation and Open Space	Objective 1201.4	By January 4, 1997, Monroe County shall revise the Land Development Regulations to permit and facilitate park-related development activities at county-owned sites.	Completed; Public Facilities Land Use District	Delete
Recreation and Open Space	Objective 1201.5	By January 4, 1997, Monroe County shall adopt revisions to the Land Development Regulations pertaining to fair share community park impact fees which will assist the county with maintaining adopted levels of service for parks and recreation facilities.	Completed; See MCLDC Ch. 126	Delete
Recreation and Open Space	Policy 1201.6.1	By January 4, 1998, Monroe County shall complete a master plan for all county-owned neighborhood and community parks (See Policies 1201.3.3 through 1201.3.11).	Completed Parks & Rec. Master Plan	Delete
Recreation and Open Space	Policy 1201.6.3	By January 4, 1998, Monroe County shall complete a Public Access Plan for unincorporated Monroe County. This plan shall address publicly-owned and privately-owned lands. (See Conservation and Coastal Management Objective 213.1 and related policies.)	Not implemented; recent update (July 2010) to the Technical Document (Rec/Open Space) provides details and inventory of public access points.	Delete or revise to change date to May, 2015.
Recreation and Open Space	Policy 1201.6.4	By January 4, 1998, Monroe County shall complete a Parks and Recreation Plan (See Policy 1201.10.1). This Plan shall, among other items, evaluate the need for and feasibility of a combined trail and bikeway system which links parks and recreation areas with one another as well as with residential areas. (See Objective 1201.10)	Completed Parks & Rec. Master Plan	Delete.
Recreation and Open Space	Policy 1201.7.1	By January 4, 1998, Monroe County shall develop standard written agreements for summer recreation programs at destination resorts, private recreation clubs, private schools, churches and other community groups owning open space and/or recreation facilities. The County shall seek to execute these agreements with such groups on a regular annual basis.	Not implemented.	Delete.
Recreation and Open Space	Objective 1201.9	By January 4, 1998, Monroe County shall establish and fund a professionally staffed Parks and Recreation Department.	Not implemented.	Delete.
Recreation and Open Space	Policy 1201.9.1	By January 4, 1998, there shall be an interdivisional agreement between the Division of Public Works and the Division of Growth Management providing for the development and organization of the Monroe County Parks and Recreation Department.	Not implemented.	Delete
Recreation and Open Space	Policy 1201.9.2	By January 4, 1998, the BOCC, in cooperation with the Monroe County Public Parks and Recreation Advisory Board, shall approve and fund organization of the Monroe County Parks and Recreation Department.	Not implemented.	Review for deletion.
Recreation and Open Space	Objective 1201.10	By December 31, 2003, Monroe County shall complete a Parks and Recreation Plan.	Completed Parks & Rec. Master Plan	Delete.
Recreation and Open Space	Policy 1201.11.1	Beginning in 1998, Monroe County shall prepare annual park and recreation facility management plans. These plans shall be prepared by September 30th of each year. They shall be consistent with the current county restoration plan (See Conservation and Coastal Management Objective 210.1 and related policies).	County prepares annual Public Faclities Capacity Assessment	Delete.

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Element	Policy#	Language	Status	Recommendation
Recreation and Open Space	Objective 1201.12	By January 4, 1998, Monroe County shall develop and implement a cooperative land management program designed to protect open space (conservation lands) from the impacts of land use activities on adjacent private lands. (See Future Land Use Objective 102.9 and related policies.)	Completed; County adopted Land Acquisition Management Plan	Delete.
Intergovernmental Coordination	Policy 1301.1.1	By January 4, 1997, Monroe County shall increase the amount and effectiveness of coordination mechanisms with the South Florida Regional Planning Council (SFRPC) by receiving the Council's comments on the revised Monroe County Comprehensive Plan and the land development regulations and addressing these comments in plan revisions.	Ongoing.	Delete date.
Intergovernmental Coordination	Policy 1301.1.4	By January 4, 1998, Monroe County shall initiate an interlocal agreement with Dade County providing for notification and review procedures in order to provide a mechanism for Monroe County comment on land use and regulatory issues concerning the potable water wellfield, aquifer, and aquifer recharge areas.	Completed.	Delete.
Intergovernmental Coordination	Policy 1301.1.6	By January 4, 1997, Monroe County and the City of Key West shall set up and implement, by interlocal agreement, an entity called the Monroe County Technical Coordination Committee. The committee will consist of six officials, three representing the City of Key West and three representing Monroe County, appointed at the discretion of the City Manager and County Administrator.	Does not appear to be implemented.	Consider establishing Interlocal
Intergovernmental Coordination	Policy 1301.1.9	By January 4, 1997, Monroe County shall request that the Department of Community Affairs (DCA) initiate intergovernmental agreements with the Department of Health and Rehabilitative Services, Department of Natural Resources, and Department of Environmental Regulation in order to assist them in their efforts to streamline their effectiveness by clearly establishing a coordinated agency review procedure that establishes each agency's responsibilities within Monroe County as stated in Chapter 163, F.S., Chapter 380, F.S. and Section 381.272, F.S. The agreements will establish coordinated permit procedures and greater understanding of mutual concerns and long-term goals.	Does not appear to be implemented.	Delete
Intergovernmental Coordination	Policy 1301.1.12	By January 4, 1997, Monroe County shall establish a complete list of existing and planned intergovernmental and interagency agreements, which shall be updated annually.	Does not appear to be implemented.	Revise date to "By May 2015"
Intergovernmental Coordination	Policy 1301.3.4	By January 4, 1997, Monroe County shall initiate an interlocal agreement with Dade County to evaluate the impact of development on levels of service within one mile of County borders, ensure concurrency and assess impact on existing and proposed land use.	Does not appear to be implemented.	Consider establishing Interlocal
Intergovernmental Coordination	Policy 1301.5.4	By January 4, 1997 Monroe County, in updating its drainage policies and ordinances, shall meet with the SFWMD and the SFRPC to ensure that the local regulatory framework is consistent with the planning objectives and regulations of the region.	Ongoing. Agencies provide ORC comments to DCA on Comp Plan and LDC amendments	Revise to remove date.
Intergovernmental Coordination	Policy 1301.7.1	By January 4, 1997, Monroe County shall initiate an interlocal agreement with the U.S. Fish and Wildlife Service (USFWS) and SFWMD to identify and map the freshwater lenses of the Florida Keys and their associated recharge areas. Previously conducted studies by the Audubon Society and the SFWMD will be utilized to the greatest extent possible. An analysis of the condition of the lenses shall also be completed. The mapping shall be incorporated onto the Geographical Information System.	Freshwater lense mapping complete	Delete
Intergovernmental Coordination	Policy 1301.7.9	By January 4, 1998 Monroe County shall implement an ongoing coordination program with the National Park Service, the South Florida Water Management District, Dade County and Collier County to address existing and potential land management problems in the region which may affect the conservation, use and protection of unique vegetative communities and species of special status on mainland Monroe County.	Does not appear to be implemented.	Consider establishing Interlocal
Intergovernmental Coordination	Policy 1301.7.12	By January 4, 1998, Monroe County shall initiate discussions with the FKAA and providers of electricity and telephone service to assess the measures which could be taken to discourage or prohibit extension of facilities and services to Coastal Barrier Resource Systems (CBRS) units.	Completed.	Delete

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Element	Policy#	Language	Status	Recommendation
Intergovernmental Coordination	Policy 1301.7.14	Monroe County shall, by January 4, 1998, identify the technical assistance available from the U.S. Department of Agriculture, Soil Conservation Service for development and implementation of a soil erosion and sedimentation control program.	Completed.	Delete.
Intergovernmental Coordination	Objective 1301.8	By January 4, 1997, Monroe County shall initiate the necessary interlocal coordination mechanisms to improve hurricane evacuation times and assure the provision of an adequate number of shelter facilities for evacuating Monroe County residents.	Does not appear to be implemented.	Consider establishing Interlocal
Intergovernmental Coordination	Policy 1301.8.3	By January 4, 1998, Monroe County shall coordinate with the Florida Department of Transportation to draft and implement a program which will establish priorities for elevation of low segments of U.S. Highway 1. The program shall, at a minimum, identify funding sources and scheduling.	Completed.	Delete.
Intergovernmental Coordination	Policy 1301.8.4	By January 4, 1997, Monroe County shall develop a plan which will identify the appropriate agencies required for coordination and funding of one Category 5 Emergency Operations Center (EOC), at a minimum, in each of the three EOC districts.	Status Unclear	
Intergovernmental Coordination	Policy 1301.8.5	By January 4, 1997, Monroe County shall coordinate with the Department of Community Affairs' Division of Emergency Management, the South Florida Regional Planning Council, and Dade County to identify sufficient approved shelter spaces outside of Monroe County for all county residents who will require shelter from a Category III or greater hurricane. Priority consideration shall be given to expansion of the currently designated shelter at Florida International University in order to consolidate Monroe County shelter spaces in one location.	Status Unclear	
Intergovernmental Coordination	Policy 1301.8.6	By January 4, 1998, Monroe County shall enter into an interlocal agreement with Dade County and other appropriate agencies (e.g., the Board of Regents) to provide sufficient additional approved spaces outside of Monroe County capable of withstanding Category III or stronger hurricanes and their associated surges for all county residents who will require shelter from a Category III or greater hurricane.	Status Unclear	
Intergovernmental Coordination	Policy 1301.8.7	By January 4, 1998, Monroe County shall coordinate with the U.S. Coast Guard to identify areas of mutual concern during a hurricane evacuation and identify the appropriate coordination mechanisms and procedures.	Status Unclear	
Intergovernmental Coordination	Objective 1301.9	Monroe County shall by January 4, 1998, implement an ongoing coordination program with other city, state and federal governmental agencies to make available city, state and federally-owned parks and recreational facilities for use by county residents. (See Recreation and Open Space Objective 1201.8 and related policies.)	Not implemented	Consider establishing Interlocal

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Element	Policy#	Language	Status	Recommendation
Intergovernmental Coordination	Policy 1301.10.4	By January 4, 1998, Monroe County shall implement a County-wide mandatory curbside recycling program for all residential units and continue commercial recycling programs for all handling and disposal of newspapers, glass, plastics and aluminum waste products in order to meet mandated state solid waste requirements.	Not Implemented.	Delete or revise to reflect BOCC direction
Intergovernmental Coordination	Policy 1301.10.5	By January 4, 1998, Monroe County shall participate in a Region-wide hazardous waste program consistent with the SFRPC Regional Comprehensive Policy Plan.	Completed.	Delete.
Intergovernmental Coordination	Objective 1302.1	By January 4, 1997, Monroe County Government and its Divisions of Public Safety, Community Services, Growth Management, and Public Works shall inventory, analyze, create, and improve formal and informal coordination mechanisms.	Not implemented.	Revise date.
Intergovernmental Coordination	Policy 1302.1.1	By January 4, 1998, discussions between the Divisions of Public Safety, Community Services, Growth Management, and Public Works shall formalize existing or new coordination mechanisms to avoid conflicts and improve delivery of services to the citizens of Monroe County. These coordination mechanisms will address the following issues: 1. The development review process, permit allocation process and the concurrency management process; 2. The responsibilities of the Department of Code Enforcement; 3. Hurricane preparedness and response plans; 4. Public safety needs, including law enforcement coordination requirements; and 5. The County's need for a utilities coordination group similar to that which exists in the City of Key West.	Completed; DRC Review Committee	Delete
Capital Improvements	Policy 1401.1.1	By January 4, 1997, Monroe County shall revise the existing County Capital Improvements Program to incorporate the improvements identified in the Five-Year Schedule of Capital Improvements included in Table 4.1 of Capital Improvements Implementation.	Completed.	Revise to delete date.
Capital Improvements	Policy 1401.1.4	Monroe County shall amend the Comprehensive Plan Five Year Schedule of Capital Improvements by January 4, 2000 to acknowledge funding of improvements to the 18 mile stretch of US 1 by the Florida Department of Transportation if the project has been included in the first three years of the FDOT Five-Year Plan for completion by June 1, 2002.	Completed.	Delete
Capital Improvements	Policy 1401.1.5	Monroe County shall amend the Comprehensive Plan Five-Year Schedule of Capital Improvements by January 4, 2000 to acknowledge funding for improvements to mile markers 80 to 90 section of US 1 by the Florida Department of Transportation if the project has been included in the first three years of the FDOT Five-Year Plan for completion by June 1, 2010.	Completed.	Delete
Capital Improvements	Policy 1401.2.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations which limit public expenditures in the CHHA by requiring consideration of feasible siting and design alternatives for public facilities and infrastructure.	Completed.	Revise to reflect County Attorney opinion
Capital Improvements	Policy 1401.3.1	By January 4, 1997, Monroe County shall adopt Land Development Regulations which revise and update the County's current expenditure procedures and proportional fair-share assessment of impact fees, in accordance with the adopted levels of service referenced in Policy 1401.4.1. The revised Land Development Regulations shall also include provisions for the collection of impact fees to offset the public costs of public facilities and services	Completed.	Delete or revise to delete date and state Monroe County shall revise and update …annually."
Capital Improvements	Policy 1401.4.12	By January 4, 1997, Monroe County shall revise the Comprehensive Plan Five-Year Schedule of Capital Improvements and the County Capital Improvements Program to include funding for a sludge, septage, and/or leachate treatment and disposal facility on Crawl Key (See Solid Waste Policies 801.3.5 and 801.3.6 and Sanitary Sewer Policies 901.1.7 and 901.1.8).	Not Implemented	Delete.
Capital Improvements	Policy 1401.4.13	By January 4, 1997, Monroe County shall revise the Comprehensive Plan Five-Year Schedule of Capital Improvements and the County Capital Improvements Program to include funding for any improvements required to provide for solid waste disposal after expiration of the current solid waste haul out contract (See Solid Waste Objective 801.3 and related policies).	Completed. CIE and CIP are updated annually.	Delete or revise to delete date and "Monroe County shall revise the Comprehensive Plan…annually.

Appendix 3: Date Certain Policies Assessment Matrix

Element	Policy#	Language	Status	Recommendation
Capital Improvements	Policy 1401.4.14	By January 4, 1998, Monroe County shall complete a Stormwater Management Master Plan which shall be implemented beginning in Fiscal Year 1999. Prior to implementation of the Master Plan, the County shall adopt a Stormwater Utility or alternative revenue source in order to fund the drainage facility improvements required by the Stormwater Management Master Plan. Note: Monroe County recognizes its obligations under the stipulated settlement agreement but practicality of timeframe implementations may require modification of agreement date premises.	Completed.	Delete.
Capital Improvements	Policy 1401.4.15	Monroe County shall prepare a Sanitary Wastewater Master Plan which shall be completed by January 4, 1998 and implemented beginning in Fiscal Year 1999. The County shall coordinate with the FKAA, the Florida Departments of Environmental Regulation (DER) and Health and Rehabilitative Services (HRS), and the U.S. Environmental Protection Agency (EPA), at a minimum, concerning joint preparation and funding of the Master Plan. Note: Monroe County recognizes its obligations under the stipulated settlement agreement but practicality of timeframe implementations may require modifications of agreement date premises.	Completed.	Delete.
Capital Improvements	Policy 1401.4.16	By January 4, 1998, Monroe County shall revise the Comprehensive Plan Five-Year Schedule of Capital Improvements and the County Capital Improvements Program to include funding for the improvements identified in the Sanitary Wastewater/Stormwater Management Master Plan.	Completed. CIE and CIP are updated annually.	Delete or revise to delete date and "Monroe County shall revise the Comprehensive Plan…annually.
Capital Improvements	Policy 1401.4.17	By January 4, 1998, Monroe County shall explore the feasibility and benefits of expanding the Card Sound Road and Toll District to include CR-905 on North Key Largo and US 1 between the Dade County line and CR-905.	Status Unclear	

APPENDIX 4 – ECONOMIC TRENDS & OPPORTUNITIES IN UNINCORPORATED MONROE COUNTY

ECONOMIC TRENDS AND OPPORTUNITIES IN UNINCORPORATED MONROE COUNTY

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1.0 Executive Summary

Monroe County is primarily comprised of the Florida Keys, an ecologically fragile island based community stretching some 130 miles in an archipelago from south of Miami at Biscayne Bay to Key West. The total land area is some nearly 1,000 square miles, distributed among 800 +/- keys, excluding the Everglades National Park which is located on the mainland. The largest of these keys include Key Largo, Islamorada, Marathon, Tavernier, Big Pine and Key West.

Collectively, the Keys represent considerable natural and economic resources including two national parks, world renown tourism and destination resorts, a long established commercial and recreational fishing industry and extensive accessible coral reefs which support a large recreational snorkeling and scuba diving industry.

Today the County faces a variety of economic constraints. These stem from national trends in the structure of employment and local conditions which contribute to a lack of investment. Further, a determination made at the State level has concluded growth and development has reached its effective physical carrying capacity in the Keys. The result of this determination is a regulatory constraint on growth which allows only a very small and limited amount of net new residential and non-residential construction each year. This regulatory constraint is known as ROGO (Rate of Growth Ordinance) for residential development and NROGO for non-residential development. ROGO has been in place since 1992; the County adopted NROGO in 2002. The combined effect of nearly 20 years of restrictive development regulation, increasing environmental regulation coupled with infrastructure capacity constraints, the need for rapid emergency evacuation plans and the national shift in employment structure and trends has slowed economic development throughout Monroe County. To illustrate: During the 1980's the Monroe County employment base grew by 50%. In the two decades following, the employment base has only increased by 10%.

From an economic structural standpoint, dynamic long term trends at the national and global levels shift the economic structure of the local economy. Absent a highly focused and long term effort to modify the effect of these forces, the global and national trends will prevail. These global and national structural trends include a shift away from industrial production in the United States and a shift toward a service and retail based economy. At the national level some 50% of manufacturing jobs have been lost in the United States since 1960. By the same measure, service and retail positions have grown by more than 250 percent each. In Florida, which has never had the share of manufacturing and industrial employment as found elsewhere in the nation, the structural employment shift to service and retail has been more pronounced over this period. Thus, in the face of these forces, employment by industry type in the Florida Keys has shifted in a more pronounced way toward a service and retail based economy.

There are numerous other factors which contribute to economic opportunity outlook in Monroe County. These include: the location of Monroe County with respect to access to

mainland United States, the lack of existing available raw materials, a lack of plentiful quantities of potable water which affects water pressure and fire insurance ratings, the geographic constraints associated with the physical layout of the Keys stretching as an archipelago over 130 miles, and very low lying flood prone lands which are subject to periodic violent and destructive hurricanes. Finally, the cost of development coupled with the overall shortage of vacant lands hinders the ability of the local labor force to reach levels sufficiently high to support large new industrial or commercial facilities. These factors impact the diversity and economic development potential of Monroe County over the long term.

Despite this, the very constraints which hinder certain kinds of economic expansion are also what assure that the County remains special and unique, giving rise to its pre-eminent attractiveness for tourism and vacation homes living. The Keys are remote, and vibrant with nature and marine environments yet accessible for weekend getaways or longer to a large permanent population located in south Florida.

Within this context there are opportunities to expand the economic base of Monroe County which can and should be explored. This report examines these opportunities and offers some insight as to potentially viable economic expansion.

2.0 Employment Characteristics and Long Term Trends

Employment patterns have been examined by industry throughout Florida. Florida has long been known as a seasonal, vacation oriented economy. Further, as it is comparatively geographically removed the rest of the nation, manufacturing and shipping have traditionally not been strong industries. Finally, as manufacturing employment has shrunk throughout the nation over the long term, it has been replaced by growth in business and personal services. These broader aspects of employment patterns influence employment in Florida and as well, are reflective of the employment patterns in Monroe County. In many respects, the employment profile in Monroe County is quite similar to the average employment profile found throughout Florida in both large metropolitan areas and small island communities.

Figure 1 compares the percent distribution of employment by major industry between Monroe County, and large metro areas in Florida as well as small island communities in Florida. In a geographical sense Monroe County is to Florida as Florida is to the nation – that is, remote, comparatively tourist oriented and experiencing a shift from waterfront marine and fishing industries to a service oriented economy. These are the broader, long term trends which circumscribe the patterns likely to emerge in the future.

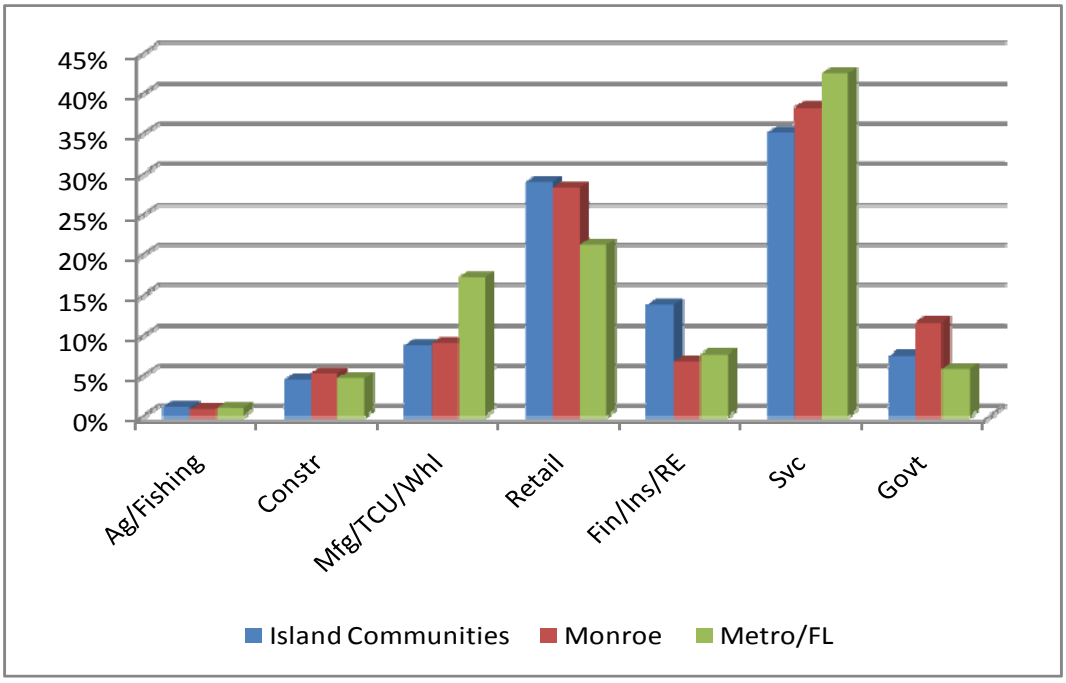

Figure 1 – Comparison of Monroe County Employment By Industry Among Large Metros and Island Communities

The employment distribution pattern by type is quite similar across the State. In Figure 1, the Metro areas include the average of employment distribution patterns in Miami-Dade County, Orange County, and the State of Florida as a whole. The Island Communities examined in this instance include the combined average employment profile of Fernandina Beach, Marco, Longboat Key, and Cedar Key. Generally speaking the employment profile in Monroe County is quite similar both to island communities in Florida and urbanized metros in Florida. The categories in **Figure 1** include: Agriculture and Fishing; Construction; Manufacturing/Transportation/Communications/Utilities/Wholesale Trade; Retail Trade; Finance/Insurance/Real Estate; Service; Government.

Looking at island communities on a closer level, an examination of communities with similar characteristics was conducted. Coastal island communities with a long cultural history, a reliance on fishing and similar environmental and ecological constraints may be useful or instructive analogues to examine. These areas may shed some light on the opportunity or outlook for the Florida Keys. As indicated, the comparable communities examined include Fernandina Beach, Marco, Longboat Key, and Cedar Key. **Figure 2** shows the employment profile comparisons among these communities.

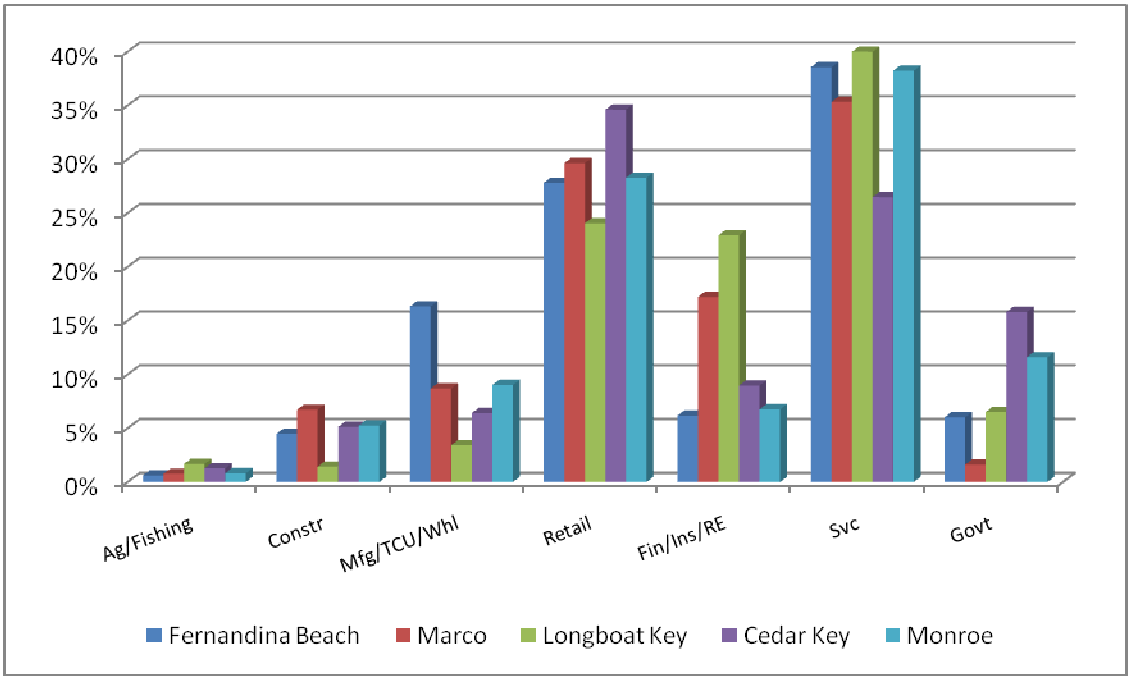

Figure 2 – Employment Profile Comparisons Among Florida Island Communities

Current Conditions and Historic Growth Patterns in Employment by Sector

The dominant industry throughout Monroe County (incorporated and unincorporated areas) is tourism. This segment of the economy has held the lead position in employment in the county for more than 30 years. The tourism/visitor industry includes eating and drinking establishments, hotel motel space along with seasonal rental properties and entertainment venues such as museums, theaters parks and beaches. The tourism industry represents about one third of Monroe County employment, as measured by jobs covered under unemployment compensation. Fully half of this industry is concentrated in Key West. This sector has added more jobs county wide than any other since 1980 (see **Table 1** and **Figure 3**).

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Table 1 – Monroe County Employment by Industry

	1980	1990	2000	2010
Hotel/Eat-Drink/Entertainment	5,732	9,685	11,396	10,506
Government	4,578	5,400	6,052	5,808
Business Service/Finance/RE	1,570	1,811	2,322	4,392
Other Retail	3,126	4,978	5,738	3,790
Other Services	765	1,817	3,215	2,379
Construction	1,310	1,786	2,233	2,150
Industrial/Warehouse	2,022	2,737	2,774	2,008
Medical/Health Services	699	1,569	2,150	1,895
Ag Svc, Fishing, Water Trans, Food Proc	1,064	1,025	800	648
TOTAL	20,866	30,808	36,680	33,576

As illustrated in **Table 1**, Government holds the second place in number of jobs county wide. This includes Federal, State, and Local government jobs however it excludes active duty military personnel stationed at installations in the Keys. Active duty military personnel add some 1,200 persons representing the NAS Key West complex of facilities. With the addition of the active duty personnel, government employment would still be the second largest employment segment in the County.

Rising to third place in the number of employees in Monroe County is the Business Services/Finance/Real Estate category. The share of employment in this category has nearly doubled in 30 years and the number of employees has approximately tripled.

Other retailing outside of tourist oriented establishments (eating, drinking, entertainment) had ranked third in volume of covered employment until 2010. By 2010 employment in this category had fallen to 4th largest in Monroe County. It is unclear if the decline in "Other Retailing" is cyclical and related to the recent recession or permanent and structural.

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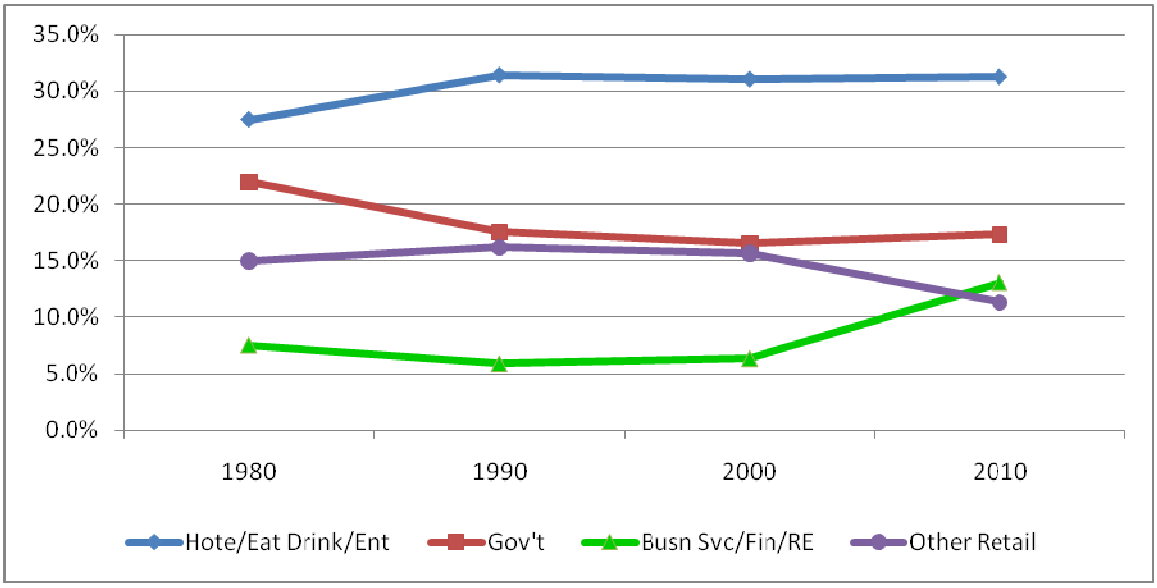

Figure 3 - Share of Employment by Sector 1980-2010

Other Services is the 5th largest employment category (see **Figure 4**). Employment in this category has also tripled since 1980, though the share has declined as other sectors grew at faster rates.

Construction is the 6th largest employment sector in the Monroe County economy. Construction employment as a share of countywide employment has changed little in 30 years.

Industrial and warehouse employment has remained essentially unchanged at 2,000 employees over the past three decades. The lack of growth in this sector, despite 50% overall employment gains county wide is symptomatic of the decline in industrial and manufacturing employment in the United States and also of the challenges faced by a remote location with limited transportation and labor force opportunity.

Employment in the medical and health services category has tripled since 1980. While this category is small as a share of total employment it is among the fastest growing sectors of the Monroe economy (**Figure 4**).

Covered employment in Agricultural Services, Fishing, Water Transportation, and Food Processing is the smallest among all categories in Monroe County. This may be misleading to some degree in that much of the employment in the marine and fishing industry locally is comprised of proprietorships and self employed. This means the ranks of those in the marine and related industry may not appear in the measure of covered employment, for the purposes of unemployment compensation. For example there are some 2,500 commercial boat licenses in Monroe County, suggesting the marine industry is substantially larger than what is depicted in the covered employment data series.

Because of the island nature of Monroe County and the obvious reliance on marine and coastal activity, the marine industry will be examined in a separate light. Of note is that within the covered employment data series, which refers to employees eligible for unemployment compensation, employment has fallen by nearly 40% in 30 years, from approximately 1,000 persons to 650 today.

Occupational license data was reviewed to assess marine related employment and activity. Occupational license data includes charter boats and captains, marina and boat storage, mobile marine repair, marine related retail, marine wholesale supply, and marine repair. There are 1,928 such licenses. Some boat and captain licenses are duplicative resulting in an estimated 1500 active occupational licenses. Not all of these licenses will result in a full time job and many hold a captain's license but are simply not active. Based on this information we find marine and marine related services remains the smallest employment category in Monroe County.

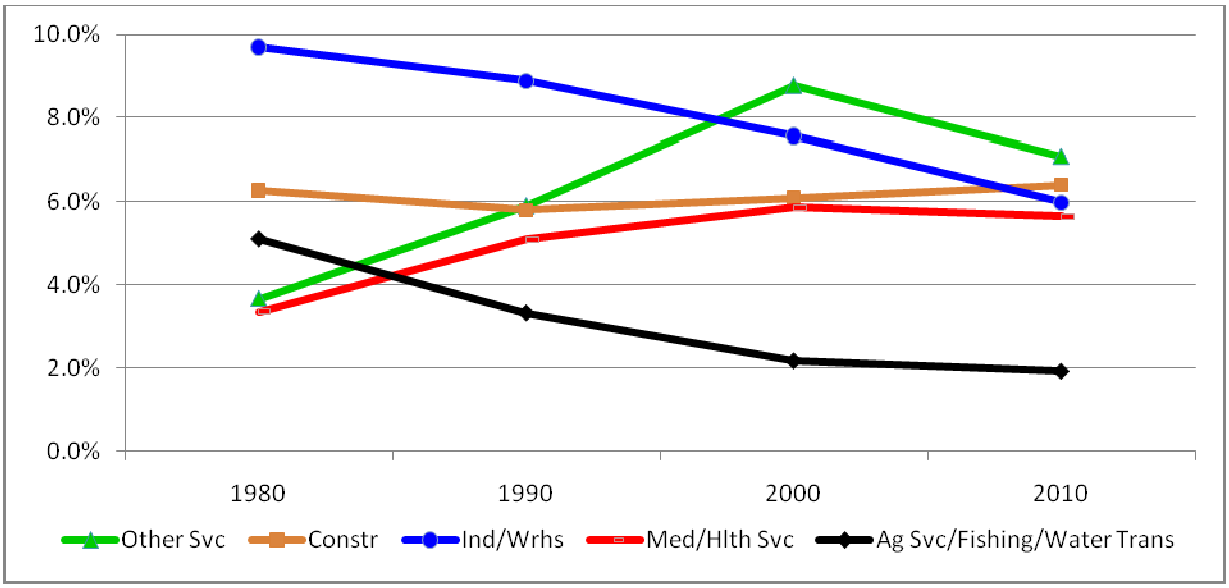

Figure 4 - Share of Employment by Sector 1980-2010

In addition to looking at the composition of employment by industry in Monroe County, we also examine the changes in composition over time. **Figures 3 and 4** illustrate how the mix by industry has evolved over the past 30 years. Change in the share of employment is an indicator of which industries have momentum and may be expected to have growth potential in the future. In this section we examine the changes in share. By identifying employment sectors which are growing we help identify the key components of the local economy which offer opportunity for the future.

The employment segment with the greatest increase in share during the past three decades is Business Services/Finance and Real Estate (see **Figure 5**). The dominant component by far within this category is business services. Business services as a category consists of legal, accounting, architectural, computer and management consulting, research,

advertising other professional services and business support. Finance and real estate are comparatively stagnant and given the current economic conditions may not be expected to show significant improvement in the short to medium term. Thus, business services is identified as a sector offering substantial employment growth. Its share of employment has doubled over time and is now the third largest employment segment in the countywide economy.

The visitor industry is comprised of Hotel/Motel rooms, eating and drinking establishments, and entertainment venues. This is the largest sector of the Monroe County economy by far, accounting for at least 1/3 of all employment countywide. It is the second fastest growing segment of the economy as well, having gained more than 5 points in share since 1980. The visitor industry has long been the focal point of the Monroe County economy.

"Other Services" includes automotive service, personal care, laundry, civic and religious organizations and repair services for household and commercial equipment. Other Services is the 3rd fastest growing employment segment countywide. This segment has shown very consistent growth over the decades. Though the share of this segment is small (only the 5th largest of 9 groups) the rate of growth in this segment is the fastest of any segment in the local economy.

Medical and Health services has also grown very rapidly since 1980. Since year 2000 the average age of all persons in Florida has increased from 39 years to 40 years and from 37 years to 38 years in Miami-Dade. In Monroe County however, the average age of all persons has increased from 41 years to 43 years. The Monroe County population is older and has increased by a greater amount than the population in Miami-Dade County and throughout Florida. By 2030 the University of Florida projects 44% of the Monroe County population will be age 55 and up, compared with 32% in Miami-Dade and 38% statewide. The older population will require more medical services supporting an opportunity for continued increases in medical services in Monroe County.

The remainder of the major employment segments in Monroe County has shown no increase in the share of employment. These comparatively slow growth segments include government, industrial/warehouse, other retailing, marine industries and construction. While most of these sectors added jobs overall from 1980-2010, the pace of growth was below average and so each sector lost market share overall, or in the case of construction increased share only very marginally.

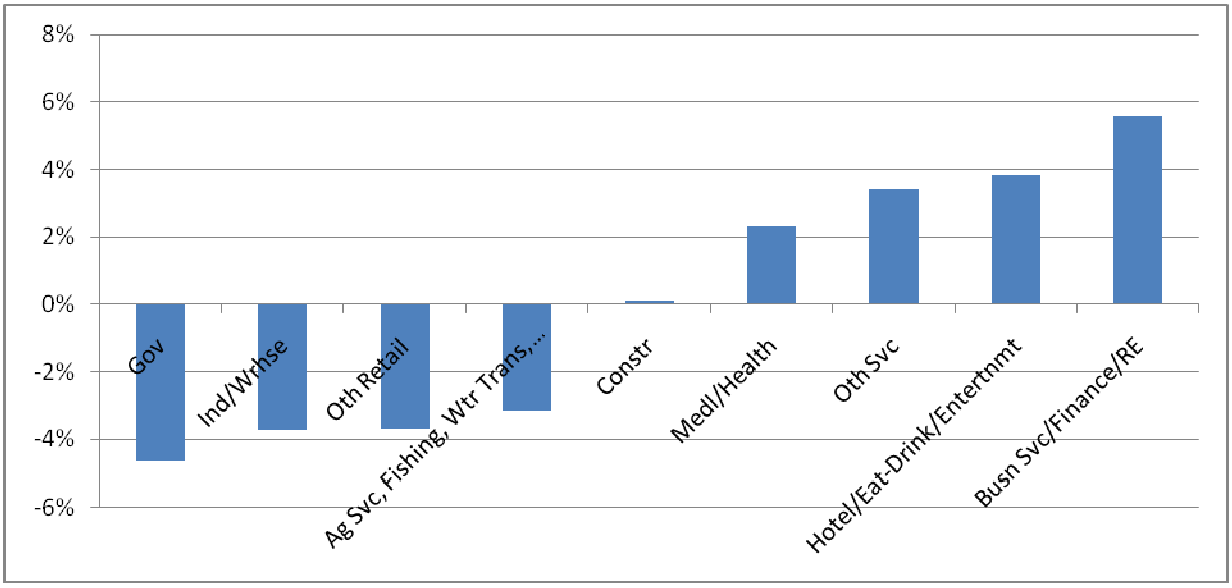

Figure 5 - Net Change in Share of Employment by Type 1980-2010

3.0 Industry Analysis

As an overview to the local economy of Monroe County we have compared the profile of major industry segments in Monroe County to other island communities in Florida as well as to other major metropolitan employment centers across the state. We have looked at the mix of industries and employment in Monroe County, the share of major employment segments and the trends and change in these segments, over a 30 year time horizon.

Through these analyses we have identified strengths and weaknesses, as well as large and fast growing employment sectors in the Keys. The areas of strength, combined with those segments which are large and fast growing, present in our view the best opportunities for future economic development and job growth. These segments represent the base of opportunity which, if promoted and strengthened, can provide sufficient revenue and economic flexibility to allow further investment in special segments which offer innovation, cultural and community strengths and other desired aspects of keys living and community building. Below we focus in on these segments and describe the opportunities they afford.

3.1 Tourism

The dominant industry throughout Monroe County is tourism. It is the largest employment sector countywide. The visitor industry has had the second fastest growth in market share and added by far the most number of jobs of any employment sector in Monroe County since 1980. The visitor industry includes eating and drinking establishments, hotel motel space along with seasonal rental properties and entertainment venues such as museums, theaters and parks. The visitor industry represents about one third of the Monroe County economy, as measured by employment. The Keys hosted approximately 3.3 million visitors during 2009, with some 2.2 million visiting Key West. Of those visiting Key West, 39% were cruise ship visitors. Fully two thirds of visitor activity countywide is concentrated in Key West (see **Table 2**).

While the visitor industry is large and adds substantial employment, wages are lower than average, representing about 76% of the average wage countywide. The impact on household earnings is perhaps less dramatic in as much as 1 in 3 visitor industry workers holds more than one job. Also, many persons in the real estate industry sell or rent vacation homes and the average wage among these workers is almost 90% of the average wage. Nonetheless, the strength and attractiveness of the visitor industry in terms of jobs and long term growth is offset to some degree by lower wages.

By measures created by the Monroe County Tourist Development Council, the visitor industry in its entirety (including multiplier effects) is responsible for 60 percent of total Monroe County output (sales) and half of all employment countywide.[1]

Thus, it is clear the Visitor industry is a critical component of the functioning of the countywide economy. Policies which encourage expansion of the visitor industry, promote higher wages for visitor industry workers, and continue to support the strength in employment gains should be considered.

3.1.1 Tourism and Visitors

The Monroe County visitor industry is highly concentrated in Key West. Tourist development Council data illustrate the nature of visitor activity. As noted earlier fully one third of all employment in Monroe County is concentrated in the visitor industry. The multiplier effect of this activity increases the overall impact and importance of the visitor industry.

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[1] "Study of the Monroe County Tourism Workforce", August 2006, Monroe County TDC, page 8

Table 2 - Visitors to the Florida Keys by Type and Location

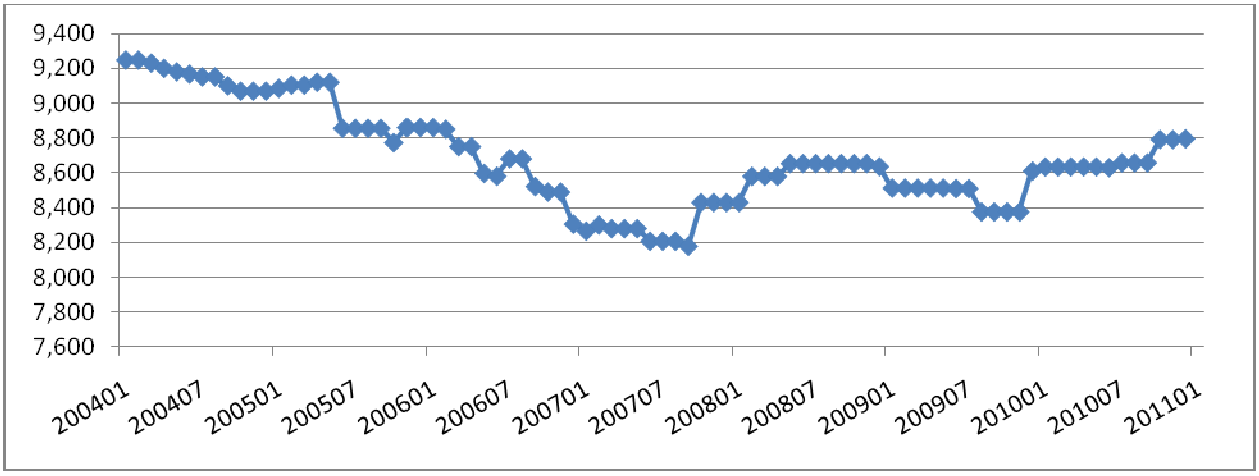
Florida Keys Visitor Person-Trip Estimates

	2003	2004	2005	2006	2007	2008	2009
Key West Overnight Visitors	1,309,559	1,303,633	1,046,111	1,063,752	1,094,647	1,112,978	1,165,327
Key West Day Trippers	242,268	241,172	237,460	196,794	202,510	205,901	206,263
Cruise Ship Passengers	1,067,222	934,070	925,795	888,183	816,919	739,218	859,409
Total Key West Visitors	2,619,049	2,478,875	2,209,366	2,148,729	2,114,076	2,058,097	2,230,999
All Keys Overnight Visitors	2,425,110	2,414,135	1,937,244	2,030,062	2,089,021	2,169,565	2,092,732
All Keys Day Trippers	448,645	446,615	439,742	375,561	386,469	401,369	370,414
Cruise Ship Passengers *(Key West Only)*	1,067,222	934,070	925,795	888,183	816,919	739,218	859,409
Total All Keys Visitors	3,940,977	3,794,820	3,302,781	3,293,806	3,292,409	3,310,152	3,322,555
Monroe County Lodging Occupancy %:	72.2%	71.2%	70.0%	66.5%	68.1%	67.5%	70.3%

Sources: Monroe County Tourist Development Council; Smith Travel Research

3.1.2 Tourism and Hotels

By year–end 2010 there were 8,796 hotel rooms in Monroe County according to Smith Travel Research data (see **Figure 6**). There has been a net loss of 452 rooms since year-end 2003, some 5 percent of the countywide hotel room inventory. Hotel room inventory had declined by 12% from 2003-2007 and has rebounded adding 366 rooms since 2007. An additional 4,800 seasonal units are found in resorts. The number of resort units has grown by 19%, some 772 units, since 2003, according to the Florida Department of Business and Professional Regulation. The total inventory of visitor accommodations has been relatively stable or grown slightly over the past decade, now totaling more than 13,500 units, though the mix and type of accommodations have changed from shorter stay hotel rooms to longer stay resort units.

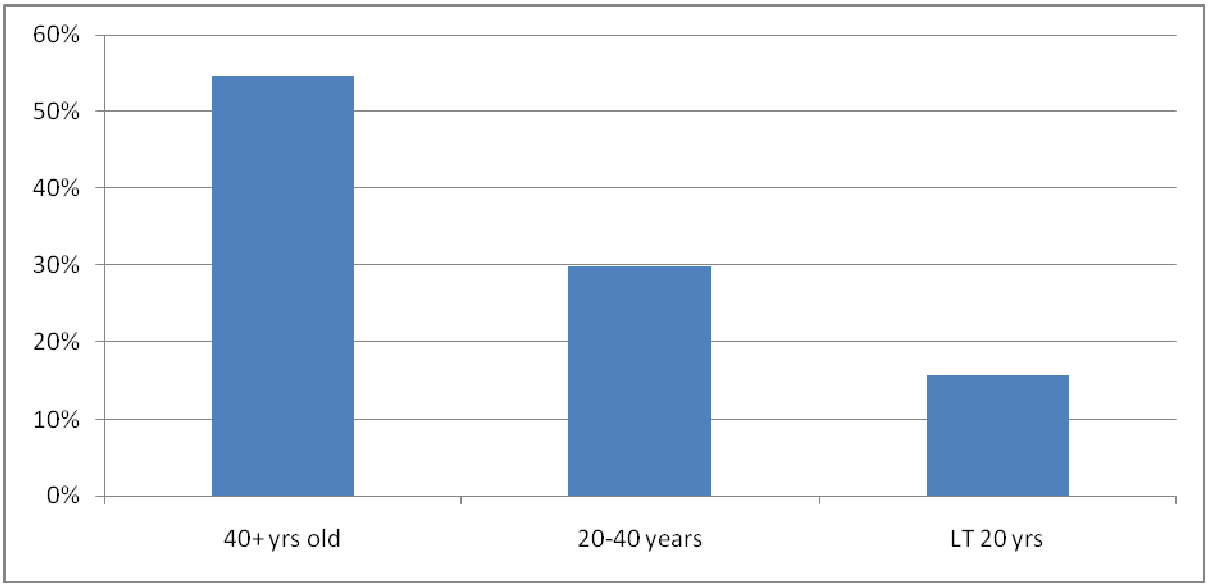


Source: Smith Travel Research, Fishkind & Associates, Inc.

Figure 6 - Monroe County Hotel Room Inventory

Among hotel rooms throughout Monroe County it is estimated 2,199 rooms are located within the unincorporated areas. Of the rooms in the unincorporated areas of Monroe

County 54% are within structures older than 40 years old. From a building use and architectural perspective, 40 years is a generally accepted measure of the useful life of buildings and structures. By the end of the 20 year planning horizon, an additional 30% of hotel properties will age into the greater than 40 year old category, if no renovation is undertaken. **Figure 7** shows the age of hotel room inventory in the unincorporated portions of Monroe County, as of year 2010.



Source: The County Property Appraiser; Fishkind & Associates, Inc.

Figure 7 - Age of Hotel/Motel Structures, Unincorporated Monroe County 2010

While there are many buildings standing today which are much older than 40 years, older buildings require extensive investment and renovation to maintain their usefulness. This is particularly the case in a place like the Florida Keys which has a very challenging climate and environment regarding stability and livability of built structures. The climate of the Keys increases the wear and tear on buildings and structures. Issues such as mold, sun exposure, heat exposure, salt exposure, and storm damage can render buildings useless very quickly. The majority of inventory of hotel motel rooms in the unincorporated keys today is obsolete from a building age standpoint. This means substantial and ongoing investment and renovation is required to maintain these structures.

Over the next twenty years as older properties continue to age, 84% of unincorporated hotel/motel structures will exceed their useful lives. Over the next twenty years, the vast majority of inventory of unincorporated hotel and motel rooms will require either a) replacement or b) extensive renovation. This places the hotel industry throughout the unincorporated keys in a precarious position from the standpoint of needed capital investment over the planning horizon. This condition also highlights the redevelopment opportunity which is likely to become increasingly evident over the planning horizon. The need for hotel property investment coupled with a de-facto restriction on hotel expansion

due to seasonal occupancy constraints means new hotel tourists are likely to be accommodated in newly built seasonal residential housing units and hotels which are in need of renovation will be unable to justify needed capital investments.

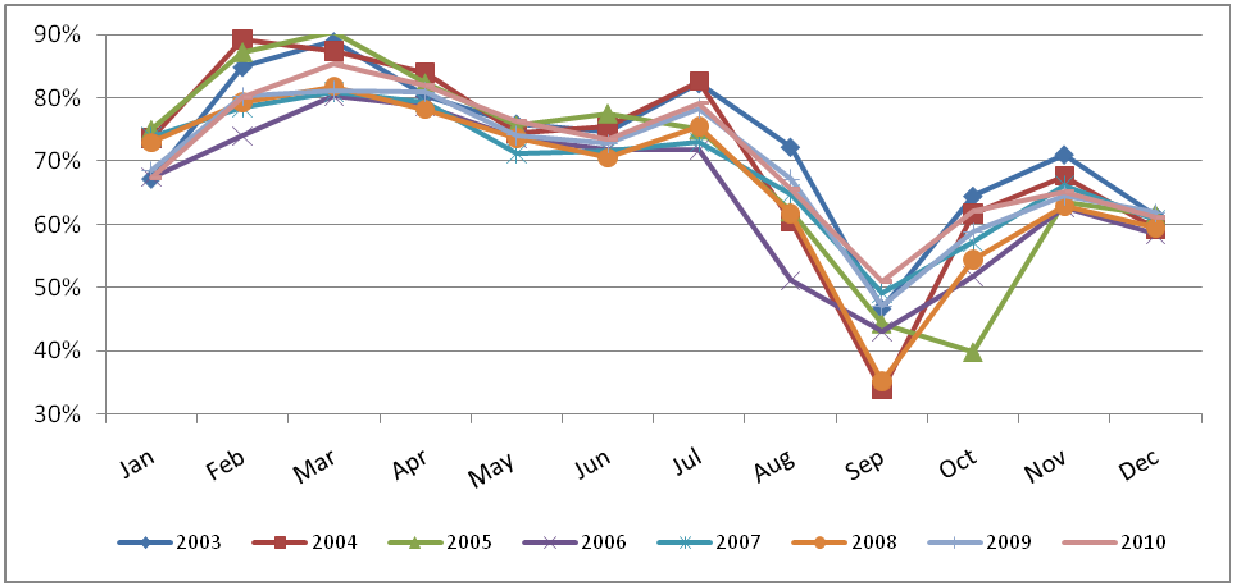
3.1.3 Effects of the Hotel Moratorium on Tourism in Unincorporated Monroe County

At present there is a Monroe County ordinance and Comprehensive Plan policy effective in the unincorporated area which prohibits any new hotel development throughout the unincorporated keys. This ordinance precludes all new hotel room/unit development. The development prohibition is in place due to the county designation as an area of critical state concern (ACSC). Under the ACSC designation hotel rooms are considered residential units and therefore would require allocation from ROGO, further reducing available increments of new housing supply under ROGO. In the past there has been a policy recommendation suggesting annual hotel occupancy must exceed 90% in order for new hotels to be warranted. There are no historic records which indicate hotel occupancy has ever exceeded 90% on an annual basis. Further, generally accepted, standard operating hotel financial performance norms indicate hotel operations are at the financial breakeven point near 65% occupancy[2]. It is for these reasons that in unrestricted markets, there are usually few new hotels built when annual occupancy is consistently below 65%. But, when annual occupancy is consistently above 65%, the market typically responds by adding new hotel rooms until annual occupancy falls back to approximately 65%. Throughout the hotel industry, occupancy runs between 63% and 73% on an annual basis, under normal market conditions.

Figure 8 shows historic monthly occupancy in Monroe County.

Monthly Occupancy Rates, Including Key West

[2] http://www.thefreelibrary.com/US+hotel+industry+now+breaks+even+at+55.5+percent+occupancy.-a021173755 and http://www.thefreelibrary.com/Trends+in+the+hotel+industry.-a0131592609



Source: Smith Travel Research, Fishkind & Associates, Inc.

Monthly Occupancy Rates, Excluding Key West

	2007	2008	2009	2010	2011	2012	% Chg
January	68.0%	66.3%	59.6%	55.2%	55.5%	65.1%	17.3%
February	72.3%	75.5%	71.9%	69.1%	73.5%		
March	78.6%	76.4%	72.7%	75.8%	82.0%		
April	74.4%	70.2%	73.0%	72.8%	74.9%		
May	64.3%	65.8%	65.2%	68.4%	65.7%		
June	68.3%	66.7%	67.7%	69.1%	71.7%		
July	67.9%	70.0%	72.0%	73.6%	75.9%		
August	60.1%	56.8%	59.2%	60.1%	61.3%		
September	41.5%	31.0%	38.1%	42.1%	45.3%		
October	46.0%	44.7%	46.5%	52.6%	52.8%		
November	52.9%	52.4%	50.7%	52.7%	63.5%		
December	48.5%	48.6%	51.1%	50.0%	58.2%		
Total	61.9%	60.3%	60.6%	61.5%	65.2%	65.1%	17.3%

Figure 8 - Monroe County Monthly Hotel Occupancy

For existing hoteliers this speaks to a need for policy and support that will stimulate and encourage redevelopment, add to peak season revenue potential perhaps through more rooms/capacity in the same footprint and substantially build off-season occupancy.

To change the seasonal visitation pattern in the Keys may require very high cost low margin-of-return advertising campaigns. This must also be viewed in light of the very substantial rate reductions which are found in September and October. To illustrate the revenue and rate reduction issue, during year 2010, revenue during the peak season was $192 per available room. During the off season this fell to $70. Rates would have to decline

even more sharply to improve off season occupancy or new target markets identified and captured.

To the degree tourism accounts for the largest employment segment in Monroe County and the moratorium on new transient units is overly restrictive and stifles growth in the tourist industry, the policy direction for Monroe County is contradictory. These policies contribute to the development of seasonal residential units and the conversion of permanent population to seasonal population, in our view. Further, the hotel moratorium likely contributes to the loss of existing hotel space, much of which is obsolete and in need of investment and rehabilitation but cannot justify the capital expense in the face of declining tourist numbers. The loss of permanent population and decline of the visitor industry hurts the cultural and social stability of local keys communities and hurts employment growth in the county's largest employment segment.

As stated, hotel unit development is also under the residential ROGO constraint. To the degree hotel and tourist evacuations begin 48 hours prior to general evacuations (with a 6 hour overlap with general evacuations); hotels and tourists do not pose a hurricane evacuation bottleneck. To the degree new hotel units should be encouraged, along with off season occupancy support policy, and to the degree the number of hotel rooms and tourists are declining, hotels should be removed from the residential ROGO constraint and be allowed to develop or redevelop as market forces dictate. This would allow successful properties unimpeded opportunity to improve and support the tourist industry throughout the Keys.

For policy considerations, how Monroe County counts rooms vs. units may provide some additional flexibility with respect to hotel/motel redevelopment opportunity. For example, hotel suites with more rooms per "unit" may allow existing hotels to add capacity without triggering other evacuation constraints on new development. This policy direction should be evaluated.

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3.2 Seasonal Residential Development

The character of the housing inventory throughout the Keys is changing. There are a number of reasons for this shift. Some of these reasons include: the restriction on new hotel space in unincorporated areas which drives tourist growth into seasonal units, the lack of adequate wage employment which limits demand for permanent housing, conversion of apartments to condo, the constraining effects of ROGO on new residential housing which places a premium on housing, drives prices up and forces a move toward units with greater value and return, the expansion of retirement and second home communities in the Keys and the rapidly escalating prices of developable land. These factors all contribute to a shift toward development of higher value seasonal housing.

As an island community, it is known that some services normally found in mainland communities may not be available in the Keys. These include medical, regional retail, financial and transportation services. The structural lack of these kinds of services makes the accommodation of seasonal housing easier in terms of pressure on and support by the local infrastructure. This is not to say retirement and workforce populations will not grow in the Keys, or that local infrastructure is non-existent, only that accommodating seasonal households is the easiest economic opportunity, by comparison. While there is a prohibition on seasonal rentals in some residential areas, many units are not "rented" and are simply held for occasional use by owners, family and friends.

Thus, the trend toward increased seasonality, which has emerged with greater clarity over the past decade, is likely to continue. To change this trend, if desired, policies, land use allocations, new hotel development and investment must be undertaken to redirect the development trend toward more permanent population with higher levels of services, plus support for employment and employment opportunity. A more permanent and stable population base is more consistent with the Livable CommuniKeys Plans, rather than the more seasonal and transient based trend. Some of the current policies and market conditions also do not favor expanded economic development which would support employment growth.

In Monroe County as a whole the trend towards increased seasonal housing is quite pronounced as seen in **Figure 9**, which includes total inventory of both municipal and unincorporated data. These same data indicate that among the just net growth in inventory from 2000-2009, 73% of all net new residential units did not have homestead exemption. Such high non-permanent dwelling unit volumes supports the shift toward increased seasonality as is also described in the American Communities Survey.

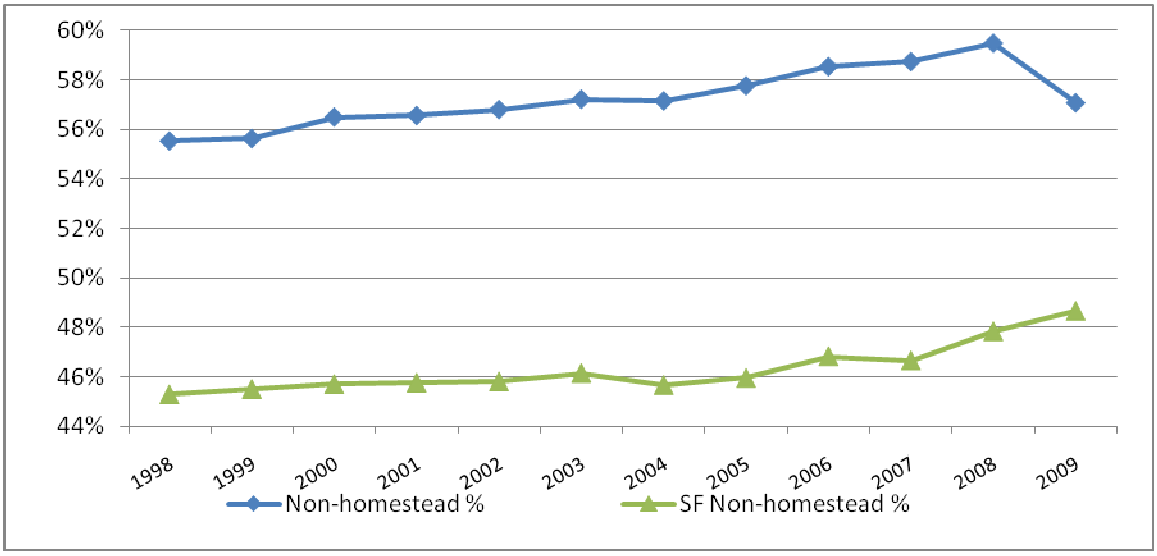

Figure 9 - Monroe County Non-Homestead Exempt Units

In the unincorporated areas the trend toward greater seasonality is similar. Among all unincorporated single family homes 53% in total are homesteaded. However among those single family units built from 2000-2009 only 45% are homesteaded leaving 55% as non-homestead/seasonal units. This pattern represents a significant shift over the past decade resulting in the majority of new single family units built being non-homesteaded or seasonal. For condos throughout the unincorporated Keys, fully 85% are non-homesteaded units and 96% of those built after year 2000 are non-homesteaded. Overall, among single family and condo units combined, the inventory of housing in the unincorporated keys is now 53% non-homesteaded. Among all single family and condo combined, the inventory of housing in the unincorporated Keys built after year 2000 is 57%. The unincorporated Keys are becoming increasingly seasonal, based on the characteristics of new residential units built.

Over the past 20 years there have been 1,101 apartment units converted to condominiums. Half of these conversions took place in just three years from 2004-2006 as shown in **Figure 10**.

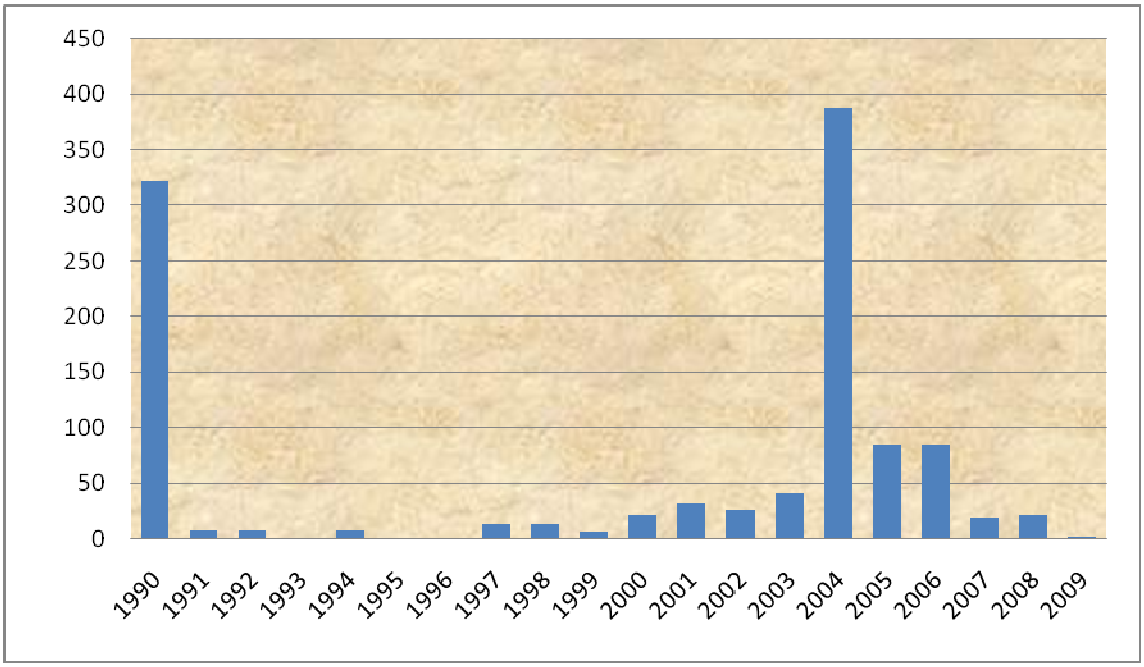

Figure 10 - Condominium Conversions in Monroe County

The loss of rental apartments in this fashion often leads to displacement of lower income rental householders. The degree to which displaced renters have left the Keys is unknown and the degree to which recently converted units subsequently ended up in foreclosure is also unknown. Generally speaking, outside of the housing bubble and a one-time surge in 1990, conversion levels are low throughout all Monroe County. The record volume of 557 conversions countywide from 2004-2006 is likely to have created additional need and additional opportunity to develop replacement rental housing. The lack of rental housing will also constrain employment growth as the economy begins to recover from recession. Apartment and quality rental housing development is a land use need and opportunity which can be accommodated in the unincorporated areas of the county. Apartment development would support local community efforts to build and maintain community strength as a more permanent and stable population, rather than development of seasonal transient housing. The conversion of apartments leaves a need for worker oriented and affordable workforce housing.

3.3 Government

The second largest segment of employment in the county is government, including local, state and federal. Government has lost the most market share in terms of employment than any other industry in Monroe County over the past 3 decades. It remains the second largest employer; however, we anticipate government employment will remain stagnant throughout the next decade, resulting in a further loss in share.

Local municipal budgets are negatively affected by falling ad valorem tax revenues, public school budgets are also subject to falling ad valorem revenue which will limit new hiring. Further the November 2010 ballot amendment to relax class size requirements will reduce the need for additional teachers. State and local government employment in the short term may decline by a small degree. Federal Government employment is primarily post office and civilian employment on military bases. Federal employment has remained unchanged in Monroe County over the past decade. While government employment is the second largest sector of the economy, it has lost the most market share of any segment since 1980 as seen in **Figure 5**.

Average wages paid through all government positions are 37% higher than the average wage countywide, reaching almost $50,000 per year.

3.4 Business Service, Finance and Real Estate

Business Service Finance and Real Estate is the third largest employment category in Monroe County representing 13% of existing employment. This category has gained more share of total employment than any other segment since 1980. More than 2,800 business service jobs have been added over this period. Most of these new job formations have been concentrated in management, consulting, travel services, computers, and business services. Finance and Real Estate have added a small portion of these jobs however the strength in this sector lies in professional and technical services rather than banking and real estate. Professional service jobs pay 16% higher than the average wage countywide, almost $42,000 per year. These jobs represent moderate to high skill positions and represent a key target sector for employment growth strategies.

3.5 Other Retailing

Retail categories, excluding eating and drinking establishments, typically include apparel, sporting goods, construction materials, electronics and autos. These categories have lost both employment and market share most notably over the past ten years. Employment in "other retailing" is now below 1990 levels and market share has fallen from peak of 16% to 11% today. There are no regional shopping centers in excess of 30 acres in Monroe County. Community and neighborhood shopping is essentially all that is offered except for smaller stand alone specialty stores and a handful of stand alone department stores/big box stores. Retailing pays 76% of the average wage. In Monroe County retailing is a slow growth industry, is constrained for space, is subject to high transportation costs to bring

goods in and provides a low wage. Support of existing retail centers is important so that residents and visitors do not have to drive long distances to meet basic needs. However, retailing is not a target for job expansion and creation, except as needed to support basic needs. Rehabilitation of existing centers and retail space is needed so that retail facilities do not succumb to obsolescence and fail to provide the basic services needed. Obsolete structures and facilities will also contribute to erosion of jobs and loss of market share. An inventory analysis of commercial retail buildings and structures in the keys suggests there is need for this type of facilities rehabilitation. Incentivizing redevelopment of retail structures should be a policy focus. This may include a square footage bonus to offset rehabilitation costs and relaxation of policies regarding upgrades to non-conforming uses.

3.6 Other Services

This category was the fastest growing employment segment from 1980-2010, with employment increasing by more than 200% during the period. The "Other Services" category consists of personal services, legal services, private educational services and engineering and accounting services. This category pays 90% of the average wage.

3.7 Medical and Health Services

Medical and health services are among the fastest growing segments of the Monroe County economy. Almost 1,200 jobs have been added in this employment segment since 1980. Average wages are in excess of $44,000, more than 20% above the countywide average wage. Medical and health related facilities will continue to be in high demand as the population ages. Employment in this category has gained a 2 percentage point increase in share of total employment since 1980 making it the category with the 4th largest gain in share of employment and the 3rd fastest growth rate. With high wages and fast growth the medical and health segment is a desirable target industry on which to focus additional land use and economic development policies.

3.8 Waterfront Related

Among traditional island communities in Florida through the past 100 years, there has been a reliance on fishing, boating and marine environments and marine related industry such as shipping and boat repair. Through a century of change, the marine industry has declined while other areas of employment have grown in dramatic fashion. In terms of the volume and share of employment, there is very little fishing, food processing or water transportation related employment today, compared with employment in retail, finance and the broader service sector. The fishing industry accounts for only 1 percent of employment in island communities. Adding food processing, marine shipping, marine repair and marina raises the share to 2 percent in Monroe County.

Recreational boating has expanded. This has opened opportunities for pleasure boat repair, boat maintenance and storage. Pleasure boat licenses have more than doubled in the Keys since 1980 (see **Figure 11**). This speaks directly to an important segment of the economy

which is the vacation home or second home industry. Recreational waterfront activity supports redevelopment of waterfront areas such that the historic character and some historic uses and building are preserved while the economic drivers supporting waterfront properties is tourist and vacation home based. This has meant a waterfront redevelopment transition to service and tourist related activities similar to Savannah, Georgia; Des Moines, Iowa and old harbor areas such as Boston and Baltimore. The result is a vibrant waterfront which can accommodate some historic fishing and boating related commercial activity.
At the same time, as measured by commercial fishing licenses, the volume and size of the commercial fishing industry has declined sharply over the past 30 years. Commercial fishing licenses have fallen by 25% and the volume of seafood catch has declined some 70% (see **Figure 12**).

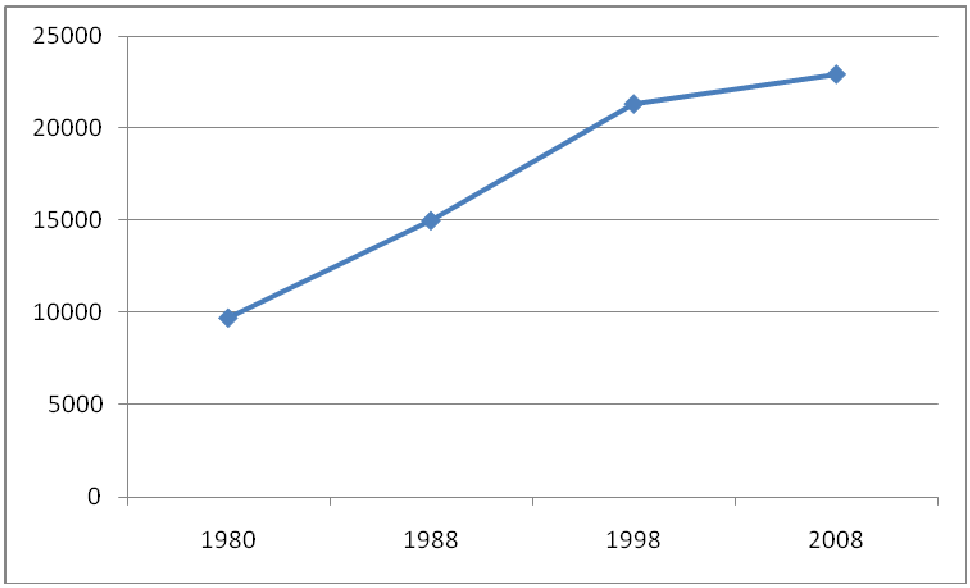

Figure 11 - Pleasure Boat Licenses in Monroe County

Water related employment is the smallest employment segment among island communities today, and equally small elsewhere in Florida. Based on trends in commercial registrations, fish and shellfish catch volumes, and covered employment, the marine industry is not a growth industry in Monroe County. Nor is it a growth industry in other island communities or elsewhere in Florida. Within the marine industry, what exists today is an important component of the history and character of Monroe County. It is an important aspect of the local restaurant business which offers "fresh catch". Given the past 30 years of decline, the historic nature of the marine and fishing industry and the loss of waterfront property to non-marine uses, there is a need to develop a support system to help maintain the viability of the industry as it currently exists. The marine industry as it relates to fishing can become a cultural focal point, support surrounding uses and continue to support and build the local restaurant industry. However, the marine industry is not likely to become a substantial employment generator in the future, nor a large-scale or growing aspect of the Keys economy. At most the entire value of commercial seafood and shellfish landings

(before expenses) is less than 5 percent of total personal income in Monroe County. Today, the economy of the Keys has developed, expanded and diversified. Understanding this diversification is integral to planning for new economic opportunities.

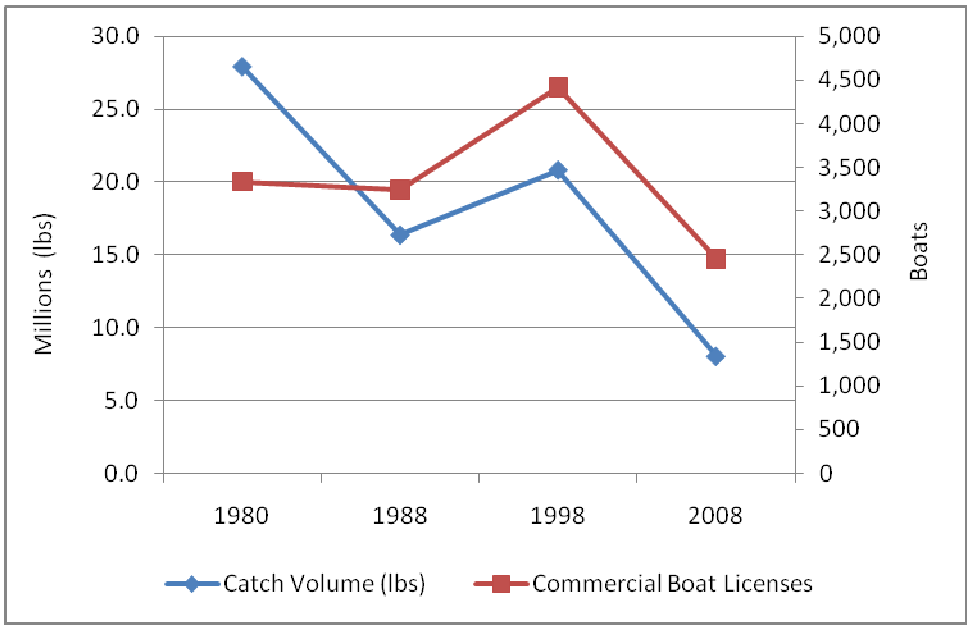

Figure 12 – Commercial Fishing Industry – Monroe County

There is an opportunity for growth in marine related industries outside of fishing. This includes marine research, coral reef preservation and marine related eco-tourism. One such important facility is the Navy's *Marine Corrosion Test Facility* at Key West/Stock Island. Through the process of military technology transfer for civilian use, the ongoing research and technology at this facility offers the potential to help develop local industry synergies with respect to marine materials testing, underwater audio and marine biology. Coral reef research and preservation is of vital national and international interest. The Florida Keys are well suited to conduct such research in conjunction with nearby universities and national funding sources. This discussion will be expanded upon later in the report.

4.0 Vacant Land Use and Availability

Within commercial lands in unincorporated areas there are no vacant parcels in excess of 25 acres. This combined with a 35-foot height restriction plus numerous small vacant parcels substantially reduces the opportunity to accommodate any new large scale employment generator in unincorporated areas. Job growth under these conditions is limited to incremental improvements.

Monroe County is also subject to the Non-residential Rate of Growth Ordinance (NROGO). NROGO limits commercial construction by allowing a ratio of 239 square feet of

nonresidential floor area for each new residential permit issued through the residential rate of growth ordinance (ROGO).

Source: Code 1979, § 9.5-124; Ord. No. 032-2001, § 1; Ord. No. 046-2003, § 1; Ord. No. 001-2006, § 2; Ord. No. 037-2006, § 2; Ord. No. 11-2006)

The County maintains an inventory tracking system to determine whether or not sufficient commercial services are ultimately provided in the market place based on the 239 square foot criteria. It is reported the allowable maximum for new commercial construction is not necessarily reached or utilized each year. It is believed the maximums are not reached due to other constraints such as parcel size and availability, other zoning restrictions and economic conditions.

However, some commercial development is not dependant on resident population growth and should not be tied to residential growth. For example, demand for tourist retail is a function of tourism activity; not a function of new household growth. Similarly, industrial boat maintenance or marine research and development is not a function of residential growth and should not be tied explicitly to residential activity. As well, medical space needs serve tourists, workers and the elderly and this skews the empirical "per new household" relationship which dictates how much non-residential space may be developed.

While the 239 square feet per household is empirically observable it is merely a correlation and is not a causal factor in determining the demand for commercial development. From an economic perspective, using a supply based correlation, such as 239 square feet, to restrict commercial development fails to assess the market demand conditions. The requirement to tie a specific volume of commercial development to residential growth makes invalid assumptions as to the reasons and causes for commercial development. As a result this requirement constrains, restricts and harms the normal market processes by which the need for commercial development is identified and new space brought into the market.

From an economic policy and market perspective there should be no limiting requirement which ties a specific volume of commercial square footage to residential growth. Further, to the degree hurricane evacuation is a function of residential populations, and not affected by workforce population or customers, there is no storm/evacuation based need to limit or hinder ongoing commercial development activity such as occurs with NROGO limitations. Normal constraints on developability of lands would remain subject to, environmental sensitivity, infrastructure capacity and stormwater management, zoning and tier-management as well as all other LDC rules. There is no market based or valid economic reason to tie development of non-residential space to residential housing growth. While the empirical supply correlations exist, these are not appropriate market based demand factors and do not take into account the drivers of demand.

Further: the NROGO shall not apply to the development described below:

Development with no net increase in nonresidential floor area:

The redevelopment, rehabilitation or replacement of any lawfully established nonresidential floor area which does not increase the amount of nonresidential floor area greater than that which existed on the site prior to the redevelopment, rehabilitation or replacement.

Limitations on the amount of nonresidential floor area which may be transferred to any one site. The amount of nonresidential floor area which may be transferred to any one site shall be as follows:

1. No more than a maximum cumulative total of 4,000 square feet of nonresidential floor area may be transferred to any one site.

2. A receiving structure with existing nonresidential floor area shall not be expanded using transferred floor area if the expansion results in a structure with more than 10,000 square feet of nonresidential floor area, except within the urban commercial land use district, where a structure may be expanded to a maximum total of 50,000 square feet of nonresidential floor area.

Source: (Code 1979, § 9.5-124.3; Ord. No. 032-2001, § 1; Ord. No. 046-2003, § 3; Ord. No. 037-2006, § 4; Ord. No. 11-2006)

The amount of nonresidential floor area to be allocated shall be limited to a maximum of 2,500 square feet for any one site, except for sites located within a designated community center overlay area.

Source: (Code 1979, § 9.5-124.4; Ord. No. 032-2001, § 1; Ord. No. 11-2006)

Due to the effect of NROGO restrictions and vacant commercial supply constraints, the most effective and easily permitted commercial development is redevelopment with no net increase in floor area. New commercial development is hindered by floor area coverage limitations, a lack of available parcels, height restrictions, limitations on trip generation, and NROGO constraints tied to residential development. This effectively prohibits much new commercial development. This leaves redevelopment as the most viable option given land use and availability – however even this option is hindered by limitations to grow and expand existing building space by limiting an increase in floor area.

With respect to designing flexibility to retain local businesses, it is important this take place in the context of non-conforming uses. To the degree non-conforming uses will be brought into compliance a high degree of flexibility will be required so as not to cause the elimination of the business in light of other restrictions. Relaxation of existing requirements should occur to the greatest extent possible where wastewater, drainage and stormwater issues are met to the greatest degree and where land is located within Tier III areas.

To the extent possible if these criteria are met a floor area bonus should be considered to help increase revenue potential and offset the cost of renovation and compliance. This could include elimination of NROGO constraints for existing business expansion in Tier III areas where adequate infrastructure is available.

5.0 Livable CommuniKeys Plans

5.1 Livable CommuniKeys Plans – Vision and Outlook

Having conducted an economic and strategic overview of the unincorporated areas of Monroe County we have identified employment trends, strategic concerns and opportunities. In order to make actionable recommendations which are consistent with the desires and strategic direction of Keys residents we have evaluated the Livable CommuniKeys Plans (LCPs) for the purposes of identifying where these plans might intersect with the economics presented and the economic development direction presented in the Livable CommuniKeys Plans.

Within these plans what we find are distinct regions within the unincorporated keys which reflect their own set of unique local conditions and geographically specific economic development goals (see Figure 13). These sub-regional characteristics are quite distinct from each other and distinct from the concentration and intensity of the Key West tourist industry.

The Upper Keys have characteristics which lend considerable strength to focusing the definition of this area as a marine sanctuary, with recreational diving, recreational boating, eco tourism, and marine research.

The Middle Keys are more residential in character, include high value vacation and second home communities such which are similar to other beach and island communities in Florida such as Destin, Marco Island, and Longboat Key. There is continued opportunity for tax base growth.

The Lower Keys are in close proximity to Key West's main tourist destination. The lower keys can be seen as a bedroom community to the Key West tourist workers. This area is also more industrial and includes much of the working marine industry such as fishing, boat repair, and tour guides. The Naval Air Station Key West is an important presence in the Lower Keys. Facilities on Boca Chica and Key West conribute to the economy of the area. There are some 1,200 permanently stationed personnel plus rotating squadrons throughout the year. Per Diem payments to visiting personnel and salaries of stationed personnel represent a l source of local income being brought into the area. This can have a ripple effect and serve as an economic driver in the Lower Keys.

Also located in the lower keys is The Naval Research Lab. The Lab is housed within the Naval Air Station at Key West and is located on Fleming Key. The lower Keys is the center for marine research. The Naval Research Lab command includes the "*Marine Corrosion Test Facility which offers an ocean-air environment and clear, unpolluted, flowing seawater for studies of environmental effects on materials. Equipment is available for experiments involving weathering, general corrosion, fouling, and electrochemical phenomena, as well as coatings, cathodic protection devices, and other means to combat environmental degradation.*"

"*The laboratory has an unparalleled database for natural seawater exposure testing and marine-related materials evaluation. It receives a plentiful, unpolluted supply of natural undisturbed Gulf of Mexico seawater throughout the year. The tropical climate is ideally suited for marine exposure testing and provides minimal climatic variation, with a stable biomass throughout the year. The laboratory has more than 1000 ft of waterfront access, natural "blue" ocean-quality seawater access, a 2500-ft 2 atmospheric test site, and more than 14,000 square feet of laboratory facilities building space"*[3].

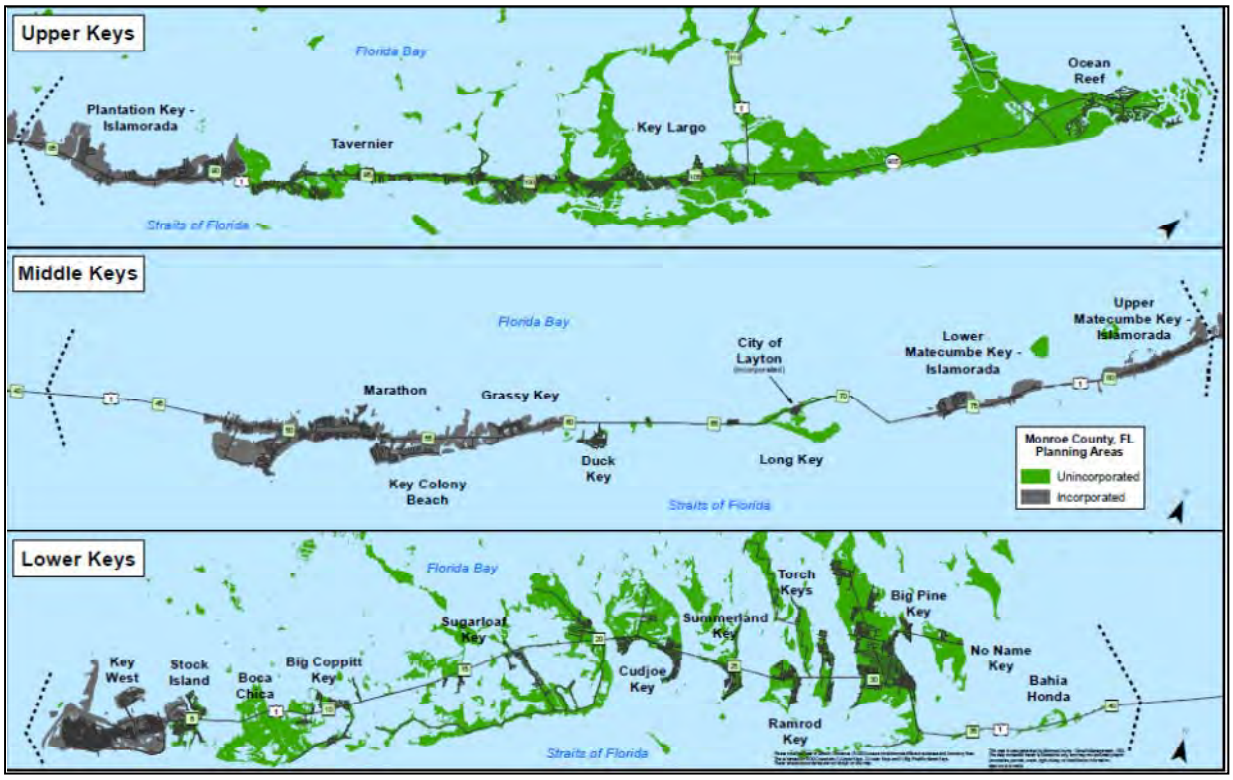

Figure 13 - Keys Planning Areas Map

Appendix 1 contains excerpts from the Livable CommuniKeys Plans provided to highlight and help synthesize the integration between economic development objectives and community goals such as livability and sustainability. Sustainability in these instances may include environmental, economic and social/cultural aspects of the challenge of sustainable living practices in the face of the physical constraints of island living. The goal of this section of the report is to identify sustainable economic directives from the LCPs and integrate these with economic development opportunities, goals and objectives.

[3] http://www.globalsecurity.org/military/facility/key_west.htm

5.2 Summary of Upper Keys - Key Largo LCP Findings

Commercial redevelopment of existing sites within the original footprint, with no increase in building square footage is allowed and encouraged in the Key Largo LCP.

New high intensity commercial development is limited. Redevelopment which expands a local business floor area is limited. New Hotel development is prohibited (this is a county-wide prohibition). New commercial development greater than 2,500 sq ft on any one site is prohibited. Waterfront seasonal housing which may replace water related or water dependant uses is under moratorium. As a result of the highly physically constrained conditions, lack of viable developable sites and regulatory prohibitions, most new commercial development is disallowed in the upper Keys or highly constrained.

5.4 Summary of Middle Keys

The functional population of the Middle Keys is projected to increase by fewer than 100 persons through year 2030. This will translate to a need for approximately 50 additional dwelling units through year 2030. The lack of developable lands and limited growth suggests the economic opportunity in the Middle Keys is primarily support of the valuation and tax base of existing developed property.

5.5 Summary of No Name and Big Pine Keys LCP

There is very limited new development opportunity on No Name and Big Pine Keys. The combination of limited land availability, concurrency constraints and other restrictions effectively limit new commercial development to very low levels if at all. The local community does not wish to embark on a path that would bring regional users or regional facilities to these areas.

These conditions point to the need to build sustainable communities through redevelopment.

5.7 Summary of Stock Island and Key Haven LCP

The working waterfront and major employment center of the unincorporated Keys is located on Stock Island. The resident population is highly engaged and supportive of maintaining the employment opportunities associated with marine dependant activities including fishing, ship building and repair, tour guides and other water or waterfront dependant activities such as marine research.

Residentially zoned land is built out on Stock Island. Remaining vacant lands are either Mixed Use or Industrially zoned.

According to the Stock Island LCP, the focus for economic development opportunity on Stock Island is support of the marine industry, preservation of marine uses, and

redevelopment of existing parcels with a focus on marine industry services, facilities and support. Opportunities for marine related science and technology research are strongest in this planning area due to the proximity to the Navy's *Marine Corrosion Test Facility* and the Key West Airport, which facilitates travel.

6.0 Working Waterfront

The keys began a rapid transition from fishing to tourism beginning in 1975; declines in fisheries and catch volume were pronounced in the 1980s. In 1994, the "Net Ban" further diminished the fishing industry. Inexpensive seafood competition from foreign sources made revenues decline for those remaining. Catch volume has declined further during the most recent decade from 2000-2009. A transition of land uses through redevelopment has shifted marine and waterfront related uses to seasonal housing and condominium uses.

The transition away from fishing and marine related industry is typical and well documented in similar island communities throughout Florida. For island communities however, this represents a shift away from the historic and cultural aspects which gave rise to the community in the first place. In response to this change in orientation and loss of traditional economic activity, the County undertook to study the working waterfront in an attempt to help maintain and preserve the culture, history and economy of the Florida Keys.

In 2005 *The Working Waterfront Management Plan* was undertaken by the County through the South Florida Regional Planning Council and the FAU Center for Urban and Environmental Solutions. Relevant excerpts from this report, as they relate to economic development potential and opportunities are included in this section for review and integration with the overall economic development strategy presented in this report.

The Working Waterfront Management Plan was not adopted and should be. Revisions as needed, due to changes since then, should be made. The Plan should be processed for finalization, with policies and incentives for encouraging working waterfront uses.

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Working Waterfront Conditions today:

The redevelopment pressure on Monroe County's waterfront has been well documented. One recent study[55] suggested that redevelopment is accelerated in Monroe County because the tourism and commercial fishing industries are actually in a spatial conflict. The tourism industry's control of the waterfront has been characterized as a natural progression of events resulting from the greater profits generated by tourist-based operations. In fact, the commercial fisherman were said to be despondent about the outcome, but because the political process was often not conducive to commercial fisherman, the outcome was rarely contested. The report questioned whether commercial fishing would be completely abandoned as a revenue generator even though it has a long and rich history in the Keys. Currently, Stock Island remains one of the last operational ports for commercial fisherman in the Keys, and it too, is under enormous pressure to redevelop into the highest and best use based on today's economic environment.

In 2003, the Florida Keys Carrying Capacity Study was completed to assess the ability of the Florida Keys ecosystem to withstand all impacts of additional development.[56] The study mapped environmentally sensitive land, as well as land suitable for increased development. Four guiding principles for growth management were identified: (1) to prevent encroachment into native habitat, (2) continue and intensify existing programs dealing with environmental and quality of life issues, (3) focus on redevelopment and infill, and (4) increase efforts to manage ecological resources. Currently, the findings of the carrying capacity study are being used to draft the new Monroe County Comprehensive Plan under the Livable CommuniKeys Initiative.

In late 2004, another report concluded that there is indeed a decline in the working waterfront and loss of public access to the waterfront.[57] The pressures to redevelop into private residential and other non-water dependent uses are believed to be exacerbated by the increasing property values and associated taxes levied on waterfront parcels. The higher taxes were also believed to reduce profits for many marine business owners, prompting them to sell their business. It was believed that the conversion to non-water dependent uses may help to provide a short-term economic generator but the long-term benefits could not be guaranteed.

Finally, a study was conducted on the impact of a post-embargo Cuba on Florida's marine industries.[58] The study warned that marine facilities could potentially develop on Cuba's coast and provide direct competition to the many marinas found in Florida and its Keys. The development of tourism in Cuba was said to be a priority of the government that may eventually impact the future successes of Florida's tourism industry. One example of this would be a change in the routing of cruise ships, by-

passing Key West in favor of a Cuban destination. Another is the threat that Cuban fisherman will replace local Keys fisherman by offering the same products at lower prices.[59] The study encourages communities to consider the effects of a post-embargo Cuba and to develop a strategic plan to take advantage of opportunities and minimize negative effects of such an occurrence.

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Scenario 2

For a second scenario we assumed that approximately half of the estimated 150 marinas and boat yards in the Florida Keys would be replaced by residential development. The additional assumptions include a loss of related jobs numbering approximately 400, and the building of 750 residential units above and beyond those that are otherwise projected in the baseline scenario on the sites of the converted facilities. These residential units would accommodate an additional 1,275 residents, and these, it is assumed, would find employment in other activities in the Florida Keys.

The results suggest that there would be a long-term increase in the gross regional product, personal income and overall employment in such a scenario, mostly as a result of the new residents and jobs, and the income and demand for goods and services that would result. Almost 1,500 new jobs would generate an additional $408 million in personal income in the year 2030, contributing to almost 2% increase in the value of output in Monroe County.

Table 2. Scenario 2 - Loss of Marinas and Boat Yards

Variable	2005	2010	2015	2020	2025	2030
Gross County Product (millions)	$0.0	$4.0	$18.0	$38.0	$63.0	$85.0
As % of County Total	0.0%	0.1%	0.5%	0.9%	1.4%	1.8%
Personal Income (millions)	$0.0	$19.0	$71.0	$160.0	$272.0	$408.0
As % of County Total	0.0%	0.4%	1.2%	2.2%	3.0%	3.8%
Total Employment (jobs)	-1	46	304	668	1,104	1,488
As % of County Total	0.0%	0.1%	0.5%	1.1%	1.9%	2.6%

Source: South Florida Regional Planning Council, REMI Policy Insight 7.0

Scenario 2 illustrates the fact that when one economic activity is replaced by another, often the new activity competes successfully with the one it replaces. Although some aspects of this scenario could be refined to reflect unique characteristics of the Florida Keys (for example, the likelihood that some of the residential units would be occupied by seasonal residents), the general outcome of the scenario would not change significantly.

Page 24 Marine Management Study

> In summary, the loss of the entire commercial fishing industry and associated fish houses without any replacement economic activities is estimated to lead to a reduction of approximately 3% in economic output for the Florida Keys over a 25-year horizon. The conversion of half of the marinas and boat yards into residential units, with the corresponding increase of the resident population, could lead to almost 2% in additional economic output for Monroe County.

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> *Florida Keys National Marine Sanctuary Protection Act*
>
> The water surrounding the Florida Keys is home to a spectacular marine environment, consisting of sea grass meadows, mangrove islands, and living coral reefs. These environments are considered to be equivalent to the tropical rain forests found in other places in the world. Also, the marine environments found in the Keys support rich biological communities that are treasured for their ecological, recreational, commercial, educational, historic, and esthetic value.

6.1 Summary and Findings of the Marine Management Working Waterfronts Report

The pattern of encroachment on working waterfronts has been largely stopped since the 2005 Working Waterfronts publication. There is a recognition and commitment on the part of the County and its citizens to help support the marine and maritime communities. However, the Plan should be formally adopted. This positions the Keys to take advantage of public support for the cultural and historic value of fishing and other water related activities.

7.0 Monroe County Strengths and Weakness Assessment

Strengths – natural environment, marine sanctuary, aquaculture, marine research, geographically distinct planning areas; established and successful tourism industry, nationally recognized, national marine protections, stability of military presence.

Weaknesses – subject to environmental forces of hurricanes, hurricane evacuation constraints, sea level rise, ocean warming; resource degradation in fishing productivity and coral reef health; remote location; workforce availability, workforce transportation, high land and housing prices, high cost of living; education; insufficient infrastructure in roads, water, wastewater; insufficient raw land/ physical buildout approaching – redevelopment only; redevelopment opportunity constrained by Vision plans which prefer to retain weak industries or limits commercial development.

The list of weaknesses and challenges facing the Keys is greater than the list of strengths when examining the conditions from the perspective of economic opportunity. Nonetheless, within the context of these constraints, there are opportunities to gain

economic efficiency, improve upon the strengths available and lessen the impacts which affect sustainability of existing residents and businesses throughout the Keys.

8.0 Recommendations

8.1 Redevelopment Floor Space Bank

The Keys are effectively built out for all practical purposes with respect to commercial opportunity. In this case, build out is characterized by a lack of substantial volumes of developable lands, combined with numerous development moratoria of different types, floor area expansion limitations, transportation and hurricane evacuation constraints, ROGO limitations, and a public sentiment which openly and actively discourages growth. In such cases economic opportunity lies predominantly in redevelopment.

The inventory of hotel space is aged in the unincorporated Keys. The retail and office space inventory is also aged and suitable for redevelopment. Industrial and office space generally has high vacancy rates suggesting a higher frequency of obsolete uses on specific parcels. Because of the traffic, utilities and environmental constraints facing keys development and redevelopment, a mechanism or market to pool redevelopment volumes such as a "redevelopment capacity bank" may be a viable strategy to facilitate redevelopment activity. This would allow for the sale of abandoned and demolished "floor space" to be accumulated in a redevelopment bank.

Accumulated or "banked" floor space could be sold by the "redevelopment capacity bank" at a later time, to be aggregated on sites which are better suited and better located to accommodate commercial and tourist related development. This would help redirect development away from sensitive or underserved locations and encourage development in locations where growth and development is encouraged. **Table 3**. highlights the vacancy conditions by commercial segment within the unincorporated Keys, as of February 2011. The generally small average square foot building size is representative of the small scale, small business orientation of the Keys. There are few big box stores and few very large scale hotels. This characterizes the Keys and in particular highlights the small and local nature of business and commerce in the Keys.

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Table 3 - Current Vacancy Rates by Property Type in Unincorporated Monroe County

Property Type	Vacancy Rate	Avg Bldg Sq Ft*
Industrial	21.1%	10,521
Office	12.7%	4,666
Retail	5.8%	10,781
Hospitality	0.0%	62,824
Specialty Marina	0.0%	9,699
All Space	4.5%	14,404
* Includes Vacant and Occupied		
Source: CoStar Inc.; Fishkind & Associates, Inc., **F**eb. 2011		

8.2 Target Industry – Tourism – Ending the Moratorium on New Hotels

The greatest economic opportunity throughout the Keys is to target employment segments which are both large and fast growing. The Tourist sector which includes hotels, recreation and eating and drinking establishments is the largest employment sector in the county and the second fastest growing employment sector since 1980. Despite the Tourist Development Council reporting a 16% decline in visitors since 2003, tourist and related employment has slipped by less than half that rate. The industry has been buoyed by occupancy in the increasing numbers of seasonal housing units. As a result, the percentage decline in the tourist industry and tourist employment is less than the recession related decline in Monroe County employment, despite a loss of hundreds of hotel rooms in recent years.

One key step in supporting the tourist industry is to lift the moratorium on new hotel development in the unincorporated areas. Allowing new hotel development will reduce the pressure to build seasonal housing; is likely to slow the transition of population from permanent to seasonal; and will support wider access to and more economically viable uses for waterfront properties. This would support a second goal of supporting working waterfronts by allowing more commercially compatible uses with existing commercial waterfront operations. Finally, new hotel development will create a larger volume of additional tourist related hotel, retail and restaurant jobs rather than the limited volume of real estate sales and rental occupations associated with seasonal housing.

In addition, incentives to provide for redevelopment of existing outdated hotel/tourist facilities should be instituted. Such incentives may include the ability to expand the number or rooms or the building footprint. Some relaxation, where appropriate, of current zoning regulations to reduce the cost of upgrade compliance is also important.

Tourism in Monroe County is event driven and highly seasonal. Expanding the duration of the season to off peak times will utilize existing capacity and expand the revenue potential of the industry without requiring additional peak season infrastructure. Though off-peak season is coincident with hurricane season, visitor evacuation times are not a factor since tourist evacuations occur prior to general population evacuation. Expand visitor volumes into non-peak season times should be a policy focus to complement development of new and redevelopment of existing hotel motel properties.

8.3 Target Industry - Marine Resources

Marine research, aquaculture, marine related technology facilities and coral reef research and preservation activities should be targeted for expansion and relocation to the keys. It is recommended the establishment of a local marine quality/ marine research and technology task force be created. The purpose of this entity is to bring together the civilian and military marine research activities to the extent possible, to link the underwater parks and preserves with sustainable coral reef research as relates to global warming and develop marine based technologies through basic scientific research on flora and fauna. There are numerous national and international efforts to protect and preserve the corals. Resources such as these noted below should be taken full advantage of with respect to funding and research opportunities and providing the anchors to expanding local research and technology efforts:

- National Coral Reef Action Strategy
- NOAA's Coral Reef Conservation Program
- U.S. Coral Reef Task Force
- NOAA's Coral Reef Information Service (CoRIS)
- *The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2008*

Under the direction and control of the Tourist Development Council the office of Eco-Tourism should be further supported. This office should be tasked with the facilitating communication and administrative organization among reefs, national preserves, local and national parks, and upland or land based natural preserves among other wildlife/environmental activities. Fully 20% of visitors to the Keys participate in Nature Study and Wildlife Observation[4]. Advertising synergy, events, awareness building and joint marketing efforts should be undertaken as part of the TDC budget specifically as it relates to eco-tourism, reef preservation and joint promotion of national wildlife parks and reserves. This group can, for example, also interface with environmental preservation groups to find common ground for improving the sustainability of Keys living, implementing the Livable CommuniKeys Plans, and developing event driven marketing plans for econ-tourism and promotion of Keys Wildlife.

[4] Visitor Profiles June 2010, Linking the Economy and the Environment of the Florida Keys, P. 74, Table A.2.4 Visitor Participation by Activity

Enhance waterfront with more viable uses while maintaining or supplementing with financial support for fishing and marine industries. Redevelopment in concert with waterfront enhancement through the "redevelopment capacity bank" should be offered. A three to five year ad-valorem tax break, where property taxes are forgiven for a limited period during the redevelopment and re-launch period may be considered or alternatively, employ ad valorem revenues or the incremental growth in ad valorem revenues (TIF financing) to help finance needed infrastructure or facility upgrades to meet current zoning and environmental standards. Financial incentives should be provided to enhance waterfront properties. Without financial incentives there is little justification to forego current income and undertake a substantial capital investment, particularly when limited upside revenue potential is available due to restrictions on floor area expansion. Finally, limits on floor area footprint expansions should be relaxed or eliminated. Financing mechanisms such as the Community Redevelopment Area (CRA) should be explored to support commercial development. Commercial development is highly encouraged to offset restrictions which may result from Air Installation Compatible Use Zone (AICUZ) expansions.

8.4 De-Couple Commercial Development from Residential Development

It is recommended the linkage between residential and non-residential development volumes be eliminated. The annual commercial development allowance of 239 square feet per new residential unit should be de-coupled and eliminated. There is no economic support or theoretical justification for such linkage and such linkage unnecessarily harms commercial development and job generating potential. Further, all future new commercial development and commercial re-development under these conditions would be conducted and evaluated on an "Equivalent Residential Unit" (ERU) basis with respect to traffic and other impacts. In this fashion the distinctions of commercial development by type should be eliminated, such that retail, hotel, office and industrial uses may be interchangeable with respect to development thresholds. This would allow for greater flexibility in redevelopment opportunities of commercial and employment generating properties.

8.5 Growth Industries - Target List

Based on the employment analysis, the segments of the economy which experienced employment growth from year 2000-2010 have been identified (see Table 4). It is recommended that favorable permitting and relocation/expansion support be provided by local government when companies within the target groups engage in planning or proposals to invest or expand locally. Miscellaneous business services, the top employment group, includes the following types of businesses: Legal services, Accounting and bookkeeping services, Architectural and engineering services, Specialized design services, Computer systems, design and related services, Management and technical consulting services, Scientific research and development services, Advertising and related services, Other professional and technical services. This group also specifically includes engineering and research activity/employment as part of the marine research effort. It is

important to note the strongest employment growth segment also includes marine related scientific research which is uniquely suited for success in the Monroe County.

Table 4 – Monroe County Growth Industries 2000-2009

SIC	Industry Name	Growth
73	MISC.BUSINESS SERVICES	2,064
58	EAT & DRINK PLCS	606
49	ELEC,GAS,SAN.SVCS	297
17	SPECIALTY CONSTRUCTION	198
55	AUTO DLRS.&SVC.STAT	173
84	MUSEUM, BOT. & ZOO	117
48	COMMUNICATIONS	113
47	TRANSPORTATION SVCS	106
16	HEAVY CONSTRUCTION	75
65	REAL ESTATE	64
64	INS.AGNTS,BRKS.SER	63
83	SOCIAL SVCS	50
9	FISH.,HUNT.,TRAP.	41
81	LEGAL SVCS	40
22	TEXTILE MILL PRODUCTS	28
34	FAB.METAL PROD	27
39	MISC.& OTHER MFG.	20
86	MEMBERSHIP ORGANIZATIONS	17
88	PRIVATE HOUSEHOLDS	13
25	FURNITURE & FIXTURE MFG	9

Economically speaking, the Florida Keys faces a host of daunting challenges. The governmental and regulatory response has focused on restrictive and/or prohibitive solutions. Despite these conditions, there remain substantial economic opportunities in the Keys which build on its natural strengths. Embracing these strengths to a greater degree will enhance the community and quality of life in Monroe County.

Appendix 1 Excerpts of Livable Communikeys Plans

Key Largo Livable CommuniKeys Plan

The area examined in the Key Largo Livable CommuniKeys Plan is shown in Figure 14.

Vision

"Key Largo will continue to be a livable island community where protection and enjoyment of the significant natural resources support a unique sense of place as the first island in the Florida Keys. We shall maximize our future by preserving our nationally recognized undersea environments, improve the visual character of our built environments through innovative redevelopment that enhances our quality of life, and strive to increase the sense of a small coastal town ambiance."

Land Use and Redevelopment

1) Direct future growth to lands that are most suitable for development and encourage preservation of environmentally sensitive lands.

Community Character

2) Preserve and enhance important community qualities within the planning area that define Key Largo's casual village style atmosphere and natural environment and that enhance its status as the first island of the Florida Keys.
3) Protect and enhance historic, cultural and archeological resources within Key Largo to maintain the integrity of the community's unique character.

Housing

4) Maintain the availability of affordable housing and workforce housing for local residents while preserving the character of the community.

Environmental Protection

5) Preserve, manage, and restore where appropriate, the natural resources within the planning area by providing open space, protecting water quality and acquiring and managing environmentally sensitive lands.

Economic Development

6) Encourage redevelopment and infill development that supports and enhances the tourist-based economy of the planning area.
7) Recognize water-dependent and water-related commercial uses as an important source of economic sustainability within the planning area.

Figure 1. Key Largo Livable CommuniKeys Plan Area.

Stakeholder survey results

- The top reasons people live in, or own a second home on the island, are the recreational opportunities and the natural environment.
- 30% of the respondents work within the planning area limits, 22% travel north of the planning area to jobs, and 8% travel south of the planning area to jobs.
- 80% do most of their shopping within the planning area.
- Bicycle lanes on both sides of US 1, bicycle/pedestrian trails and local trolleys were the top three public transportation desires.
- Safety is the number one concern for bicycle/pedestrian activity.
- The respondents identified beach access, multi-use paved trails and boat launches as the top three recreational facilities needed on the island.

One trend observed in recent years has been the demolition of existing commercial square footage on one site and replacement of that square footage on a separate site. Developers are exercising flexibility and creativity in response to growth restrictions. The resulting built environment is by no means rigid and with this trend in commercial development and redevelopment, planners will have possibly the best opportunity yet available in the Florida Keys to encourage desired land use patterns.

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Land use flexibility is needed to allow the conversion, re-distribution, and relocation of needed land uses. One suggestion to enhance flexibility is to allow the Transfer of Building Rights to move between planning areas throughout the unincorporated Keys.

Other planning opportunities are also available. The "shuffling of floor area from one site to another that is often occurring under NROGO presents opportunities for land reclamation and for retiring old or abandoned uses. Developers may be encouraged to move floor area out of Tier III SPA area into Tier III Infill area and specifically to focal areas.

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Strategies

a. Promote infill, design flexibility and transfer of density to Community Centers.

b. Preserve commercial conformance status within sections along US-1 predominated by existing commercial businesses and disturbed lands.

c. Encourage sun-setting of intensive commercial uses within sections along US-1 predominated by natural habitat or native-dominated landscape, relatively sparse development and relatively few businesses.

d. Preserve commercial use status for existing waterfront uses that support the tourist-based and working waterfront-based economy.

e. Give consideration to whether the property provides a unique or outstanding opportunity for enhancement of design, connectivity and other community goals, especially along the US-1 corridor.

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b. Commercial retail high intensity uses that generate more than one hundred and fifty (150) trips per one thousand square feet of floor area shall not be allowed.

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Workforce Development

Another aspect of housing that must be considered for the Key Largo planning area is the fact that a considerable percentage of the lower-wage worker group is bussed in daily from Miami-Dade County via public and private transportation. Some local businesses (especially hotels) provide daily van transportation for their employees. The primary means of transit however is the JGT Bus Service which is a contracted extension of the Miami-Dade County Public Transit System. A total of 168,000 persons used the system in 2004, averaging 500 persons per day. The service currently runs to MM 50 however a connector line has been put into place to complete the service to Key West. This mass transit system is expected to continue to experience a high level of use and, with a significant number of housing units being constructed in south Miami-Dade County, will offer an alternative to workers who otherwise would require housing in the Keys. Key Largo is expected to continue to have a significant contingent of lower-income wage earners commuting from outside the County.

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Economic Development

ENCOURAGE REDEVELOPMENT AND INFILL DEVELOPMENT THAT SUPPORTS AND ENHANCES THE TOURIST-BASED ECONOMY OF THE PLANNING AREA.

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RECOGNIZE WATER-DEPENDENT AND WATER-RELATED COMMERCIAL USES AS AN IMPORTANT SOURCE OF ECONOMIC SUSTAINABILITY WITHIN THE PLANNING AREA.

dependent and water-related uses. The public place a high value on water-dependant or water-related uses and their presence adds to the attraction Key Largo has on visitors.

Water-dependent uses include marinas, commercial fishing, boat launching facilities and beaches (Table 6). Water-related uses include concession stands, bait and tackle shops and fish houses. Hotels and restaurants that are located on the water while not water dependent or related as in the traditional definition are economically enhanced by the location on the water and are included in the definition here (Table 7).

This should apply to marinas, dive centers, interactive dolphins' exhibits, RV park, restaurant, hotel, boat launch, and marine research and technology innovation centers.

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Retain Traditional Working and Public Waterfront. The rapid changeover of traditional waterfront businesses including marinas, commercial fishing operations, restaurants, charter fleet operations and similar uses to private condominiums and marinas has been a cause for concern in the Florida Keys. A moratorium on this type of redevelopment is in effect and the matter is being studied. Recommendations should be developed to help deal with this phenomenon Keys-wide. Another need is to formalize and provide land-based support to existing offshore mooring areas within the planning area.

Design Flexibility to Retain Businesses. Key Largo would like to retain its casual water-oriented community atmosphere to help maintain its tourist-based economy. New development regulations are needed to help retain traditional waterfront businesses. These new criteria will likely include relaxation or flexibility in existing requirements for setbacks, parking, buffers, landscaping and other bulk regulations and a complete overhaul of the nonconforming use/structures sections.

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With respect to designing flexibility to retain local businesses, it is important this take place in the context of non-conforming uses. To the degree non-conforming uses will be brought

into compliance a high degree of flexibility will be required so as not to cause the elimination of the business in light of other restrictions. Relaxation of existing requirements should occur to the greatest extent possible where wastewater, drainage and stormwater issues are met to the greatest degree. To the extent possible if these criteria are met a floor area bonus should be considered to help increase revenue potential and offset the cost of renovation and compliance.

No Name and Big Pine Keys LCP

Commercial development:

> county. As of the date of this report, the dwelling unit allocation ordinance allocates 49 total units annually to the Lower Keys. At 239 square feet of commercial space per residential unit allocated under NROGO, this sets the approximate Lower Keys commercial rate at 11,711 square feet per year (NROGO does not allocate commercial space by Keys sub-area but does so Keys-wide on an annual basis). As previously noted, the residential allocation is subject to change (usually decreases), so the commercial allocation could also change. The point system used to rank permits for allocations under NROGO is currently structured to give a competitive advantage to development proposed outside Big Pine and No Name Keys. This was done to bolster protection of natural resources on these two islands. With the issuance of the Incidental Take Permit and adoption of the HCP by the county, the point system may be restructured.

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Planning Objectives	3. Discourage new development on No Name Key.

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Coupled with the following NROGO provision: the following new uses or change in use are prohibited on Big Pine Key/No Name Key:

(1) Commercial retail high-intensity uses that generate more than 150 trips per 1,000 square feet of floor area.
(2) Outdoor storage, as a principal use.
(3) Outdoor retail sales, as a principal use.

The plan components are as follows:

- Residential – Up to 200 new units over the next twenty years.
- Commercial – Up to 47,800 square feet of commercial floor area over the next twenty years in the U.S. 1 Corridor Area (south of Lytton's Way) to be used for infill and expansion of existing businesses. Development is limited to Tier III disturbed and scarified uplands. Total trip generation over the twenty-year horizon is limited to the equivalent of 200 residential units.

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Goal 4

Provide opportunities for redevelopment and expansion of existing businesses and limited new non-residential uses within the U.S. 1 Corridor on scarified lands.

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Economic Development Element

Since 1995 there has been a moratorium on all traffic generating development on Big Pine Key and No Name Key because the segment of U.S. 1 that passes through Big Pine has been found to have an inadequate level of service (concurrency has not been met). This has not only prevented residential development, but has greatly impacted commercial development on the island (as

During the LCP process the community indicated that additional commercial development should be oriented to the local community rather than the regional or tourist economy. New development should be kept at a small scale to maintain the rural and suburban character of the

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Stock Island and Key Haven LCP

Economic Development and Tourism

"Working waterfront" is becoming increasingly relevant across the state, and indeed the country. "Working waterfront" describes communities whose economy is intrinsically linked to the waters and its bounty, as is the case with Stock Island. The Stock Island economy has not transitioned to a primarily tourism-based commercial retail economy, such as that of Key West. Detailed information pertaining to the economy and waterfront areas of Stock Island are provided within the *Harbor Preservation/Redevelopment and Intra-Island Transportation Plan* completed by Wallace, Roberts, and Todd (WRT) in 2005.

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Planning objectives for Stock Island

Stock Island

- Maintain affordable housing while providing a mix of housing options; and
- Promote the diversification of economic opportunities, including small businesses and home occupations; and
- Identify a commercial center within Stock Island (i.e. not US 1); and
- Improve aesthetics, commercial site and visual character of south side of US 1 corridor; and
- Improve storefronts, signage, and landscaping for commercial properties; and
- Enhance the community identity as a "commercial fishing" community; and
- Provide space for a working waterfront and its supporting industries; and
- Provide and improve waterfront access; and
- Provide off-street parking for vehicles and boats; and
- Provide improved public facilities, including cultural and recreational facilities and activity centers such as libraries.

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Maritime Industrial Uses

The largest concentration of maritime industry and commercial fishing in Monroe County is found in the 142 acres of port area on Stock Island. The purpose of the Maritime Industrial (MI) district is to establish and conserve areas suitable for maritime uses such as ship building, ship repair, and other water dependent manufacturing and service uses as well as other industrial activities.

Since 1965, power generating facilities have been located on Stock Island. There were additions in 1978, 1991, and 1999. There are two more additions proposed in the near future, one in 2006 and another in 2012.

Range of Employment Opportunities

An almost equal percentage of people living in Stock Island and Key Haven are either employed or retired. However, the top reason for people living in Stock Island is closeness to work. Of those employed, 67% work in Key West and 26% percent work in either Stock Island or Key Haven. The type of employment mentioned most frequently was "self employed business owner," the second leading employment type was "working in the fishing industry."

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Recent development and redevelopment activities have been focused in the MU district. According to the 2005 Property Appraisers database, 48% of the MU zoned parcels are developed with residential uses and 20% are developed with commercial and office uses. The MU district permits both residential and commercial uses. Since all the residentially zoned lands are completely developed on Stock Island, this applies additional pressure to redevelop MU lands for residential uses.

Responses from the Livable CommuniKeys survey indicate that 68% of the community agree or strongly agree with maintaining the amount of land for light industrial and commercial activity. The survey and development patterns indicate there is a need to redirect economic development and growth into appropriate infill areas and assess the availability of residentially zoned land.

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Strategy 1.3

Acquire waterfront property, preferably with existing infrastructure to support commercial fishing.

Action Item 1.3.1: Explore and pursue partnerships and funding sources for land acquisition (WRT).

Action Item 1.3.2: Lease acquired commercial fishing property back to a broad based coalition of commercial fishing interests, such as a co-op (WRT).

Action Item 1.3.3: Require easement agreements for commercial fishing on waterfront property through the development/redevelopment approval process.

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Affordable housing affects availability of and access to workforce

The greatest fear voiced by residents is that trailer parks and mobile homes which serve as a source of affordable housing will be bought and then converted into less affordable housing. A look at recent redevelopment projects affirms these fears. From 1999 to 2004, 5 major housing redevelopment projects have occurred, these redevelopment projects have led to a reduction in the supply of affordable housing units.

The existing units on Stock Island that serve as affordable housing for the low and very low income residence are part of the older housing stock. Many of these units may need to make improvements to meet the livability standards. Examples of the livability standards include The exterior, including the structure being in good repair while being maintained in a sanitary condition so as not to pose a threat to the health, safety, or welfare of the occupants.

The County defines affordable housing in the Land Development Regulations. The regulations provide various qualifying incomes for affordable housing ranging from those making as little as 50% to as high as 120% of the median adjusted household income for Monroe County. As construction costs, land values and the differentiating prices between a market rate and an affordable housing unit continue to increase, developers are naturally drawn to providing the higher end of affordable housing. At this time, new regulations for affordable housing are being drafted for review and approval by the Board of County Commissioners.

Goal Five:
Maintain and enhance the community character of a diverse and unique mixed-use community, separate from Key West.

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Define and enhance the community identity.

Action Item 5.1.1: Promote the importance of maritime industries by incorporating the theme of Stock Island's historic maritime industry in public art and design guidelines.

Action Item 5.1.2: Emphasize maritime industries in all aspects of community design.

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APPENDIX 5 – ASSESSMENT OF CHANGES TO FLORIDA STATUTES MATRIX

Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
	2004: [Ch. 04-5, s. 11; Ch. 04-37, s. 1; Ch. 04-230, ss. 1-4; Ch. 04-372, ss. 2-5; Ch. 04-381, ss. 1-2; Ch. 04-384, s. 2, Laws of Florida.]				
Section 163.3167, F.S.	1	(13): Created to require local governments to identify adequate **water supply sources** to meet future demand for the established planning period. [Chpt 2011-139 renumbered to (9)]		Potable Water 701.1.7-701.1.8	
		(14): Created to limit the effect of **judicial determinations** issued subsequent to certain development orders pursuant to adopted land development regulations.	N/A		
Creates Section 163.3175, F.S.	2	(1): Provides **legislative findings** on the compatibility of development with **military installations**.		Procedural[3] and not a compliance issue for the County	
		(2): Provides for the **exchange of information** relating to **proposed land use decisions** between counties and local governments and military installations. [Chpt 2011-139 renumbered to (4)]			Adopt new policies related to military compatibility criteria: FLUE, Mass Transit, ICE to reflect new changes that are still applicable from 2004 to present
		(3): Provides for **responsive comments** by the commanding officer or his/her designee. [Chpt 2011-139 renumbered to (5)]			
		(4): Provides for the county or affected local government to **take such comments into consideration**. [Chpt 2011-139 revised (5) and to be non-binding on community]			
		(5): Requires the representative of the military installation to be an **ex-officio, nonvoting member** of the county's or local government's land planning or zoning board. [Chpt 2011-139 renumbered to (7)]			
		(6): Encourages the commanding officer to provide **information on community planning assistance grants.** [Chpt 2011-139 renumbered to (8)]		Procedural	

[1] By addressed it should be noted that this means addressed in the Comprehensive Plan already before the 2010 EAR and Comp Plan update has occurred.
[2] It should be noted that while a complete Comprehensive Plan amendment to the 1990 may not be warranted by a specific statutory change, the 2010 Comp Plan may still need to reflect certain changes in the Florida Statutes, and as such, the 2010 Comp Plan will ultimately be updated to reflect the changes described herein.

*N/A = Not Applicable
[3] The term "Procedural" as noted throughout the matrix includes those items that are a) not a compliance issue for the County or b) potential change in LDC or other County processes or agreements; notations are included identifying same.

Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3177, F.S.	3	(6)(a): Changed to encourage **rural land stewardship area** designation as an overlay on the future land use map.	N/A		
		(6)(c): Extended the deadline adoption of the **water supply facilities work plan** amendment until December 1, 2006; provided for updating the work plan every five years; and exempts such amendment from the limitation on frequency of adoption of amendments.		Potable Water 701.1.7-701.1.8	
		(11)(d)1.: Requires DCA, in cooperation with other specified state agencies, to provide assistance to local governments in implementing provisions relating to **rural land stewardship areas**.		Procedural	
		(11)(d)2.: Provides for **multi-county rural land stewardship areas**.	N/A		
		(11)(d)3.-4: Revises requirements, including the acreage threshold for designating **a rural land stewardship area**.	N/A		
		(11)(d)6.j.: Provides that **transferable rural land use credits** may be assigned at different ratios according to the natural resource or other beneficial use characteristics of the land.	N/A		
Creates Section 163.31771, F.S.	4	(1): Provides legislative findings with respect to the shortage of **affordable rentals** in the state.		Procedural	
		(2): Provides **definitions**.			Add new Glossary Section to 2010 Comp Plan
		(3): Authorizes local governments to permit **accessory dwelling units** in areas zoned for single family residential use based upon certain findings.		Procedural	
		(4) An application for a building permit to construct an accessory dwelling unit must include an **affidavit from the applicant**, which attests that the unit will be rented at an affordable rate to a very-low-income, low-income, or moderate-income person or persons.	N/A		

*N/A = Not Applicable

[3] The term "Procedural" as noted throughout the matrix includes those items that are a) not a compliance issue for the County or b) potential change in LDC or other County processes or agreements; notations are included identifying same.

Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.31771, F.S. (continued)		(5): Provides for certain **accessory dwelling units** to apply towards satisfying the affordable housing component of the housing element in a local government's comprehensive plan.	N/A		
		(6): Requires the **DCA to report** to the Legislature.		Procedural and not a Monroe County compliance issue	
Section 163.3187, F.S.	5	((1)(n): Created to provide that amendments to establish or implement a **rural land stewardship area** do not count toward the limitation on frequency of amending comprehensive plans.	N/A		
	2005 [Ch. 2005-157, ss 1, 2 and 15; Ch. 2005-290; and Ch. 2005-291, ss. 10-12, Laws of Florida]				
Section 163.3177, F.S.	1	(3)(a)5.: Required the comprehensive plan to include a **5-year schedule of capital improvements**.		CIE 1401.1.2	
		(6)(a): Requires the future land use element to be based upon the **availability of water supplies** (in addition to public water facilities).		FLUE Policies 101.1.2 & 101.12.1,	
		(6)(a): Add requirement that future land use element of **coastal counties** must encourage the preservation of working waterfronts, as defined in s.342.07, F.S.			FLUE; Add policies related to preservation of working waterfronts.
		(6)(c): Required the **potable water element** to be updated within 18 months of an updated regional water supply plan to incorporate the **alternative water supply projects** and traditional water supply projects and conservation and reuse selected by the local government to meet its projected water supply needs. The ten-year water supply work plan must include public, private and regional water supply facilities, including development of alternative water supplies. Such amendments do not count toward the limitation on the frequency of adoption of amendments.		Potable Water Goal 701, Obj. 701.1, Policy 701.1.3,	
		(6)(e): Added **waterways** to the system of sites addressed by the **recreation and open space element**.		Rec and Open Space: Policy 1201.3.6	Revise to add waterways
		(6)(h)1.: The intergovernmental coordination element must address coordination with **regional water supply authorities**.		ICE; 1301.1.14	
Section 163.31776, F.S. [Now: Repealed]	2	163.31776 is **repealed**	N/A		

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.31777, F.S.	3	(2): Required the **public schools interlocal agreement** (if applicable) to address requirements for **school concurrency**. The **opt-out provision** at the end of Subsection (2) is deleted.	N/A		
		(5): Required **Palm Beach County** to identify, as part of its EAR, changes needed in its public school element necessary to conform to the new 2005 public school facilities element requirements.	N/A		
Section 163.3178, F.S.	4	(2)(g): Expands requirement of coastal element to include strategies that will be used to preserve recreational and commercial working waterfronts, as defined in Section 342.07, F.S.		Monroe County Working Waterfronts Master Plan *(not adopted)*	Amend Conservation and Coastal Management Element (CCME) to include criteria to encourage preservation of recreational and commercial working waterfronts for water dependent uses in coastal communities.
Section 163.3180, F.S.	5	(2)(a): Required consultation with water supplier prior to issuing building permit to ensure "**adequate water supplies**" to serve new development will be available by the date of issuance of a certificate of occupancy.		FLUE 101.1.1 & 101.1.2, 101.4.3, 215.1.1-215.1.2, 701.1.3, 701.1.4, 701.1.6, 701.3.3, 701.10.3, and 1401.4.5	
Section 163.3187, F.S. [New]	6	(1)(c)4.: (**New 2005 provision**) If the small-scale development amendment involves a **rural area of critical economic concern**, a 20-acre limit applies.	N/A		
[New]		(1)(o): (**New 2005 provision**) An amendment to a **rural area of critical economic concern** may be approved without regard to the statutory limit on comprehensive plan amendments.	N/A		
Section 163.3246, F.S. [New]	7	(10) New section designating Freeport as a **certified community**.	N/A		
		(11) New section exempting proposed DRIs within Freeport from review under s.380.06, F.S., unless review is requested by the local government.	N/A		

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
	2006 [Ch. 2006-68, Ch. 2006-69, Ch. 2006-220, Ch. 2006-252, Ch. 2006-255, Ch. 2006-268, Laws of Florida]				
Section 163.3162(5), F.S. [New]	1	Establishes plan amendment procedures for **agricultural enclaves** as defined in s.163.3164(33), F.S. Ch. 2006-255, LOF.	N/A		
Section 163.3164(33), F.S. [New]	2	Defines **agricultural enclave**. Ch. 2006-255, LOF.	N/A		
Section 163.31771(1), (2) and (4), F.S.	3	Recognizes "extremely-low-income persons" as another income groups whose housing needs might be addressed by **accessory dwelling units** and defines such persons consistent with s.420.0004(8), F.S. Ch. 2006-69, LOF.	N/A		
Section 163.3178(2)(d), F.S.	4	Assigns to the Division of Emergency Management the responsibility of ensuring the preparation of **updated regional hurricane evacuation plans**. Ch. 2006-68, LOF.		Procedural and not a Monroe County compliance issue	
Section 163.3178(2)(h), F.S.	5	Changes the definition of the **Coastal High Hazard Area (CHHA)** to be the area below the elevation of the category 1 storm surge line as established by the SLOSH model. Ch. 2006-68, LOF.		Conservation and Coastal Management Policy 217.1.1	Revise definition to include "area below category 1 storm" from "associated with" category 1 storm.
Section 163.3178(9)(a), F.S. [New]	6	Adds a new section allowing a local government to comply with the requirement that its comprehensive **plan direct population concentrations away from the CHHA** and maintains or reduces hurricane evacuation times by maintaining an adopted LOS Standard for out-of-county hurricane evacuation for a category 5 storm, by maintaining a 12-hour hurricane evacuation time or by providing mitigation that satisfies these two requirements. Ch. 2006-68, LOF.	N/A	County is subject to the 24 hour evacuation requirements established in Section 380.0552(9)(a)(1)	
Section 163.3178(9)(b), F.S. [New]	7	Adds a new section establishing **a level of service for out-of-county hurricane evacuation** of no greater than 16 hours for a category 5 storm for any local government that wishes to follow the process in s.163.3178(9)(a) but has not established such a level of service by July 1, 2008. Ch. 2006-68, LOF.	N/A		

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3178(2)(c), F.S.	8	Requires local governments to amend their **Future Land Use Map** and **coastal management elemen**t to include the new definition of the **CHHA**, and to depict the CHHA on the FLUM by July 1, 2008. Ch. 2006-68, LOF.		Conservation and Coastal Management and Policy 217.1.1	Amend FLUM to depict CHHA. Review, and potentially update, Draft Map Series 3-7 as produced in EAR.
Section 163.3180(2)(a), F.S.	9	Allows the **sanitary sewer concurrency requirement** to be met by onsite sewage treatment and disposal systems approved by the Department of Health**.** Ch. 2006-252, LOF.		Objective 901.1	Note: Potential new legislative requirements (2012 session) may mean that this Objective and its associated policies may need to be updated in new Comp Plan
Section 163.3208, F.S. [New]	10	Creates a new section related to **electric distribution substations**; establishes criteria addressing land use compatibility of substations; requires local governments to permit substations in all FLUM categories (except preservation, conservation or historic preservation); establishes compatibility standards to be used if a local government has not established such standards; establishes procedures for the review of applications for the location of a new substation; allows local governments to enact reasonable setback and landscape buffer standards for substations. Ch. 2006-268, LOF.		FLUE: 101.4.1-101.4.12 101.4.14-101.4.17 Recreation and Open Space: 1201.4.3.	This might need to be updated to more clearly reflect the statute language specific to terminology. Add definition to new Glossary in Comp Plan Update
Section 163.3209, F.S. [New]	11	Creates a new section preventing a local government from requiring for a permit or other approval vegetation maintenance and tree pruning or trimming within an established **electric transmission and distribution line right-of-way**. Ch. 2006-268, LOF.		Procedural-LDC	Same comment as above.
New	12	**Community Workforce Housing Innovation Pilot Program**; created by Ch. 2006-69, LOF, section 27. Establishes a special, expedited adoption process for any plan amendment that implements a pilot program project.		Procedural and not a Monroe County compliance issue.	

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Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
New	13	**Affordable housing land donation density incentive bonus**; created by Ch. 2006-69, LOF, section 28. Allows a density bonus for land donated to a local government to provide affordable housing; requires adoption of a plan amendment for any such land; such amendment may be adopted as a small-scale amendment; such amendment is exempt from the twice per year limitation on the frequency of plan amendment adoptions.		FLUE Policy 101.5.4, Housing Policy 601.1.2, 601.1.6, 601.1.7, 601.1.12-601.1.14,	
	2007 [Ch. 2007-196, Ch. 2007-198, Ch. 2007-204, Laws of Florida]				
Section 163.3164, F.S.	1	(26) Expands the definition of "**urban redevelopment**" to include a community redevelopment area. Ch. 2007-204, LOF.			Add a definition to New Glossary in Comp Plan update.
Section 163.3177, F.S.	2	(3)(a)6. Revises the citation to the **MPO's TIP and long-range transportation plan**. Ch. 2007-196, LOF.	N/A		
		(6)(f)1.d. Revises the housing element requirements to ensure adequate sites for affordable **workforce housing** within certain counties. Ch. 2007-198, LOF.		FLUE 101.4.5 and 101.4.10	
Section 163.3182, F.S. [New]	3	Allows a local government to establish a **transportation concurrency backlog authority** to address deficiencies where existing traffic volume exceeds the adopted level of service standard. Defines the powers of the authority to include tax increment financing and requires the preparation of transportation concurrency backlog plans. Ch. 2007-196, LOF and Ch. 2007-204, LOF.	N/A		
Section 163.32465, F.S. [New]	4	Establishes an **alternative state review process pilot program** in Jacksonville/Duval, Miami, Tampa, Hialeah, Pinellas and Broward to encourage urban infill and redevelopment. Ch. 2007-204, LOF.	N/A		
Section 339.282, F.S. [New]	5	If a property owner contributes right-of-way and expands a state transportation facility, such contribution may be applied as a credit against any future transportation concurrency requirement. Ch. 2007-196, LOF.	N/A		

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
	2008 [Ch. 2008-191 and Ch. 2008-227, Laws of Florida]				
Section 163.3177(6)(a), F.S.	1	The future land use plan must discourage urban sprawl. Ch. 2008-191, LOF.		FLUE Objectives 101.4, 105.1, 105.2 FLUE Policies 101.5.4, 102.4.6 Potable Water Objective 701.10 and Policy 701.10.4 Objective 901.3	
Section 163.3177(6)(d), F.S.	2	The conservation element must include factors that affect energy conservation. Ch. 2008-191, LOF.			Energy and Climate Element
	2009 [Chapters 2009-85 and 2009-96, Laws of Florida]				
Section 163.3164(29), F.S.	1	Changes "Existing Urban service area" to "**Urban service area**" and revises the definition of such an area. Section 2, Chapter 2009-96, LOF.			Add definition to new Glossary in Comp Plan update
Section 163.3177(6)(a), F.S.	2	Requires the future land use element to include by June 30, 2012, criteria that will be used to achieve compatibility of lands near public use airports. For military installations, the date is changed from June 30, 2006, to June 30, 2012. Section 3, Chapter 2009-85, LOF.			Revise FLUE to include compatibility with military installations.
Section 163.3177(6)(h)1.c., F.S.	3	Requires the intergovernmental coordination element to include a mandatory (rather than voluntary) **dispute resolution process** and requires use of the process prescribed in section 186.509, F.S., for this purpose. Section 3, Chapter 2009-96, LOF.		ICE Policy 1301.3.1 Conservation and Coastal Management Policy 216.1.2	ICE may need an update to comply with this Section.
	2010 [Chapters 2010-5, 2010-33, 2010-70, 2010-102, 2010-182, 2010-205 and 2010-209, Laws of Florida]				
	1	Chapter 2010-102, Laws of Florida, makes several minor changes which do not effect substantive comprehensive planning requirements: 1. Section 163.2526, F.S.: repealed 2. Section 163.3167(2), F.S.: obsolete language deleted 3. Section 163.3177(6)(h), F.S.: minor wording changes 4. Section 163.3177(10)(k), F.S.: minor wording changes 5. Section 163.3178(6), F.S.: obsolete language deleted 6. Section 163.2511(1), F.S.: minor wording changes 7. Section 163.2514, F.S.: minor wording changes 8. Section 163.3202, F.S.: minor wording changes		Procedural and not a compliance issue.	

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
	2	Chapter 2010-205, Laws of Florida, makes several minor wording changes Chapter 163, Part II, F.S., which do not affect substantive comprehensive planning requirements: 1. Section 163.3167(13), F.S. 2. Section 163.3177(4)(a), F.S. 3. Section 163.3177(6)(c), (d) and (h), F.S. 4. Section 163.3191(2)(l), F.S.		Procedural and not a compliance issue.	
	3	Chapter 2010-209, Laws of Florida, makes a minor wording change in Section 163.2523, F.S., which does not affect substantive comprehensive planning requirements.		Procedural	
Section 163.3175(2), F.S.	4	Revises section 163.3175, F.S., to list the 14 military installations and 43 local governments affected by special coordination and communication requirements. Section 1, Chapter 2010-182, LOF.		Procedural	
Section 163.3177(6)(a), F.S.	5	Revises section 163.377(6)(a), F.S., to specify that the 43 local governments listed in section 163.3175(2), F.S., must consider the factors listed in section 163.3175(5), F.S., when considering the compatibility of land uses proximate to military installations. Section 2, Chapter 2010-182, LOF.			Adopt new military compatibility criteria in FLUE.
Section 163.3180(4)(b), F.S.	6	Revised section 163.3180(4)(b), F.S., to define hangars for the assembly, manufacture, maintenance or storage of aircraft as public transit facilities. Section 1, Chapter 2010-33, LOF.			Add definition to new Glossary in Comp Plan update.
	2011 [Chapter 2011-139, Laws of Florida] [Chapter 2011-14, Laws of Florida – which re-enacts several provisions of Ch. 163]				
	1	Section 72 of chapter 2011-139 repealed Rule 9J-5 in its entirety. Many provisions of Rule 9J-5 have been incorporated into Chapter 163 and are identified below.		Procedural	
Section 163.3161(1), F.S.	2	Changes "Local Government Comprehensive Planning and Land Development Regulation Act" to "Community Planning Act."		Procedural and not a compliance issue	Rename where appropriate throughout new Comp Plan.

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3161(2), F.S.	3	Expresses the purpose of the act, changing "control" future development to "manage" future development "consistent with the proper role of local government."			Language does not appear to be cited in existing Comp Plan; therefore no change likely.
Section 163.3161(3), F.S. [New]	4	States the intent of the act is to focus the state role in managing growth to protect the functions of important state resources and facilities.			Language does not appear to be cited in existing Comp Plan; therefore no change likely.
Section 163.3161(10), F.S.	5	Modifies the intent of the legislature with respect to how comprehensive plans and amendments affect property rights.			Language does not appear to be cited in existing Comp Plan; therefore no change likely.
Section 163.3161(11), F.S. [New]	6	States the intent is to recognize and protect agriculture, tourism and military presence as being the state's traditional economic base.			Language does not appear to be cited in existing Comp Plan; therefore no change likely.
Section 163.3161(12), F.S. [New]	7	States the intent is to not require local government plans that have been found to be in compliance to adopt amendments implementing the new statutory requirements until the evaluation and appraisal period provided in s. 163.3191.			Broadly addressed in Comp Plan, no change necessary.
Section 163.3162(4), F.S.	8	Modifies the provisions for agricultural lands and practices to state that a plan amendment for an agricultural enclave is presumed not to be urban sprawl as defined in 163.3164.	N/A		
Section 163.3164, F.S.	9	Changes "Local Government Comprehensive Planning and Land Development Regulation Act" to "Community Planning Act" and sets forth new and modified definitions, many of which were included in repealed Rule 9J-5.003, F.A.C.			Citation through Plan and add definition to new Glossary in Comp Plan update.
Section 163.3164(1), F.S. [New]	10	Establishes definition for "adaptation action area."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(3), F.S. [previously in Rule 9J-5]	11	Establishes definition for "affordable housing" [same meaning as in s. 420.0004(3)].			Add definition to new Glossary in Comp Plan update.

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Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3164(5), F.S. [New]	12	Establishes definition for "antiquated subdivision."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(7) , F.S. [previously in Rule 9J-5]	13	Establishes definition for "capital improvement."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(9), F.S. [previously in Rule 9J-5]	14	Establishes definition for "compatibility."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(11), F.S. [previously in Rule 9J-5]	15	Establishes definition for "deepwater ports."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(12), F.S. [previously in Rule 9J-5]	16	Establishes definition for "density."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(18), F.S. [previously in Rule 9J-5]	17	Establishes definition for "floodprone areas."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(19), F.S. [previously in Rule 9J-5]	18	Establishes definition for "goal."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(22), F.S. [previously in Rule 9J-5]	19	Establishes definition for "intensity."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(23), F.S. [New]	20	Establishes definition for "internal trip capture."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(28), F.S. [previously in Rule 9J-5]	21	Establishes definition for "level of service."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(32), F.S. [previously in Rule 9J-5]	23	Establishes definition for "new town."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(33), F.S. [previously in Rule 9J-5]	24	Establishes definition for "objective."			Add definition to new Glossary in Comp Plan update.

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3164(36), F.S. [previously in Rule 9J-5]	26	Establishes definition for "policy."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(38), F.S.	27	Deletes health systems and spoil disposal sites for maintenance dredging located in intracoastal waterways (except sites owned by ports) from the definition of "public facilities."			Add definition of public facilities in new Glossary in Comp Plan update.
Section 163.3164(40), F.S.	28	Changes definition of "regional planning agency" to "the council created pursuant to chapter 186."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(41), F.S. [previously in Rule 9J-5]	29	Establishes definition for "seasonal population."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(42), F.S.	30	Changes definition of "optional sector plan" to "sector plan" and clarifies the purpose of a sector plan. The term includes an optional sector plan that was adopted before the effective date of the act.			Add definition to new Glossary in Comp Plan update.
Section 163.3164(45) , F.S. [previously in Rule 9J-5]	31	Establishes definition for "suitability."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(46), F.S. [New]	32	Establishes definition for "transit-oriented development."			Add definition to new Glossary in Comp Plan update.
Section 163.3164(50) , F.S.	33	Clarifies the definition of "urban service area" to delete the term "built-up" and to include any areas identified in the comprehensive plan as urban service areas, regardless of local government limitation.			Add definition to new Glossary in Comp Plan update.
Section 163.3164(51), F.S. [replaces definition previously in 9J-5]	34	Establishes new definition for "urban sprawl."			Add definition to new Glossary in Comp Plan update.
Section 163.3167(2), F.S.	35	Modifies requirements for maintaining comprehensive plan, deleting the reference to Section 163.3184 and the requirement that proposed plan amendments be submitted to the state land planning agency.	N/A	Procedural; Sec. 163.3184(4) provides that Plan Amendments must be submitted and processed under State Coordinated Review Process.	Update Policy 5.1.2, Objective 5.5 and Policy 5.5.1.
Section 163.3167(3) and (6), F.S. [Deleted]	36	Deletes provisions for regional planning agency adoption of plan amendments for elements and amendments not prepared by a local government.		Procedural	Revisit ICE on these issues.

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Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3167(7), F.S. [Deleted]	37	Deletes provisions for local government challenge of costs associated with preparing a comprehensive plan and related state land planning agency action.		Procedural	
Section 163.3168(1) – (4), F.S. [New]	39	Establishes provisions for "planning innovations and technical assistance" and clarifies the roles of the state land planning agency and all other appropriate state and regional agencies in the process. Requires, upon request by the local government, the state land planning agency to coordinate multi-agency assistance on plan amendments that may adversely impact important state resources or facilities. Requires the state land planning agency to provide on its website guidance on the submittal and adoption of comprehensive plans, amendments and land development regulations, prohibiting such guidance from being adopted by rule and exempting such guidance from s. 120.54(1)(a).		Procedural and not a compliance issue.	
Section 163.3171(4), F.S.	40	Modifies areas of authority under this act with respect to joint agreements and intergovernmental coordination between cities and counties and planning in advance of jurisdictional changes.		Procedural	Revisit ICE related to these issues.
Section 163.3175(5)(d) and (6), F.S.	41	Modifies military base compatibility provisions to not require that commanding officer comments, underlying studies and reports be binding on the local government. Requires the affected local government to be sensitive to private property rights and not be unduly restrictive on those rights in considering the comments provided by the commanding officer or designee.			Incorporate compatibility criteria in FLUE.
Section 163.3175(9), F.S.	42	Modified to require that any local government comprehensive plan that has been amended to address military compatibility requirements after 2004 and was found in compliance be deemed in compliance until the local government conducts its evaluation and appraisal review pursuant to s.163.3191 and determines that amendments are necessary.	N/A		
Section 163.3177(1), F.S.	43	Modified to include significant portions of repealed Rule 9J-5.001 and 9J-5.005, F.A.C., with respect to the principles, guidelines, standards and strategies to be set forth in required and optional elements of the comprehensive plan and requirements for basing these elements on relevant, appropriate and professionally accepted data.			Potentially revise Technical Support document or Plan language addressing previous standards 'best available data'.

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Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3177(3)(a)4, F.S.	45	Modifies provisions for preparing the capital improvements element to require the schedule to cover a 5-year period and identify whether projects are either funded or unfunded and given a level of priority for funding. Deletes requirements for financial feasibility.		CIE 1401.1.2	Revise CIE to reflect if components in the schedule are funded or not.
Section 163.3177(3)(b), F.S.	46	Modifies requirements for local government annual review of capital improvements element to no longer require transmittal of the adopted amendment to the state land planning agency and deletes provisions related to sanctions by the Administration Commission, adoption of long-term concurrency management systems and financial feasibility.		CIE 1401.1.2	
Section 163.3177(5)(a), F.S.	47	Modifies planning period requirements, allowing additional planning periods for specific components, elements, land use amendments, or projects as part of the planning process.		Procedural	
Section 163.3177(6)(a), F.S.	48	Modifies requirements for the future land use element to include guidance from repealed Rule 9J-5.006, F.A.C., relative to general range of density or intensity of uses for gross land area and establishing a long term end toward which land use programs and activities are ultimately directed.		FLUE Technical Support Document reflects use of gross land area for densities and intensities	
Section 163.3177(6)(a)2 and 3, F.S.	49	Modifies the standards on which future land use plan and plan amendments are based to include: permanent and seasonal population, compatibility, the need to modify land uses and development patterns within antiquated subdivisions, preservation of waterfronts, location of schools proximate to urban residential areas, and other considerations taken from repealed Rule 9J-5.006, F.A.C.		FLUE Technical Support Document	Potentially revise standards in introduction section to FLUE.
Section 163.3177(6)(a)4, F.S.	50	Modifies requirements for the future land use element "to accommodate at least the minimum amount of land required to accommodate the medium projections of the University of Florida's Bureau of Economic and Business Research for at least a 10-year planning period unless otherwise limited."		FLUE Technical Support Document addresses revisions.	
Section 163.3177(6)(a)8, F.S. [New]	51	Establishes requirements for analyzing future land use map amendments using portions of repealed Rule 9J-5.006, F.A.C.		FLUE Goals 101, 102,103,, & 104	New Comp Plan to be updated to reflect new requirements.

*N/A = Not Applicable

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Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3177(6)(a)9 and 10, F.S. [New]	52	Establishes requirements for the future land use element and map series, including with slight revisions the primary indicators that a plan or plan amendment does not discourage the proliferation of urban sprawl that were in repealed Rule 9J-5.006, F.A.C.		FLUE Goals 101, 102,103	FLUE, update discussion on urban sprawl criteria.
Section 163.3177(6)(b), F.S.	53	Modifies requirements for the transportation element to include significant portions of repealed Rule 9J-5.019, F.A.C., addressing circulation of recreational traffic, including bicycle facilities, exercise trails, riding facilities and airport master plans.		Traffic Goal 301 & Mass Transit Goal 401	
Section 163.3177(6)(c), F.S.	54	Modifies requirements for the general sanitary sewer, solid waste, drainage, potable water, and natural groundwater aquifer recharge element to include guidance from portions of repealed Rule 9J-5.011, F.A.C., and deletes requirements for including a topographic map depicting any areas adopted by a water management district as prime groundwater recharge areas and addressing areas served by septic tanks.		Sanitary Sewer Goal 901; Solid Waste Goal 801; Potable Water Goal 701; Drainage Goal 1001; Natural Groundwater/ Aquifer Recharge Goal 1101.	
Section 163.3177(6)(d)1 and 2, F.S. [New]	56	Modifies requirements for the conservation element to include portions of repealed Rule 9J-5.013, F.A.C., to list the natural resources to be identified, analyzed and protected and toward which conservation principles, guidelines and standards are to be directed.		CCME Goals 201-218.	
Section 163.3177(6)(d)3, F.S.	57	Modifies requirements for analyzing current and projected water sources for a 10-year period to include consideration of demands for industrial, agricultural and potable water use and the quality and quantity of water available to meet these demands and the existing levels of conservation, use and protection and policies of the regional water management district.		Potable Water Objective 701.3 and CCME Goal 211	
Section 163.3177(6)(f)1 and 2, F.S.	58	Clarifies requirements for the housing element to include guidelines, standards and strategies based on an inventory taken from the latest decennial United States Census or more recent estimates and various other considerations listed in repealed Rule 9J-5.010, F.A.C.			Add a policy requiring that housing data be based upon most recent decennial census or more recent information.
Section 163.3177(6)(f)3, F.S. [New]	60	Based on repealed Rule 9J-5.010, F.A.C., sets forth new requirements for the creation and preservation of affordable housing, elimination of substandard housing conditions, providing for adequate sites and distribution for a range of incomes and types and including programs for partnering, streamlined permitting, quality of housing, neighborhood stabilization and improving historically significant housing.		Housing Goal 601.	

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3177(6)(g), F.S.	61	Modifies the objectives of the coastal management element and includes a new requirement for preserving historic and archaeological resources.		CCME Goal 214	Revise Conservation and Coastal Management Element to include new provision relative to preserving historic and archaeological resources.
Section 163.3177(6)(g)10, F.S. [New]	63	Sets forth an option for the local government to develop an adaptation action area designation for low-lying coastal zones experiencing coastal flooding due to extreme high tides and storm surge and are vulnerable to the impacts of rising sea level.			Energy and Climate Element; add definition of adaptation action areas to new Glossary in Comp Plan update if County desires establishing same.
Section 163.3177(6)(h)3.a and b, F.S. [New]	65	Modifies requirements for the intergovernmental coordination element to include portions of repealed Rule 9J-5.015, F.A.C, including coordinating and addressing impacts on adjacent municipalities and coordinating the establishment of level of service standards.		ICE Goals 1301, 1302 & 1303.	
Section 163.3177(6)(h)3 and 4, F.S. [Deleted]	66	Deletes requirements in intergovernmental coordination element for fostering coordination between special districts and local general purpose governments, submittal of public facilities report, execution of interlocal agreement with district school board, the county and nonexempt municipalities, and submittal of reports to the Florida Department of Community Affairs by counties with populations greater than 100,000.			Revise ICE Goals if desired.
Section 163.3177(6)(i), (j), (k), F.S. [Deleted]	67	Deletes provisions for optional elements of the comprehensive plan, transportation and traffic circulation, airport compatibility and other requirements related to transportation corridors and reduction of greenhouse gas emissions specific to local governments within an urbanized area.	N/A		
Section 163.3177(15)(a), F.S. Now: Section 163.3177(7)(a), F.S.	71	**See Chapter 2011-139, Laws of Florida.**			

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3177(7)(c)2, F.S.	72	Modifies provisions for processing plan amendments for land located within a rural agricultural industrial center to presume that these amendments are not urban sprawl as defined in s. 163.3164 and shall be considered within 90 days after any review required by the state land planning agency if required by s. 163.3184.	N/A		
Section 163.31777(1)(b)-(d) and (2), F.S.	73	Deletes requirements for public schools interlocal agreements with respect to submittal of the agreements to the state land planning agency based on an established schedule and other requirements involving the state land planning agency related to waivers and exemptions.	N/A		
Section 163.31777(3)(a)-(c) and (4)-(7), F.S. [Deleted]	74	Deletes requirements related to the submittal of comments from the Office of Educational Facilities on the interlocal agreement, challenges to the state land planning agency notice of intent and other review process requirements.	N/A		
Section 163.3178(9)(a), F.S.		Reference to 9J Rules removed.			Procedural, but delete citations throughout new Comp Plan.
Section 163.3180(1 , F.S.	75	Deletes parks and recreation, schools and transportation from the list of public facilities and services subject to the concurrency requirement on a statewide basis.			County has option to retain existing LOS or delete. CIP Amendment required for deleting LOS .
Section 163.3180 (1)(a) and (b), F.S. [New]	76	Modifies concurrency requirements to include portions of repealed Rule 9J-5.0055, F.A.C., which relate to achieving and maintaining adopted levels of service for a 5-year period, and providing for rescission of any optional concurrency provisions by plan amendment, which is not subject to state review.			Identify "optional" and "mandatory" level of service standards in various elements. Only requires concurrency for sanitary sewer, solid waste, drainage and potable water.
Section 163.3180(1)(b), F.S. [Deleted]	77	Deletes requirement that professionally accepted techniques be used for measuring levels of service for automobiles, bicycles, pedestrians, transit and trucks.	N/A		
Section 163.3180(2)(b) and (c), F.S. [Deleted]	78	Deletes requirement that parks and recreation facilities to serve new development are in place or under actual construction no later than one year after issuance of a certificate of occupancy or its functional equivalent.	N/A		

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3180(3), F.S.	79	Deletes provisions addressing governmental entities and establishment of binding level of service standards with respect to limiting the authority of any agency to recommend or make objections, recommendations, comments or determinations during reviews conducted under s .163.3184			Procedural but reflect in new Comp Plan if necessary, for instance in ICE. Process does not appear to be included in existing Comp Plan GOPs.
Section 163.3180(4)(b) and (c), F.S. [Deleted]	80	Deletes concurrency provisions specifically related to public transit facilities and urban infill and redevelopment areas.		Mass Transit	If County wishes to maintain Mass Transit LOS then update same.
Section 163.3180(5)(a)-(h), F.S. [New – replaces old 163.3180(5)(a)-(g), F.S.]	81	Establishes concurrency provisions for transportation facilities, which include portions of repealed Rule 9J-5.0055, F.A.C. Sets forth requirements with respect to adopted level of service standards, including use of professionally accepted studies to evaluate levels of service, achieving and maintaining adopted levels of service standards, and including the projects needed to accomplish this in 5-year schedule of capital improvements. Requires coordination with adjacent local governments and setting forth the method to be used in calculating proportionate-share contribution. Defines the term "transportation deficiency."		Traffic Circulation Mass Transit	If County wishes to maintain traffic concurrency, must amend Traffic Circulation Element to address new requirements. Add "transportation deficiency" to new Glossary.
Section 163.3180(6)(a), F.S. [New]	83	Sets forth concurrency provisions for public education, setting forth provisions for those local governments that apply concurrency to public education. If a county and one or more municipalities that represent at least 80 percent of the total countywide population have adopted school concurrency, the failure of one or more municipalities to adopt the concurrency and enter into the interlocal agreement does not preclude implementation of school concurrency within jurisdictions of the school district that have opted to implement concurrency.	N/A		
Section 163.3180(6)(f)1 and 2, F.S.	84	Modifies school concurrency provisions to clarify that adoption and application of school concurrency is optional.			If County wishes, amend CIP
Section 163.3180(d), F.S. Now: 163.3180(g), F.S.	85	Modifies school concurrency provisions to remove requirement for financial feasibility and to require that facilities necessary to meet adopted levels of service during a 5-year period are identified and consistent with the school board's educational facilities plan.	N/A		

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Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3180(h)1.a, b and c, F.S. [New]	86	Modifies school concurrency provisions to allow a landowner to proceed with development of a specific parcel of land notwithstanding a failure of the development to satisfy school concurrency if certain factors are shown to exist, including adequate facilities are provided for in the capital improvements element and school board's educational facilities plan, demonstration that facilities needs can be reasonably provided, and the local government and school board have provided a means by which proportionate share is assessed.	N/A		
Section 163.3182, F.S. [Revised]	88	Changes "transportation concurrency backlogs" to "transportation deficiencies" and makes related clarifications.	N/A		
Section 163.3182(2), F.S. [Revised]	89	Changes "creation of transportation concurrency backlog authorities" to "creation of transportation development authorities" and makes related clarifications.	N/A		
Section 163.3182(3), F.S. [Revised]	90	Changes "powers of a transportation concurrency backlog authority" to "powers of a transportation development authority" and makes related clarifications.	N/A		
Section 163.3182(4), F.S. [Revised]		Changes "transportation concurrency backlog plans" to "transportation sufficiency plans"	N/A		
Section 163.3184(1)(b), F.S. [Revised]	91	Modifies the definition of "in compliance" to include a reference to s. 163.3248 and delete the reference to now repealed chapter 9J-5, F.A.C.			Add definition to new Glossary in Comp Plan update.
Section 163.3184(1)(c), F.S. [New]	92	Provides a list of the "reviewing agencies."		Procedural	
Section 163.3184(2), F.S. [New]	93	Sets forth the "expedited" and "coordinated" review processes.		Procedural	Include definition in new Glossary in Comp Plan update.
Section 163.3184(3) and (4), F.S. [New]	94	Sets forth requirements for adopting and processing plan amendments according to the "expedited" and "coordinated" review processes, the scope of the comments to be provided by review agencies, responsibilities of the state land planning agency with respect to its various levels of review and coordination with other state agencies and public hearings.	N/A		
Section 163.3184(5)-(7), F.S. [New]	95	Sets forth requirements for administrative challenges to plans and plan amendments, compliance agreements and mediation and expeditious resolution.		Procedural and not a compliance issue.	

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Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3184(11), F.S. Now: 163.3184(8), F.S.	96	Modifies provisions to enable the administration commission to specify sanctions to which the local government will be subject if it elects to make a plan amendment effective notwithstanding a determination of noncompliance.		Procedural and not a compliance issue.	
Section 163.3184(15), F.S. Now: 163.3184(11), F.S.	97	Modifies provisions for public hearings to state there is no prohibition or limitation on the authority of local governments to require a person requesting an amendment to pay some or all of the cost of the public notice.		Procedural and not a compliance issue.	
Section 163.3184(12), F.S. [New]	98	Establishes provisions for concurrent zoning, requiring a local government, at the request of an applicant, to consider an application for zoning changes that would be required to properly enact any proposed plan amendment and making the approved zoning changes contingent upon the comprehensive plan or amendment becoming effective.		Procedural County has the option to implement this process.	
Section 163.3184(13), F.S. [New]	99	Revises provisions to require that no proposed local government comprehensive plan or plan amendment that is applicable to a designated area of critical state concern shall be effective until a final order is issued finding the plan or amendment to be in compliance as defined in paragraph (1)(b).		Procedural	
Section 163.3187(1)(a)-(f), F.S. [revised] Now: 163.3187(1)(a)-(d), F.S.	100	Modifies provisions to address the process for adoption of small-scale comprehensive plan amendments, deleting several exceptions. Plan amendments are no longer limited to two times per calendar year and text changes that relate directly to and are adopted simultaneously with small scale FLUM amendments are permissible.		Procedural	
Section 163.3187(1)2.a&b;3,4 and (e)-(q), F.S. Now: 163.3187(2)-(5), F.S.	101	Modifies the public notice requirements for small scale plan amendments, addressing petitions, prohibiting the state land planning agency from intervening and requiring that consideration be given to the plan amendment as a whole and whether it furthers the intent of this part in all challenges.		Procedural and not a compliance issue	

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Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3191(1)-(14) , F.S. [revised] Now: Section 163.3191(1)-(5), F.S.	103	Modifies provisions for evaluation and appraisal of comprehensive plan. Maintains the requirement for local government evaluation of plan to occur at least once every 7 years. The local government is required to determine if amendments are necessary to reflect changes in state requirements (only) since the last update and to notify the state land planning agency by letter as to its determination. If needed, these amendments are to be prepared and transmitted within 1 year of this determination for review pursuant to 163.3184 (i.e., State Coordinated Review). Local governments are encouraged to comprehensively evaluate and as necessary update plans to reflect changes in local conditions. If a local government fails to submit its notification letter to the state land planning agency or fails to update its plan to reflect changes in state requirements, then the local government is prohibited from amending its plan until it complies with these requirements. The state land planning agency may not adopt rules to implement this section, other than procedural rules or a schedule indicating when local governments must comply with these requirements.			Revise FLUE to reflect change in EAR process.
Section 163.3217(2), F.S.	104	Deletes the reference to s. 163.3187(1) and provisions regarding the frequency of adoption of plan amendments as they relate to adoption of a municipal overlay.	N/A		
Section 163.3220(3), F.S.	105	Changes "Local Government Comprehensive Planning and Land Development Regulation Act" to "Community Planning Act."		Procedural and not a compliance issue	Rename where appropriate throughout new Comp Plan.
Section 163.3221(2) & (11), F.S.	106	Changes "Local Government Comprehensive Planning and Land Development Regulation Act" to "Community Planning Act."		Procedural and not a compliance issue	Rename where appropriate throughout new Comp Plan.
Section 163.3229, F.S.	107	Revises the duration of a development agreement from 20 years to 30 years, unless it is extended by mutual consent, and deletes reference to s. 163.3187 and Section 163.3189, F.S. regarding compliance determination by state land planning agency.		Procedural and not a compliance issue.	
Section 163.3235, F.S.	108	Modifies provisions for periodic review of a development agreement to delete requirements for annual review conducted during years 6 through 10, incorporation of the review into a written report and the state land planning agency adoption of rules regarding the contents of the report.		Procedural	

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Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3239, F.S.	109	Deletes requirements that a copy of the recorded development agreement be submitted to the state land planning agency within 14 days after the agreement is recorded and for the effectiveness of the agreement based on receipt by the state land planning agency.		Procedural	
Section 163.3245(1), F.S.	110	Changes "Optional Sector Plans" to **"Sector Plans"** and clarifies the intent to promote and encourage long-term planning for conservation, development and agriculture on a landscape scale and protection of regionally significant resources, including regionally significant water courses and wildlife corridors. Revises the amount of geographic area intended for sector plans from at least 5,000 acres to at least 15,000 acres and protection of public facilities.	N/A		
Section 163.3245(2), F.S.	111	Deletes provisions for the state land planning agency entering into an agreement to authorize preparation of an optional sector plan, and consideration of the state comprehensive and strategic regional policy plans, and clarifies the process for scoping meetings and joint planning agreements.	N/A		
Section 163.3245(3), F.S.	112	Modifies the provisions for two levels of sector planning, clarifying the requirements for the long term master plan and detailed specific area plan. These plans may be based upon a planning period longer than timeframe on which the local comprehensive plan is based and are not required to demonstrate need. The state land planning agency is required to consult with certain other agencies as part of its review of the plans.	N/A		
Section 163.3245(4), F.S. [New]	113	Requires consistency with any long-range transportation plan and regional water supply plans, including consideration of water supply availability and consumptive use permitting.	N/A		
Section 163.3245(5)(d), F.S. [New]	114	Requires the detailed specific area plan to establish a buildout date until which the approved development is not subject to downzoning, unit density reduction or intensity reduction, with certain exceptions.	N/A		
Section 163.3245(6), F.S. [New]	115	Establishes provisions for master development approval, pursuant to s. 380.06(21), for the entire planning area in order to establish a buildout date and describes the level of detail appropriate for review of the application.	N/A		
Section 163.3245(7), F.S. [New]	116	Establishes provisions for a developer within an area subject to a long-term master plan or detailed specific area plan to enter into a development agreement.	N/A	Procedural and not a compliance issue.	

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3245(8), F.S. [New]	117	Establishes provisions for landowner withdrawal of consent to the master plan relative to proposed and adopted amendments.	N/A	Procedural and not a compliance issue.	
Section 163.3245(9), F.S. [New]	118	Allows the right to continue, after adoption of a long-term master plan or a detailed specific area plan, existing agricultural or silvicultural uses or other natural resource-based operations or establishment of similar new uses that are consistent with plans approved pursuant to this section.	N/A	Procedural and not a compliance issue.	
Section 163.3245(10) , F.S. [New]	119	Allows the state land planning agency to enter into an agreement with a local government that on or before July 1, 2011 adopted a large-area comprehensive plan amendment consisting of at least 15,000 acres based on certain requirements.	N/A		
Section 163.3245(11), F.S. [New]	120	Addresses a detailed specific area plan to implement a conceptual long-term buildout overlay found in compliance before July 1, 2011.	N/A		
Section 163.3245(12), F.S. [New]	121	Provides for a landowner or developer that has received approval of a master DRI development order to implement this order by filing application(s) to approve the detailed specific area plan.	N/A		
Section 163.3246(9)(a), F.S.	122	Modifies provisions in the local government comprehensive planning certification program to allow small scale development amendments to follow the process in s. 163.3187.		Procedural	County may wish to consider whether or not to designate such areas. If so, include definition in new Glossary in Comp Plan update.
Section 163.3247, F.S.	123	Century Commission for a Sustainable Florida is abolished as of June 30, 2013.	N/A		
Section 163.3248, F.S. [New]	124	Establishes provisions for **Rural Land Stewardship Areas,** which were provided for as part of the innovative and flexible planning and development strategies in now repealed s. 163.3177(11).	N/A		
Section 163.3248(1), F.S. [New]	125	Sets forth the intent of Rural Land Stewardship Areas	N/A		

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Chapter 163, F.S. Citations		Changes to Chapter 163, F.S.	N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3248(2), F.S. [New]	126	Establishes a process upon which local governments may adopt a future land use overlay, which may not require a demonstration of need based on population projections or any other factors.	N/A		
Section 163.3248(3) , F.S. [New]	127	Sets forth six broad principles of rural sustainability that rural land stewardship areas are to further.	N/A		
Section 163.3248(4), F.S. [New]	128	Provides for agency assistance and participation to local governments or property owners in development of a plan for rural land stewardship area.	N/A		
Section 163.3248(5), F.S. [New]	129	Requires that a rural land stewardship area not be less than 10,000 acres, is located outside of municipalities and established urban service areas and is designated by plan amendment by each local government with jurisdiction.	N/A		
Section 163.3248(5)(a)-(d), F.S. [New]	130	Requires the plan amendment(s) designating a rural land stewardship area to be reviewed pursuant to s. 163.3184 and to meet certain requirements involving criteria for designating receiving areas, the application of innovative planning and development strategies, a process for implementing these strategies and a mix of densities and intensities that would not be characterized as urban sprawl.	N/A		
Section 163.3248(6), F.S. [New]	131	Requires a receiving area to be designated only pursuant to procedures established in the local government's land development regulations. If approval of the designation by a county board of county commissioners is required, it is to be made by resolution with a simple majority vote. A listed species survey must be performed and coordinated with appropriate agencies if listed species occur on the receiving area development site. Protective measures must be based on the rural land stewardship area as a whole.	N/A		
Section 163.3248(7), F.S. [New]	132	Sets forth requirements for establishing a rural land stewardship overlay zoning district and methodology for the creation, conveyance, and use of transferrable rural land use/stewardship credits.	N/A		
Section 163.3248(8)(a)-(k), F.S. [New]	133	Sets forth limitations for creating, assigning and transferring stewardship credits based on underlying permitted uses, densities and intensities, and considerations for assigning credits based on the value and location of land and environmental resources.	N/A		

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Chapter 163, F.S. Citations	Changes to Chapter 163, F.S.		N/A*	Addressed[1] (where/how)	Amendment Needed[2]
Section 163.3248(9)(a)-(e), F.S. [New]	134	Provides for incentives to owners of land within rural land stewardship sending areas, in addition to use or conveyance of credits, to enter into rural land stewardship agreements.	N/A		
Section 163.3248(10), F.S. [New]	135	Expresses the intent of the section as an overlay of land use options that provide economic and regulatory incentives for landowners outside of established and planned urban service areas.	N/A		
Section 163.3248(11), F.S. [New]	136	Expresses the intent of the Legislature that the rural land stewardship area in Collier County be recognized as a statutory rural land stewardship area and be afforded the incentives in this section.	N/A		
Section 163.360(2)(a), F.S.	137	Changes "Local Government Comprehensive Planning and Land Development Regulation Act" to "Community Planning Act."		Procedural and not a compliance issue.	Rename where appropriate throughout new Comp Plan.
Section 163.516(3)(a), F.S.	138	Changes "Local Government Comprehensive Planning and Land Development Regulation Act" to "Community Planning Act."		Procedural and not a compliance issue.	Rename where appropriate throughout new Comp Plan.

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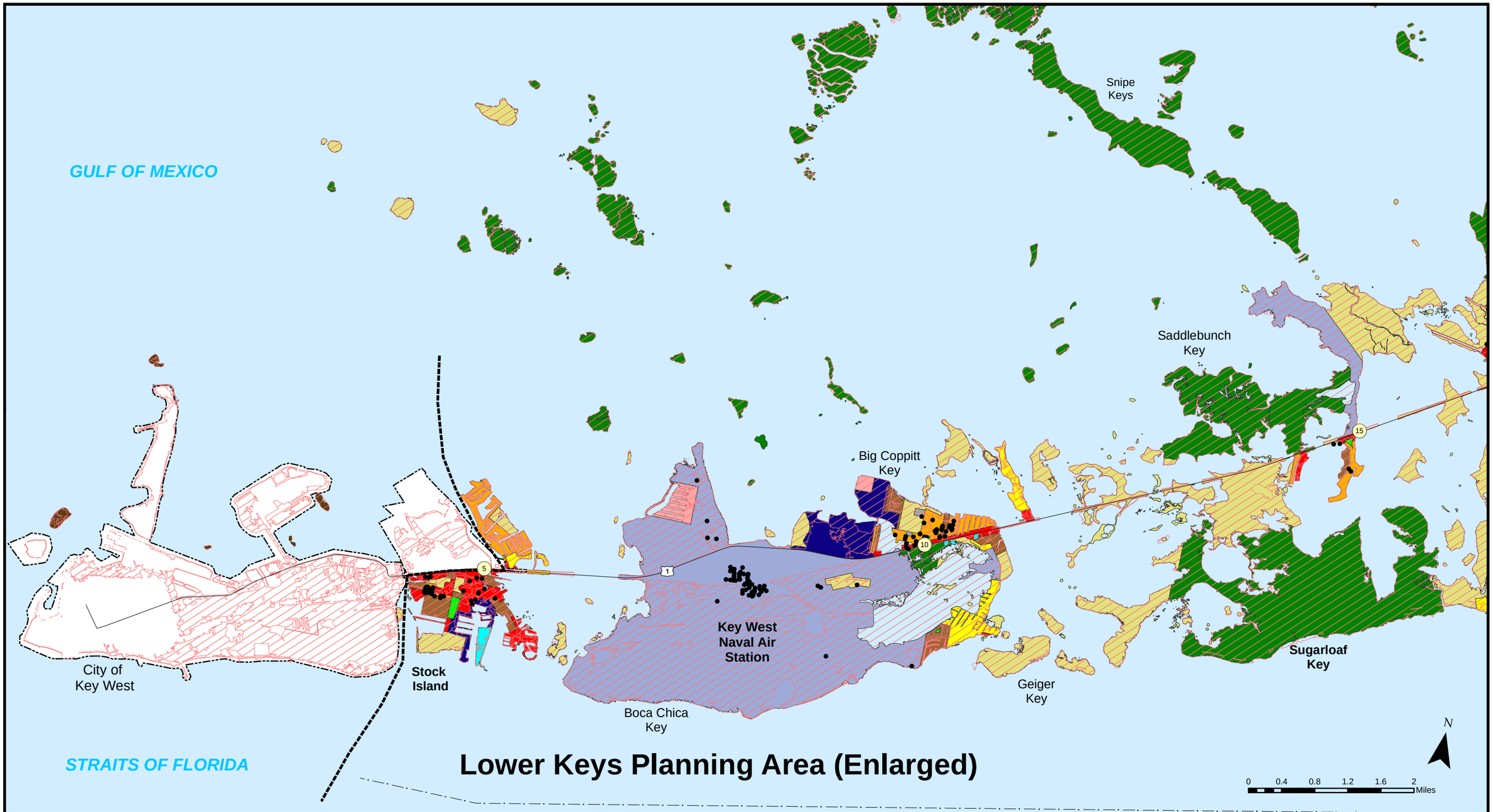
APPENDIX 6 – COASTAL HIGH HAZARD MAPS



Lower Keys Planning Area (Enlarged)

Source:
South Florida Regional Planning Council, 2011, SRESP Monroe Storm Surge Zones

Prepared by:
Keith and Schnars, P.A.
6500 North Andrews Avenue
Fort Lauderdale, FL 33309
Tel. 954-776-1616

Legend

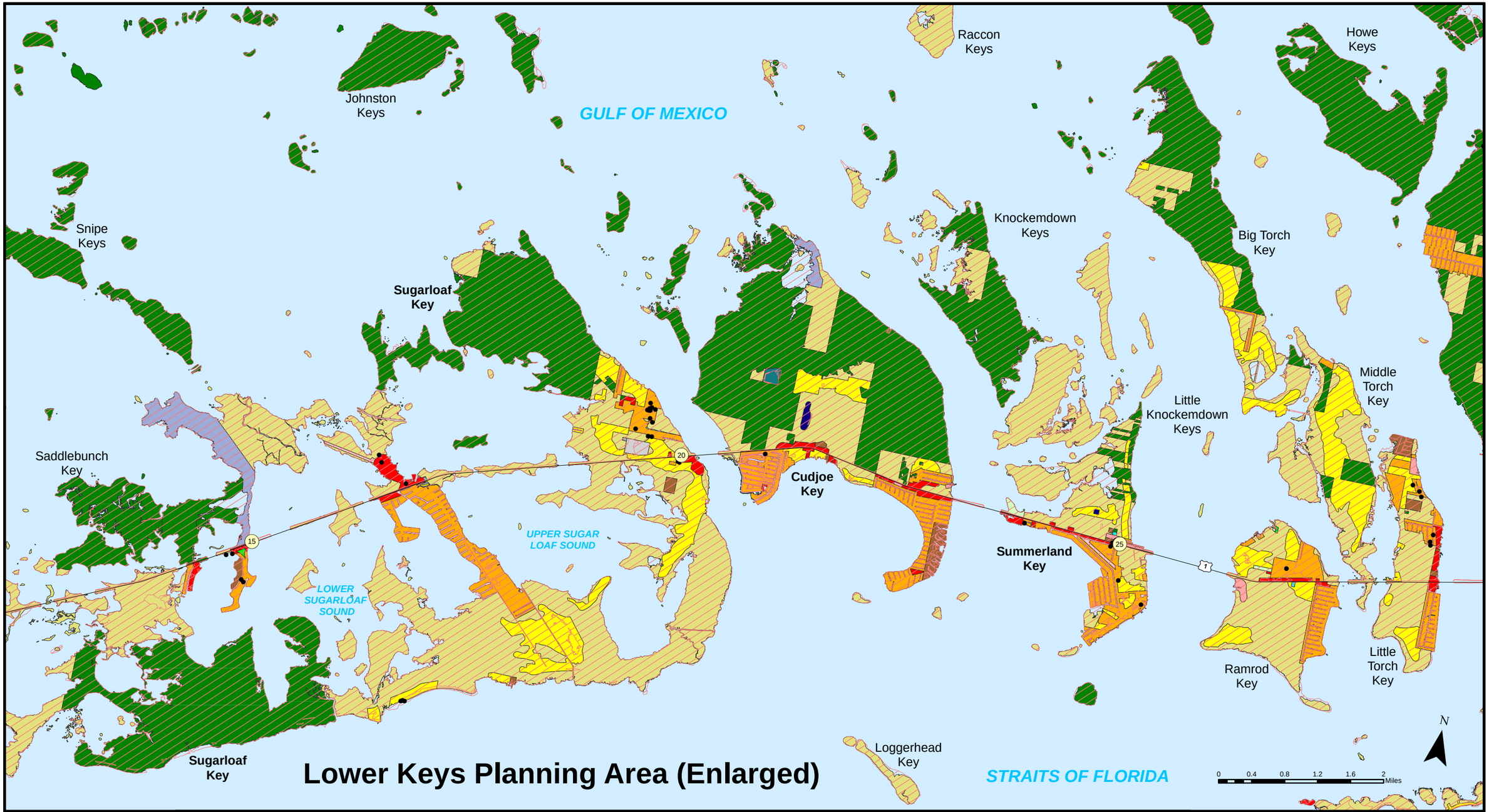
- Historic Structures
- Mile Marker
- ICWW
- Planning Area Limits
- Monroe County Boundary
- Incorporated Areas
- National Parks
- Coastal High Hazard Area

Future Land Use

- A - Agriculture
- AD - Airport District
- C - Conservation
- E - Education
- I - Industrial
- INS - Institutional
- M - Military
- MC - Mixed Use/Commercial
- MCF - Mixed Use/Commercial Fishing
- MN - Mainland Native
- PB - Public Buildings/Grounds
- PF - Public Facilities
- R - Recreation
- RC - Residential Conservation
- RL - Residential Low
- RM - Residential Medium
- RH - Residential High
- UNDS - Undesignated

Note: The Coastal High Hazard Area is the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake and Overland Surges from Hurricanes (SLOSH) computerized storm surge model (Section 163.3178(2)(h), F.S.).

Monroe County Comprehensive Plan 2010 - 2030
Coastal High Hazard Area Boundary Map
Map 3-7



Lower Keys Planning Area (Enlarged)

Source:
South Florida Regional Planning Council, 2011, SRESP Monroe Storm Surge Zones

Prepared by:

Keith and Schnars, P.A.
6500 North Andrews Avenue
Fort Lauderdale, FL 33309
Tel. 954-776-1616

Legend

- Historic Structures
- Mile Marker
- ICWW
- Planning Area Limits
- Monroe County Boundary
- Incorporated Areas
- National Parks
- Coastal High Hazard Area

Future Land Use

- A - Agriculture
- AD - Airport District
- C - Conservation
- E - Education
- I - Industrial
- INS - Institutional
- M - Military
- MC - Mixed Use/Commercial
- MCF - Mixed Use/Commercial Fishing
- MN - Mainland Native
- PB - Public Buildings/Grounds
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- R - Recreation
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Monroe County Comprehensive Plan 2010 - 2030

Coastal High Hazard Area Boundary Map
Map 3-7

Lower Keys Planning Area (Enlarged)

Howe Key
Annette Key
Horseshoe Key
Johnson Key
Water Key
Mayo Key
Big Pine Key
Little Pine Key
Middle Torch Key
No Name Key
Little Torch Key
Spanish Harbor Key
Ohio Key
Bahia Honda Key
Pigeon Key
7 MILE BRIDGE
30
35
40
45
ICWW
ICWW
ICWW
GULF OF MEXICO
STRAITS OF FLORIDA
N
0 0.4 0.8 1.2 1.6 2 Miles

Source:
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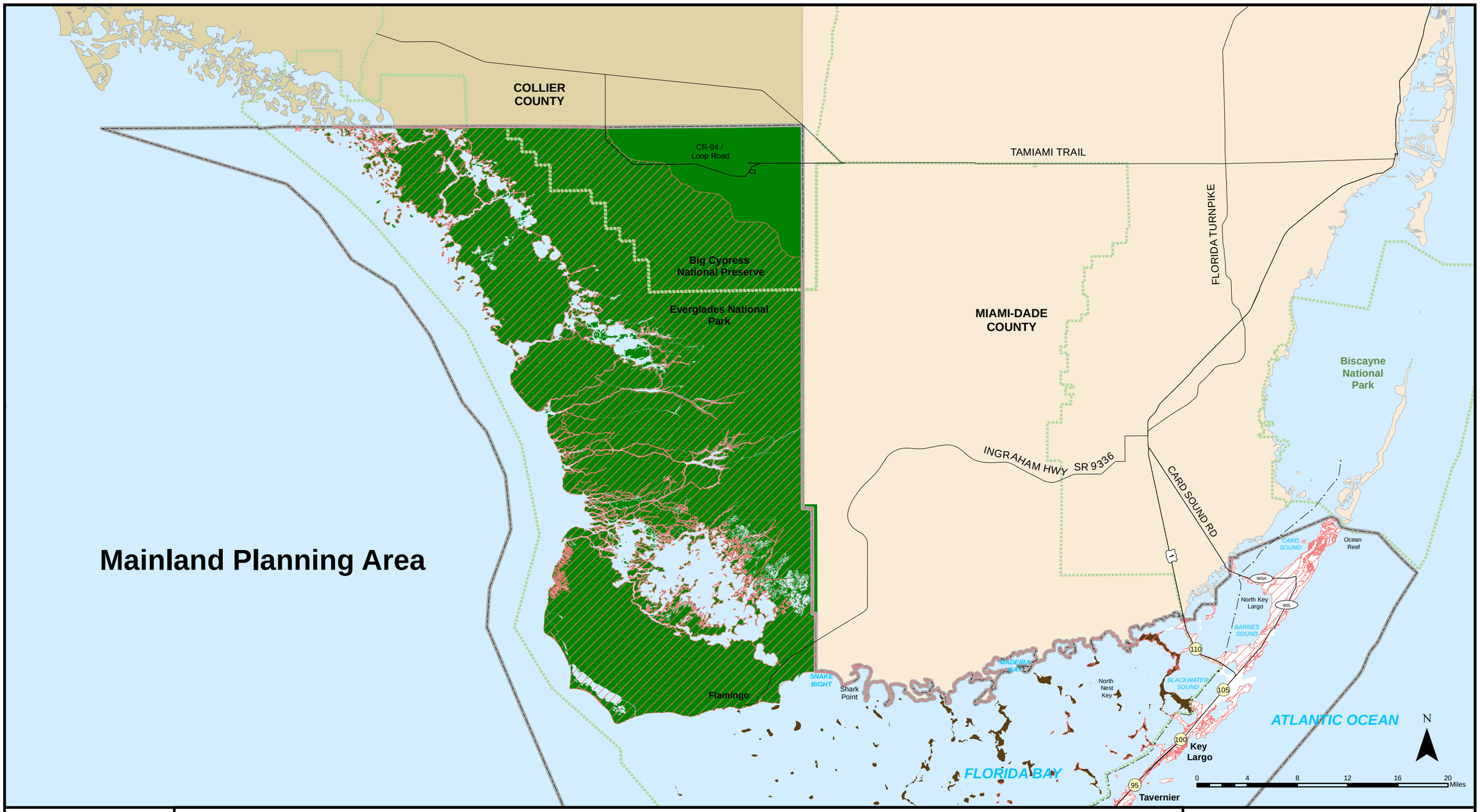
Monroe County Comprehensive Plan 2010 - 2030

Coastal High Hazard Area Boundary Map
Map 3-7

Mainland Planning Area



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- UNDS - Undesignated
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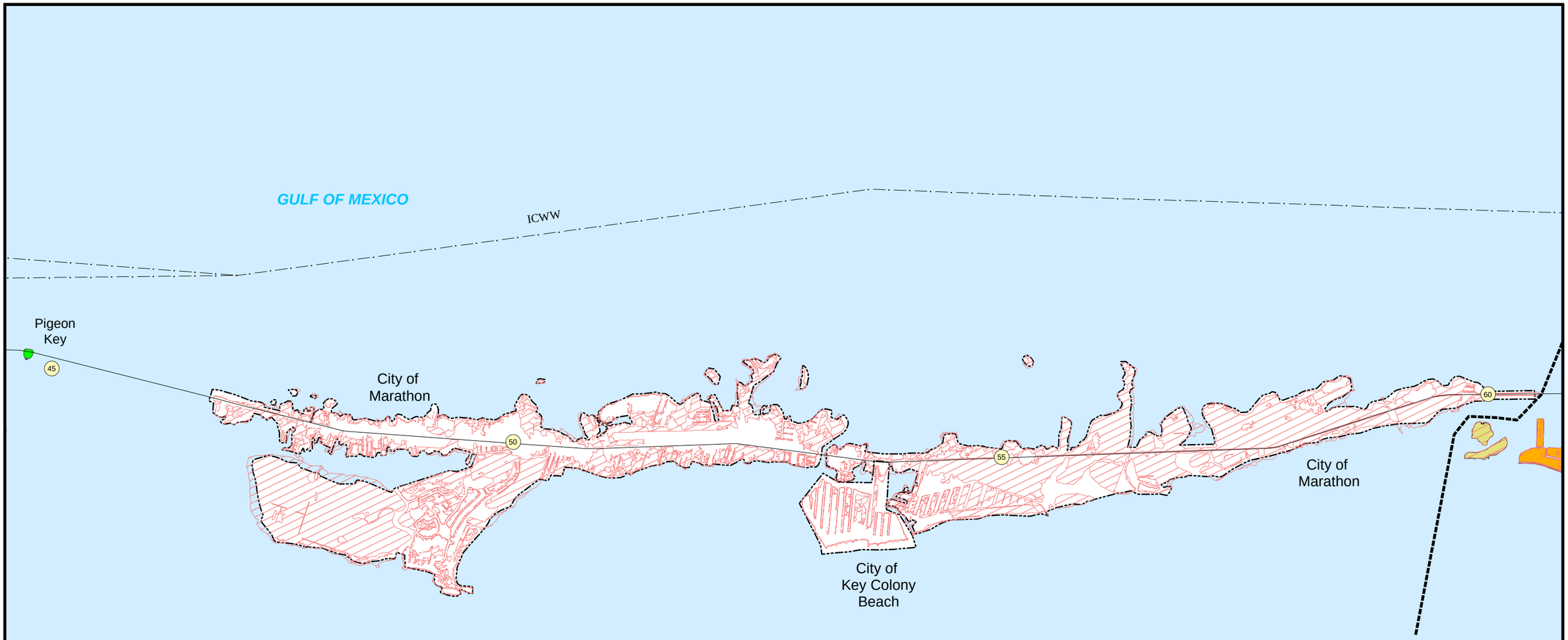
Monroe County Comprehensive Plan 2010 - 2030
Coastal High Hazard Area Boundary Map
Map 3-7



Middle Keys Planning Area (Enlarged)

N

0 0.4 0.8 1.2 1.6 2 Miles

Source:
South Florida Regional Planning Council, 2011, SRESP Monroe Storm Surge Zones

Prepared by:

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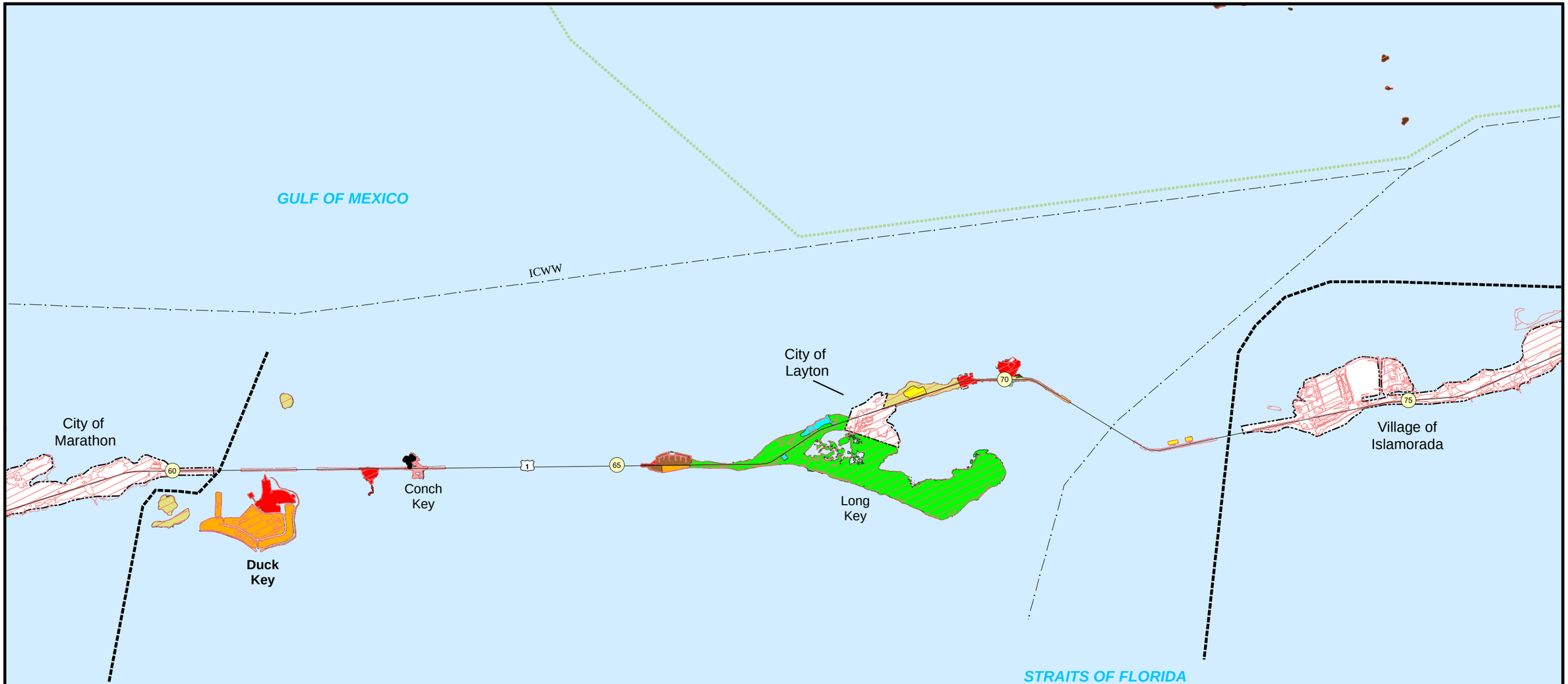
Monroe County Comprehensive Plan 2010 - 2030

Coastal High Hazard Area Boundary Map
Map 3-7



Middle Keys Planning Area (Enlarged)

Source:
South Florida Regional Planning Council
2011, SRESP Monroe Storm Surge Zones

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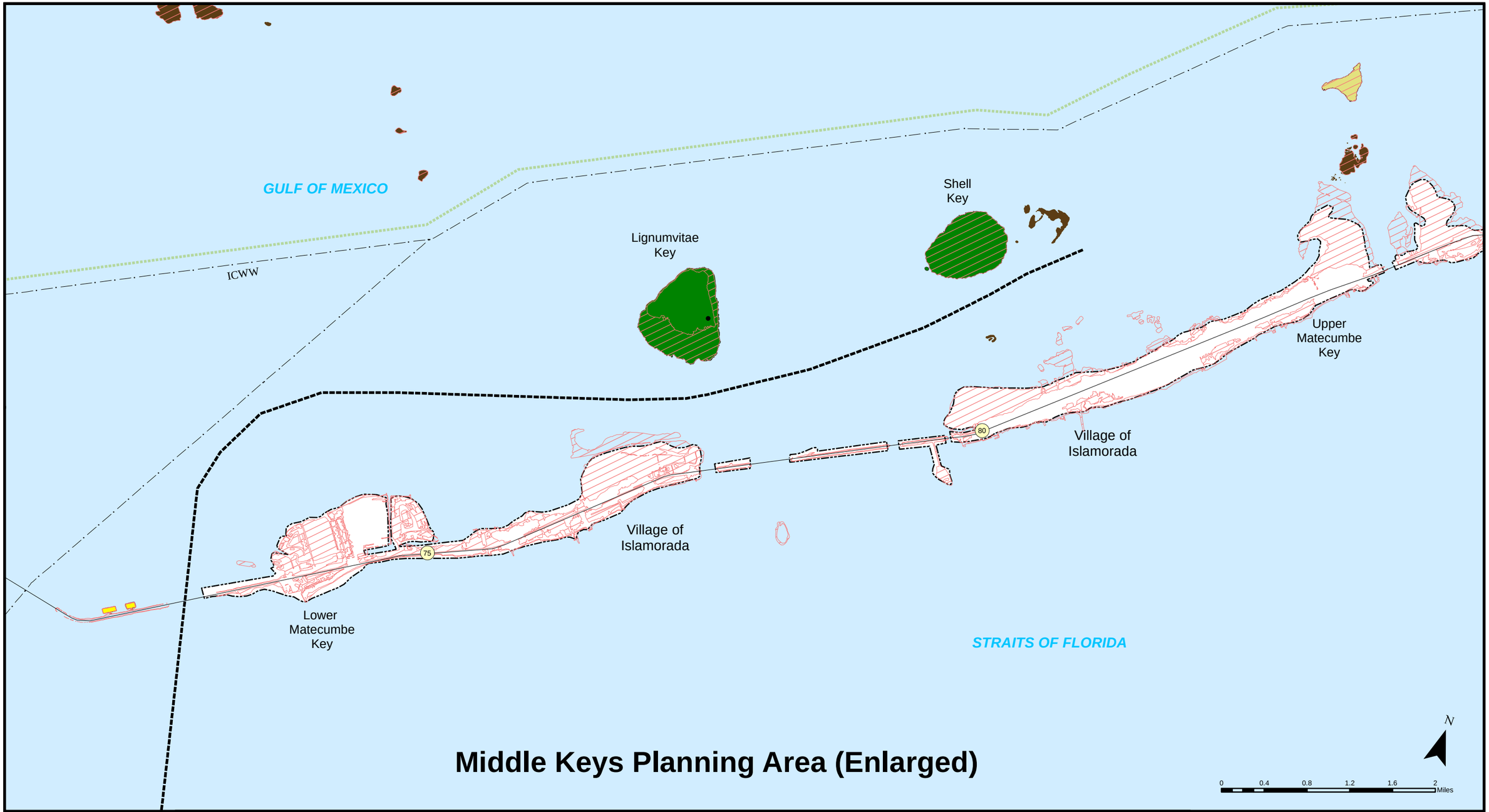
Monroe County Comprehensive Plan 2010 - 2030

Coastal High Hazard Area Boundary Map
Map 3-7



Middle Keys Planning Area (Enlarged)

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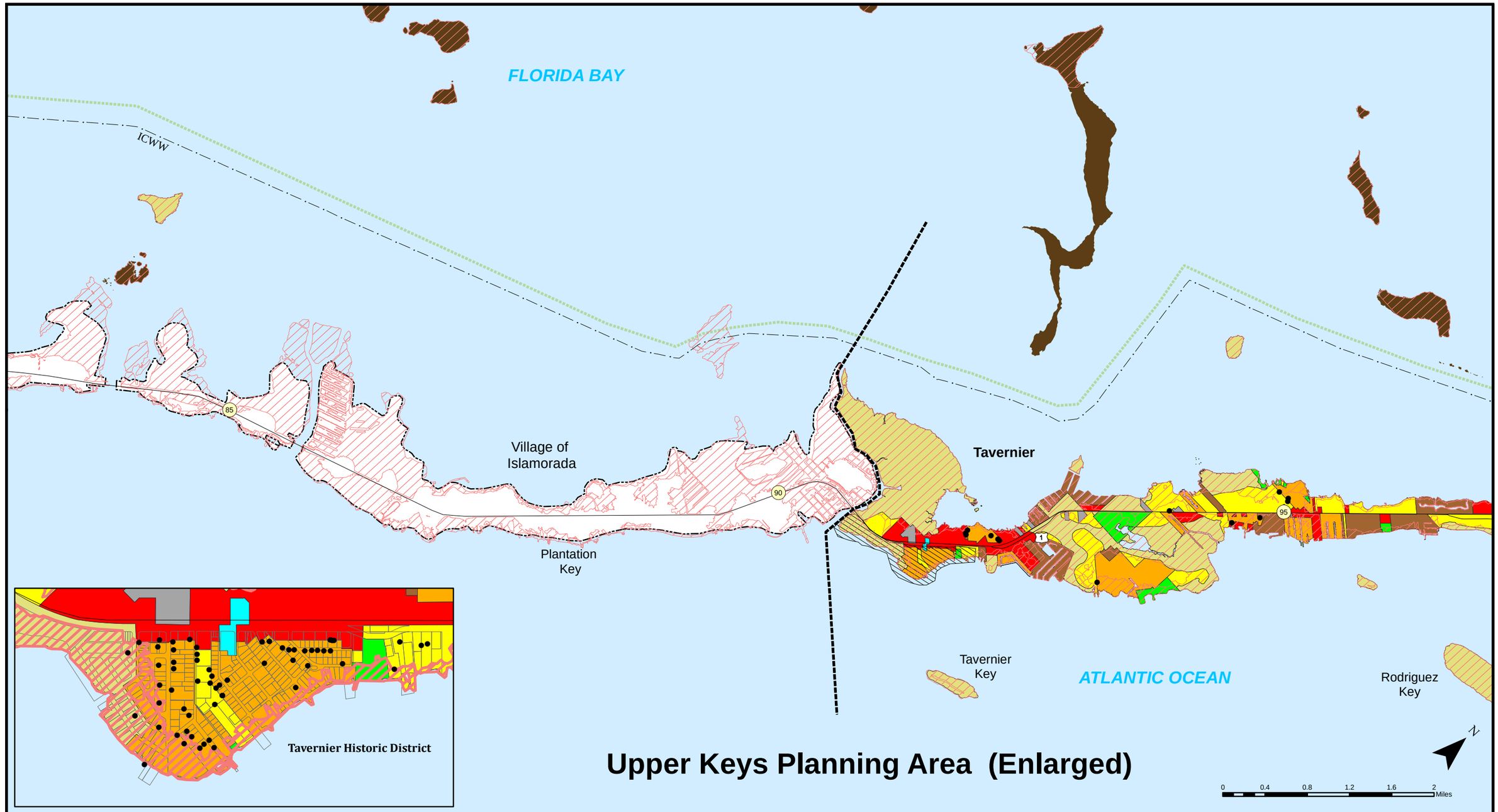
Monroe County Comprehensive Plan 2010 - 2030

Coastal High Hazard Area Boundary Map
Map 3-7



Upper Keys Planning Area (Enlarged)

Source:
South Florida Regional Planning Council, 2011, SRESP Monroe Storm Surge Zones

Prepared by:

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Fort Lauderdale, FL 33309
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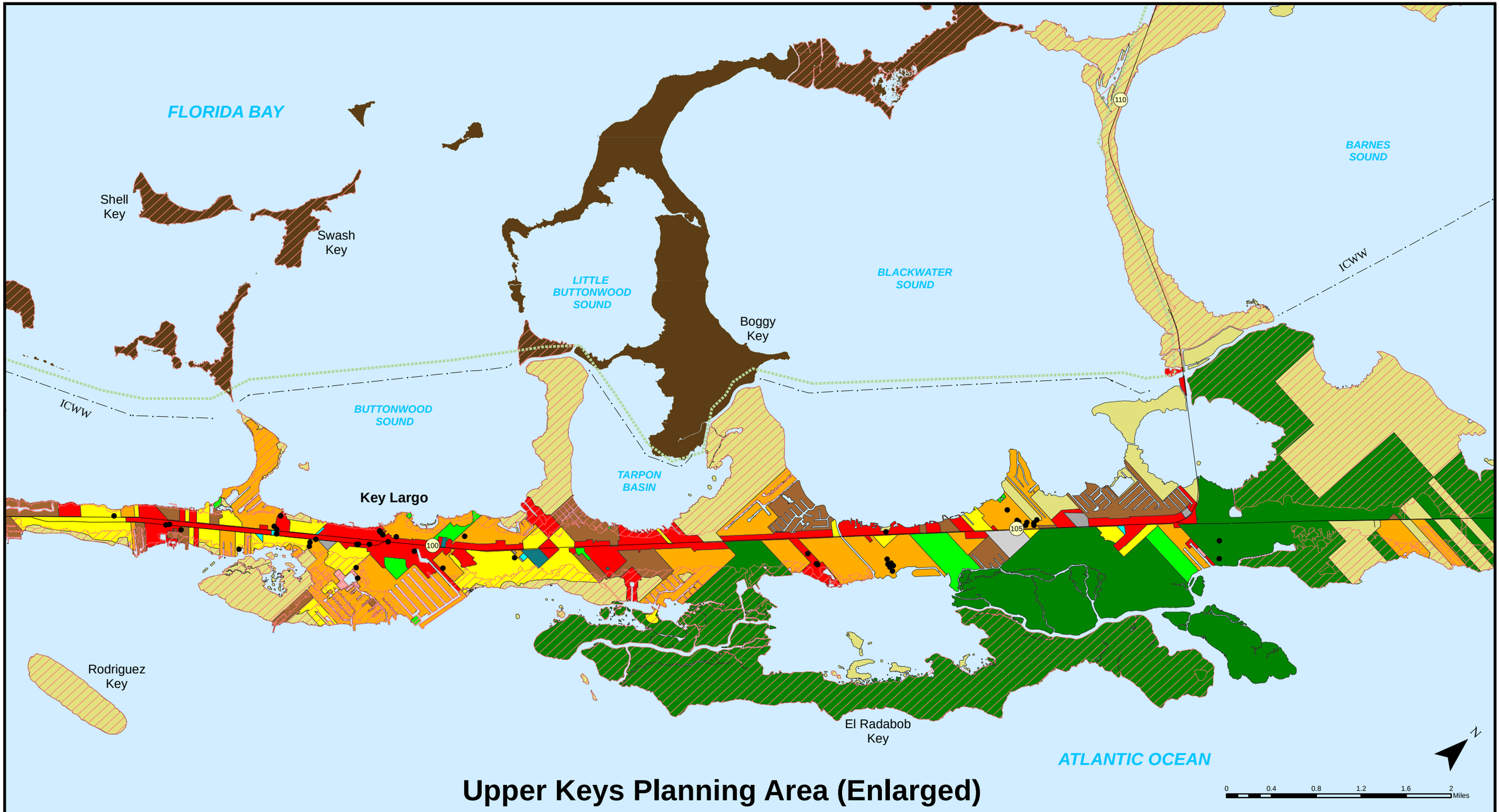
Monroe County Comprehensive Plan 2010 - 2030
Coastal High Hazard Area Boundary Map
Map 3-7



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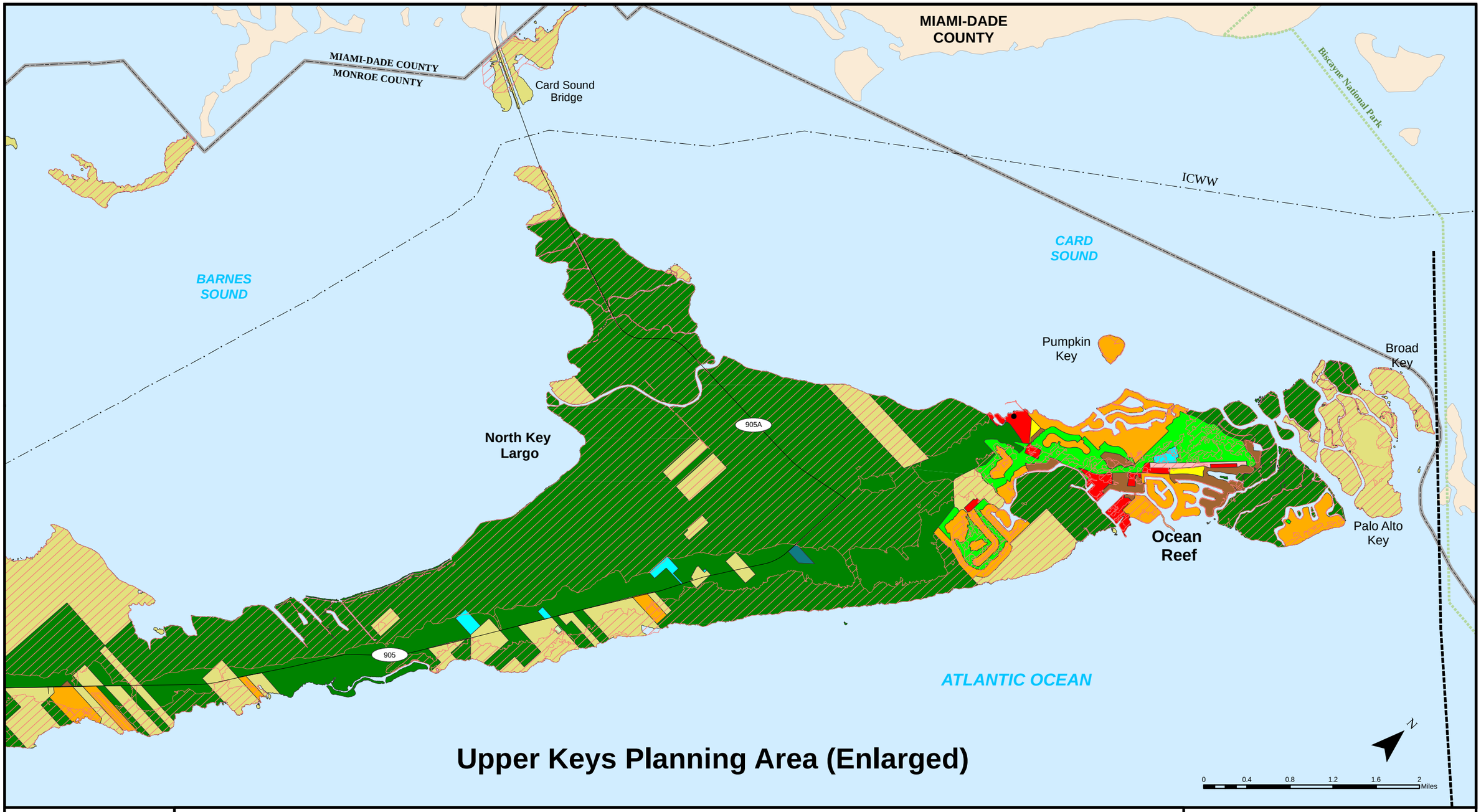
Monroe County Comprehensive Plan 2010 - 2030
Coastal High Hazard Area Boundary Map
Map 3-7



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Monroe County Comprehensive Plan 2010 - 2030
Coastal High Hazard Area Boundary Map
Map 3-7

APPENDIX 7 – FUTURE LAND USE CATEGORIES AND CORRESPONDING PROPERTY APPRAISER CODES

Appendix 7: FUTURE LAND USE CATEGORIES AND CORRESPONDING PC CODES

Policy #	FLU Category	Column1	Permitted Uses	PC CODE & DESCRIPTION
Policy 101.4.1	Residential Conservation	The principal purpose of the Residential Conservation land use category is to encourage preservation of open space and natural resources while providing for very low-density residential development in areas characterized by a predominance of undisturbed native vegetation. Low-intensity public uses and utilities are also allowed. In addition, Monroe County shall adopt Land Development Regulations which allow any other nonresidential use that was listed as a permitted use in the Land Development Regulations that was in effect immediately prior to the institution of the 2010 Comprehensive Plan (pre-2010 LDR's), and that lawfully existed on such lands on January 4, 1996 to develop, redevelop, reestablish and/or substantially improve provided that the use is limited in intensity, floor area, density and to the type of use that existed on January 4, 1996 or limit to what the pre-2010 LDR's allowed, whichever is more restricted. Maximum permitted densities shall be based upon the results of the habitat analysis required by Division 8 of the Monroe County Land	very low-density residential development; low-intensity public uses; utilities; other nonresidential use	00-Vacant Residential; 01-Single Family Residential; 80-FL. Parks/Memorials; 86-County-Other than the PC list; 87-State-Other than PC list; 88-Federal-Other than PC list; 91-Utilities; 99-Non AG Acreage 5 acres or more; 99-Nature Conservation, FL Keys Land Trust
Policy 101.4.2	Residential Low	The principal purpose of the Residential Low land use category is to provide for low-density residential development in partially developed areas with substantial native vegetation. Low intensity public and low intensity institutional uses are also allowed. In addition, Monroe County shall adopt Land Development Regulations which allow any other nonresidential use that was listed as a permitted use in the Land Development Regulations that were in effect immediately prior to the institution of the 2010 Comprehensive Plan (pre-2010 LDR's), and that lawfully existed on such lands on January 4, 1996 to develop, redevelop, reestablish and/or substantially improve provided that the use is limited in intensity, floor area, density and to the type of use that existed on January 4, 1996 or limit to what the pre-2010 LDR's allowed, whichever is more restricted.	low-density residential development; low-intensity public and low-intensity institutional uses	00-Vacant Residential; 01-Single Family Residential; 08-Multi Family (10 units or less); 10-Vacant Commcerial; 79-Tangible Exempt Parcel; 80-FL. Parks/Memorials; 86-County-Other than the PC list; 87-State-Other than PC list; 88-Federal-Other than PC list; 91-Utilities; 99-Non AG Acreage 5 acres or more; 99-Nature Conservation, FL Keys Land Trust; 70-Vacant Institutional; 75-Non-profit; 76-Mortuarie or Cemetary;
Policy 101.4.3	Residential Medium	The principal purpose of the Residential Medium land use category is to recognize those portions of subdivisions that were lawfully established and improved prior to the adoption of this plan and to define improved subdivisions as those lots served by a dedicated and accepted existing roadway, have an approved potable water supply, and have sufficient uplands to accommodate the residential uses. Development on vacant land within this land use category shall be limited to one residential dwelling unit for each such platted lot or parcel which existed at the time of plan adoption. However, Monroe County shall adopt Land Development Regulations which allow nonresidential uses that were listed as a permitted use in the Land Development Regulations that were in effect immediately prior to the institution of the 2010 Comprehensive Plan (pre-2010 LDR's), and that lawfully existed on such lands on January 4, 1996 to develop, redevelop, reestablish and/or substantially improve provided that the uses are limited in inquired by Division 8 of the Monroe County Land Development Regulations,	residential dwelling units	00-Vacant Residential; 01-Single Family Residential
Policy 101.4.4	Residential High	The principal purpose of the Residential High category is to provide for high-density single-family, multi-family, and institutional residential development, including mobile homes and manufactured housing, located near employment centers. In addition, Monroe County shall adopt Land Development Regulations which allow nonresidential uses that were listed as a permitted use in the Land Development Regulations that were in effect immediately prior to the institution of the 2010 Comprehensive Plan, and that lawfully existed on such lands on January 4, 1996 to develop, redevelop, reestablish and/or substantially improve provided that the use is limited in intensity, floor area, density and to the type of use that existed on January 4, 1996 or limited to what the pre-2010 LDR's allowed, whichever is more restricted. [9J-5.006(3)(c) 1 and 7]	high-density single-family; multi-family; insitutional residential development; mobile homes; manufactured housing	00-Vacant Residential; 01-Single family residential; 02-Mobile Home; 03-Multi-family (10 units or more); 04-condominium; 05-Timeshare; 06-Retirement Home; 07-Compounds; 08-Multi-family (less than 10 units); 09-Compounds; 28-Parking Lots, mobile home; 74-Nursing home; 78-Rest home/homeless shelter;

Appendix 7: FUTURE LAND USE CATEGORIES AND CORRESPONDING PC CODES

Policy #	FLU Category	Column1	Permitted Uses	PC CODE & DESCRIPTION
Policy 101.4.5	Mixed Use/ Commercial	The principal purpose of the Mixed Use/ Commercial land use category is to provide for the establishment of commercial zoning districts where various types of commercial retail and office may be permitted at intensities which are consistent with the community character and the natural environment. Employee housing and commercial apartments are also permitted. This land use category is also intended to allow for the establishment of mixed use development patterns, where appropriate. Various types of residential and non-residential uses may be permitted; however, heavy industrial uses and similarly incompatible uses shall be prohibited. In order to protect environmentally sensitive lands, the following development controls shall apply to all hammocks, pinelands, and disturbed wetlands within this land use category: 1. only low intensity commercial uses shall be allowed; 2. a maximum floor area ratio of 0.10 shall apply; and 3. maximum net residential density shall be zero.	commercial retail; office; employee housing; commercial apartment; residential and non-residential uses; low-intensity commercial	00-Vacant Residential; 01-Single family residential; 02-mobile homes; 03-Multi-family, (10 units or more); 04-Condominiums; 05-Time Share; 06-Retirement Home, 07-Compounds; 08-Multi Family (10 units or less); 10-Vacant commercial; 27-Marinas; 28-Parking lot (commercial); 11-Stores, one story; 12-Mixed use - residential / commercial; 13-Department store; 14-Supermarket; 15-Regional Shopping center; 16-Community Shopping Center; 17-Office Bulding, one store; 18- Office Bulding, Multi Story; 19-Professional Services Building; 20-Airport, Marine, Bus Term; 21-Restuarant, cafeteria; 22-Fast Food drive thru restaurant; 23-Financial institution; 24-Gas station, 25-Repair shop (Non automotive); 26-Gas station, convenience store; 29-Wholesale outlet; 30-Florist/Greenhouse; 31-Dive shops; 32-Enclosed Theater or auditorium; 33-Nightclub or lounge or bar; 34-Bowling alley, pool hall, min. golf; 35-tourist attraction; 36-MH parks, Private camping, rec., parks; 37-auto dealers-new & used; 38-Golf Course, 39-hotel or motel; 41-Light Manufacturing; 44- Packing Plant; 48-Warehousing; 49-Open Storage
Policy 101.4.6	Mixed Use/ Commercial Fishing	The principal purpose of the Mixed Use/ Commercial Fishing land use category is to provide for the maintenance and enhancement of commercial fishing and related traditional uses such as retail, storage, and repair and maintenance which support the commercial fishing industry. Residential uses are also permitted. In order to protect environmentally sensitive lands, the following development controls shall apply to all hammocks, pinelands, and disturbed wetlands within this land use category: 1. only low intensity commercial uses shall be allowed, 2 a maximum floor area ratio of 0.10 shall apply; and 3. maximum net residential density shall be zero. [9J-5.006(3)(c)1 and 7]	retail; storage; repair & maintenance; residential uses; low-intensity commercial uses	00-Vacant Residential; 01-Single family; 02-Mobile homes; 03-Multi-family (10 units or more); 07-Compounds; 08-Multi-family (10 units or less); 09-Compounds; 27-Marinas; 44-Packing Plant, seafood, etc.; 10-Vacant Commercial; 11-stores, one story; 12-Mixed use-residential/commercial; 20-Airport, Marina, Bus Term; 25-repair shop; 29-wholesale outlet; 31-Dive shop; 33-Nightclub or lounge or bar; 40-Light industrial; 41-Light manufacturing; 46-Other Food Processing; 48-Warehousing; 49-Open storage;
Policy 101.4.7	Industrial	The principal purpose of the Industrial land use category is to provide for the development of industrial, manufacturing, and warehouse and distribution uses. Other commercial, public, residential, and commercial fishing-related uses are also allowed. [9J-5.006(3)(c)1 and 7]	Industrial, manufacturing, warehouse, distribution, commercial; public; residential; commercial fishing-related uses	00-Vacant residential; 01-Single family; 02-Mobile home; 03-Multi-family, (10 units or more); 04-Condominiums; 05-Time Share; 06-Retirement Home, 07-Compounds; 10-Vacant commercial; 17-Office Building, one story; 40-Vacant industrial; 41-Light manufacturing; 42-Heavy Industrial; 43-Lumber Yard; 45-Canneries or distilleries; 46-Other food processing; 47-Gravel pit; 48-Warehousing; 49-Open Storage; 08-Multi-family (less than 10 units); 44-Packing Plant, seafood, etc.; 11-stores, one story; 12-Mixed use-residential/commercial; 21-restaurant; 25-repair shop; 29-wholesale outlet; 46-Other food processing

Appendix 7: FUTURE LAND USE CATEGORIES AND CORRESPONDING PC CODES

Policy #	FLU Category	Column1	Permitted Uses	PC CODE & DESCRIPTION
Policy 101.4.8	Recreation	The principal purpose of the Recreation land use category is to provide for public and private activity-based and resource-based recreational facilities. [9J-5.006(3)(c)1 and 7]	activity- & resourced-based recreational facilities	37- Race Tracks, Auto, Dog, Horse; 38-Golf Course; 77- Club or Lodge; 80-Fl. Parks or memorials; 27-Marinas; 82-US Mainland Forest, parks, rec area, 86-County, other than PC list; 87-State-other than PC list; 88-Federal -other than PC list; 89-Municipal-other than PC list; 92-Private park; 95-submerged land; 96-wasteland, marsh, sand dunes; 99-non ag acreage 5 or more; 99-Nature Conservancy, FL Keys Land Trust
Policy 101.4.10	Institutional	The principal purpose of the Institutional land use category is to provide for institutional uses by federally tax-exempt, non-profit facilities, including, but not limited to, educational, scientific, religious, social service, cultural, and recreational organizations. Related residential and non-residential uses, including student and employee housing shall be allowed. [9J-5.006(3)(c)1 and 7]	Institutional uses, residential and non-residential uses, student and employee housing	70-Vacant institutional; 71-Church; 72-Private school or college; 73-Private Hospital; 74-Nursing Home; 75-Non-Profite (Bahama Conch Comm. Tr.); 76-Mortuarie or cemetery; 77-Club or Lodge; 78-Rest homes, homeless shelter; 79-Tangible exempt parcels; 03-Multi-family (10 units or more); 08-Multi-family (10 units or less); 09-Compounds
Policy 101.4.11	Educational	The principal purpose of the Educational land use category is to provide for public educational facilities. The County shall coordinate with the School Board to balance educational facility land requirements with other land use objectives. In recognition of Monroe County's environment and the linear distribution of its population, the County shall encourage schools to accommodate building and facility requirements on existing sites. When new school sites are required, school shall be encouraged to locate proximate to urban residential areas and other public facilities. [9J-5.006(3)(c) 1 and 7]	Public educational facilities; building and facility requirements	70-Vacant institutional; 72-Private school or college; 83-Public School; 84-Public college.
Policy 101.4.12	Public Buildings/Grounds	The principal purpose of the Public Buildings/Grounds land use category is to provide for public buildings and grounds owned by federal, state and local governments. [9J-	Public buildings; grounds	86-County-Other than the PC list; 87-State-Other than PC list; 88-Federal-Other than PC list; 89-Municipal-Other than PC list
Policy 101.4.13	Public Facilities	The principal purpose of the Public Facilities land use category is to provide for land owned by public utilities and service providers. [9J-5.006(3)(c)1 and 7]		91-Utilities; 94-Right of ways
Policy 101.4.14	Military	The principal purpose of the Military land use category is to provide for federally owned lands used for military purposes. Development densities and intensities are not subject to regulation by Monroe County. Military commanders will be requested to follow these recommended densities and intensities as specified in Policy 101.4.22, consistent with natural resource constraints as well as all County environmental design criteria.		81-Military
Policy 101.4.15	Conservation	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. Public uses consistent with the purpose of this category shall be allowed. [9J-5.006(3)(c)1 and 7]	Publicly owned lands for preservation, compatible passive recreational uses, public uses	80-Fl. Parks or memorials; 82-US Mainland forest, parks, rec area; 86-County-Other than the PC list; 87-State-Other than PC list; 88-Federal-Other than PC list; 89-Municipal-Other than PC list; 90-Leasehold interest; 95-Submerged land; 96-Non gov. owned land-Everglades; 99-Nature Conservancy, FL Keys
Policy 101.4.16	Airport	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.		20-Airport, bus terminal
Policy 101.4.17	Mainland Native	The principal purpose of the Mainland Native land use category is to protect the undeveloped and environmentally sensitive character of land within Monroe County that is located on the mainland of the Florida peninsula. Very low density residential uses and low-intensity educational and research centers shall be allowed. All land in the mainland portion of Monroe County is hereby designated as Mainland Native.	very low-density residential uses; low-intensity educational and resource centers	00-Vacant Residential; 01-Single family; 72-Research center; 82-US Mainland Forest Parks, Rec Area; 88-Federal-other than PC list; 96-Non gov. owned land-Everglades

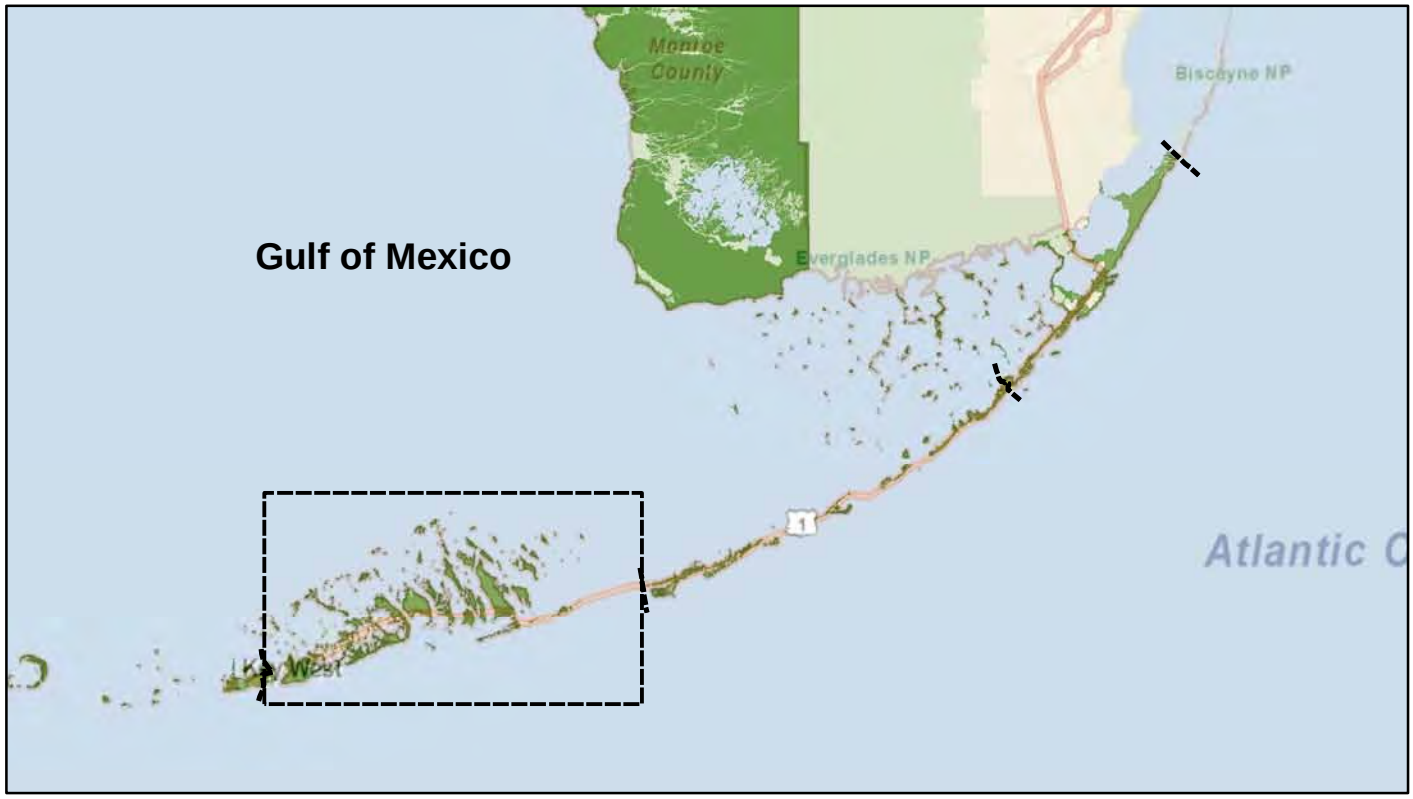
Appendix 7: FUTURE LAND USE CATEGORIES AND CORRESPONDING PC CODES

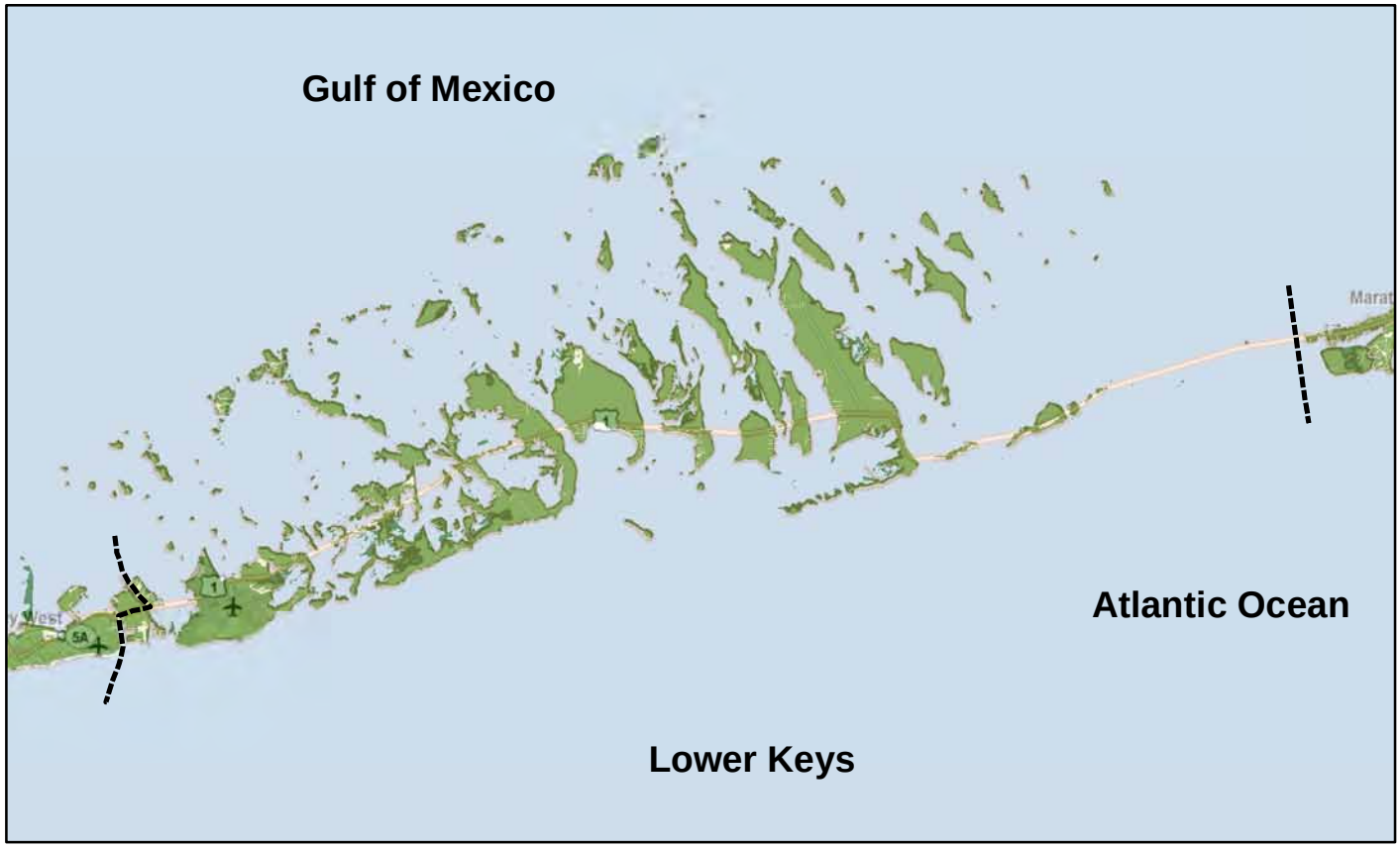
Policy #	FLU Category	Column1	Permitted Uses	PC CODE & DESCRIPTION

APPENDIX 8 – CONFLICT ANALYSIS MAPS

Lower Keys Planning Area

Potential Conflicts Analysis in Lower Keys





Lower Keys Planning Area

Potential Conflicts in Airport District

Legend

AD-Nonconforming PC

AD-Airport District

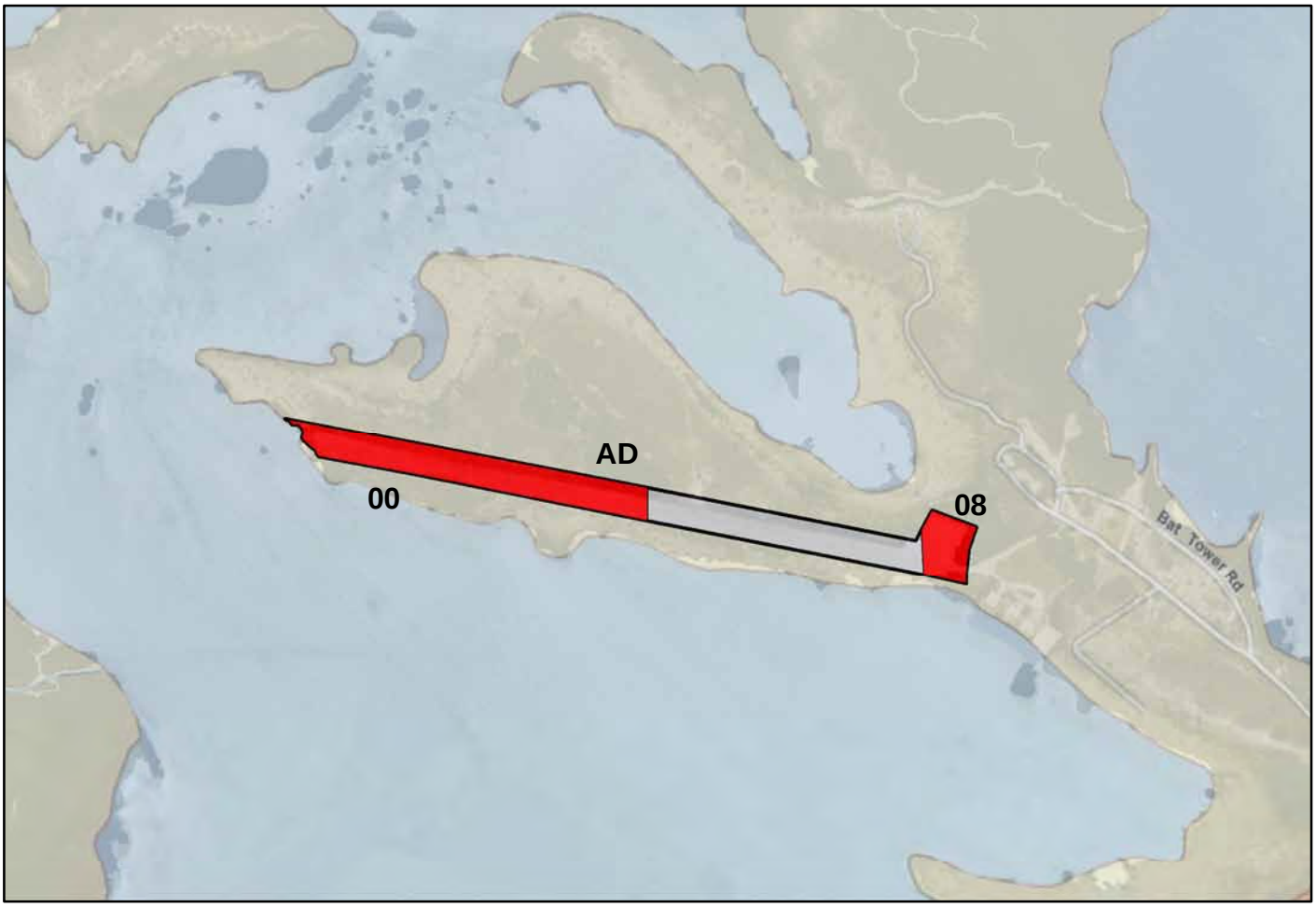
Non-Conforming PC

00-Vacant Residential

08-Multi-Family < 10

Conforming PC

20



Lower Keys Planning Area

Potential Conflicts in Airport District

Legend

AD-Nonconforming PC

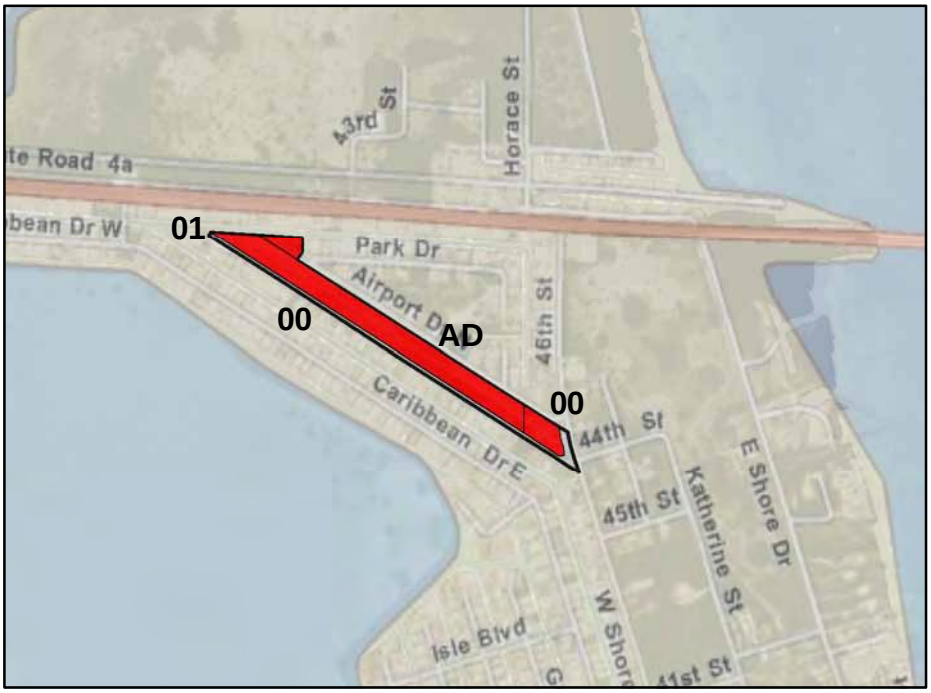
AD-Airport District

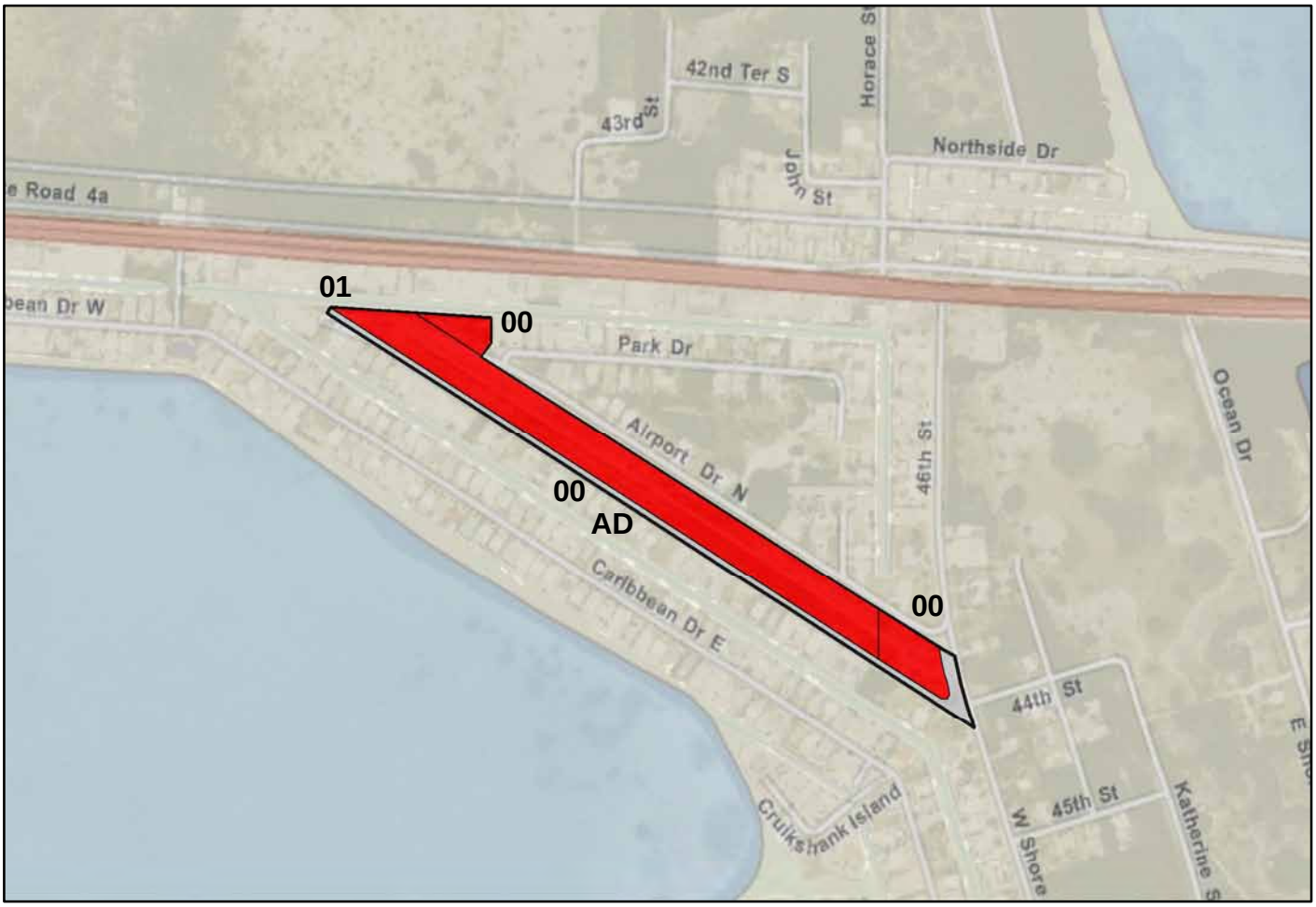
Non-Conforming PC

00-Vacant Residential
01-Single Family

Conforming PC

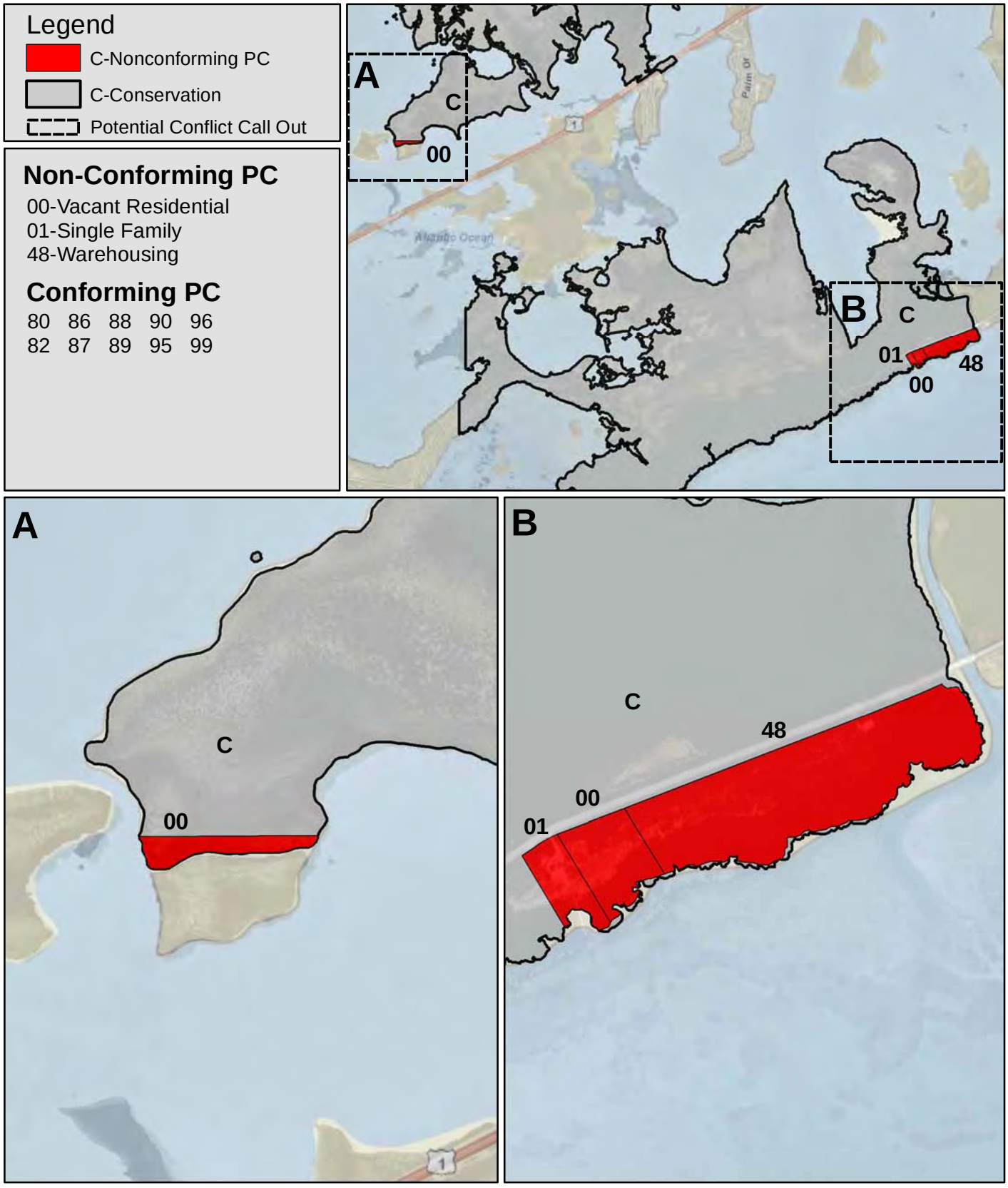
20





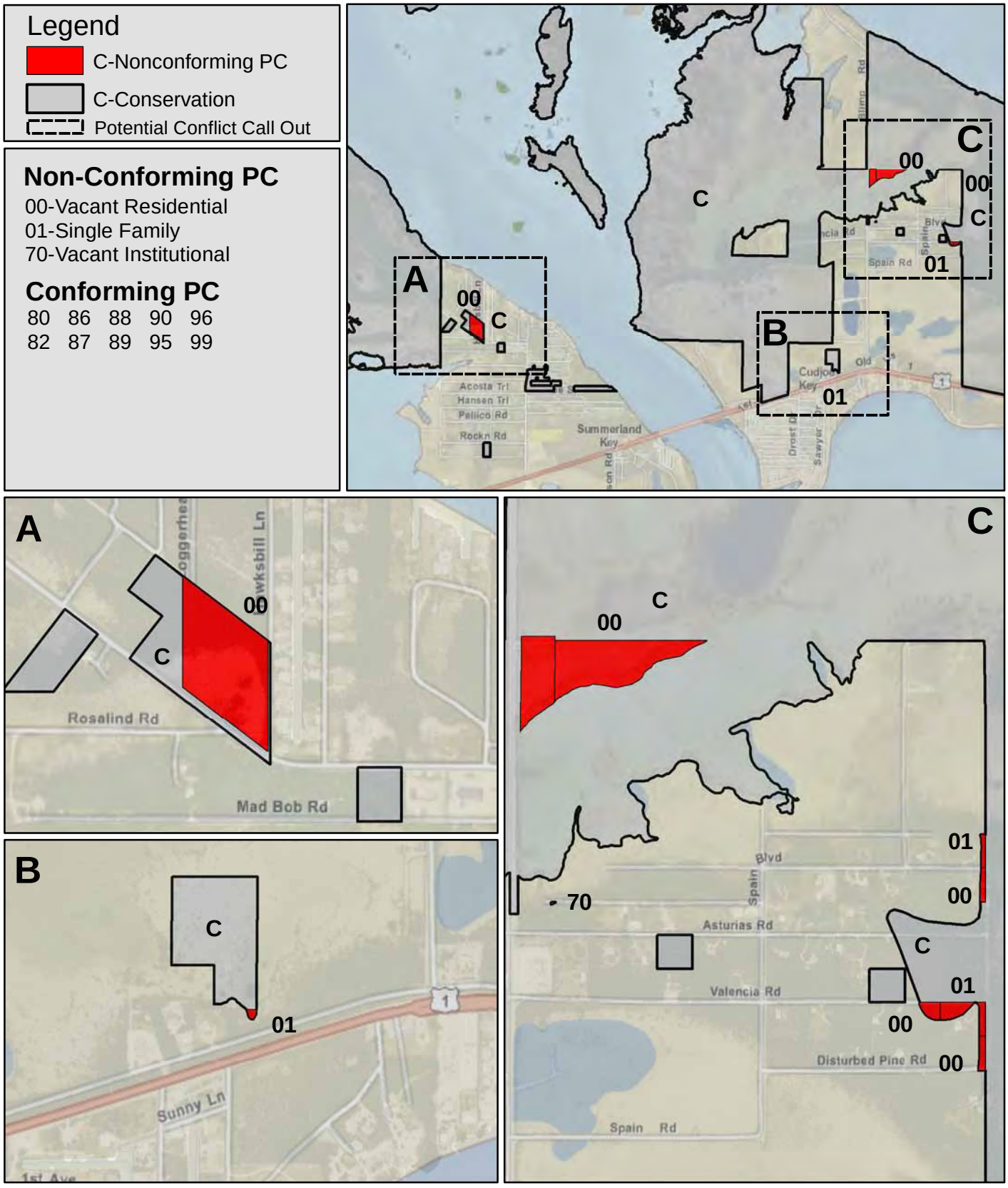
Lower Keys Planning Area

Potential Conflicts in Conservation District



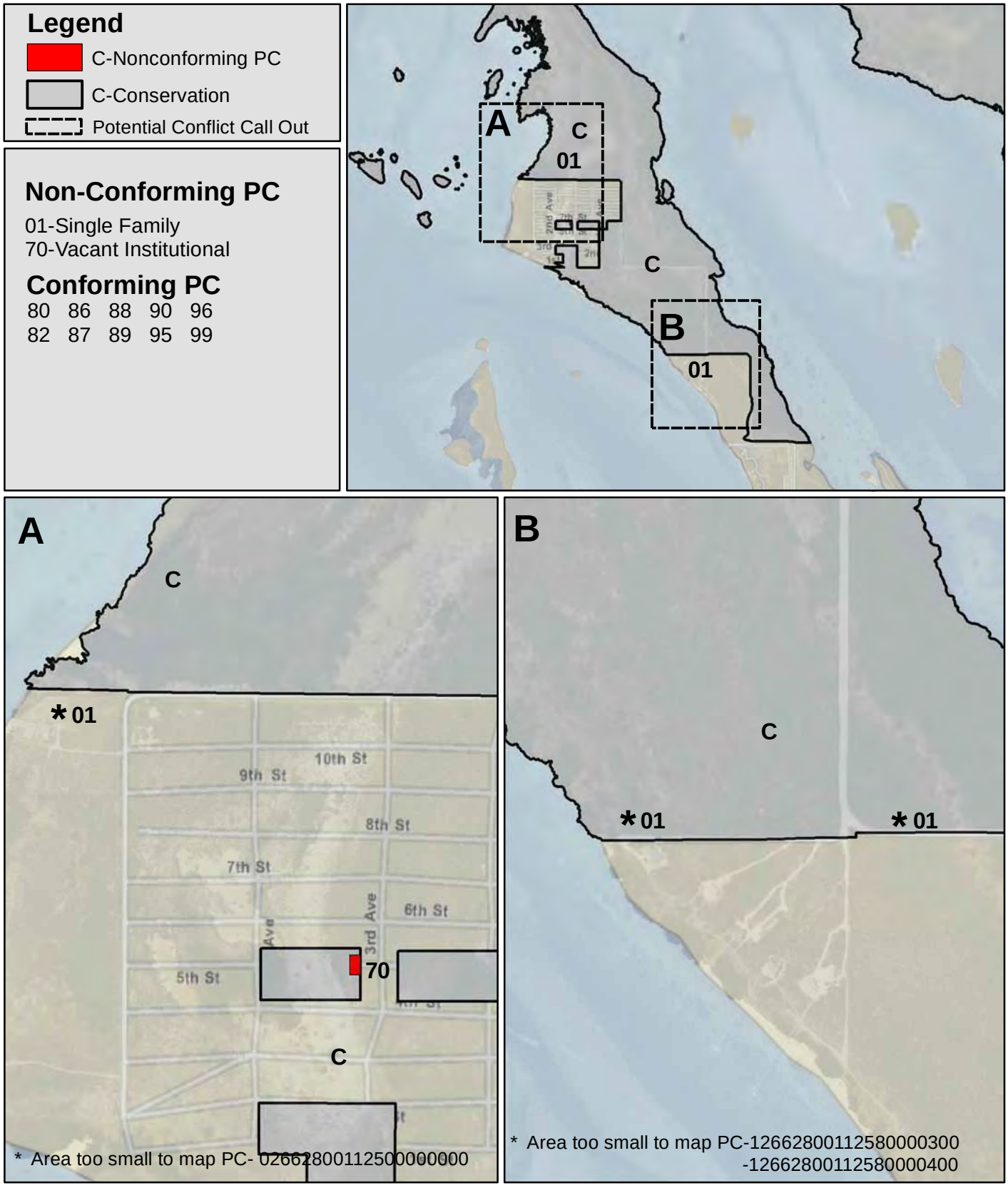
Lower Keys Planning Area

Potential Conflicts in Conservation District



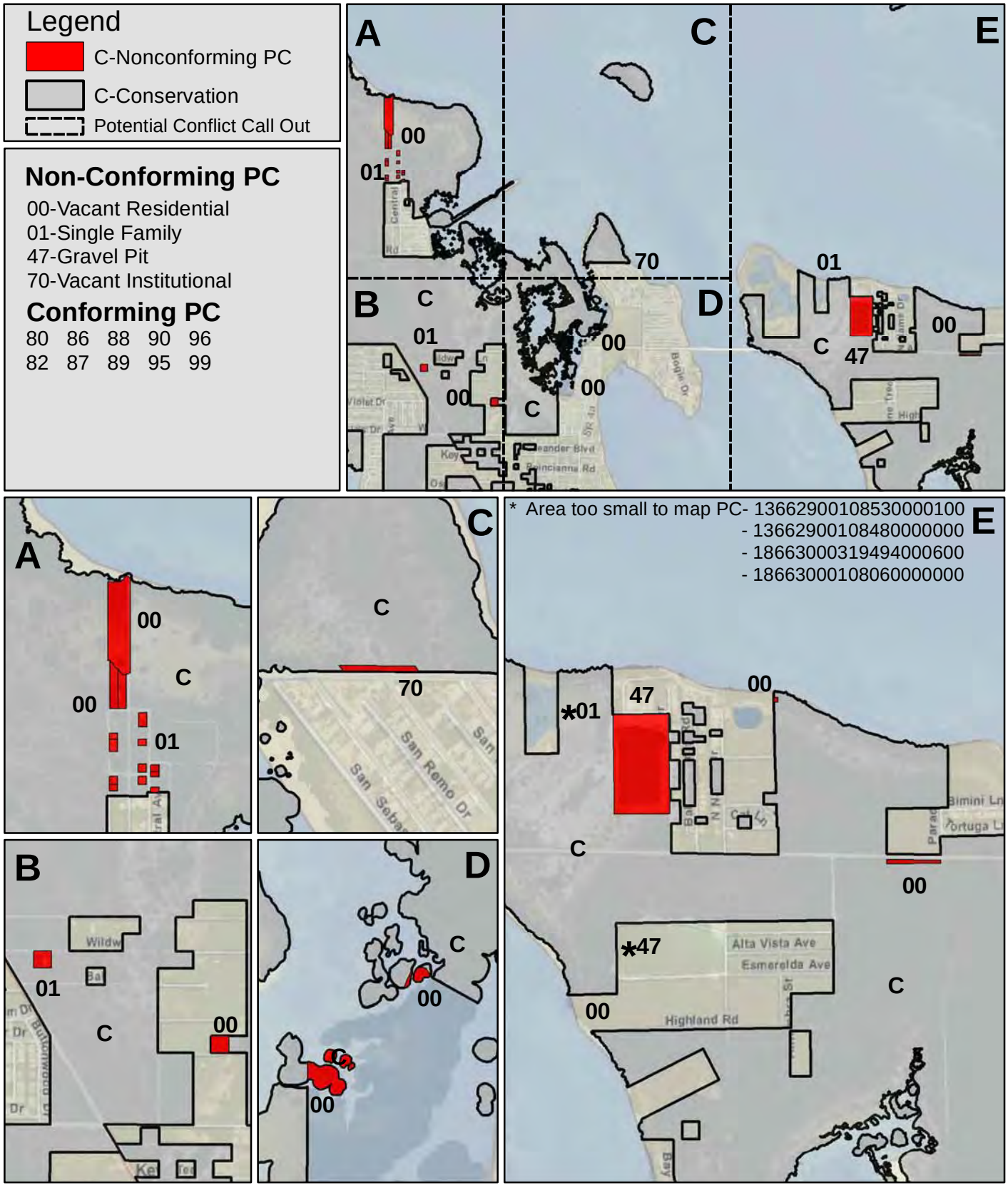
Lower Keys Planning Area

Potential Conflicts in Conservation District



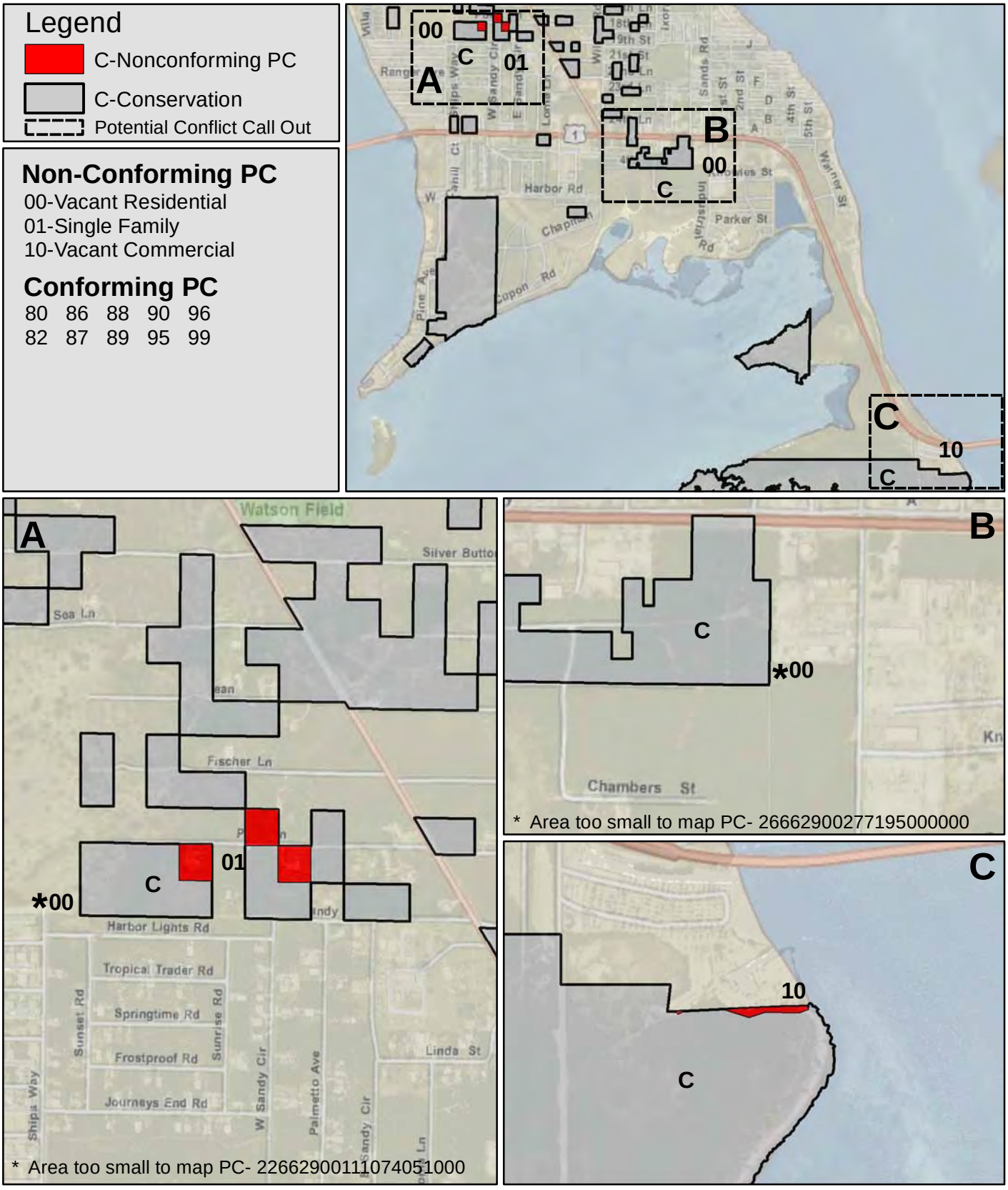
Lower Keys Planning Area

Potential Conflicts in Conservation District



Lower Keys Planning Area

Potential Conflicts in Conservation District



Lower Keys Planning Area

Potential Conflicts in Industrial District

Legend

I-Nonconforming PC

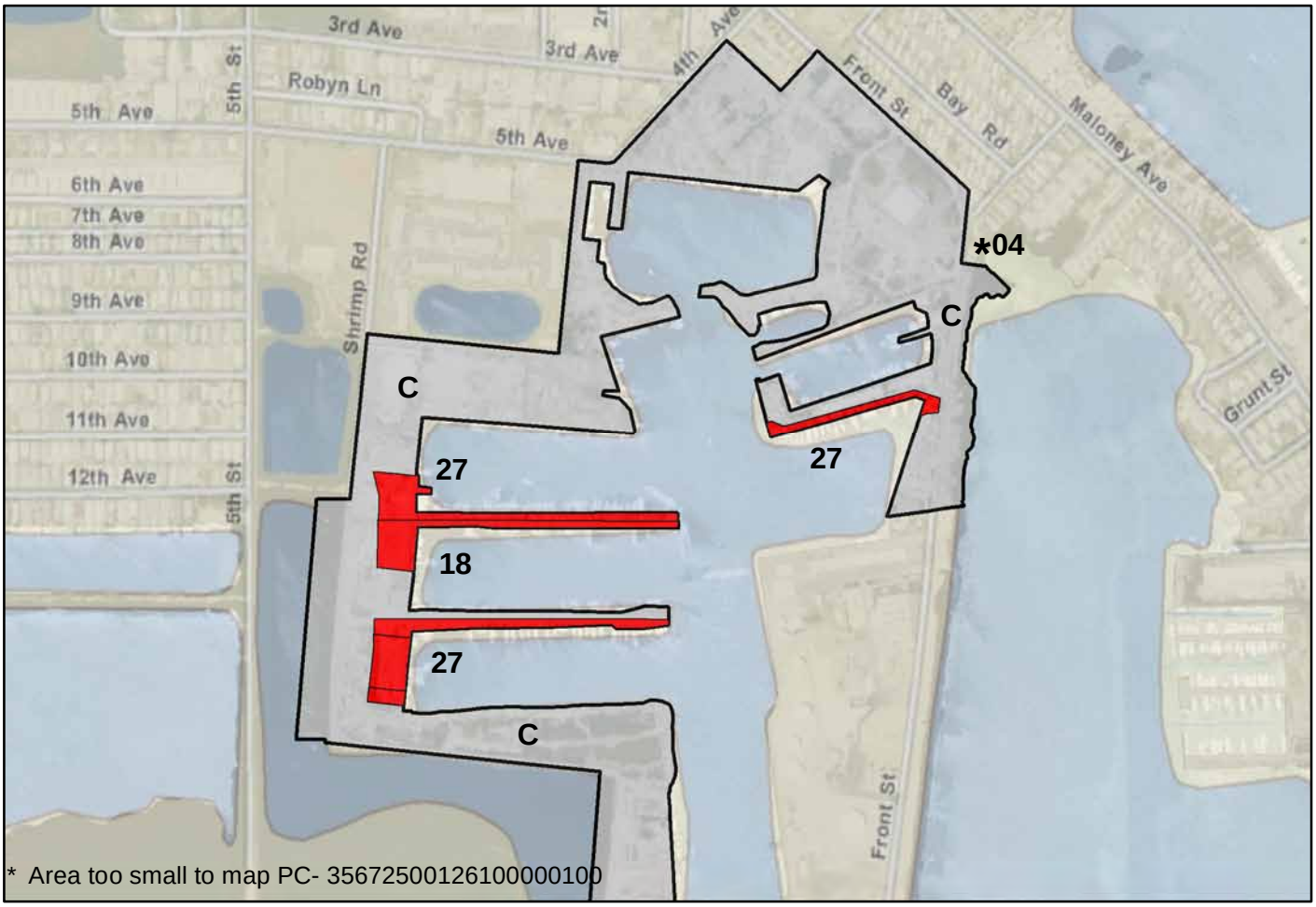
I-Industrial

Non-Conforming PC

04-Condominium
18-Office Building, Multi-Story
27-Auto Sales/Repair, Marine Eq.

Conforming PC

00	01	02	08	10	11	12
21	25	29	40	41	42	43
44	45	46	47	48	49	



* Area too small to map PC- 35672500126100000100

Lower Keys Planning Area

Potential Conflicts in Industrial District

Legend

I-Nonconforming PC

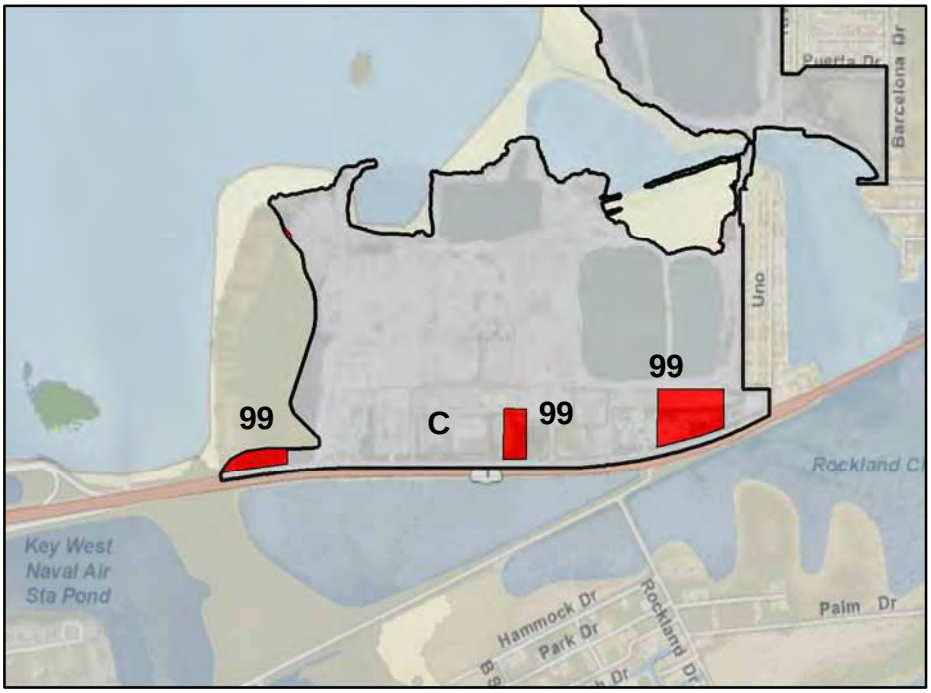
I-Industrial

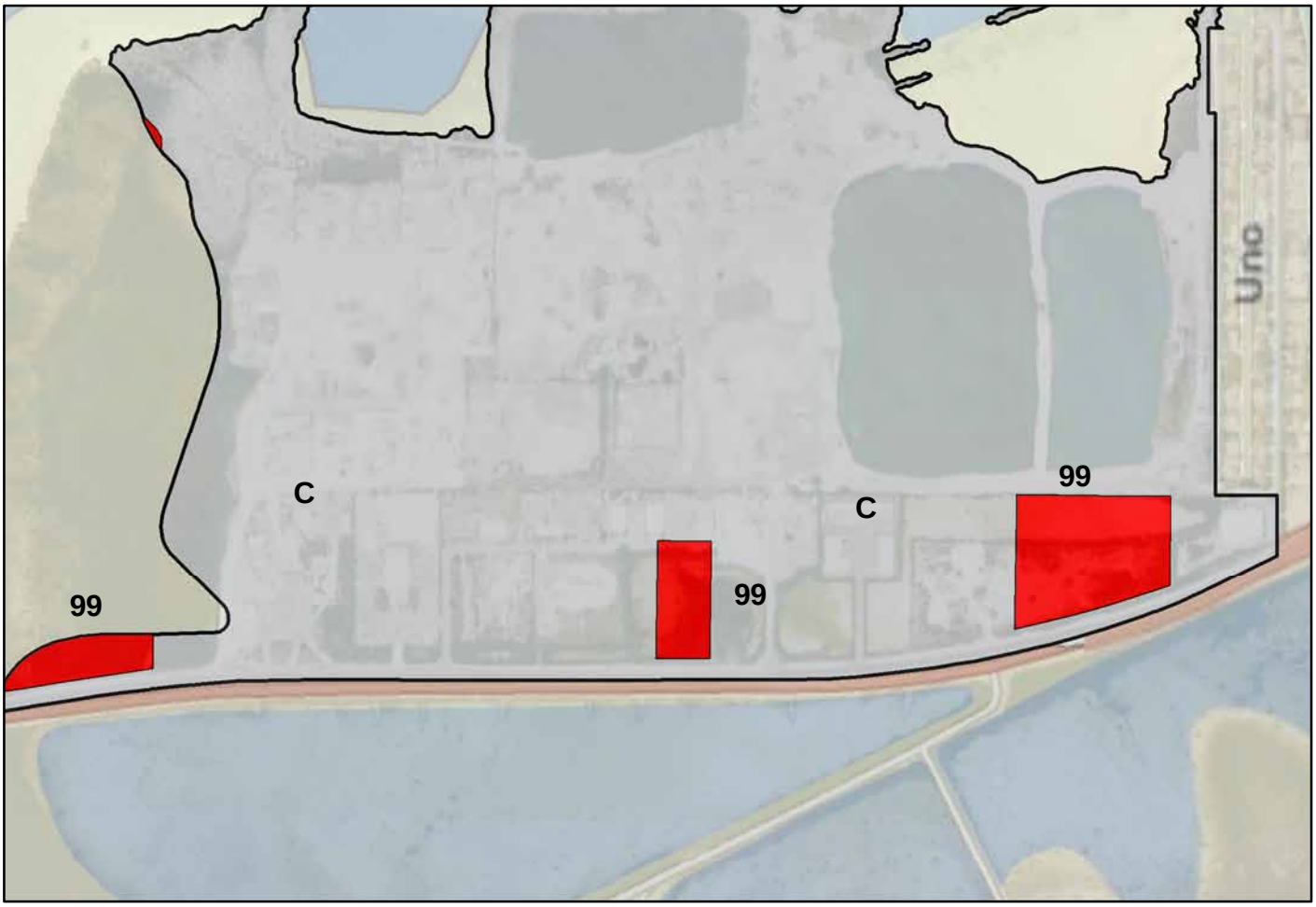
Non-Conforming PC

99-Nature Conservancy

Conforming PC

00	01	02	08	10	11	12
21	25	29	40	41	42	43
44	45	46	47	48	49	





Lower Keys Planning Area

Potential Conflicts in Industrial District

Legend

I-Nonconforming PC

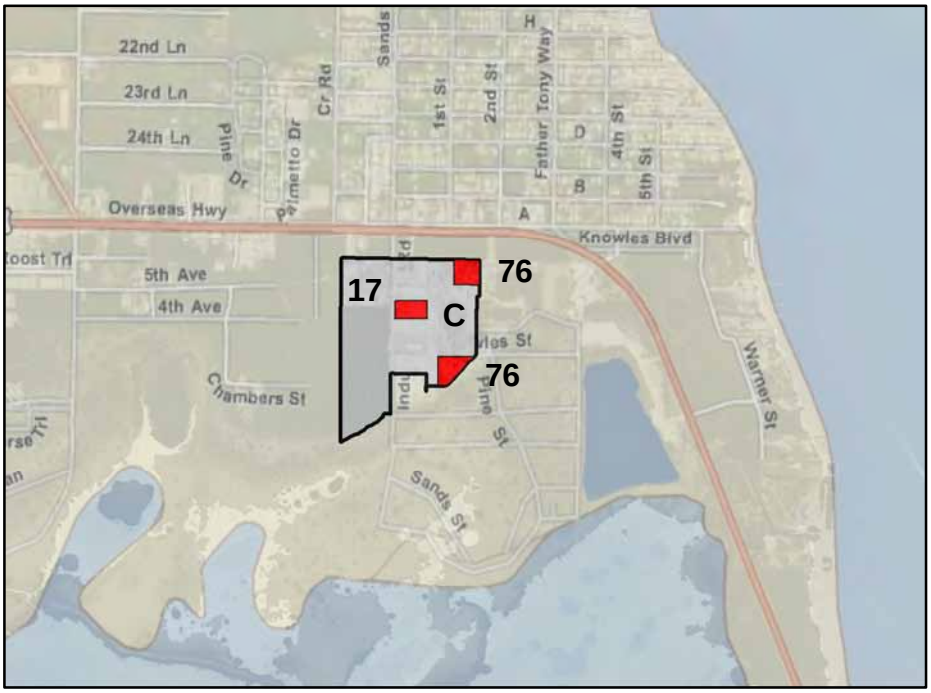
I-Industrial

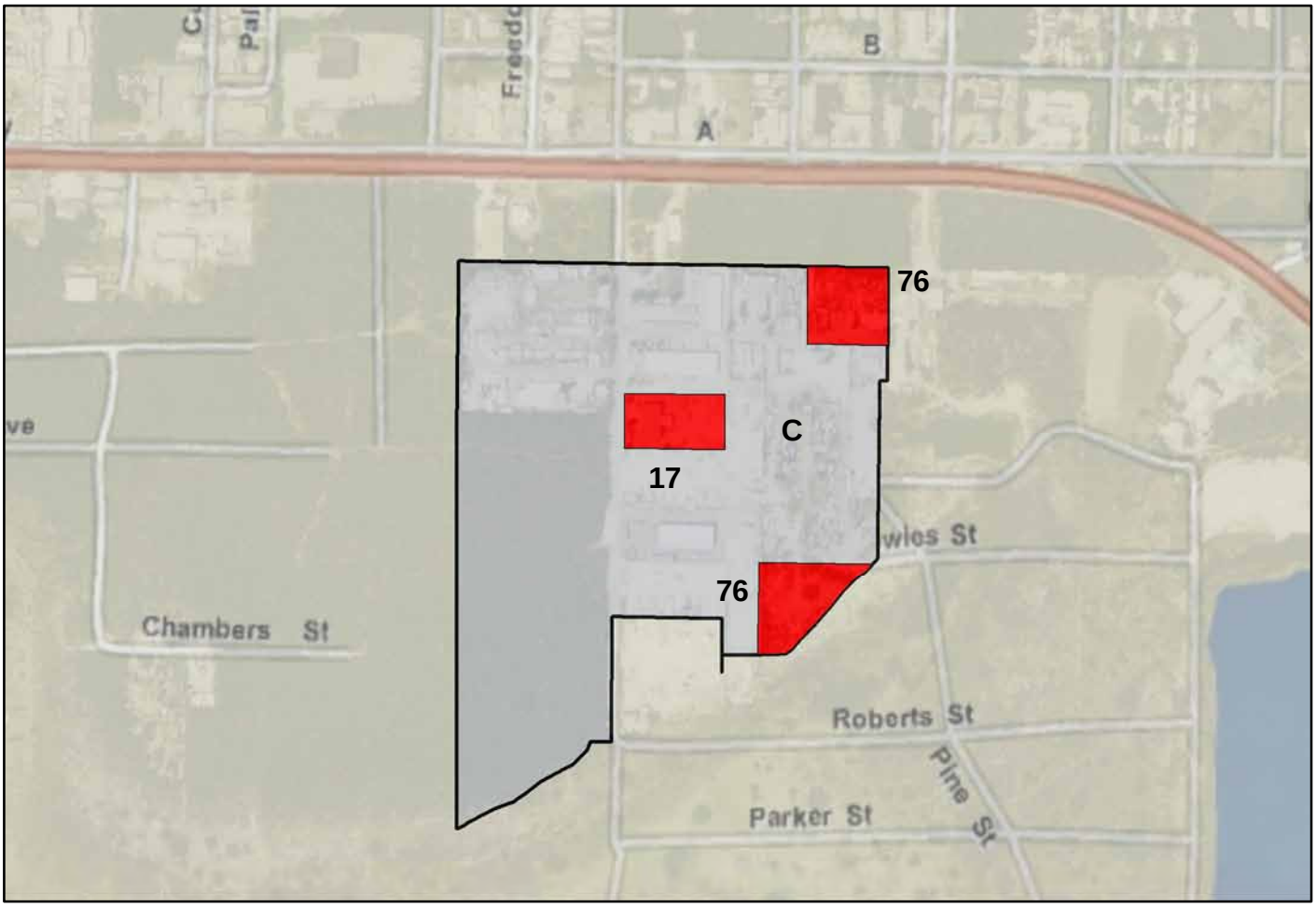
Non-Conforming PC

17-Office Building, One Story
76-Mortuary or Cemetary

Conforming PC

00	01	02	08	10	11	12
21	25	29	40	41	42	43
44	45	46	47	48	49	





Lower Keys Planning Area

Potential Conflicts in Institutional District

Legend

INS-Nonconforming PC

INS-Institutional

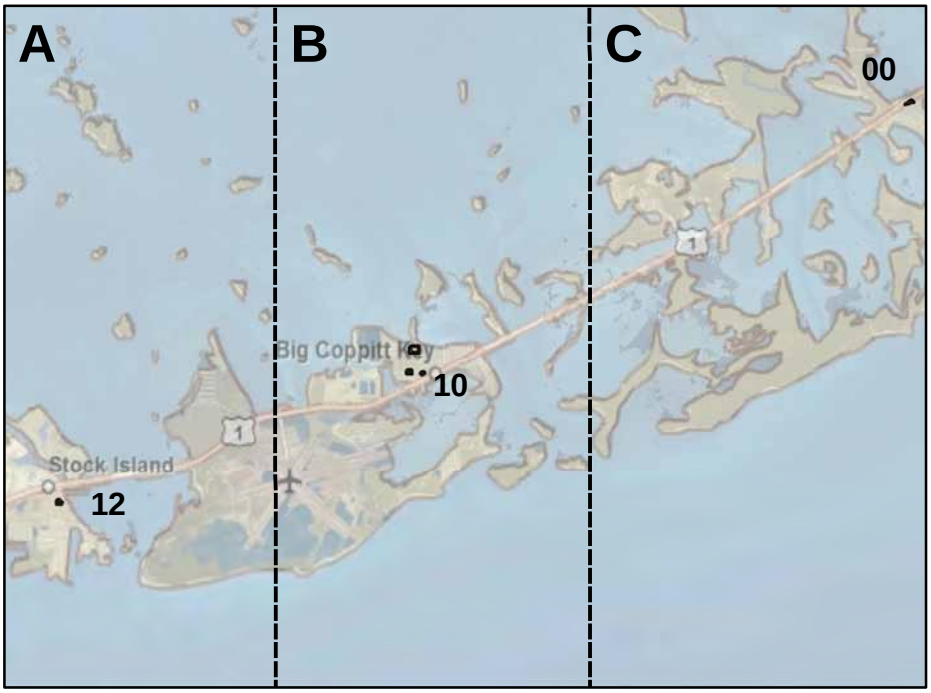
Potential Conflict Call Out

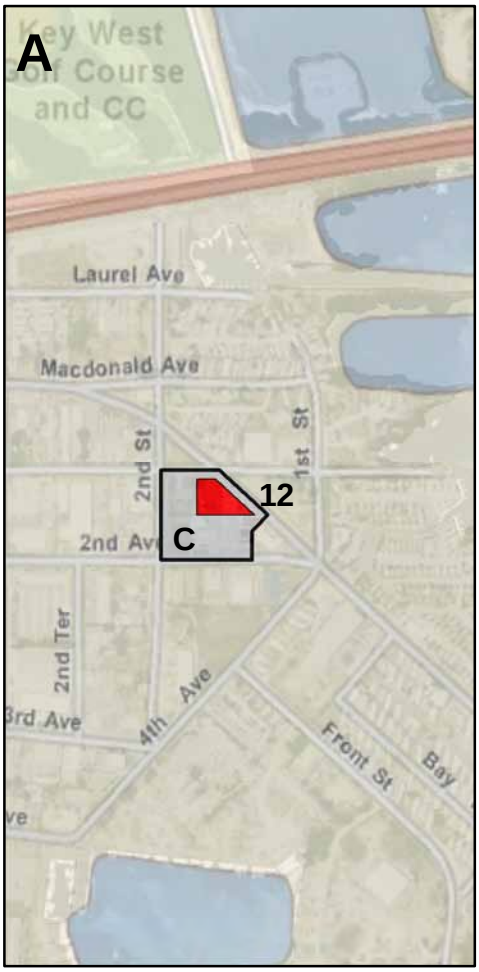
Non-Conforming PC

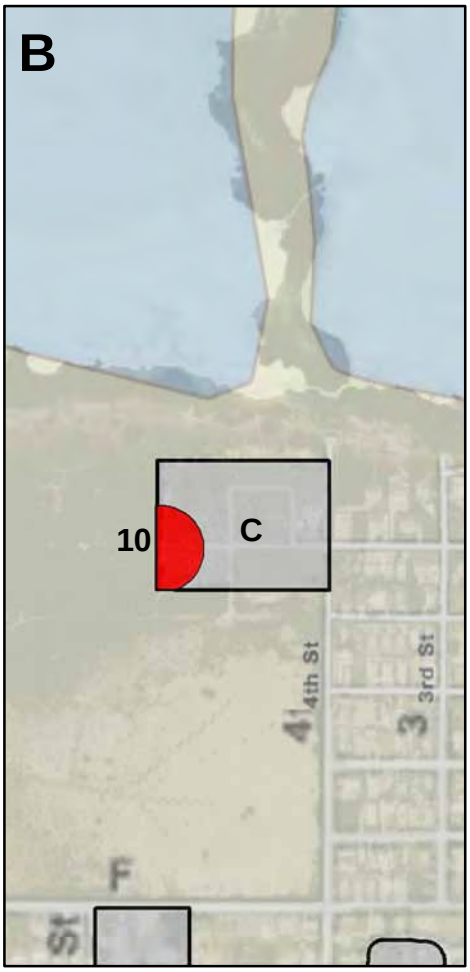
00-Vacant Residential
10-Vacant Commercial
12-Mixed Use-Res./Commercial

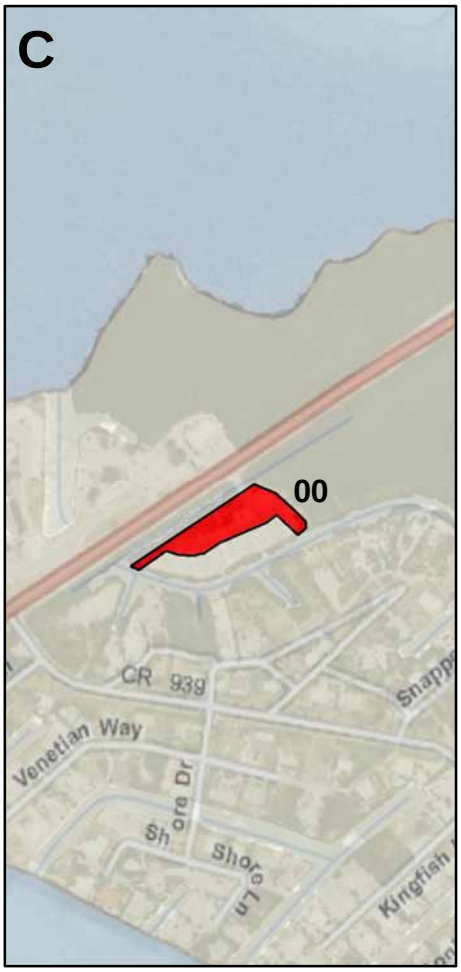
Conforming PC

03 08 09 70 71 72 73
74 75 76 77 78 79



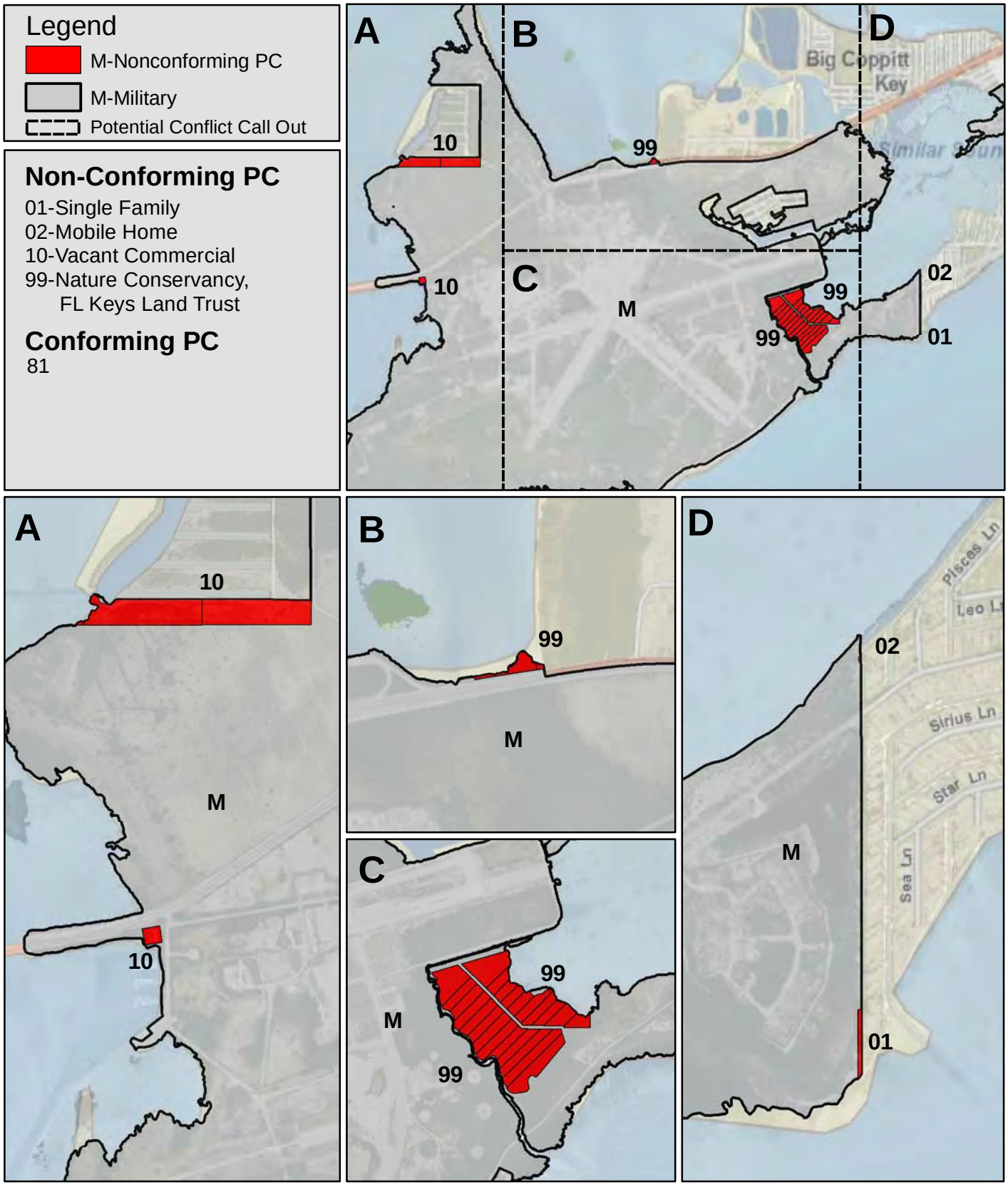






Lower Keys Planning Area

Potential Conflicts in Military District



Lower Keys Planning Area

Potential Conflicts in Mixed Use Commercial District

Legend

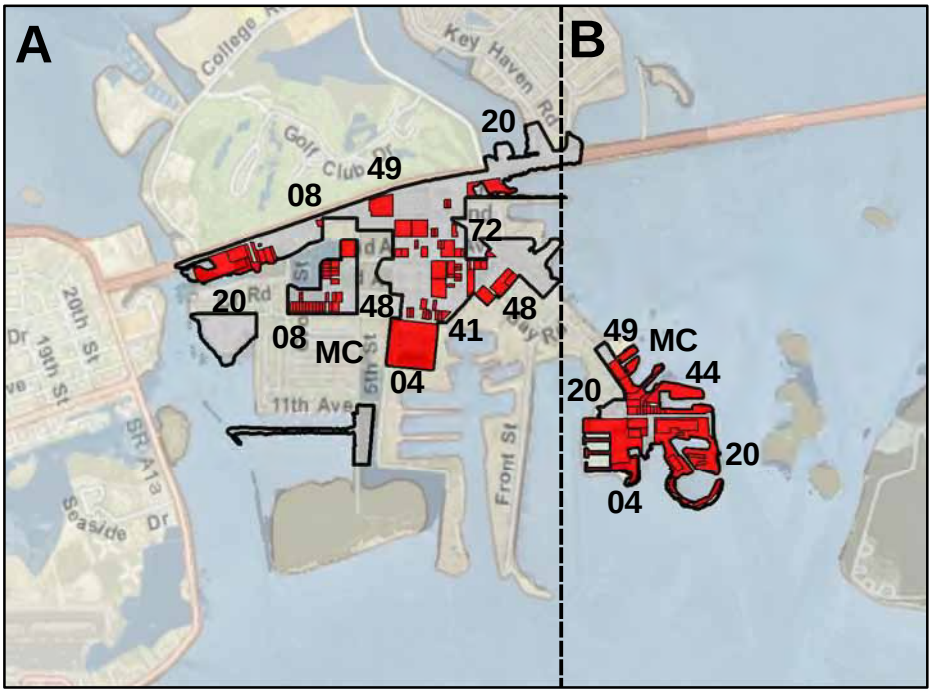
- MC-Nonconforming PC
- MC-Mixed Use Commercial
- Potential Conflict Call Out

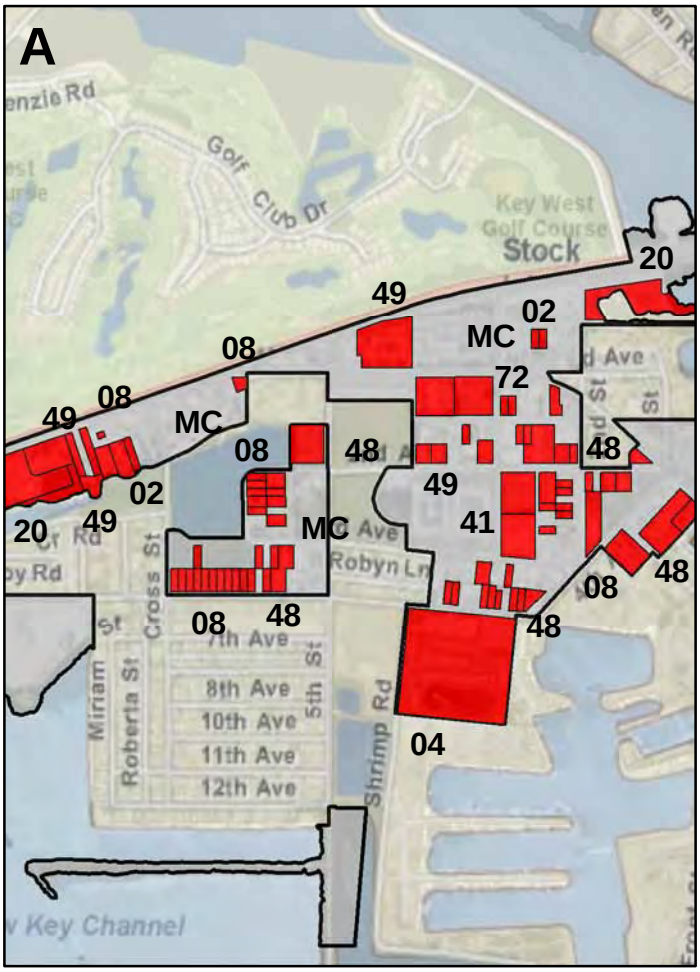
Non-Conforming PC

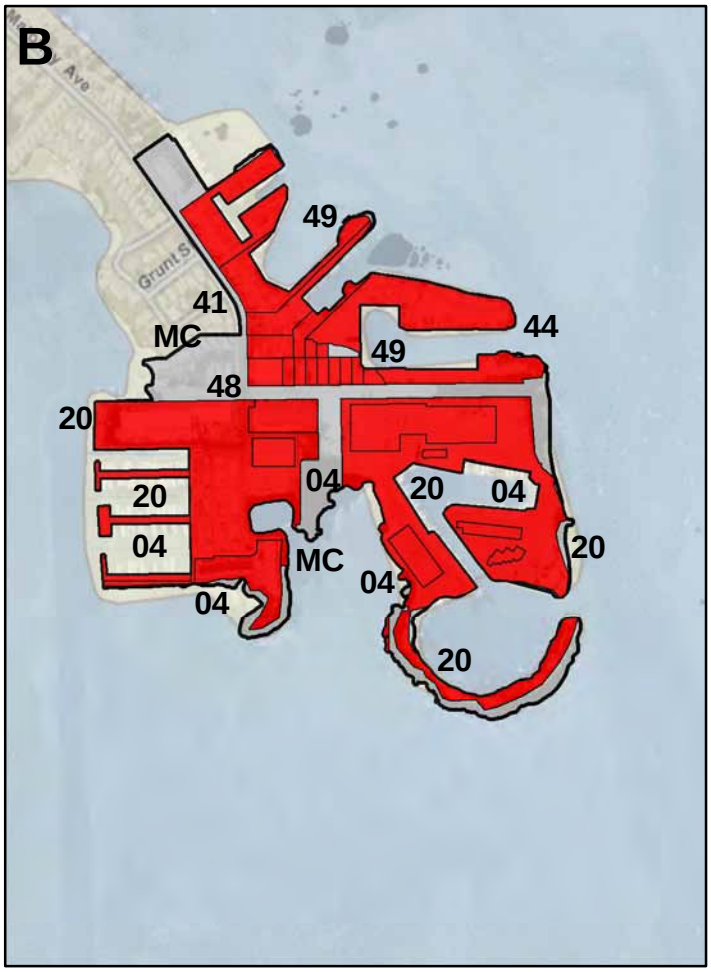
04-Condominium
08-Multi-Family < 10 Units
20-Airport, Marina, Bus
44-Packing Plant
48-Warehousing
49-Open Storage
72-Private School, College

Conforming PC

00 01 03 10 11 12 13 14 15 16 17
18 19 21 22 23 24 25 26 27 28 29
30 31 32 33 34 35 36 37 38 39







Lower Keys Planning Area

Potential Conflicts in Mixed Use Commercial District

Legend

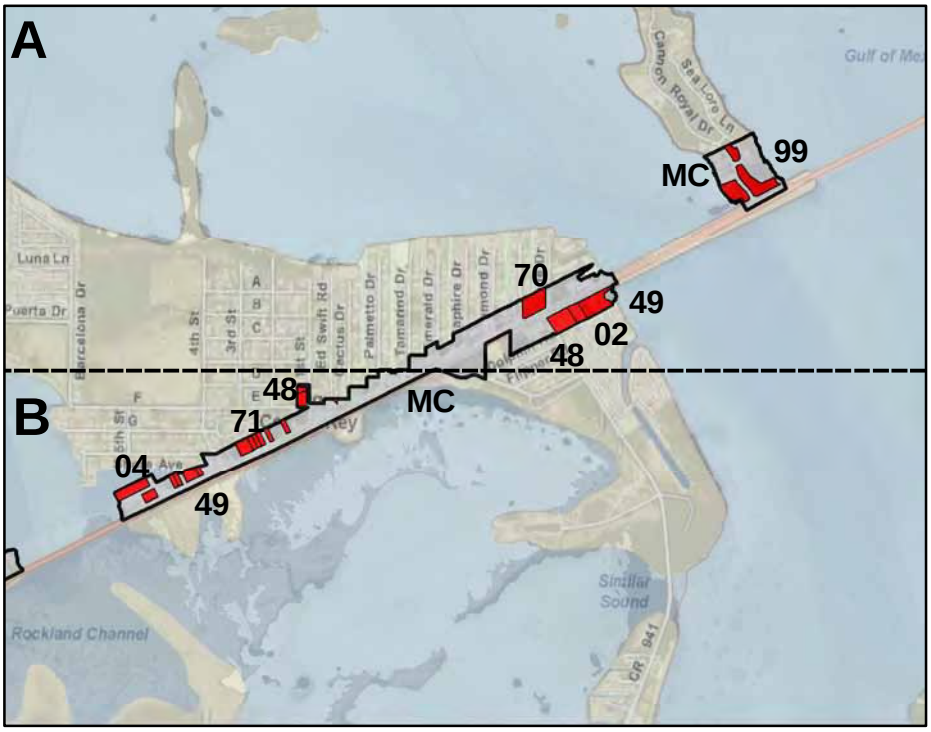
- MC-Nonconforming PC
- MC-Mixed Use Commercial
- Potential Conflict Call Out

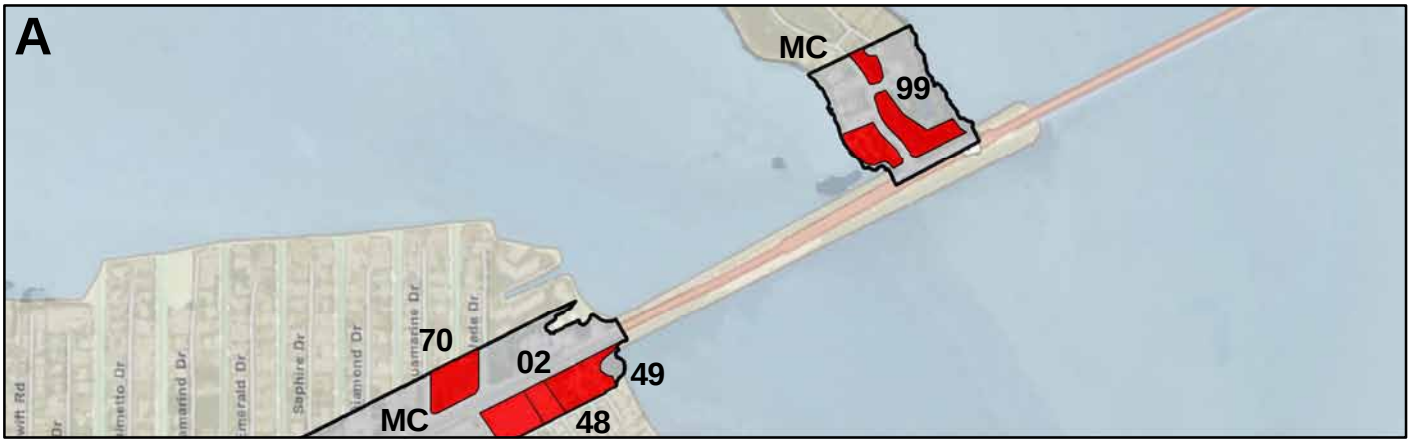
Non-Conforming PC

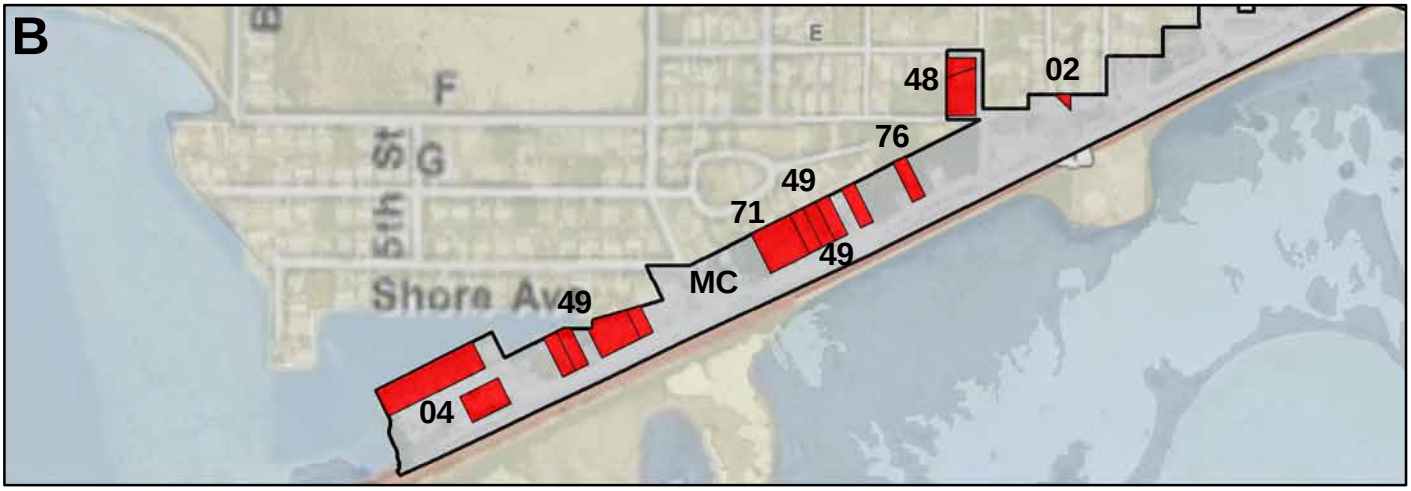
02-Mobile Home
04-Condominium
48-Warehousing
49-Open Storage
70-Vacant Institutional
71-Church
76-Mortuary/Cemetary
99-Nature Conservancy,
Fl Keys Land Trust

Conforming PC

00 01 03 10 11 12 13 14 15 16 17
18 19 21 22 23 24 25 26 27 28 29
30 31 32 33 34 35 36 37 38 39







Lower Keys Planning Area

Potential Conflicts in Mixed Use Commercial District

Legend

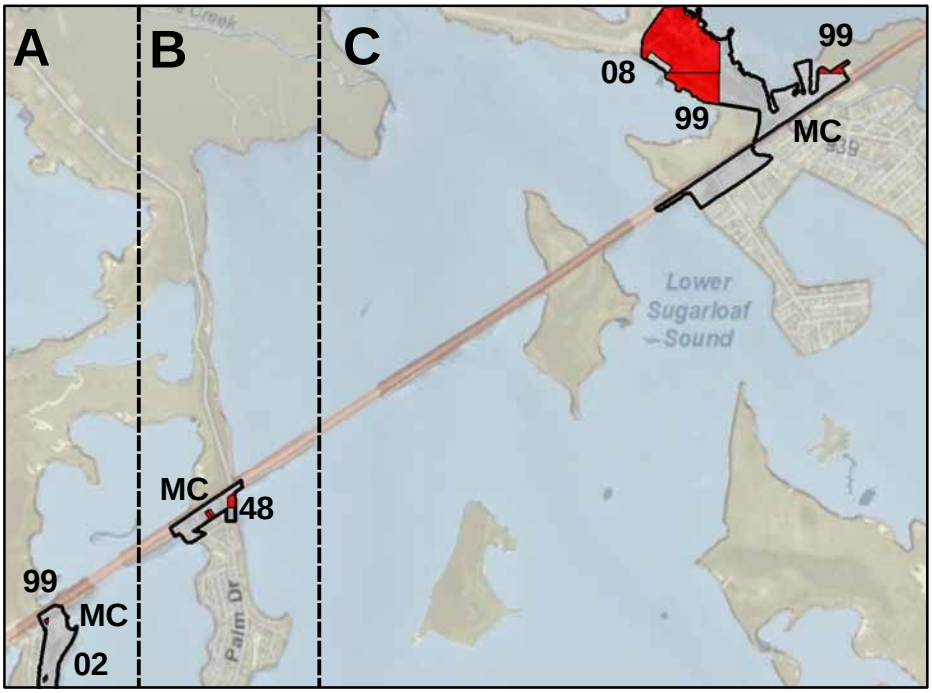
- MC-Nonconforming PC
- MC-Mixed Use Commercial
- Potential Conflict Call Out

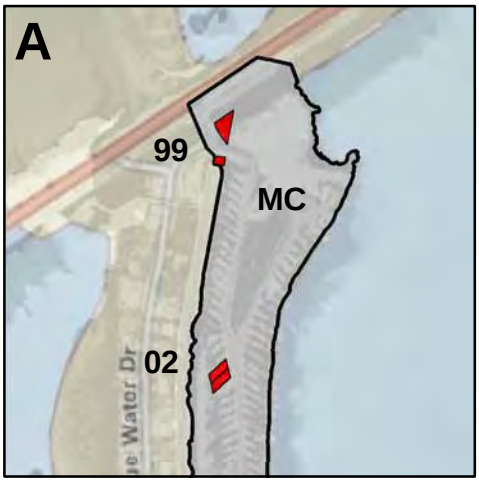
Non-Conforming PC

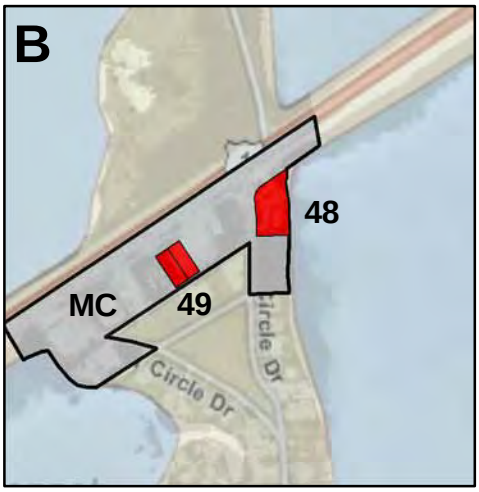
02-Mobile Home
08-Multi-Family < 10 Units
48-Warehousing
49-Open Storage
99-Nature Conservancy,
Fl Keys Land Trust

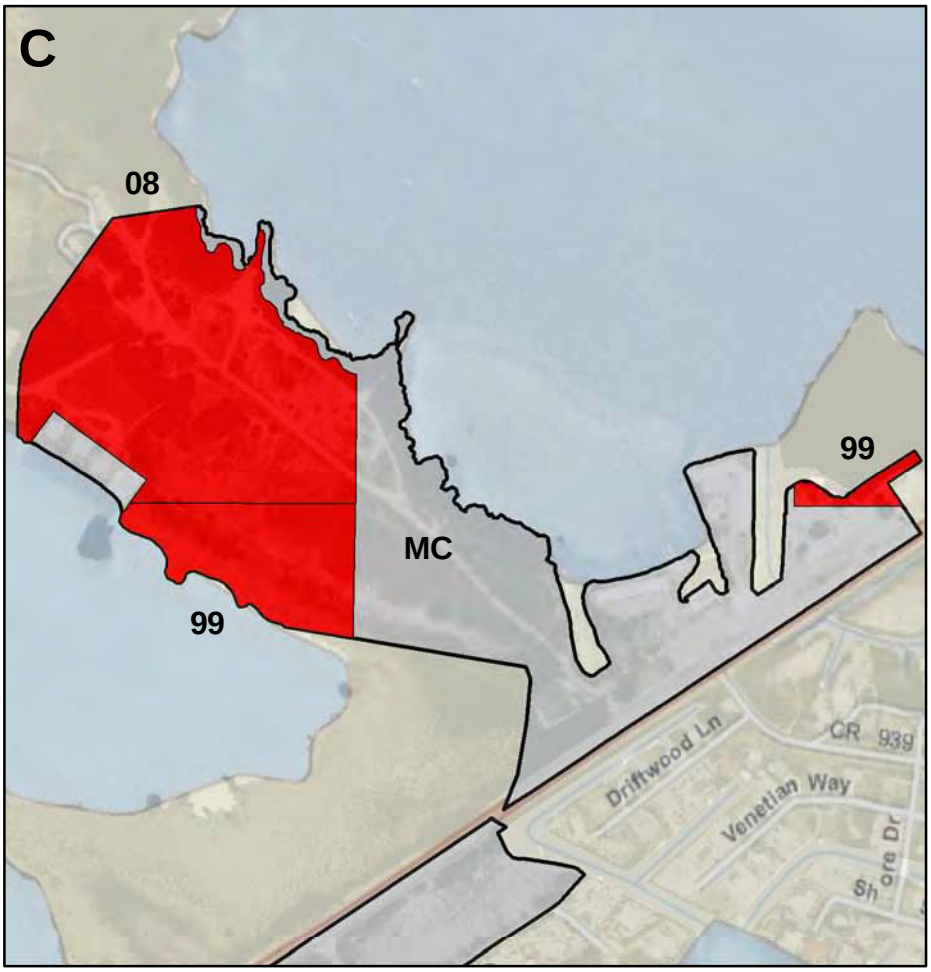
Conforming PC

00 01 03 10 11 12 13 14 15 16 17
18 19 21 22 23 24 25 26 27 28 29
30 31 32 33 34 35 36 37 38 39



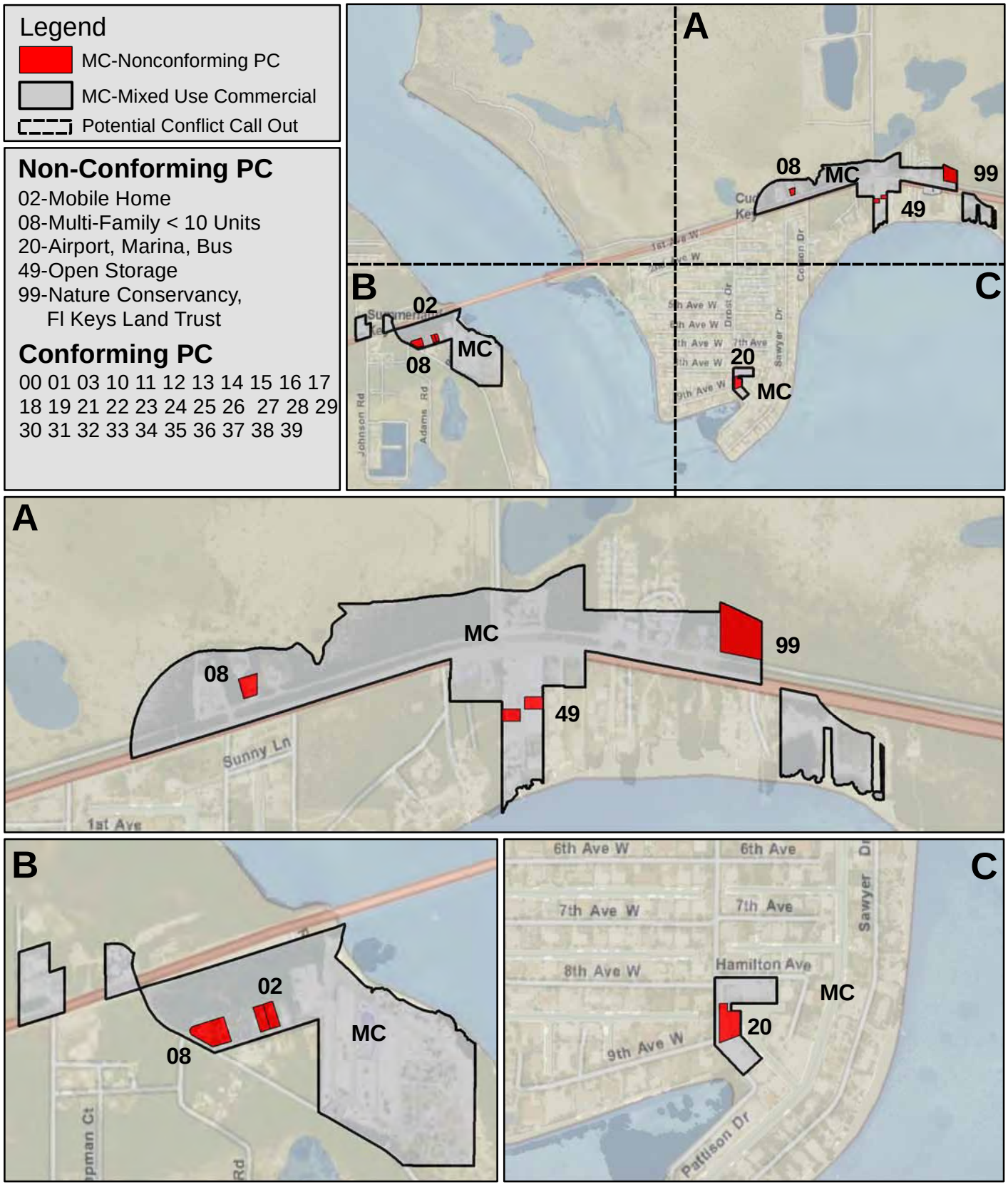






Lower Keys Planning Area

Potential Conflicts in Mixed Use Commercial District



Lower Keys Planning Area

Potential Conflicts in Mixed Use Commercial District

Legend

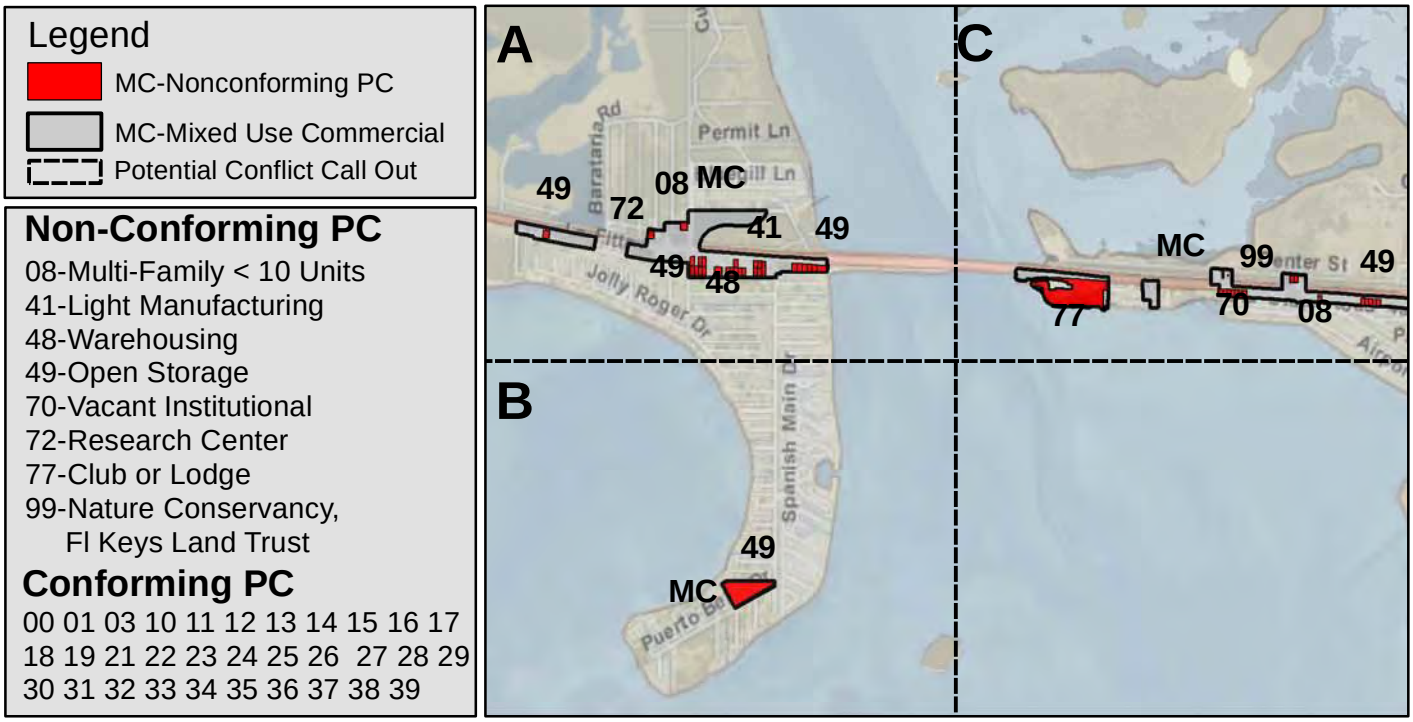
- MC-Nonconforming PC
- MC-Mixed Use Commercial
- Potential Conflict Call Out

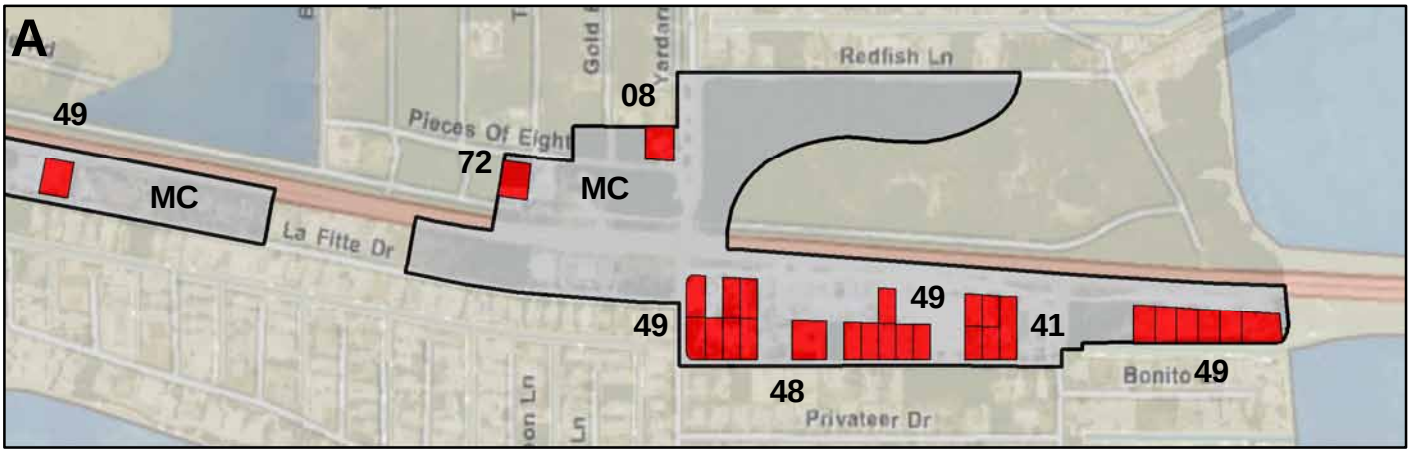
Non-Conforming PC

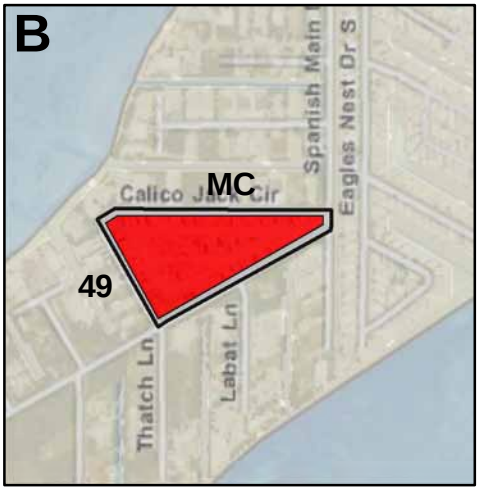
08-Multi-Family < 10 Units
41-Light Manufacturing
48-Warehousing
49-Open Storage
70-Vacant Institutional
72-Research Center
77-Club or Lodge
99-Nature Conservancy,
Fl Keys Land Trust

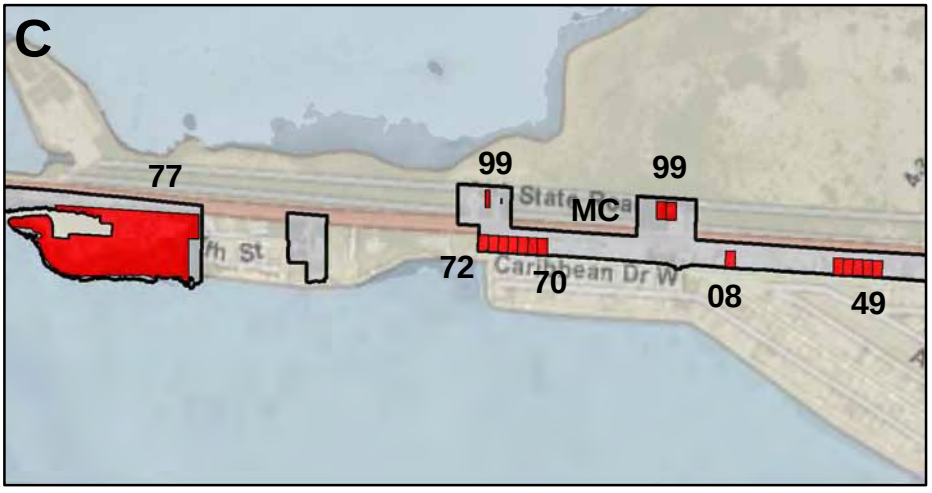
Conforming PC

00 01 03 10 11 12 13 14 15 16 17
18 19 21 22 23 24 25 26 27 28 29
30 31 32 33 34 35 36 37 38 39



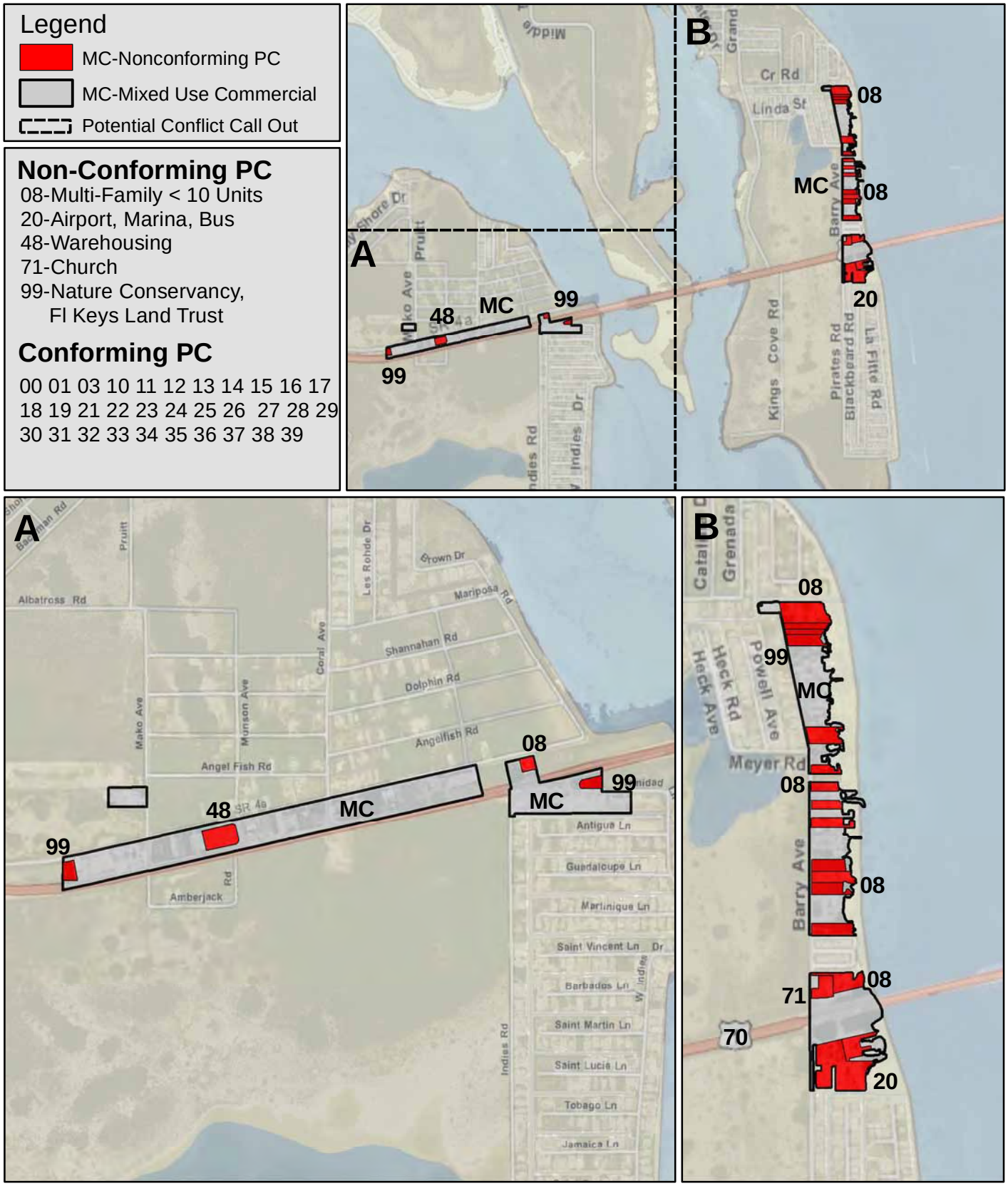






Lower Keys Planning Area

Potential Conflicts in Mixed Use Commercial District



Lower Keys Planning Area

Potential Conflicts in Mixed Use Commercial District

Legend

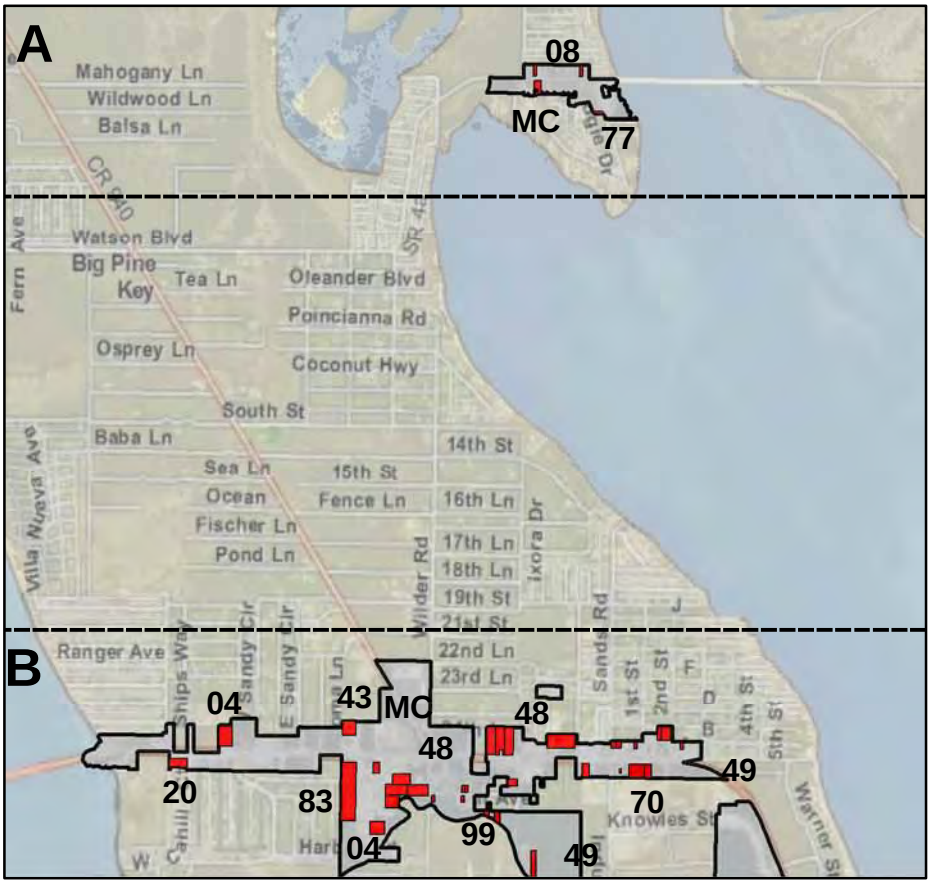
- MC-Nonconforming PC
- MC-Mixed Use Commercial
- Potential Conflict Call Out

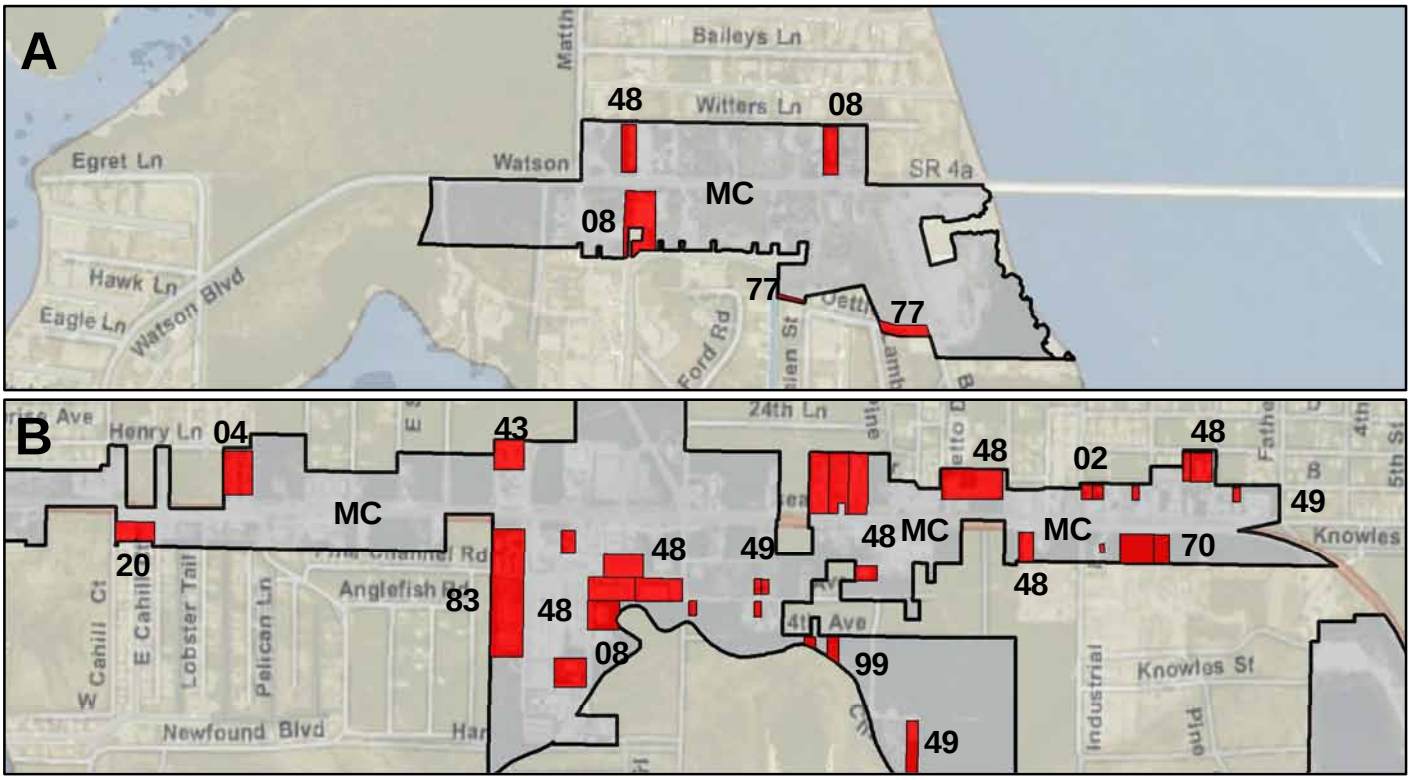
Non-Conforming PC

02-Mobile Home
04-Condominium
08-Multi-Family < 10 Units
43-Lumber Yard
48-Warehousing
49-Open Storage
70-Vacant Institutional
77-Club or Lodge
83-Public School
99-Nature Conservancy,
Fl Keys Land Trust

Conforming PC

00 01 03 10 11 12 13 14 15 16 17
18 19 21 22 23 24 25 26 27 28 29
30 31 32 33 34 35 36 37 38 39





Lower Keys Planning Area

Potential Conflicts in Mixed Use Commercial Fishing District

Legend

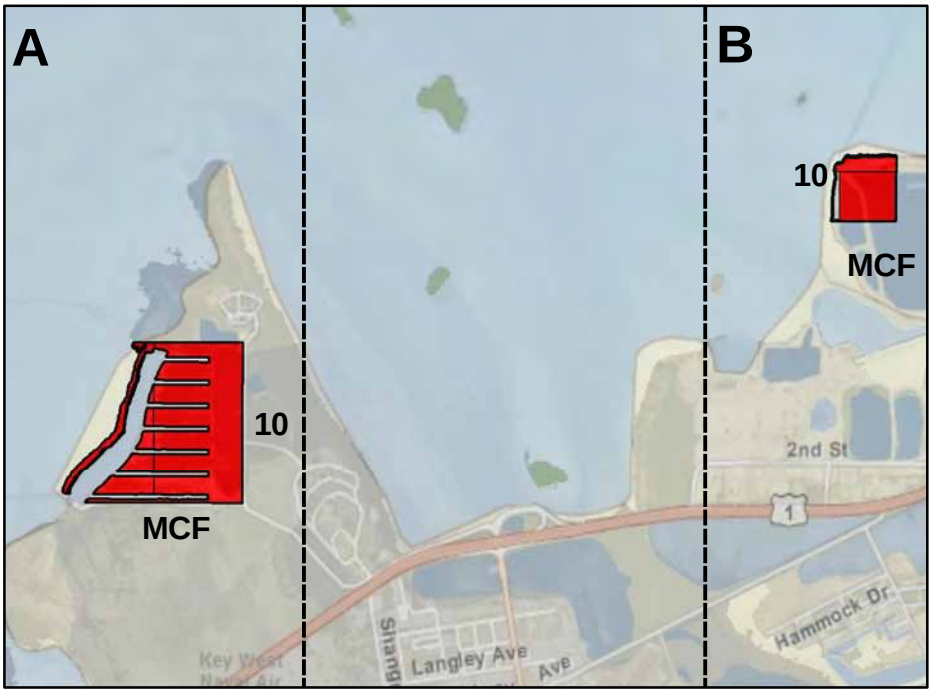
- MCF-Nonconforming PC
- Mixed Use Comm. Fishing
- Potential Conflict Call Out

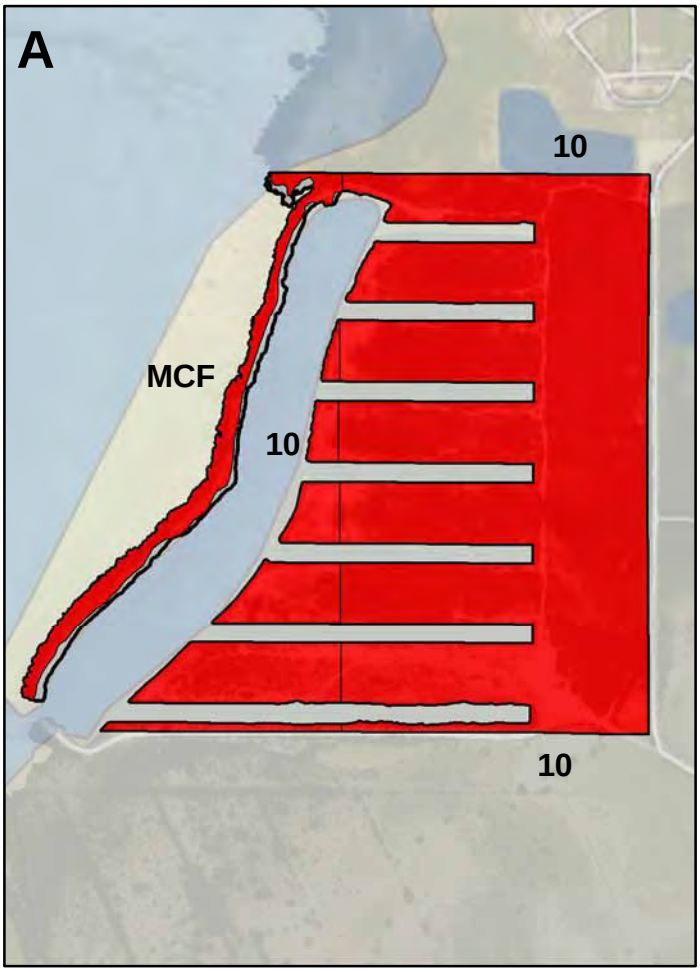
Non-Conforming PC

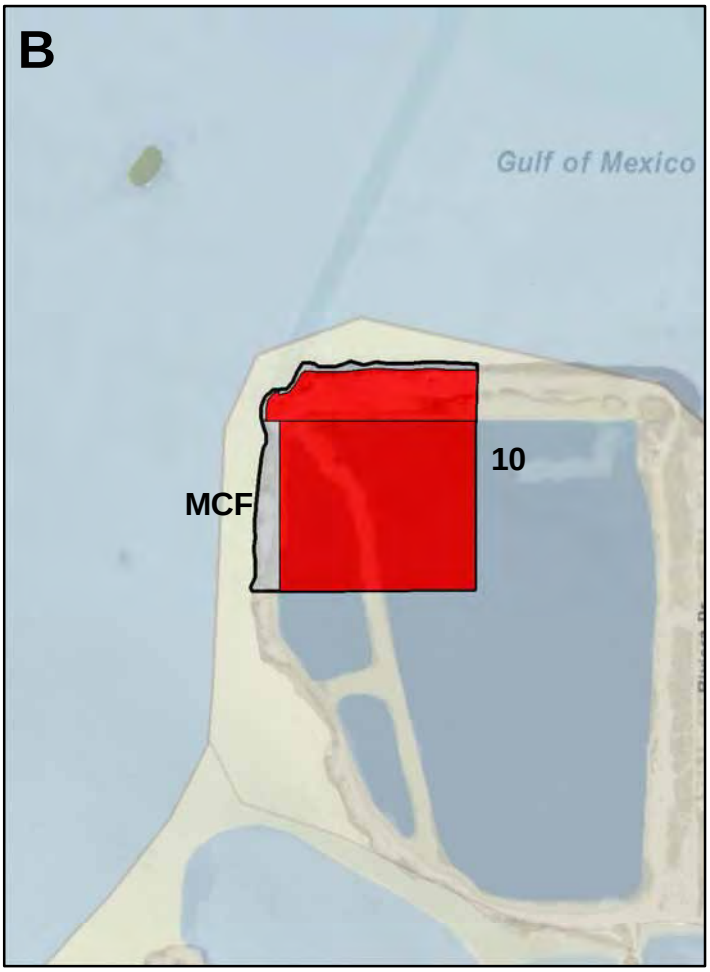
10-Vacant Commercial

Conforming PC

00 01 02 03 08 09 11 12
25 27 29 31 33 40 41 44
48 49







Lower Keys Planning Area

Potential Conflicts in Mixed Use Commercial Fishing District

Legend

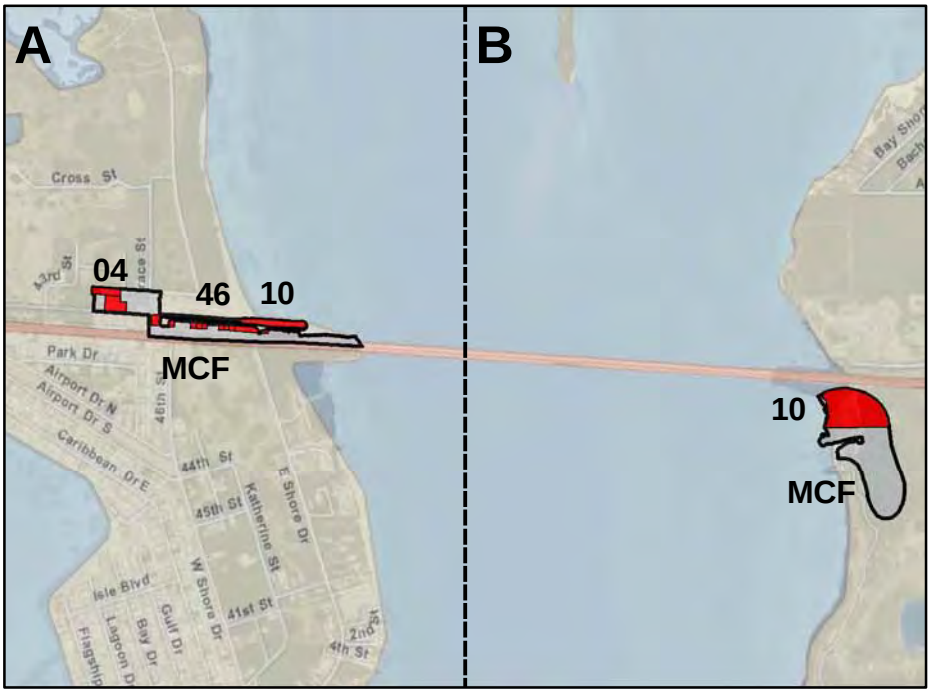
- MCF-Nonconforming PC
- Mixed Use Com Fishing
- Potential Conflict Call Out

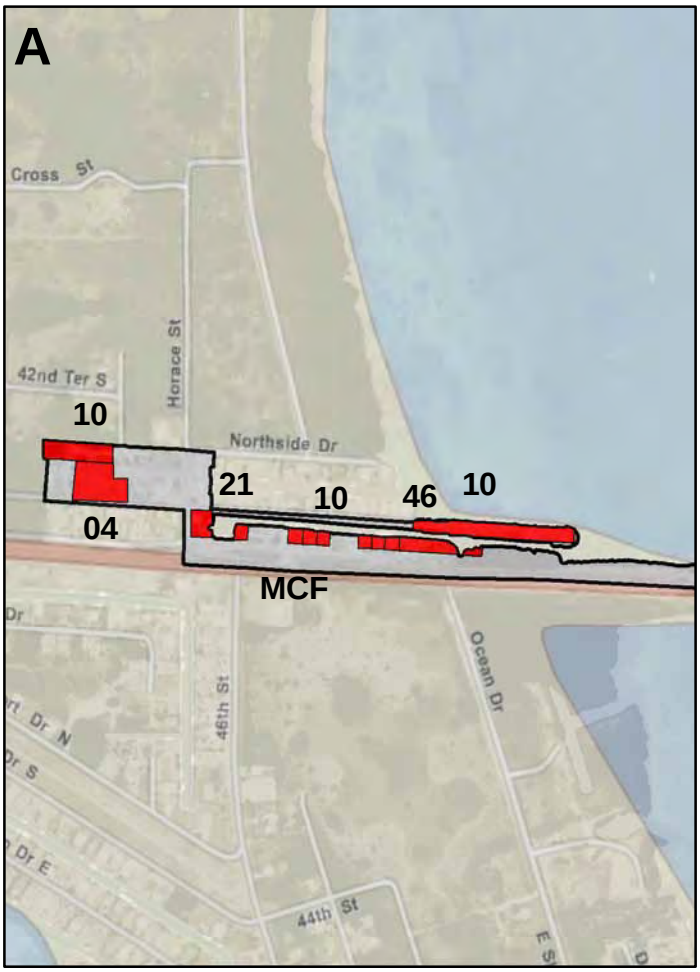
Non-Conforming PC

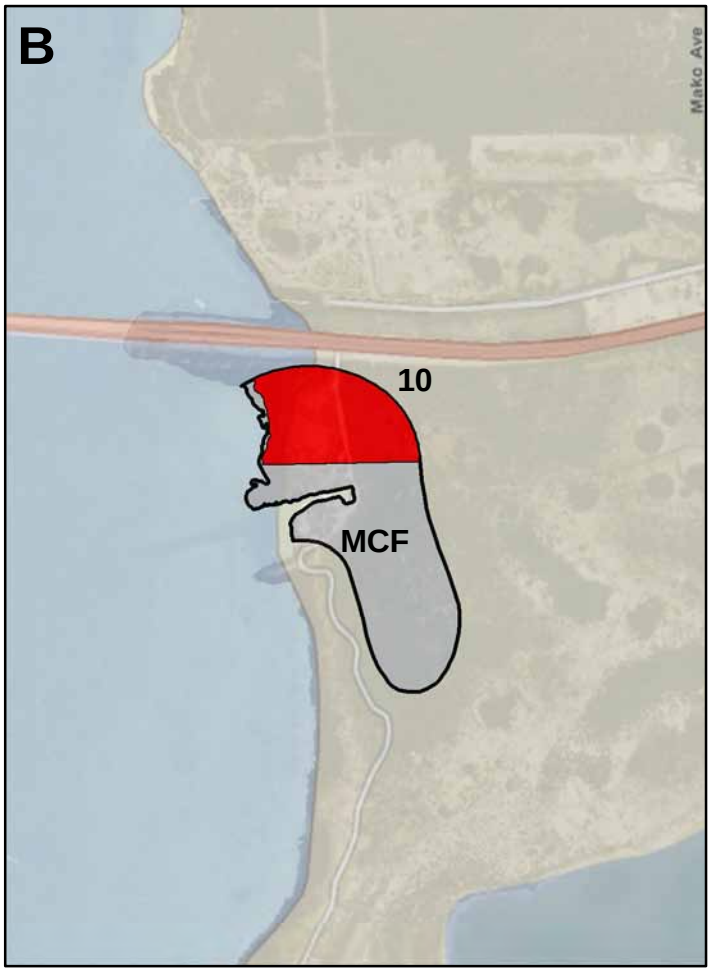
04-Condominium
10-Vacant Commercial
21-Restaurant or Cafeteria
46-Other Food Processing

Conforming PC

00 01 02 03 08 09 11 12
25 27 29 31 33 40 41 44
48 49

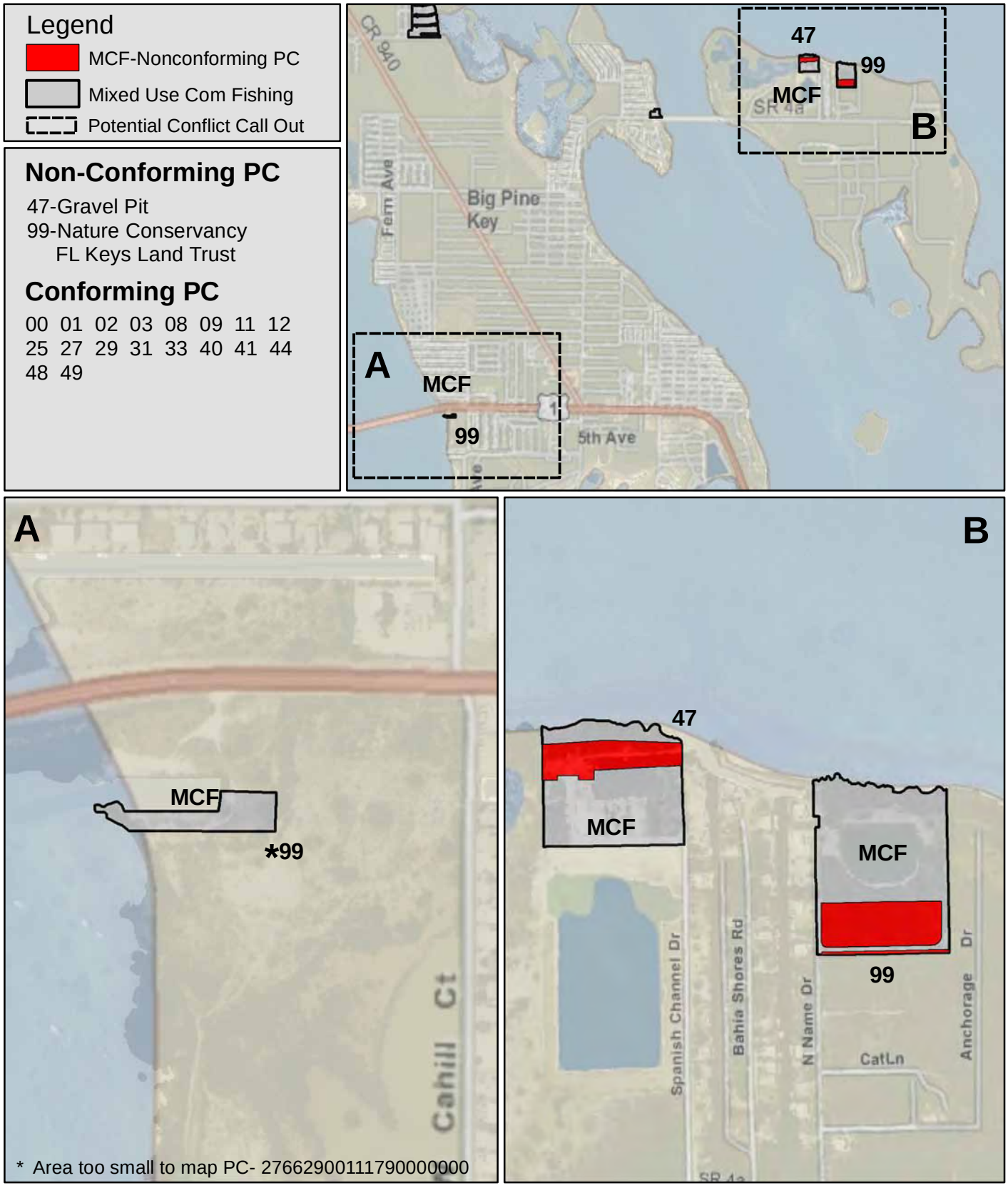






Lower Keys Planning Area

Potential Conflicts in Mixed Use Commercial Fishing District



Lower Keys Planning Area

Potential Conflicts in Recreation District

Legend

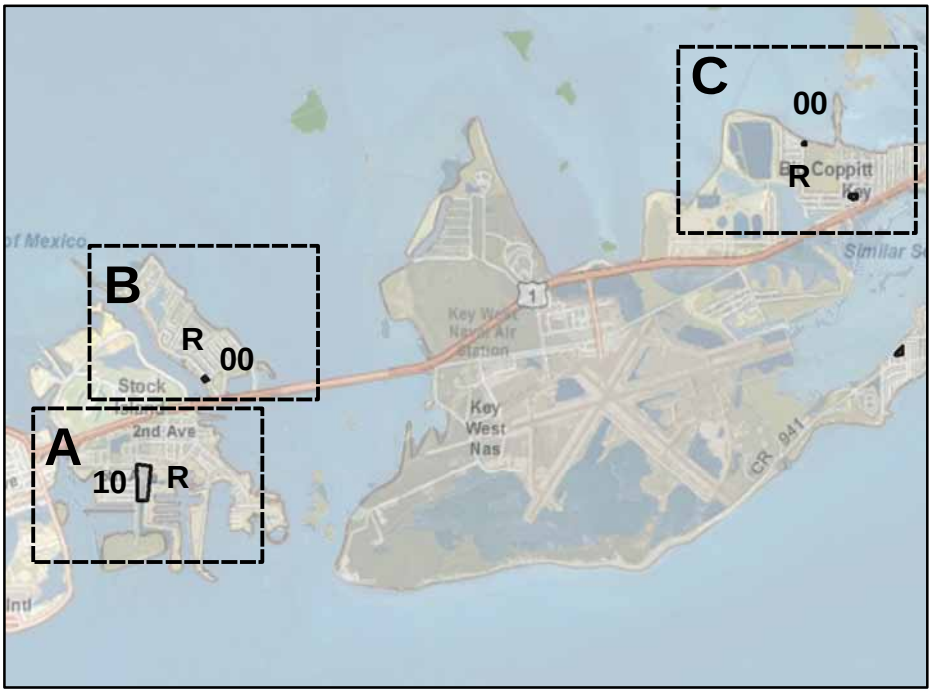
- R-Nonconforming PC
- R-Recreation
- Potential Conflict Call Out

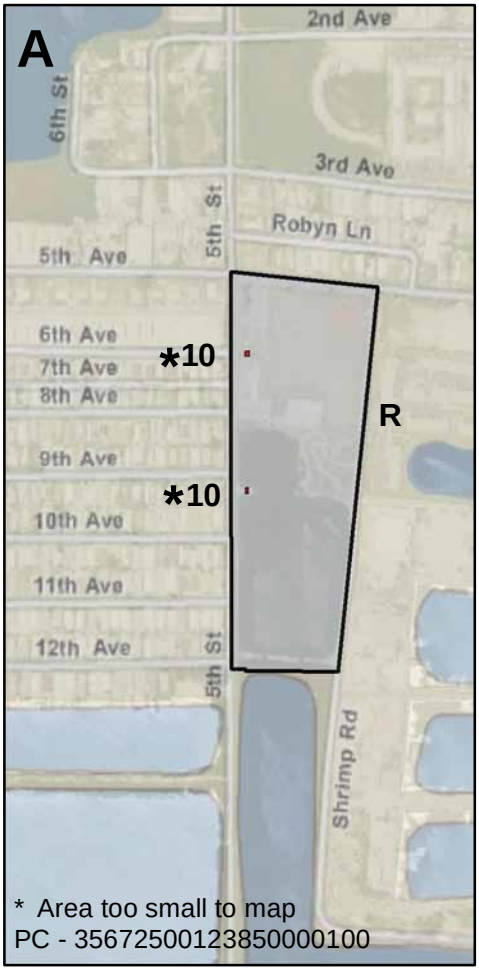
Non-Conforming PC

00-Vacant Residential
10-Vacant Commercial

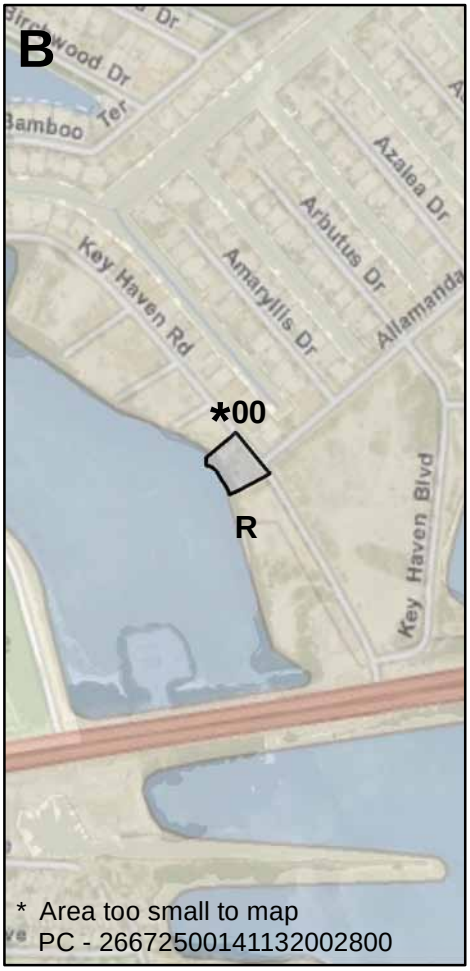
Conforming PC

27 80 82 86 87 88
89 92 95 96 99





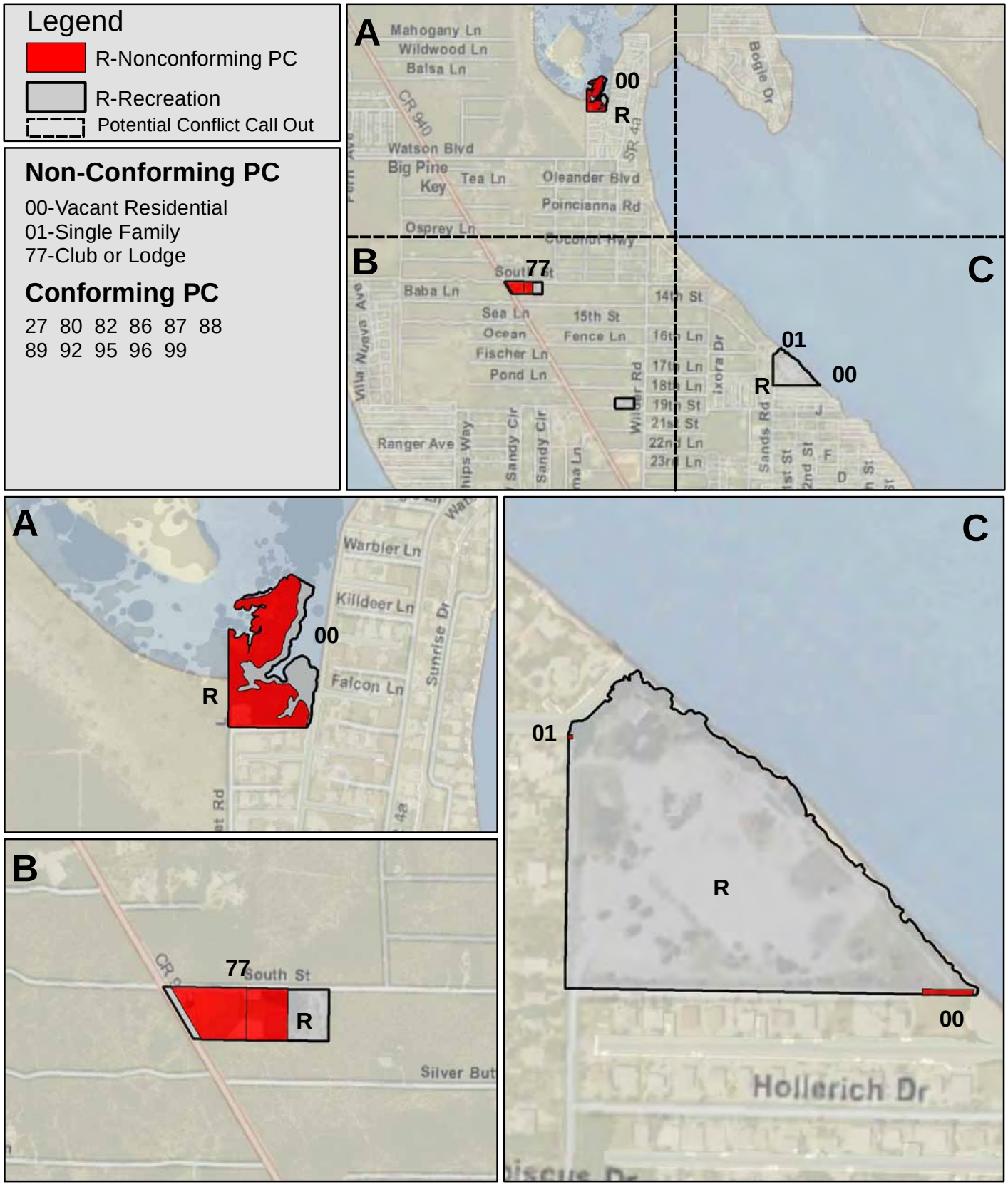
* Area too small to map
PC - 35672500123850000100



* Area too small to map
PC - 26672500141132002800

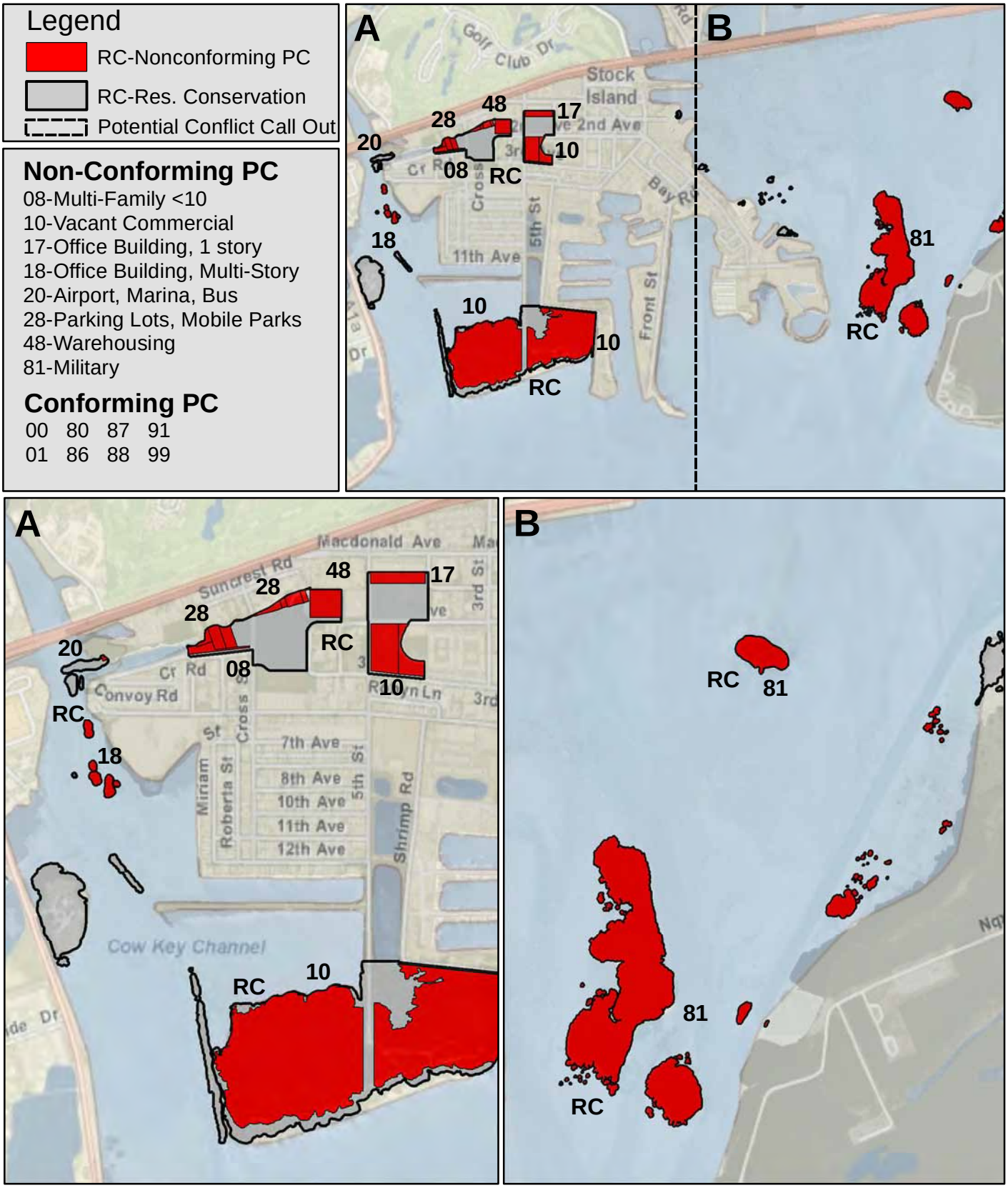
Lower Keys Planning Area

Potential Conflicts in Recreation District



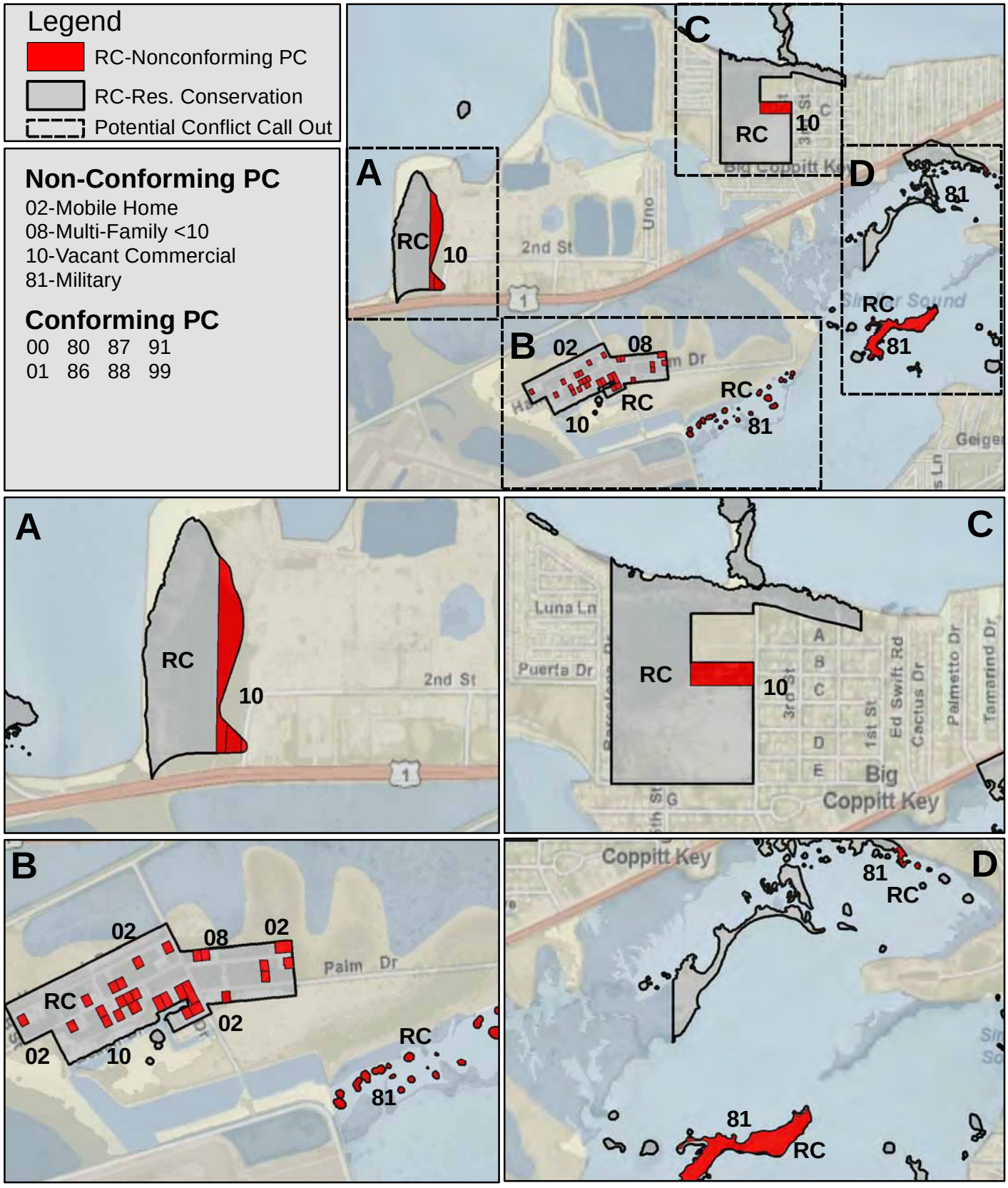
Lower Keys Planning Area

Potential Conflicts in Residential Conservation



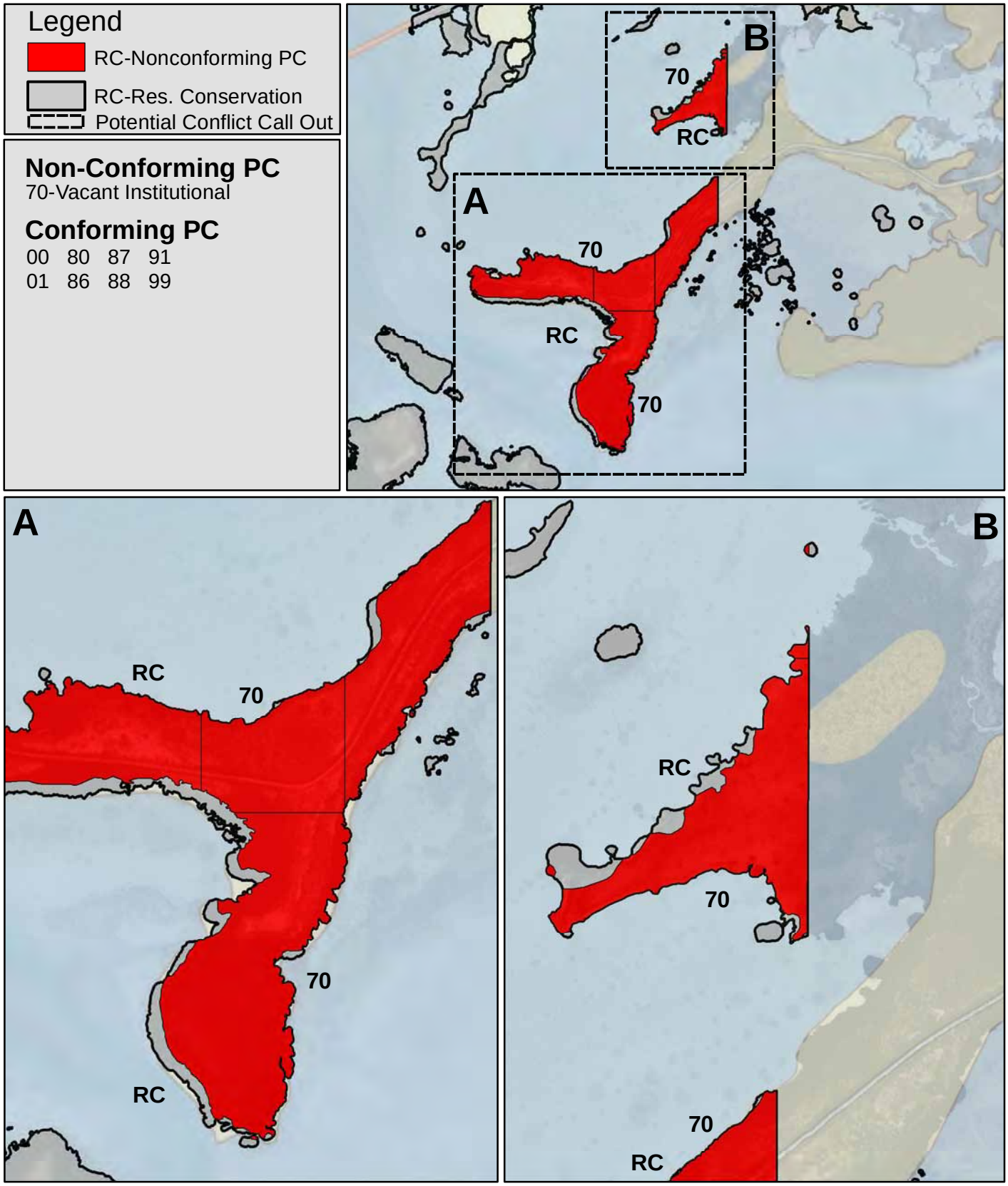
Lower Keys Planning Area

Potential Conflicts in Residential Conservation



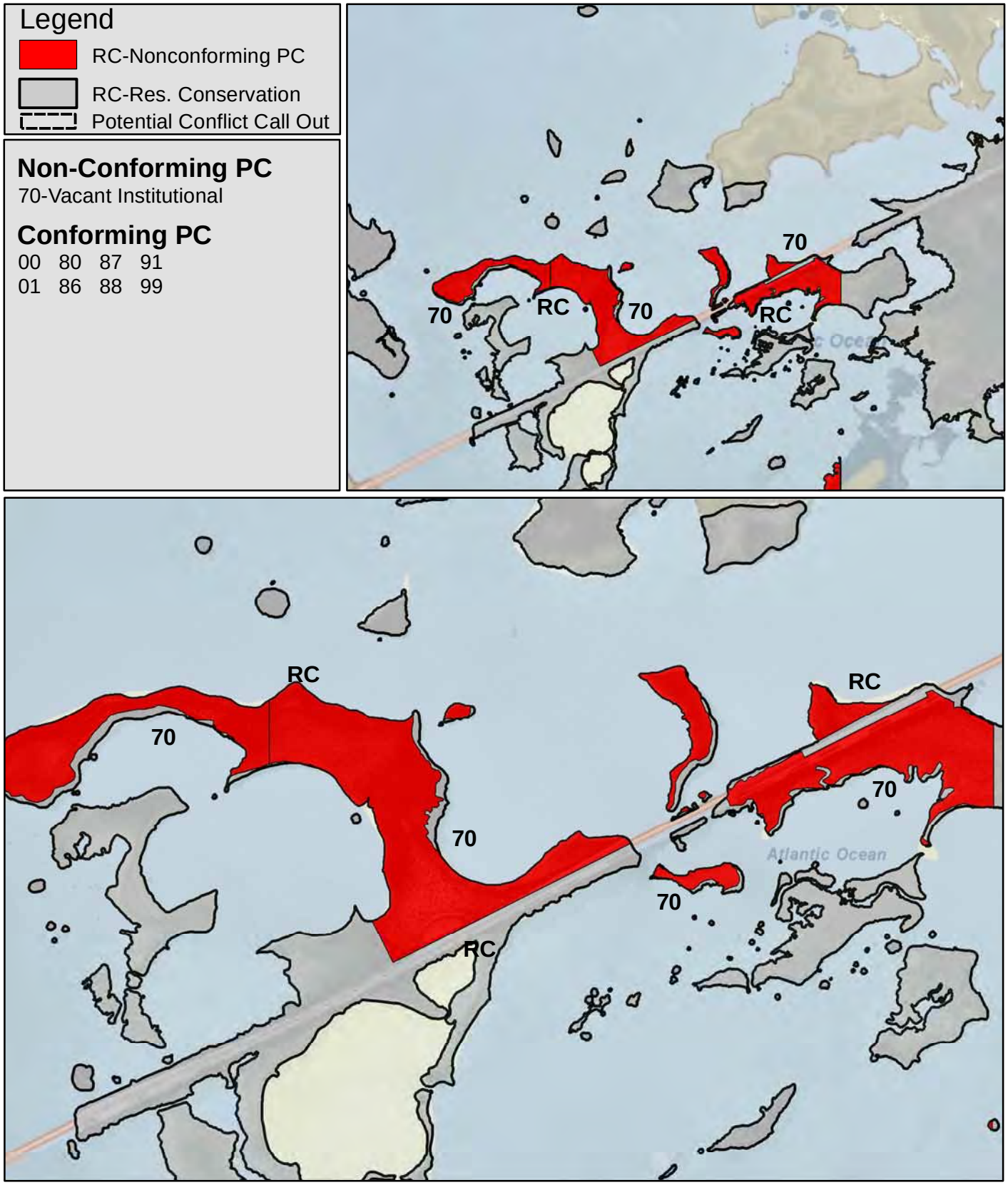
Lower Keys Planning Area

Potential Conflicts in Residential Conservation



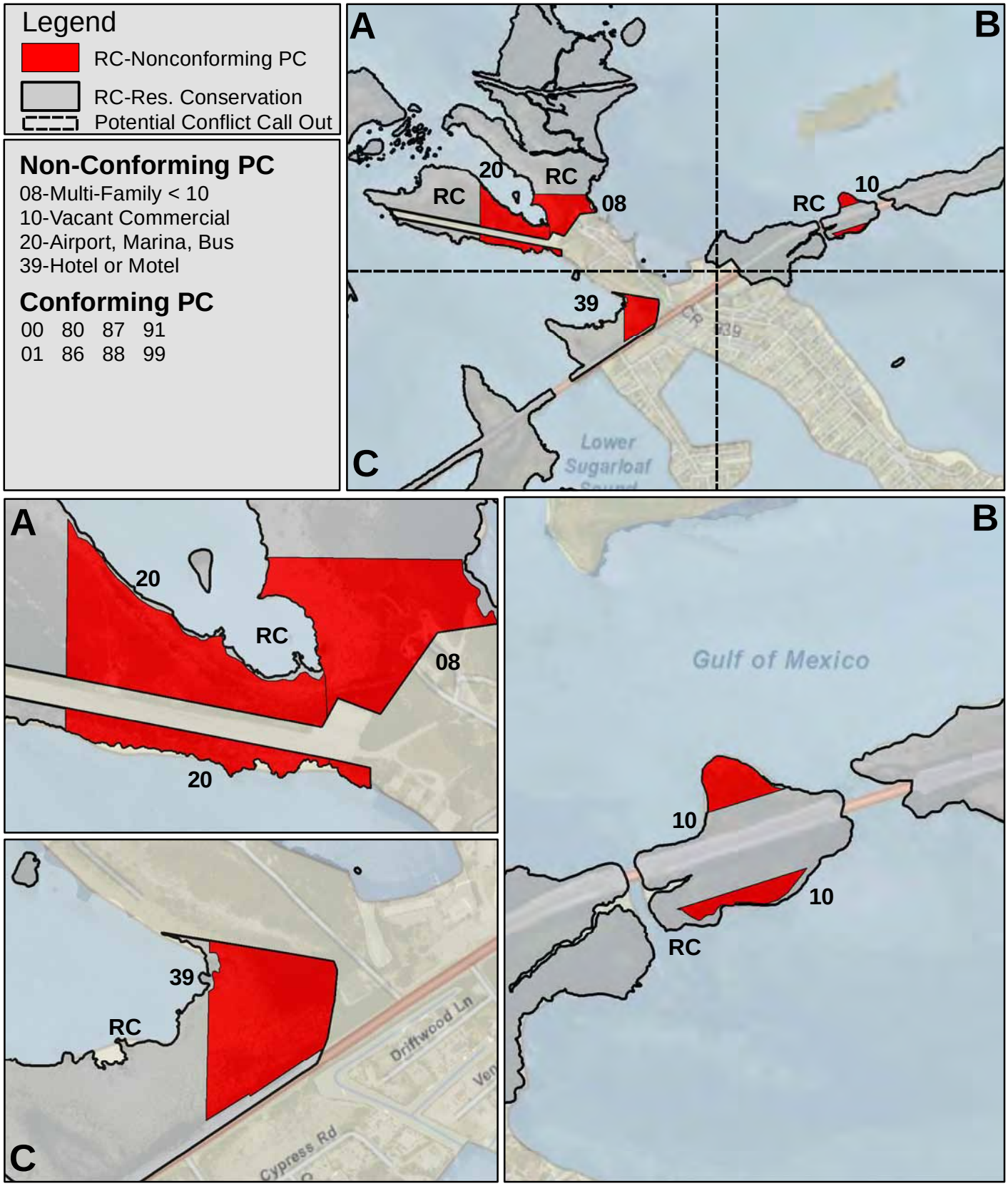
Lower Keys Planning Area

Potential Conflicts in Residential Conservation



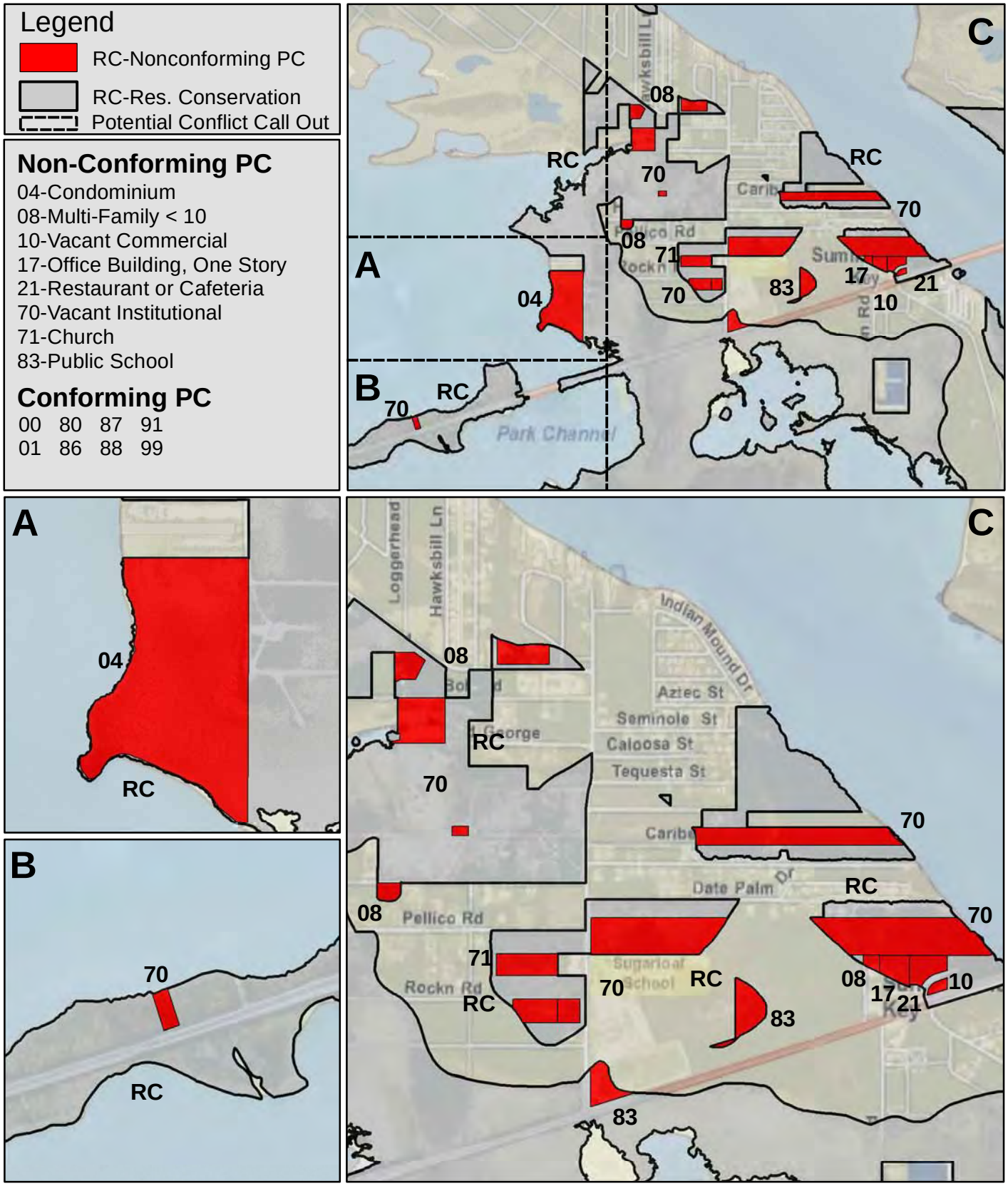
Lower Keys Planning Area

Potential Conflicts in Residential Conservation



Lower Keys Planning Area

Potential Conflicts in Residential Conservation



Lower Keys Planning Area

Potential Conflicts in Residential Conservation

Legend

RC-Nonconforming PC

RC-Res. Conservation

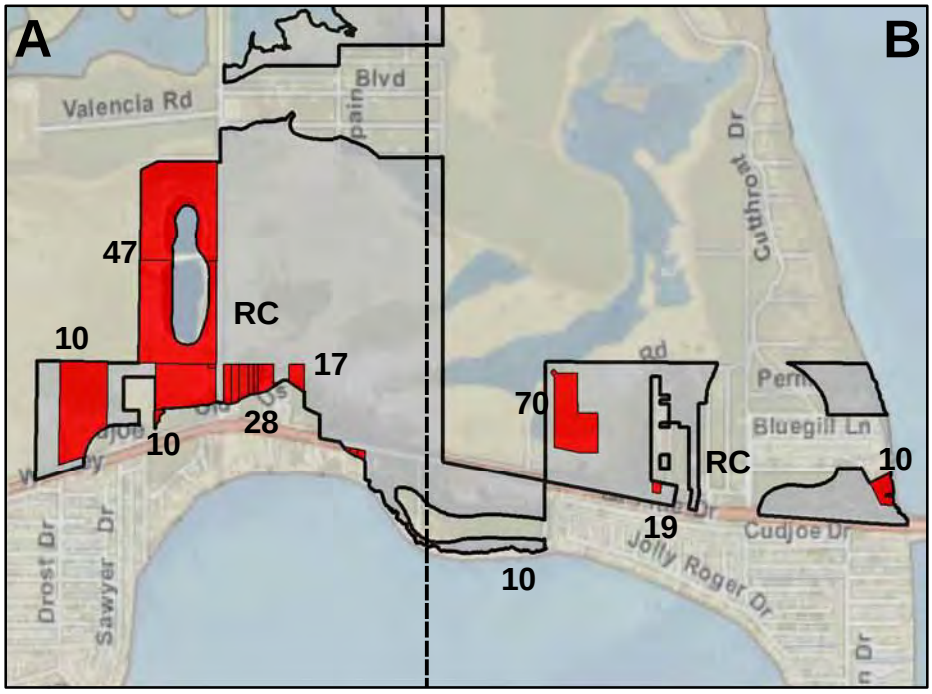
Potential Conflict Call Out

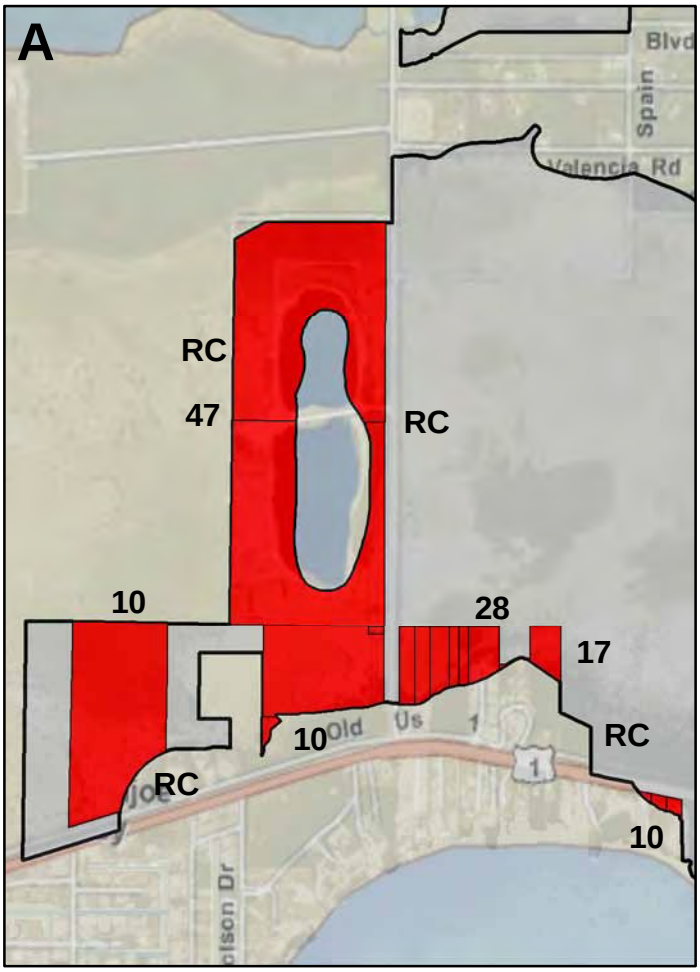
Non-Conforming PC

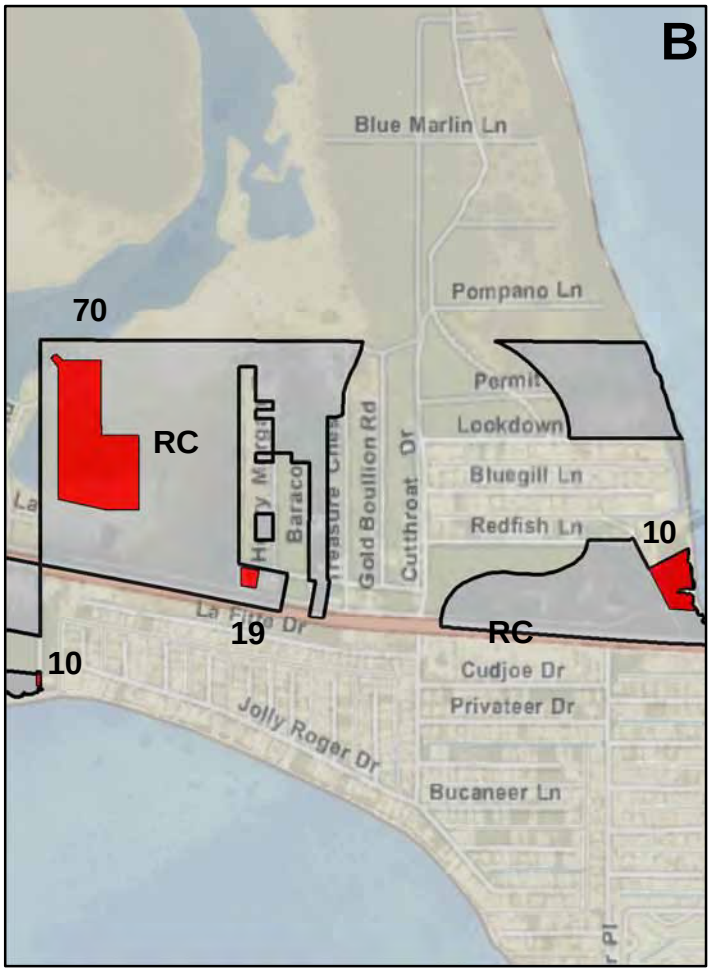
10-Vacant Commercial
17-Office Building, One Story
19-Professional Services Building
28-Parking Lots, Mobile Lots
47-Gravel Pit
70-Vacant Institutional

Conforming PC

00 80 87 91
01 86 88 99







Lower Keys Planning Area

Potential Conflicts in Residential Conservation

Legend

RC-Nonconforming PC

RC-Res. Conservation

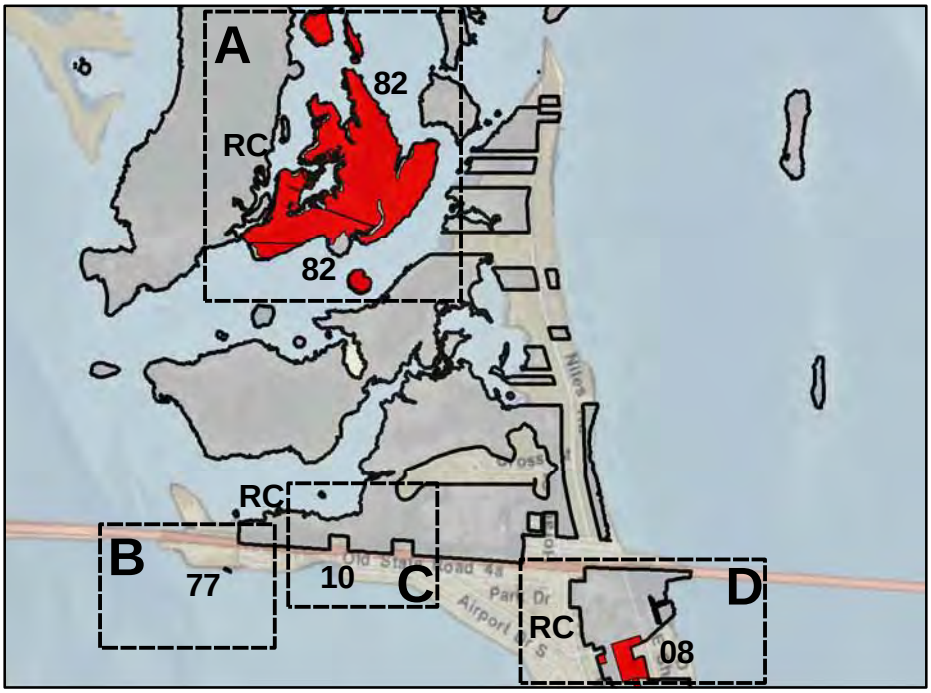
Potential Conflict Call Out

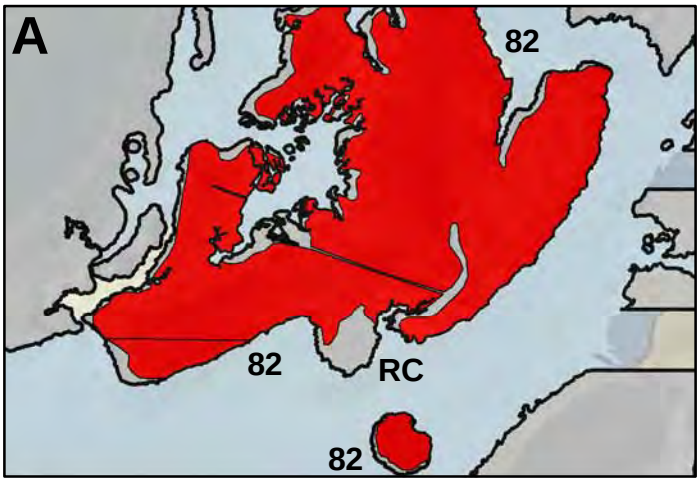
Non-Conforming PC

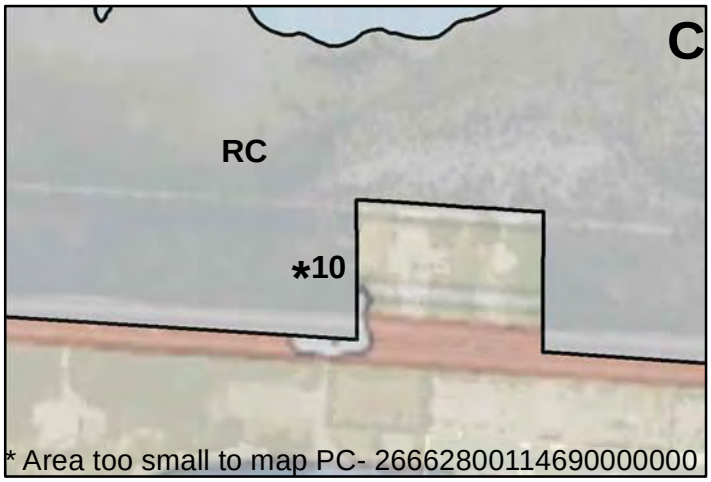
08-Multi-Family < 10 units
10-Vacant Commercial
77-Club or Lodge
82-U.S. Mainland Forest, Parks

Conforming PC

00 80 87 91
01 86 88 99







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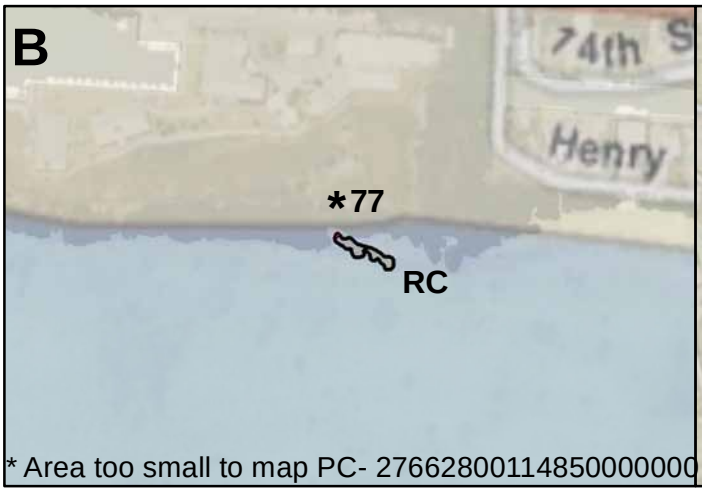

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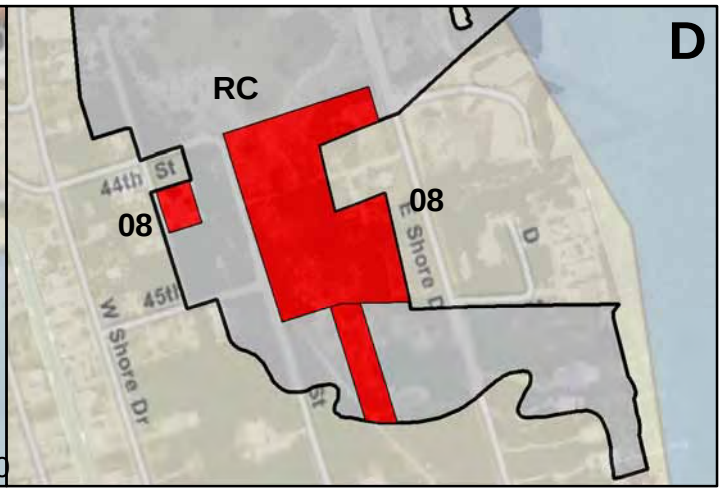
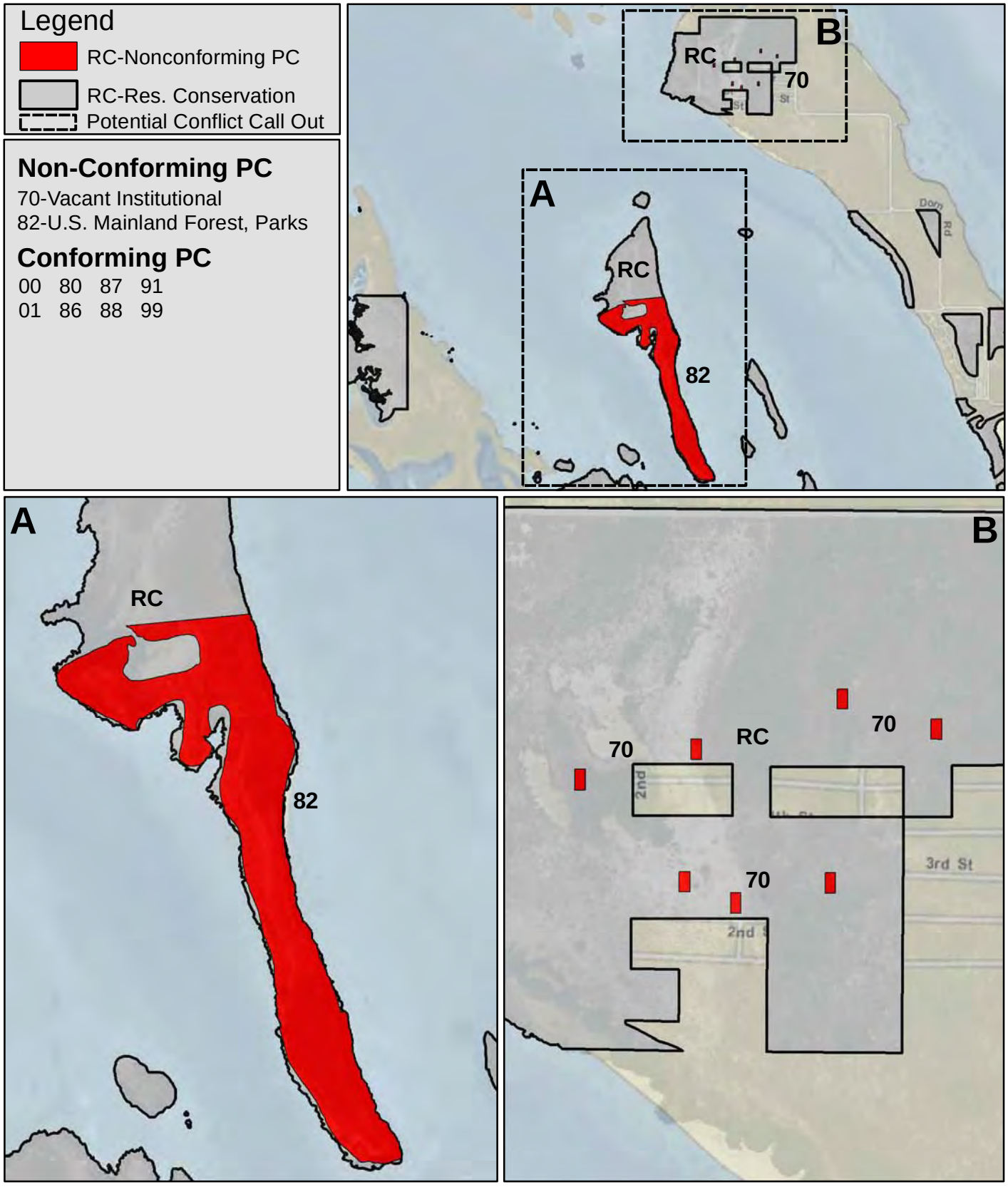


Lower Keys Planning Area

Potential Conflicts in Residential Conservation



Lower Keys Planning Area

Potential Conflicts in Residential Conservation

Legend

RC-Nonconforming PC

RC-Res. Conservation

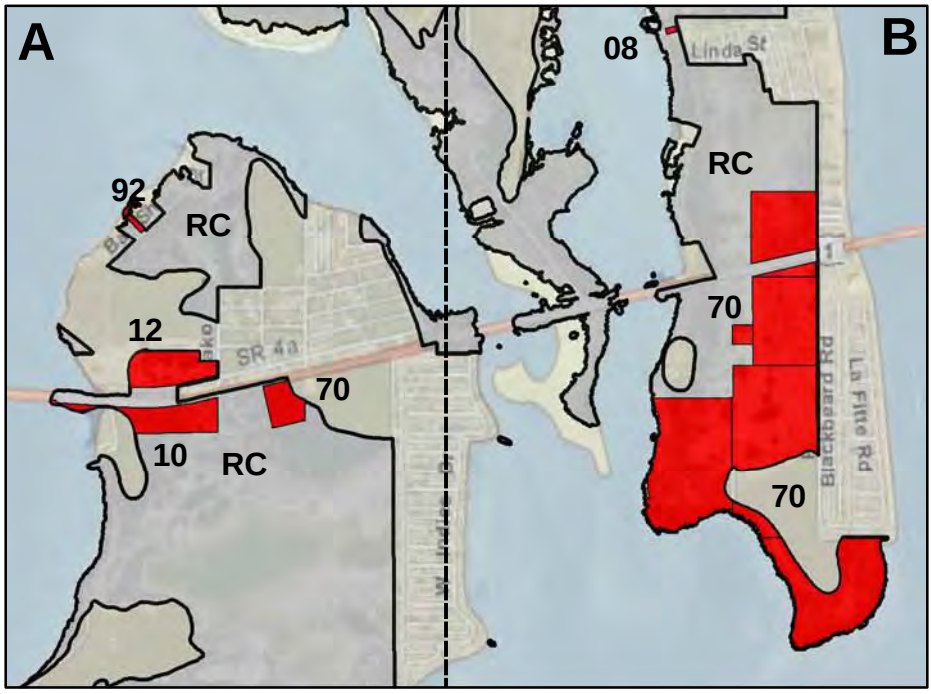
Potential Conflict Call Out

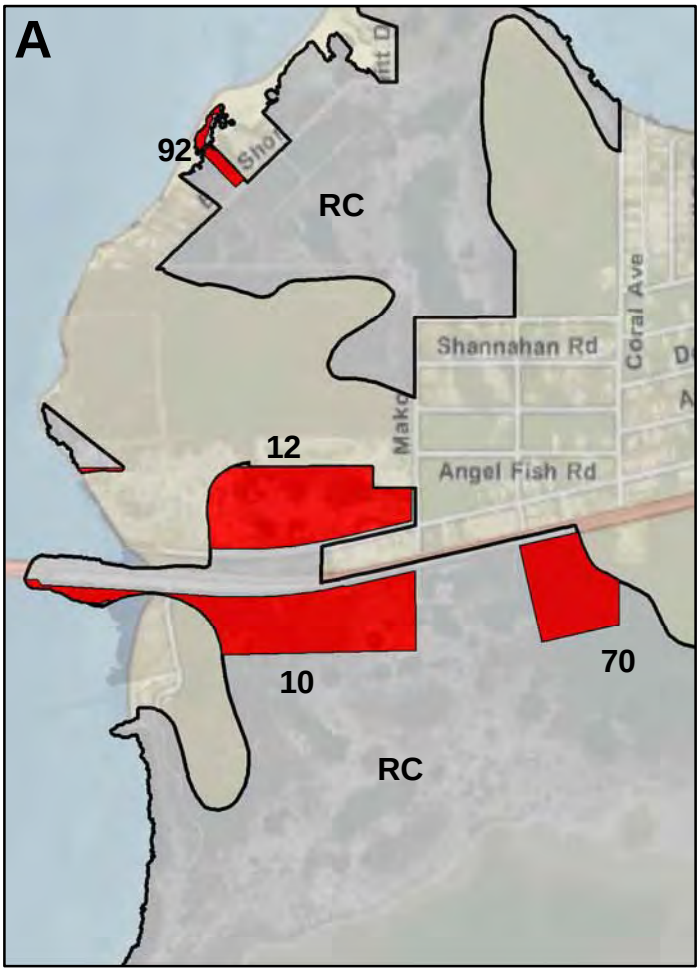
Non-Conforming PC

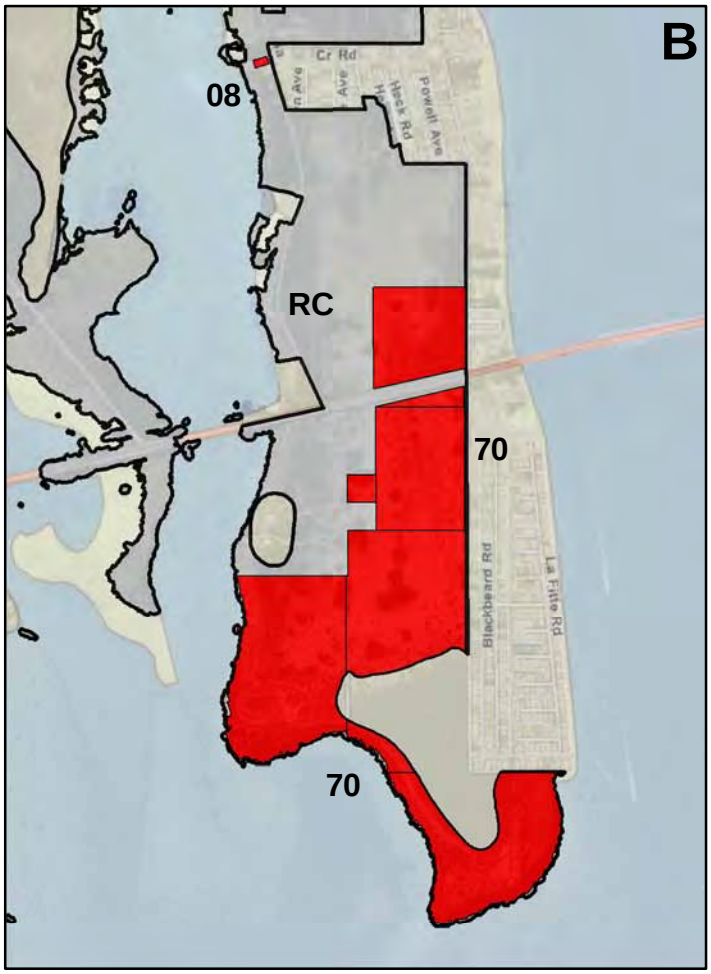
08-Multi-Family < 10 Units
10-Vacant Commercial
12-Mixed Use-Res/Commercial
70-Vacant Institutional
92-Private Park

Conforming PC

00 80 87 91
01 86 88 99

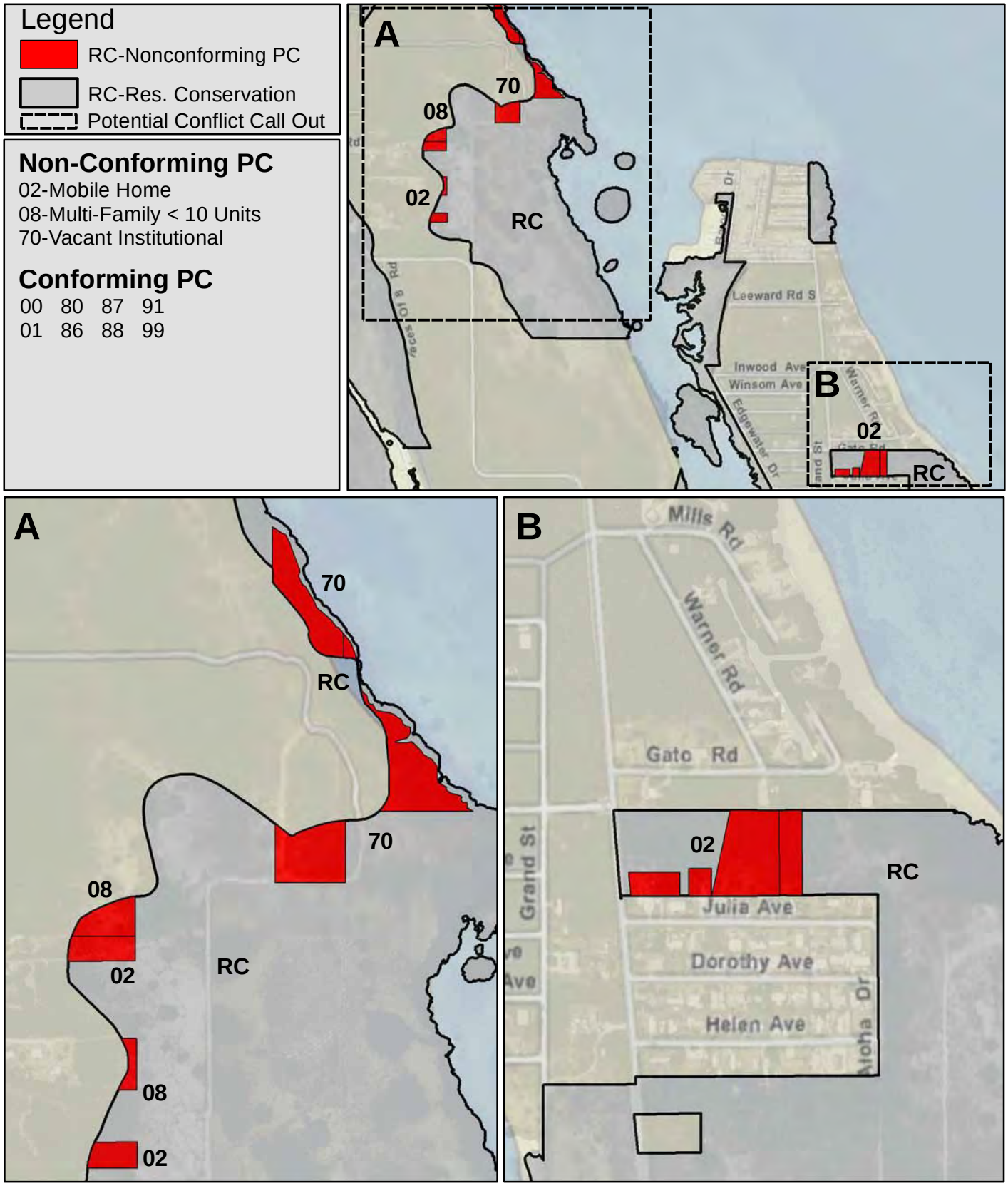






Lower Keys Planning Area

Potential Conflicts in Residential Conservation



Lower Keys Planning Area

Potential Conflicts in Residential Conservation

Legend

RC-Nonconforming PC

RC-Res. Conservation

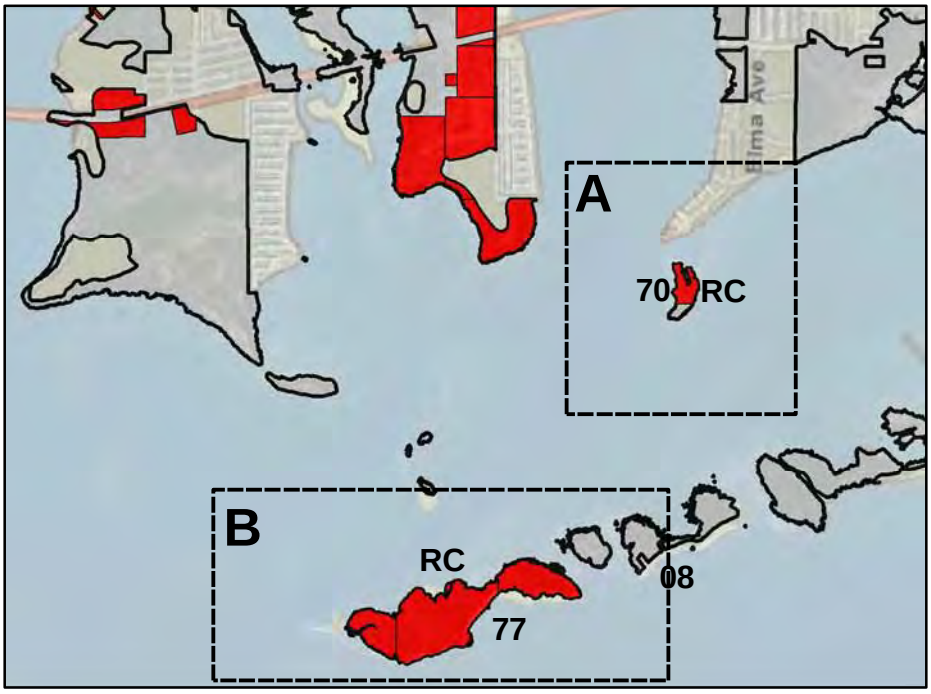
Potential Conflict Call Out

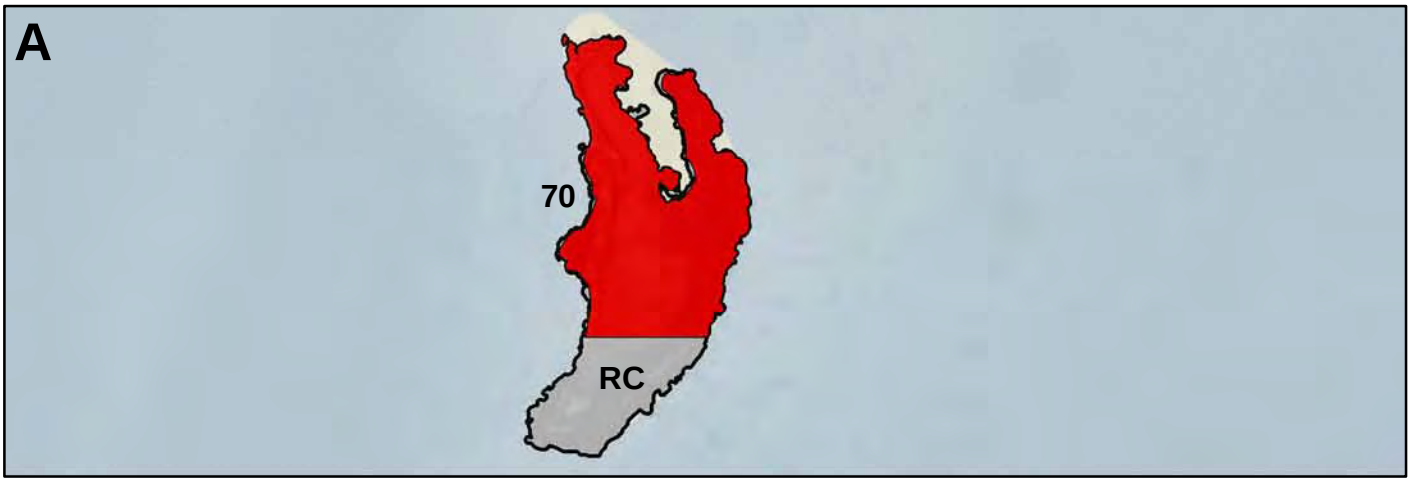
Non-Conforming PC

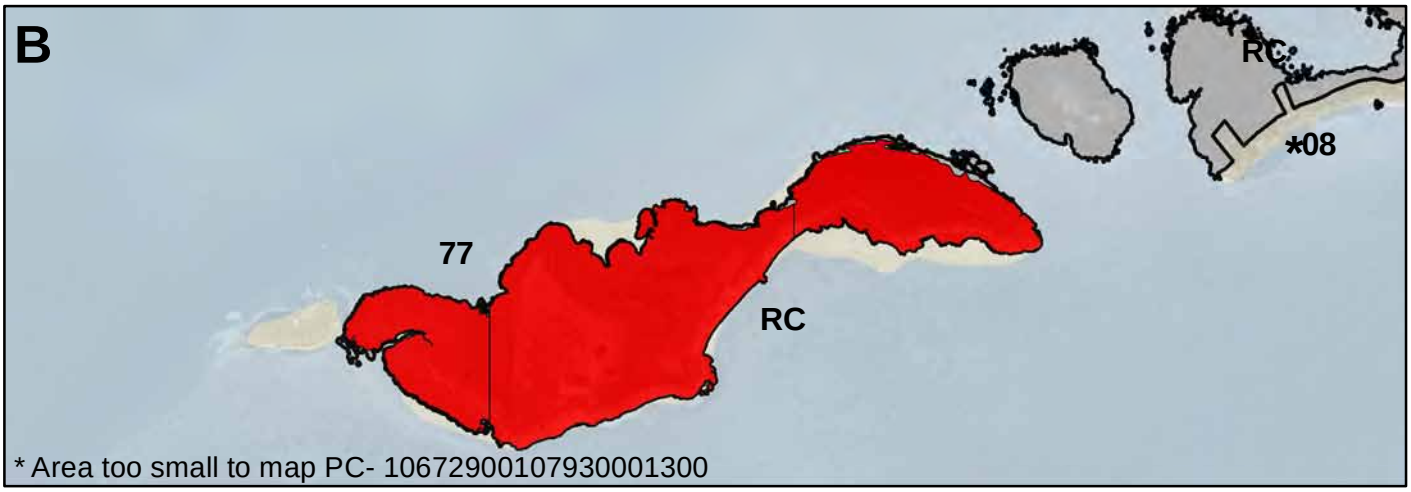
08-Multi-Family < 10 Units
70-Vacant Institutional
77-Club or Lodge

Conforming PC

00 80 87 91
01 86 88 99



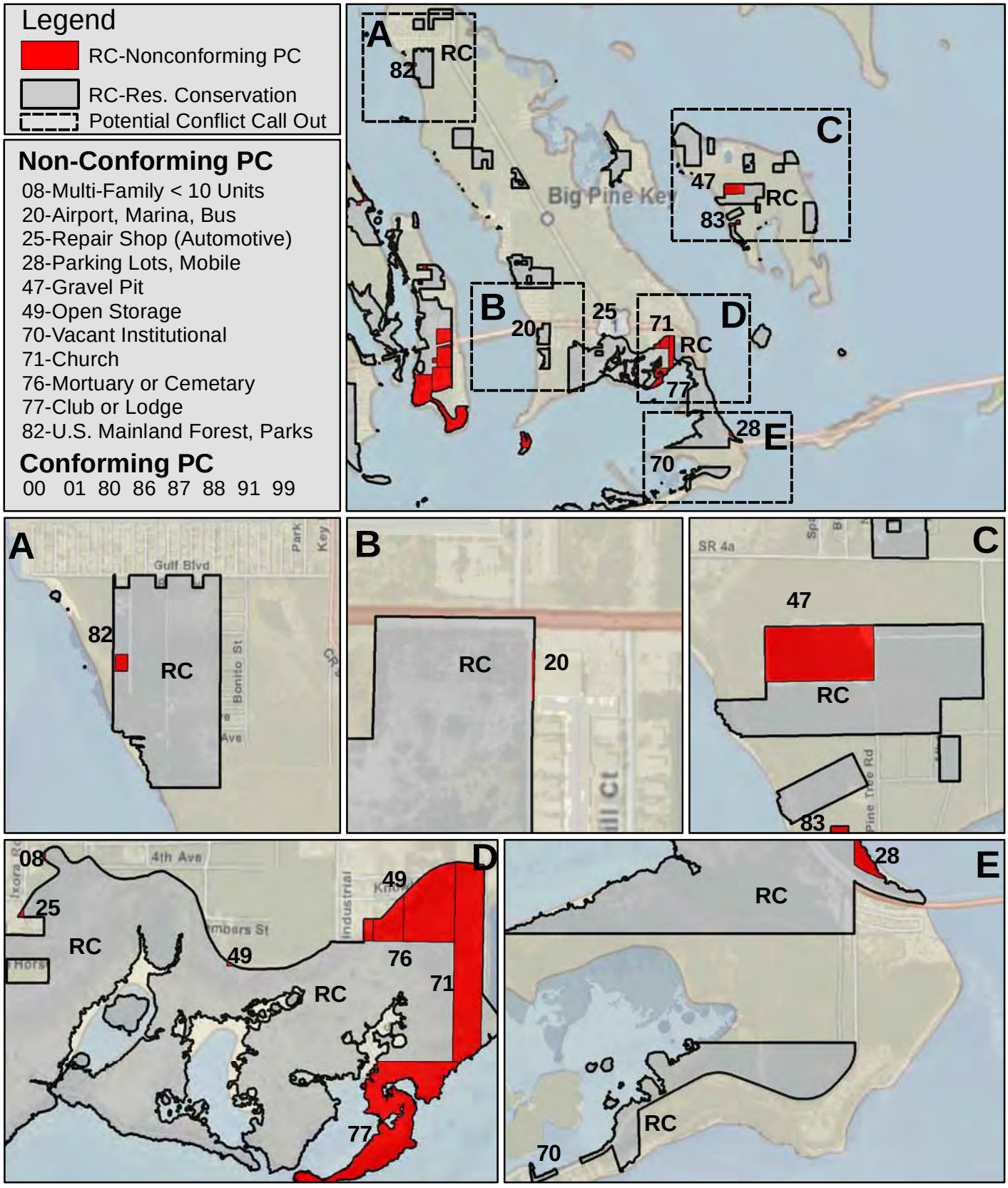




* Area too small to map PC- 10672900107930001300

Lower Keys Planning Area

Potential Conflicts in Residential Conservation



Lower Keys Planning Area

Potential Conflicts in Residential Conservation

Legend

RC-Nonconforming PC

RC-Res. Conservation

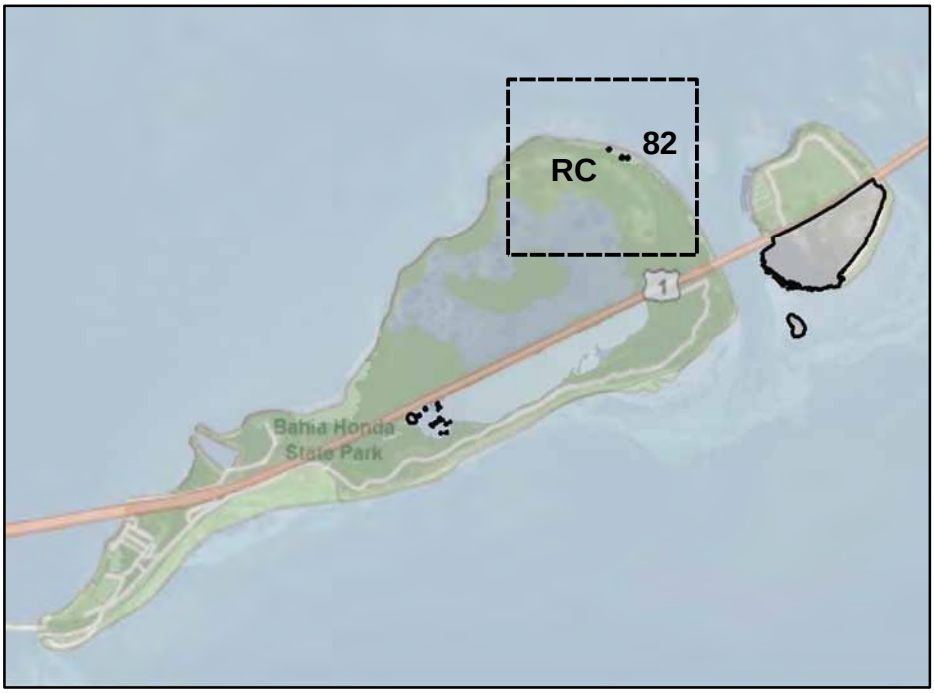
Potential Conflict Call Out

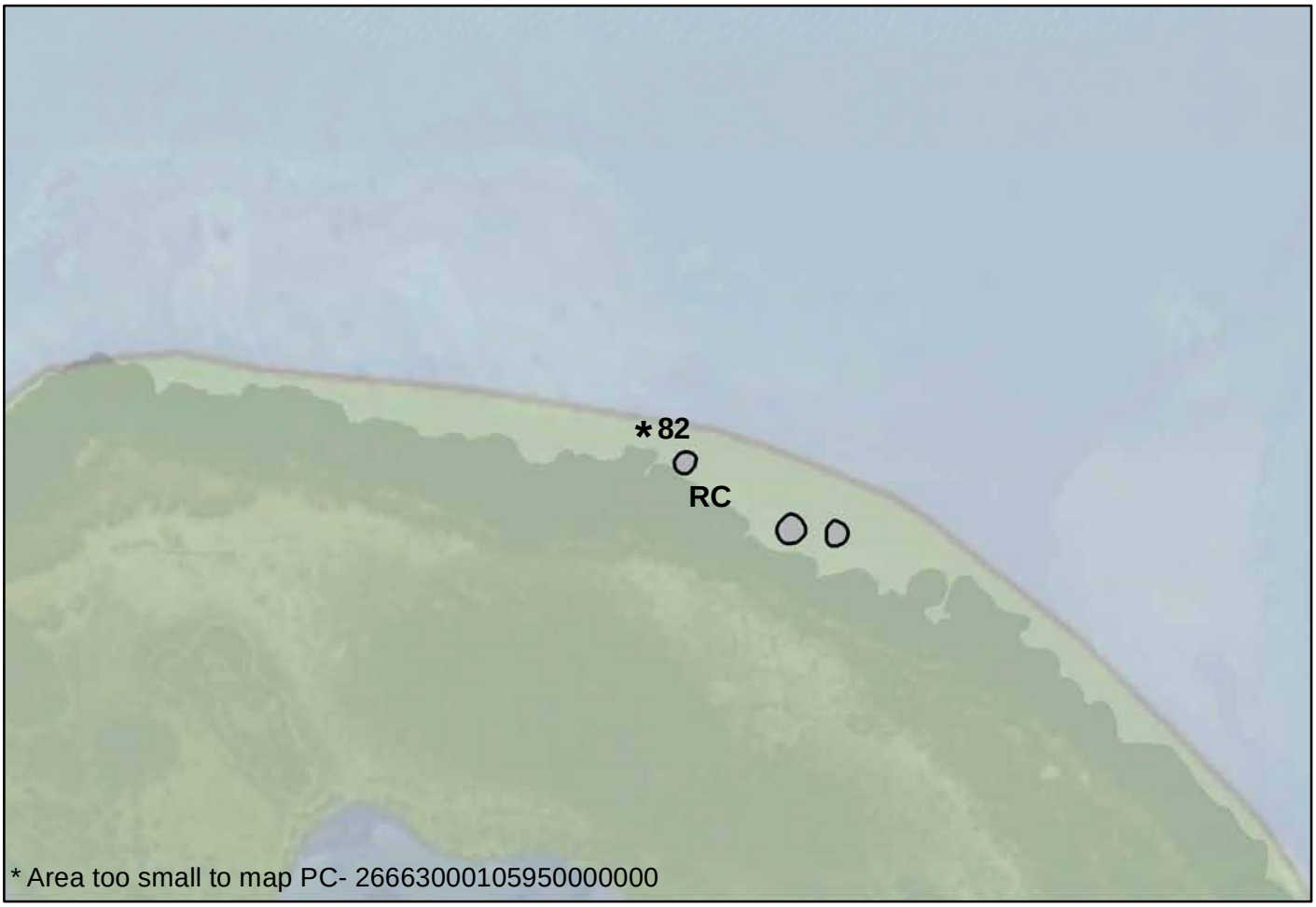
Non-Conforming PC

82-U.S. Mainland Forest, Parks

Conforming PC

00 01 80 86 87 88 91 99





* Area too small to map PC- 26663000105950000000

Lower Keys Planning Area

Potential Conflicts in Residential High District

Legend

RH-Nonconforming PC

RH-Residential High

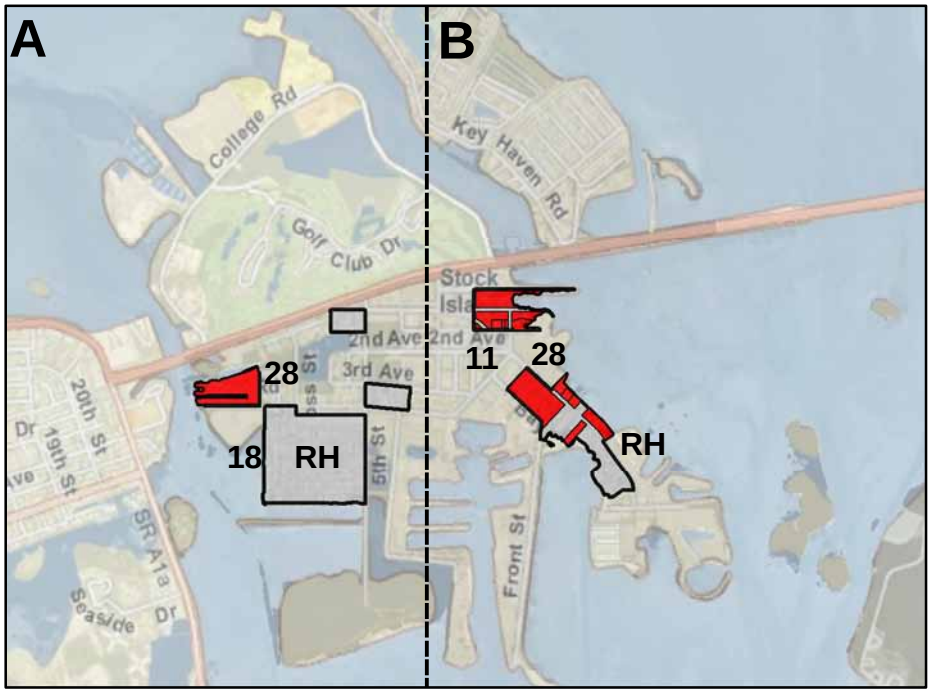
Potential Conflict Call Out

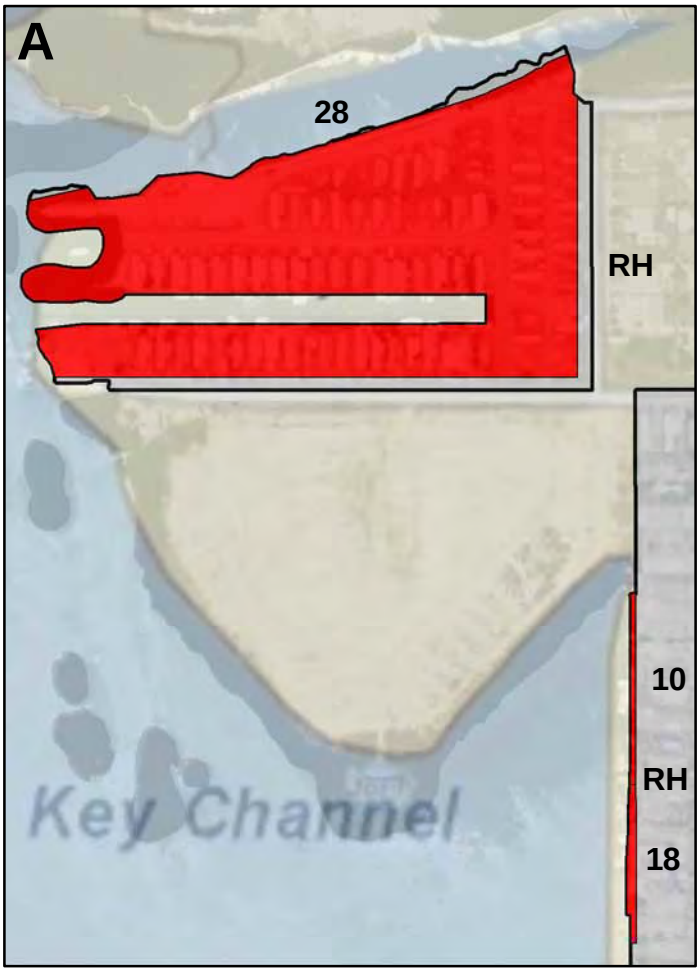
Non-Conforming PC

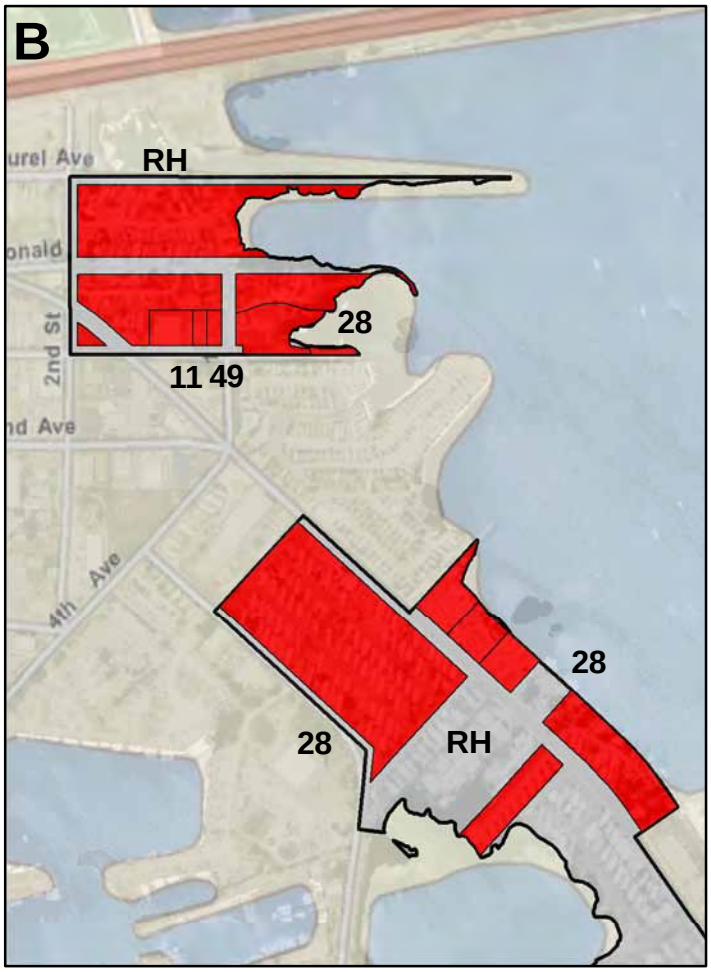
10-Vacant Commercial
11-Stores, 1 Story
18-Office Building, Multi-Story
28-Parking Lots, Mobile Home
49-Open Storage

Conforming PC

00 01 02 03 04 05
06 08 09 74 78







Lower Keys Planning Area

Potential Conflicts in Residential High District

Legend

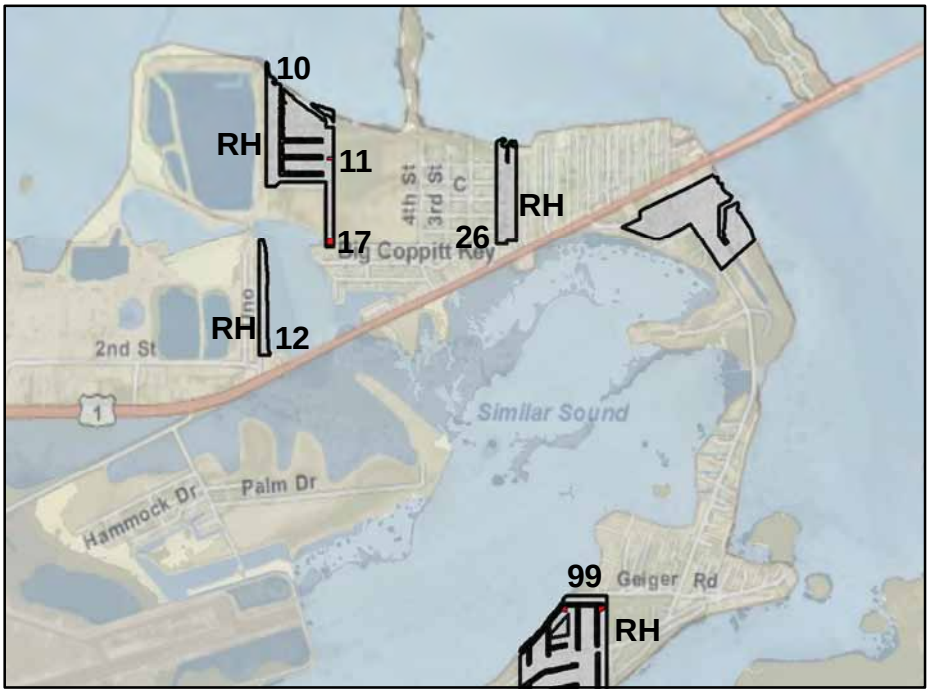
- RH-Nonconforming PC
- RH-Residential High
- Potential Conflict Call Out

Non-Conforming PC

10-Vacant Commercial
11-Stores, 1 Story
12-Mixed Use Res-Commercial
17-Office Building, One Story
26-Service Station
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

00 01 02 03 04 05
06 08 09 74 78



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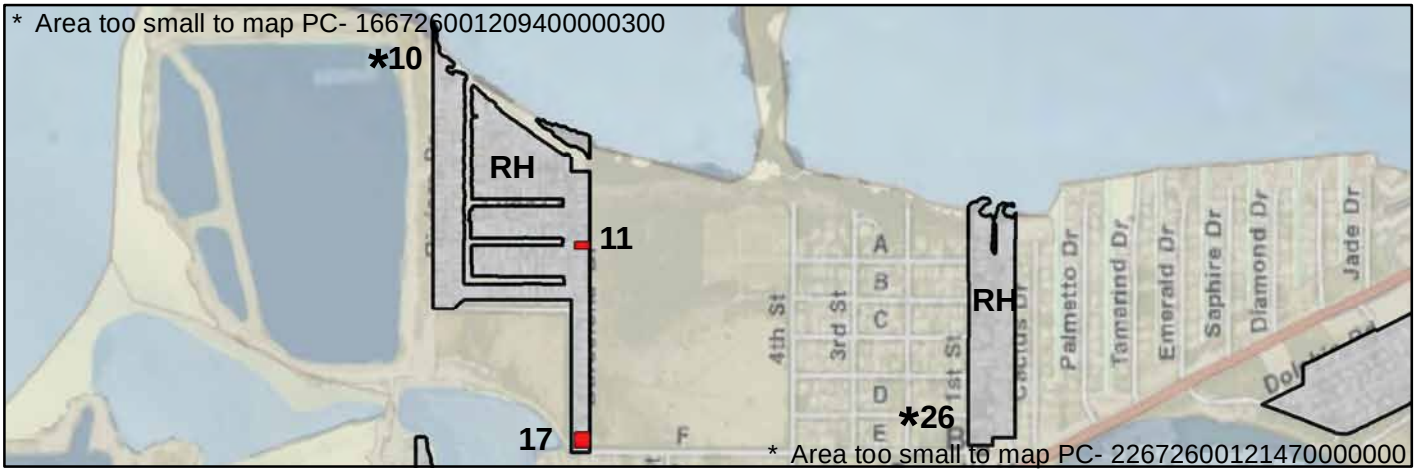

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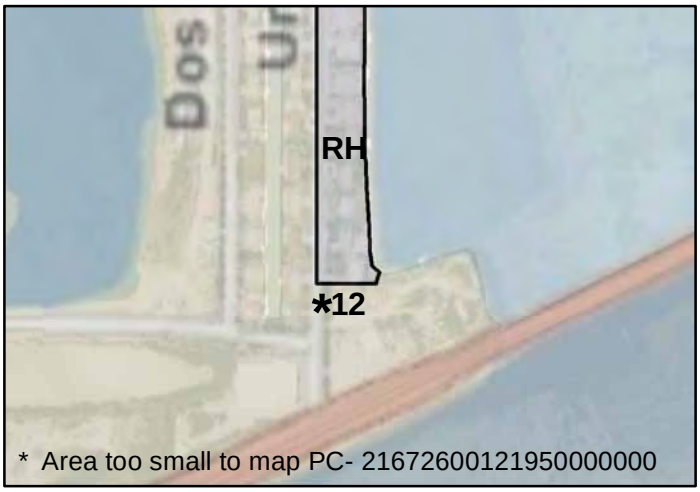

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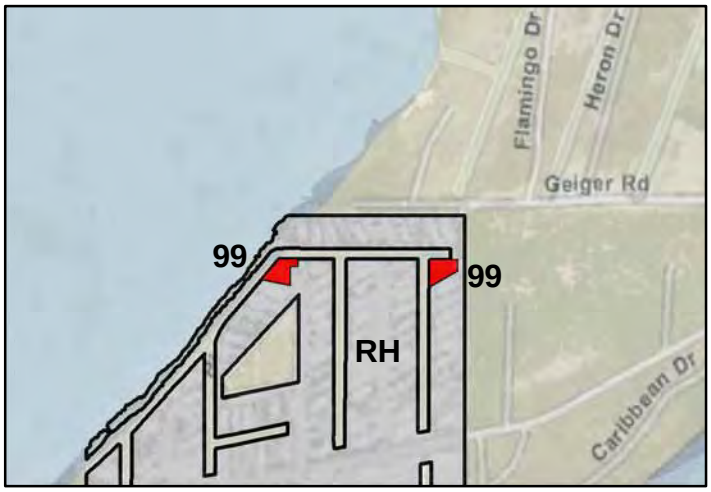


Lower Keys Planning Area

Potential Conflicts in Residential High District

Legend

RH-Nonconforming PC

RH-Residential High

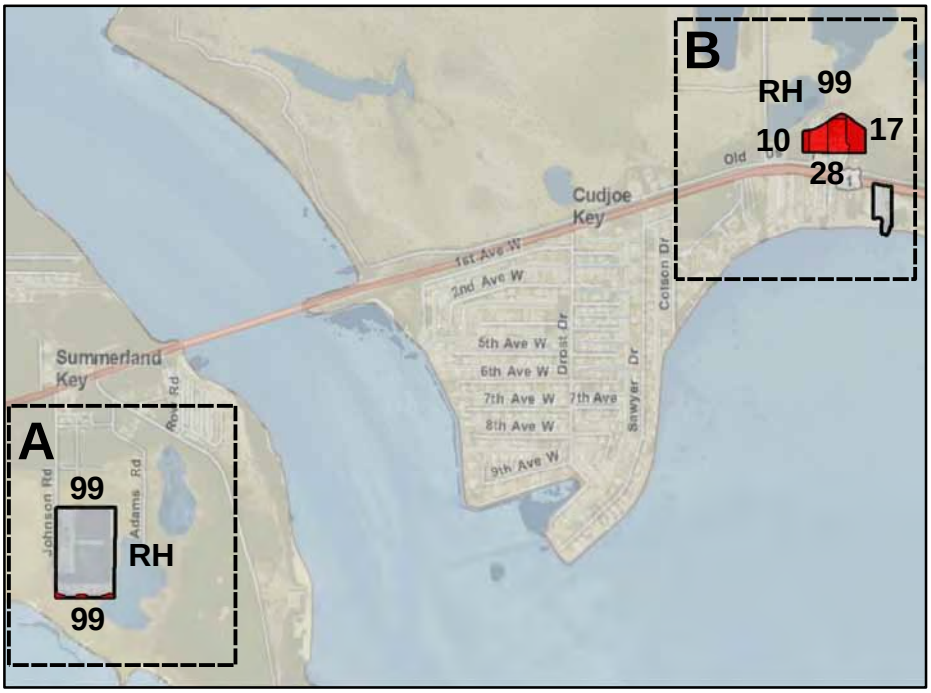
Potential Conflict Call Out

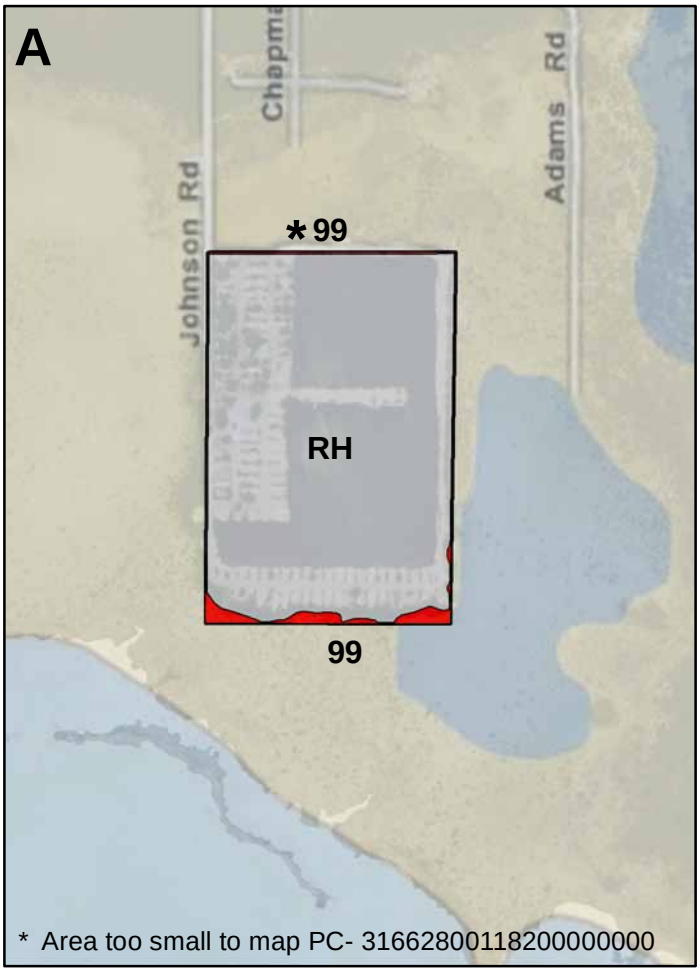
Non-Conforming PC

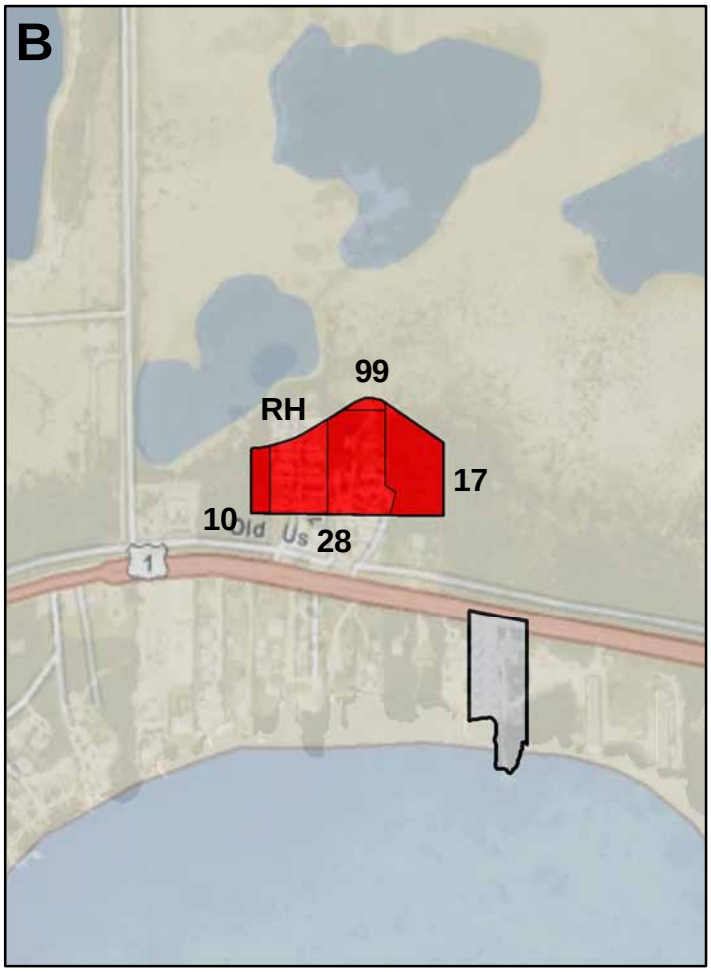
10-Vacant Commercial
17-Office Building, One Story
28-Parking, Mobile Homes
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

00 01 02 03 04 05
06 08 09 74 78







* Area too small to map PC- 31662800118200000000

Lower Keys Planning Area

Potential Conflicts in Residential High District

Legend

RH-Nonconforming PC

RH-Residential High

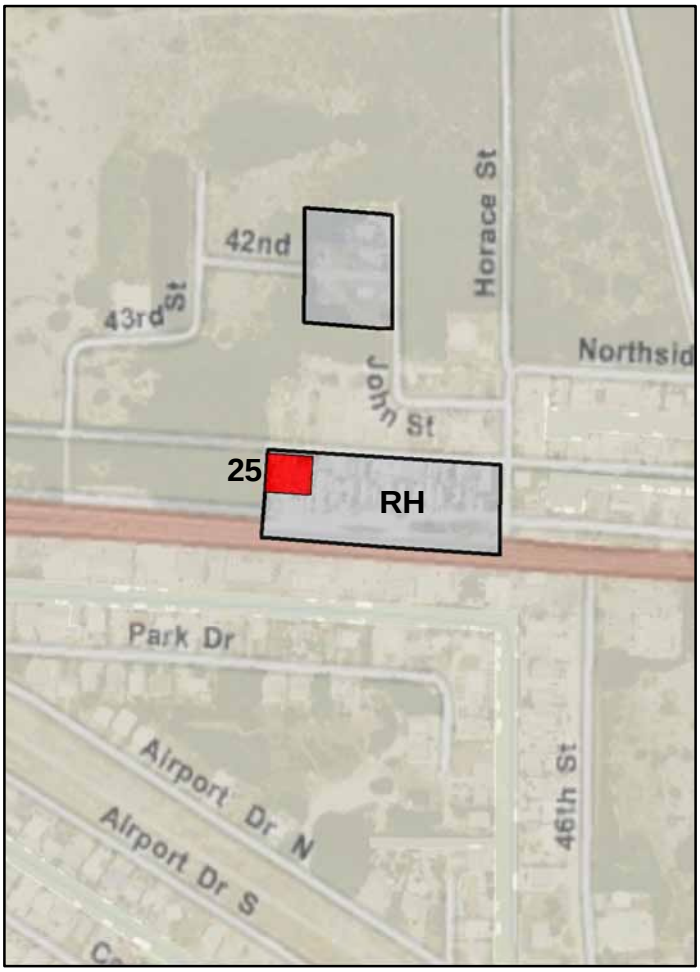
Potential Conflict Call Out

Non-Conforming PC

25-Repair Shop (Not Automotive)
41-Light Manufacturing

Conforming PC

00 01 02 03 04 05
06 08 09 74 78



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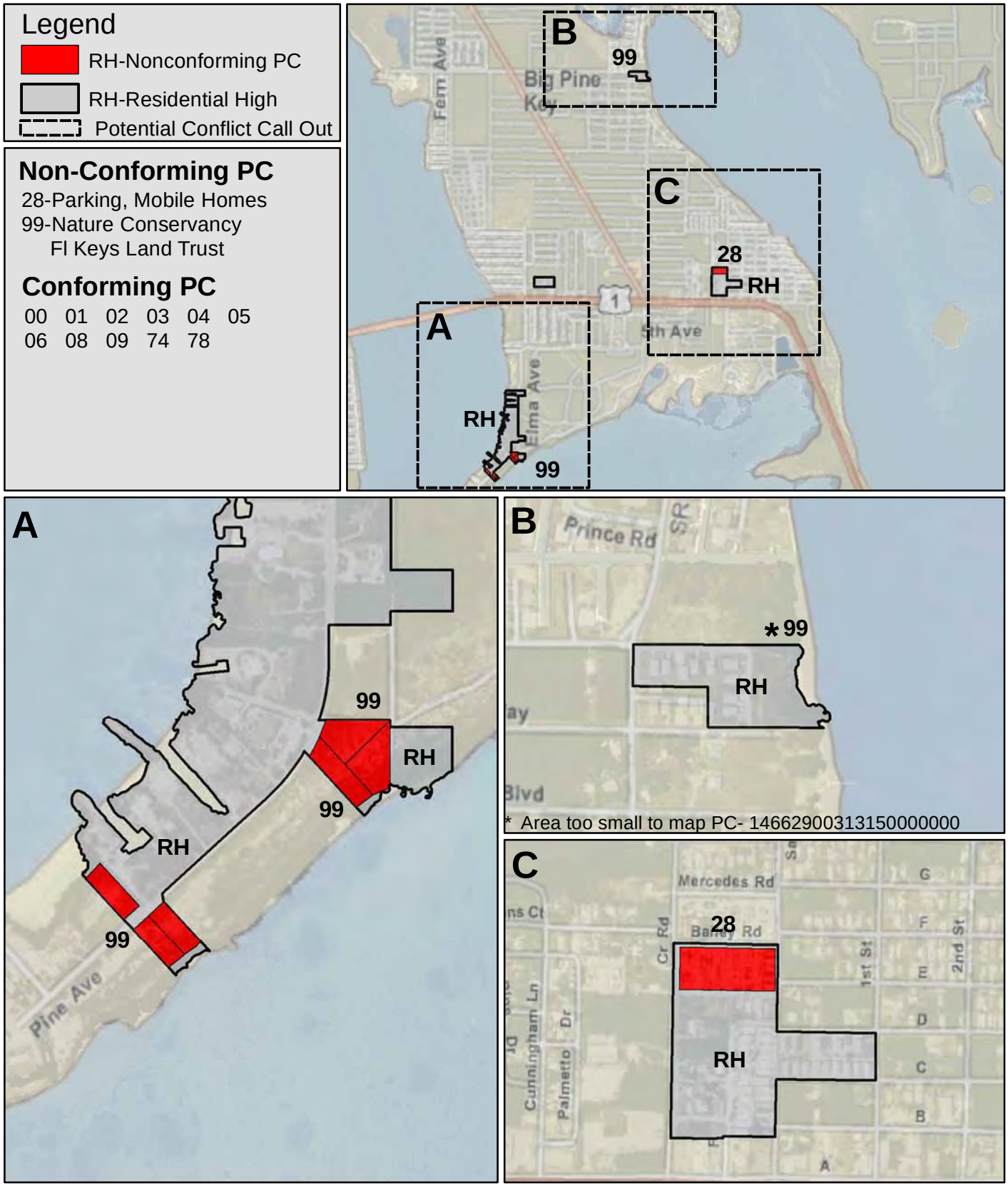
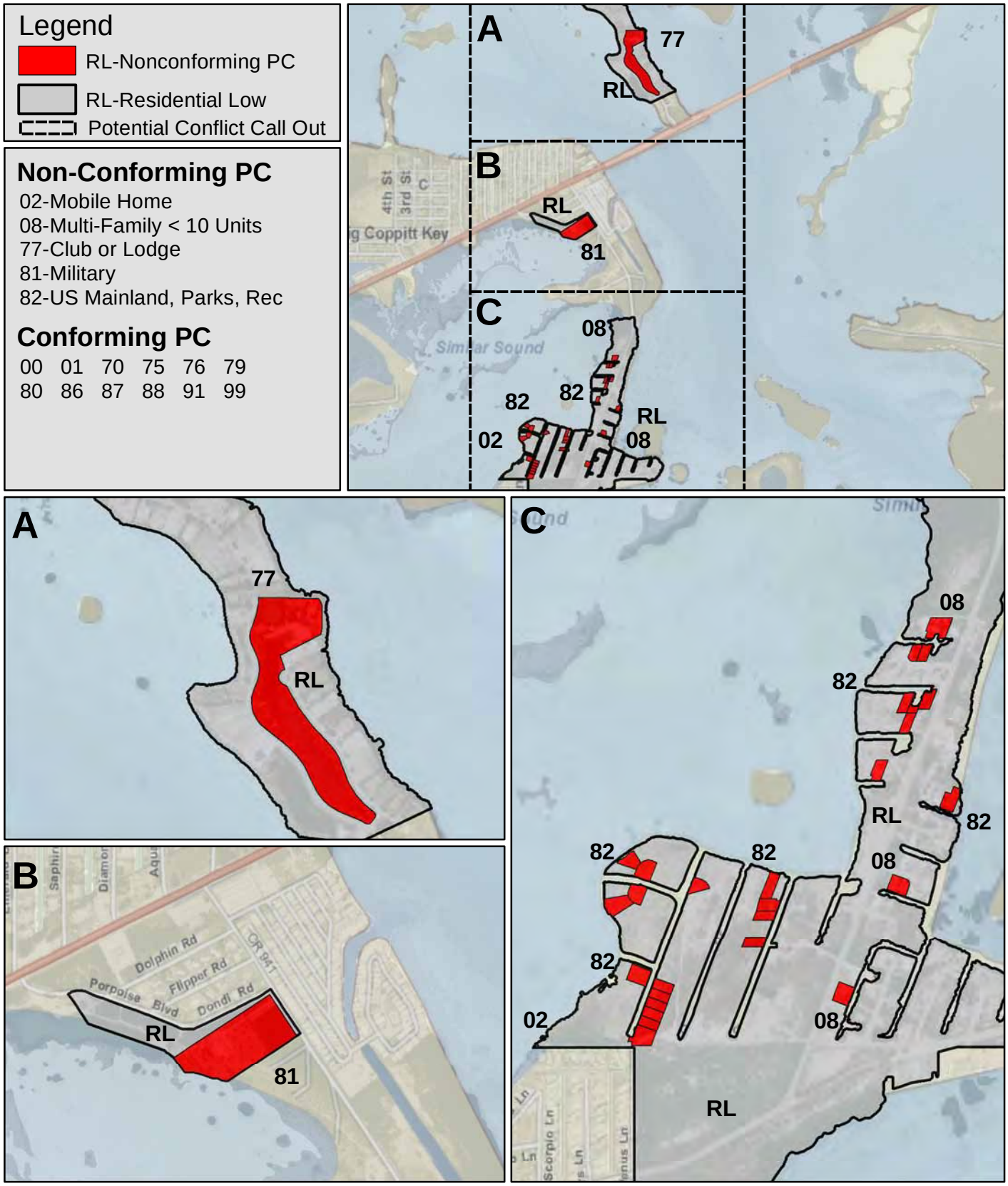
Lower Keys Planning Area

Potential Conflicts in Residential High District



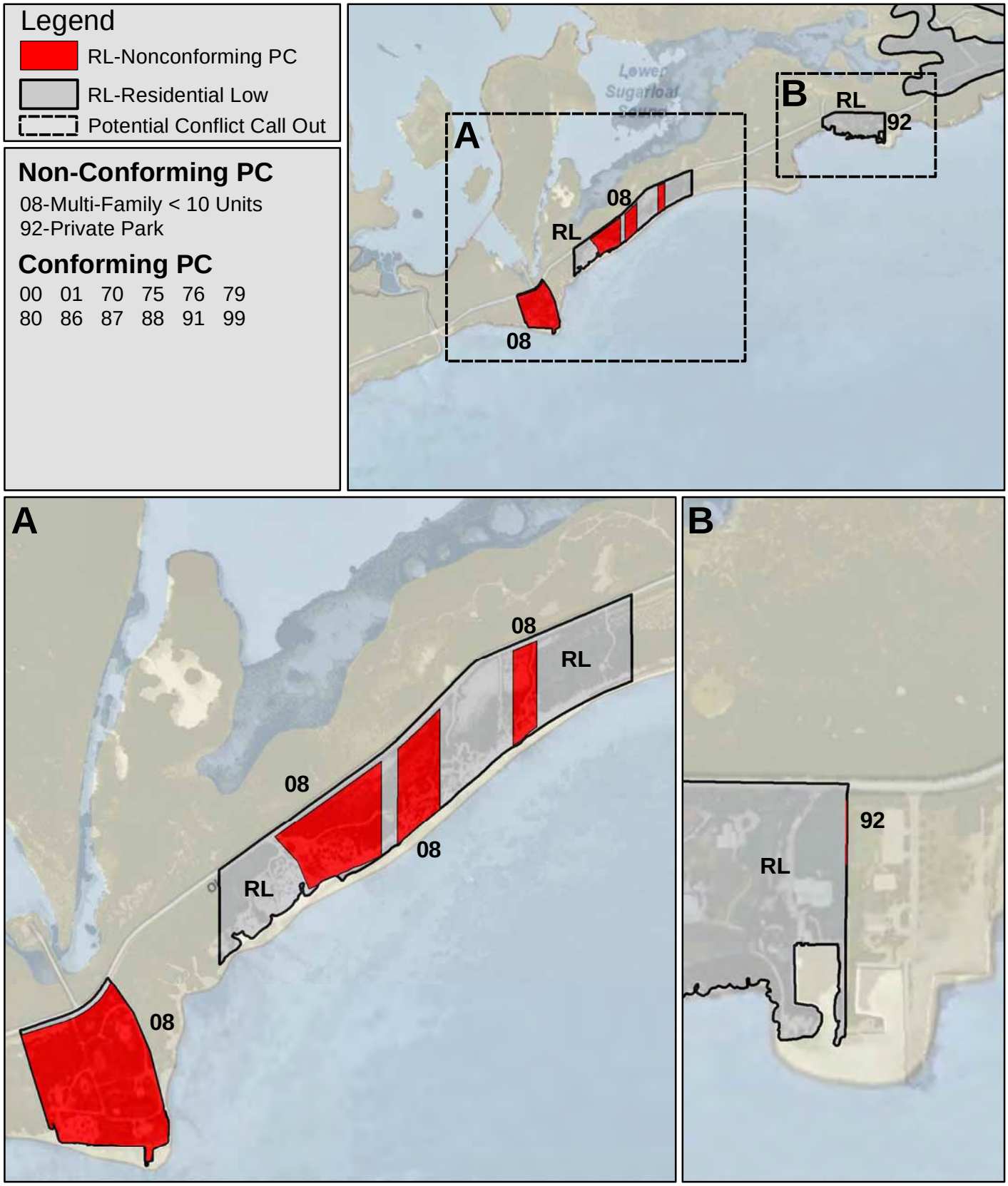
Lower Keys Planning Area

Potential Conflicts in Residential Low District



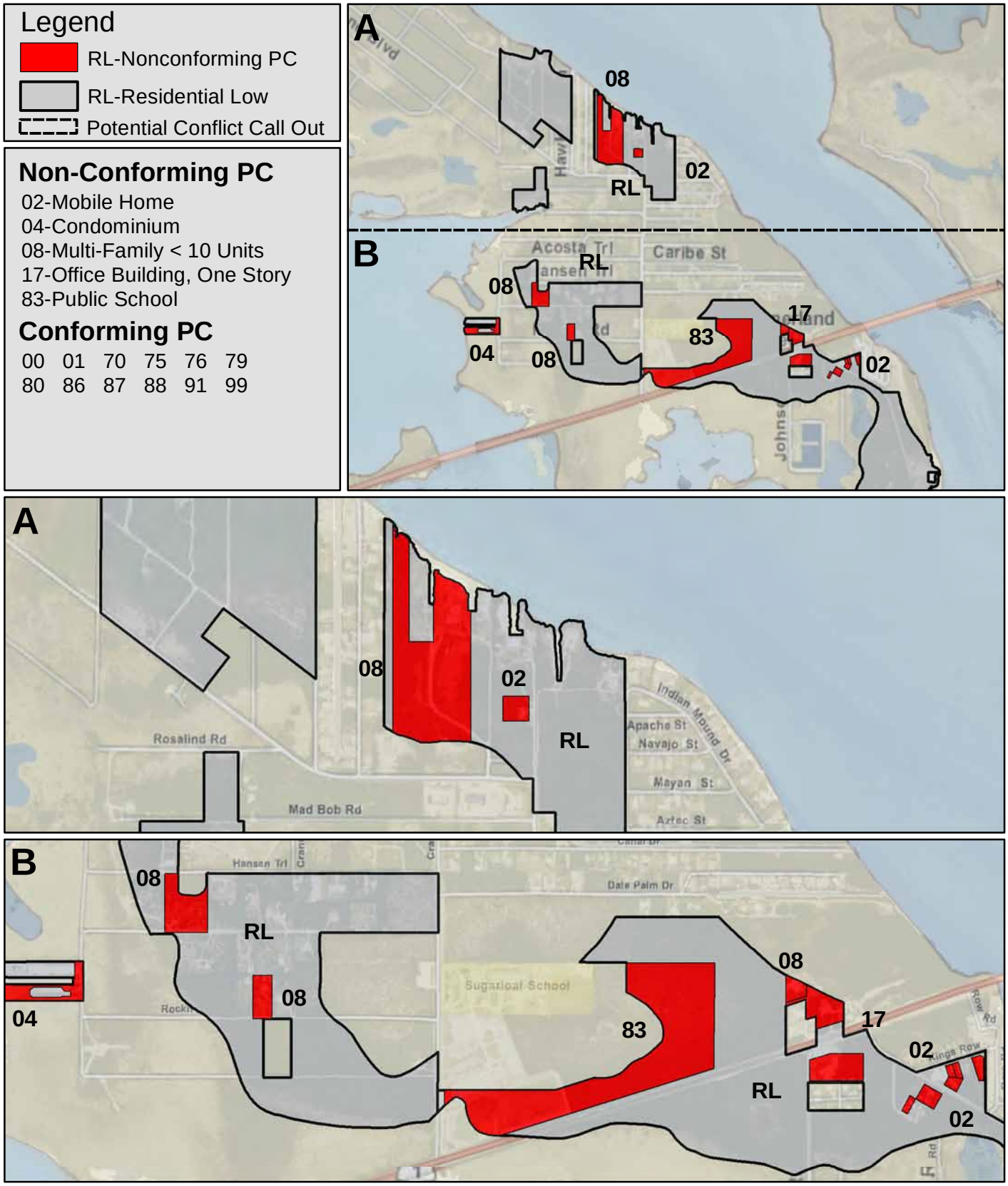
Lower Keys Planning Area

Potential Conflicts in Residential Low District



Lower Keys Planning Area

Potential Conflicts in Residential Low District



Lower Keys Planning Area

Potential Conflicts in Residential Low District

Legend

RL-Nonconforming PC

RL-Residential Low

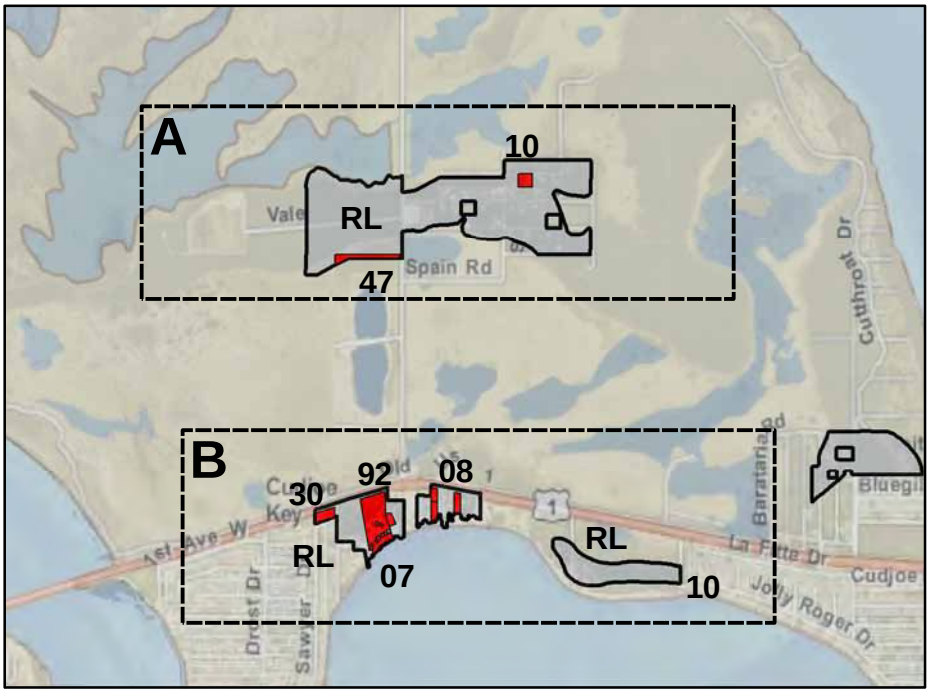
Potential Conflict Call Out

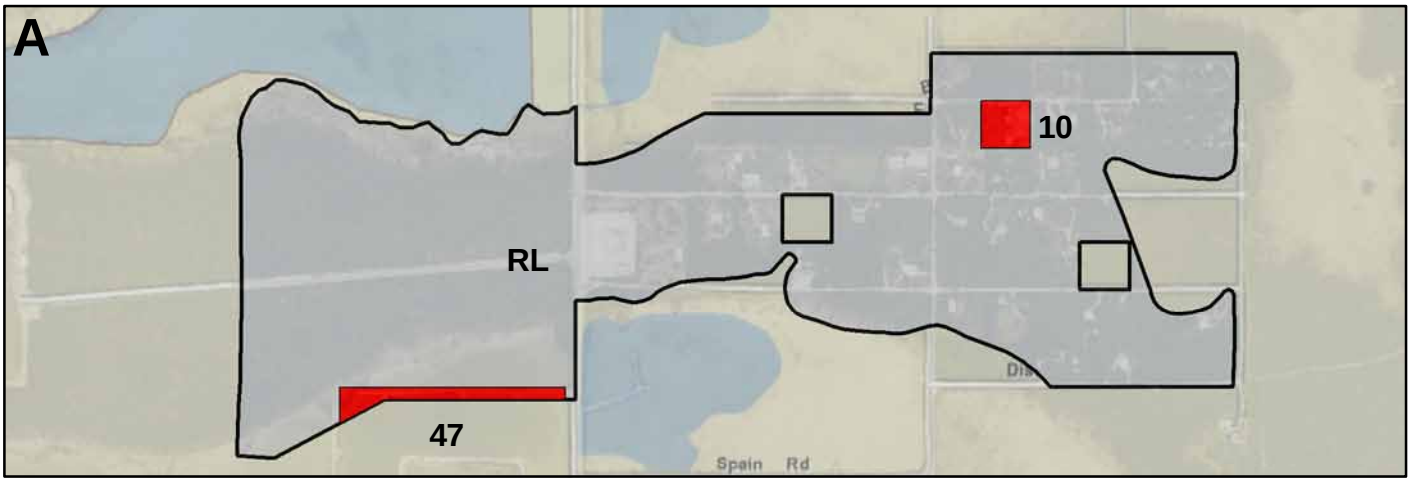
Non-Conforming PC

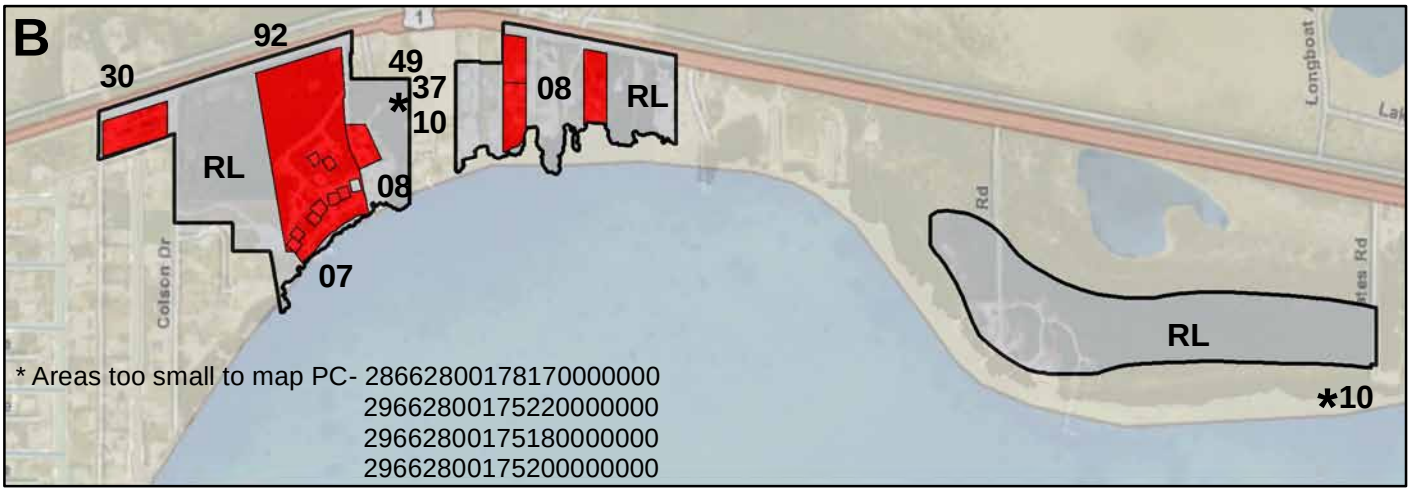
07-Compounds
08-Multi-Family < 10 Units
10-Vacant Commercial
30-Florist or Greenhouse
37-Race Tracks
47-Gravel Pit
49-Open Storage
92-Private Park

Conforming PC

00 01 70 75 76 79
80 86 87 88 91 99







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Lower Keys Planning Area

Potential Conflicts in Residential Low District

Legend

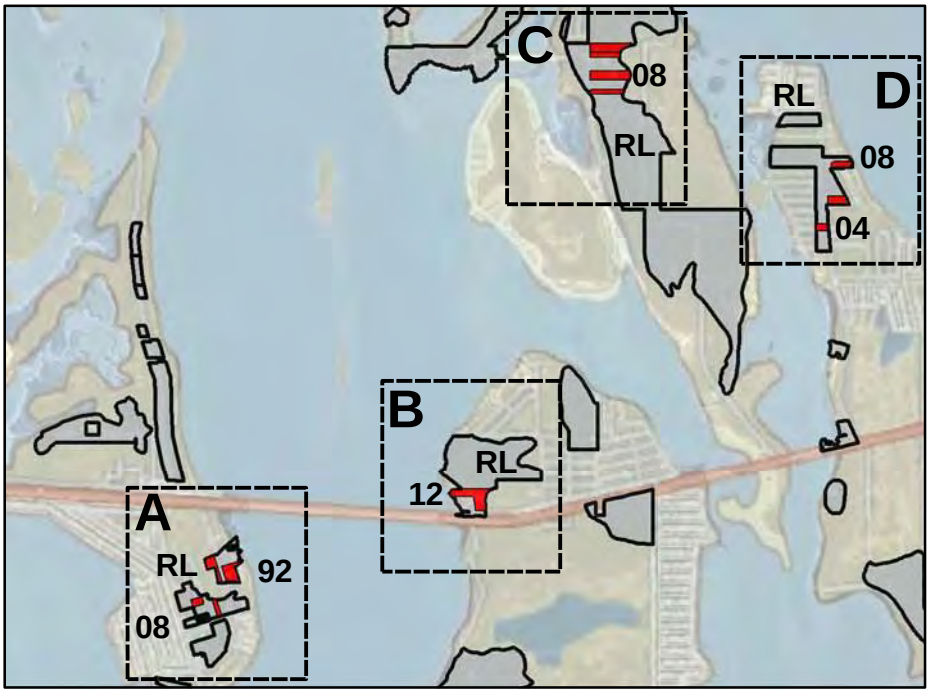
- RL-Nonconforming PC
- RL-Residential Low
- Potential Conflict Call Out

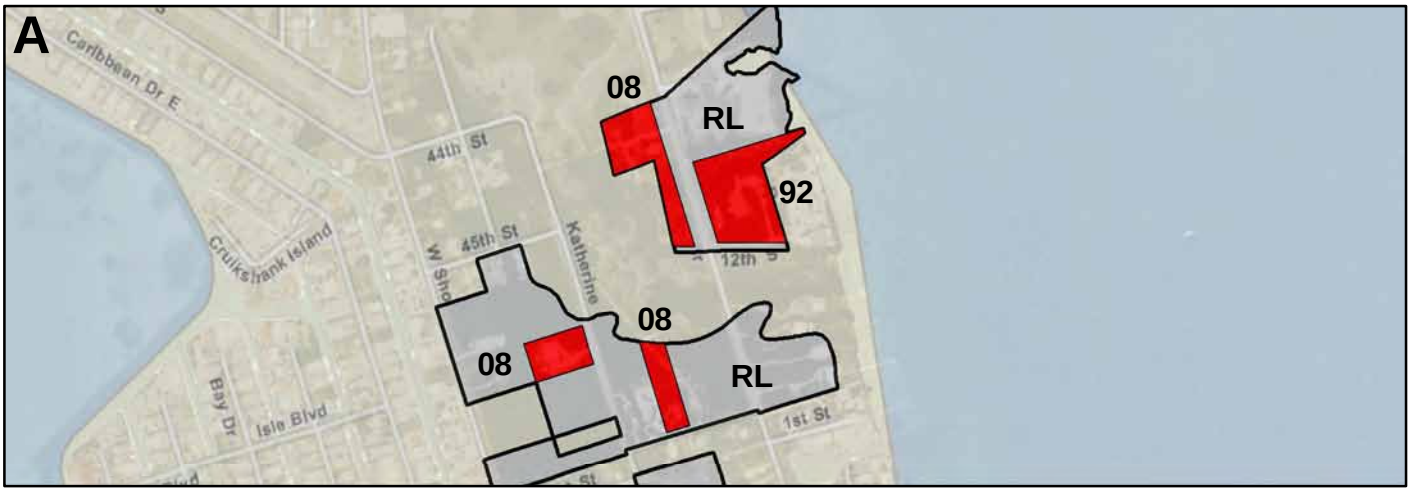
Non-Conforming PC

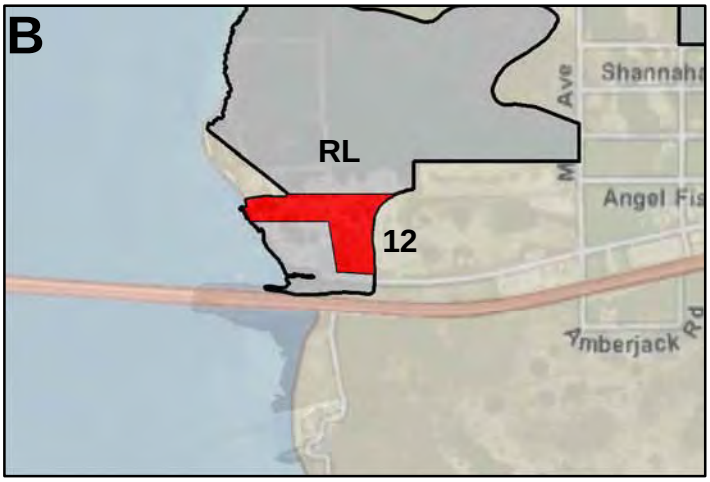
02-Mobile Home
04-Condominium
08-Multi-Family < 10 Units
12-Mixed Use-Res/Commercial
92-Private Park

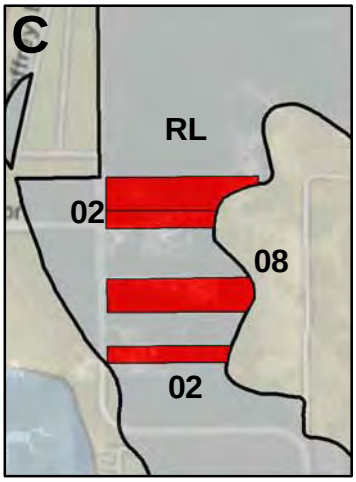
Conforming PC

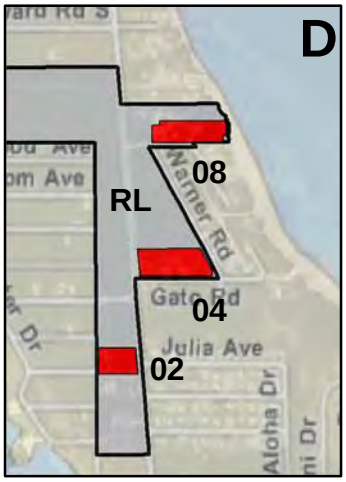
00 01 70 75 76 79
80 86 87 88 91 99





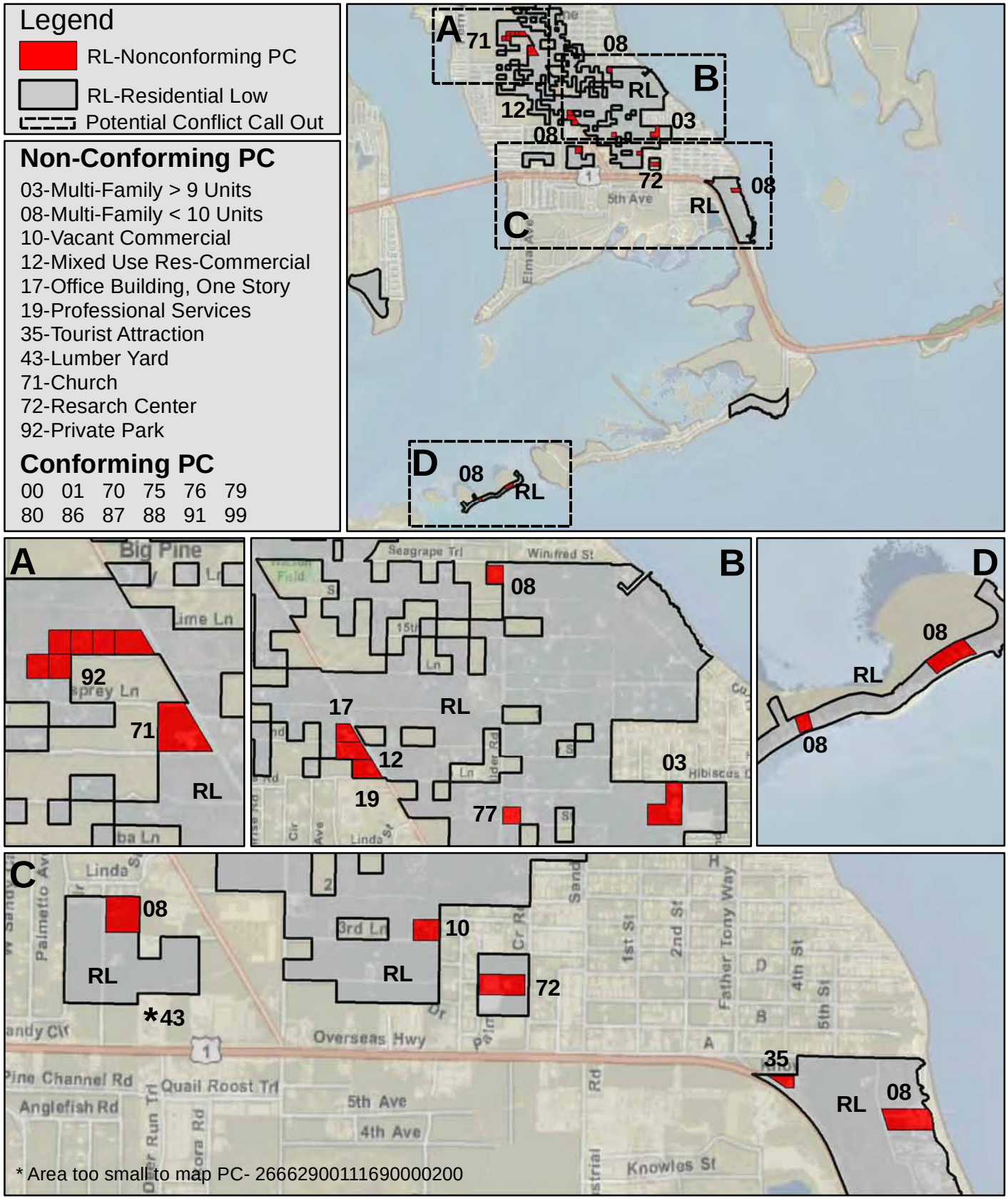






Lower Keys Planning Area

Potential Conflicts in Residential Low District



Lower Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

RM-Nonconforming PC

RM-Residential Medium

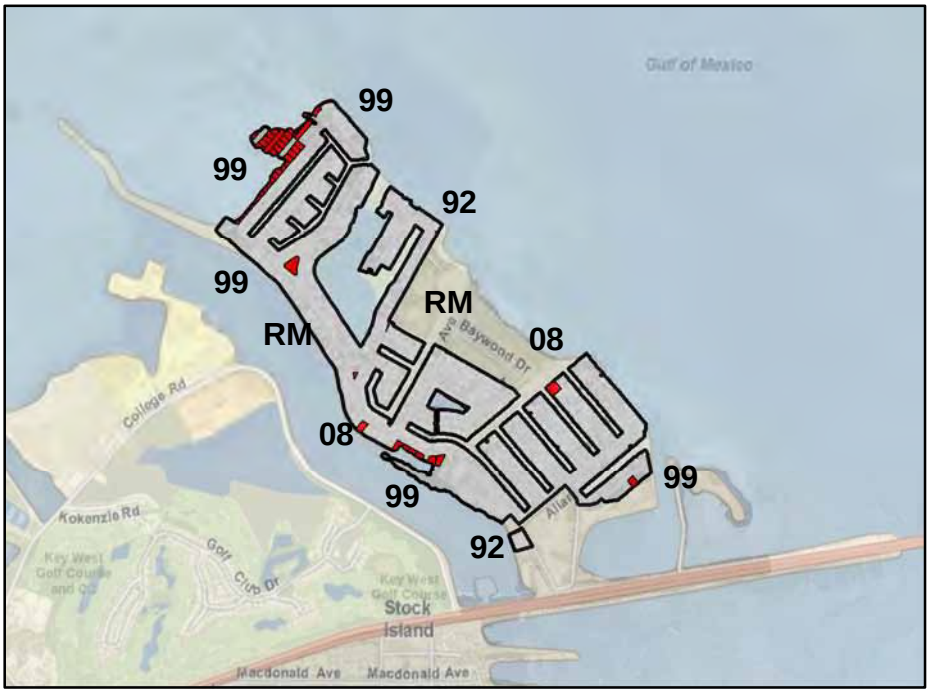
Potential Conflict Call Out

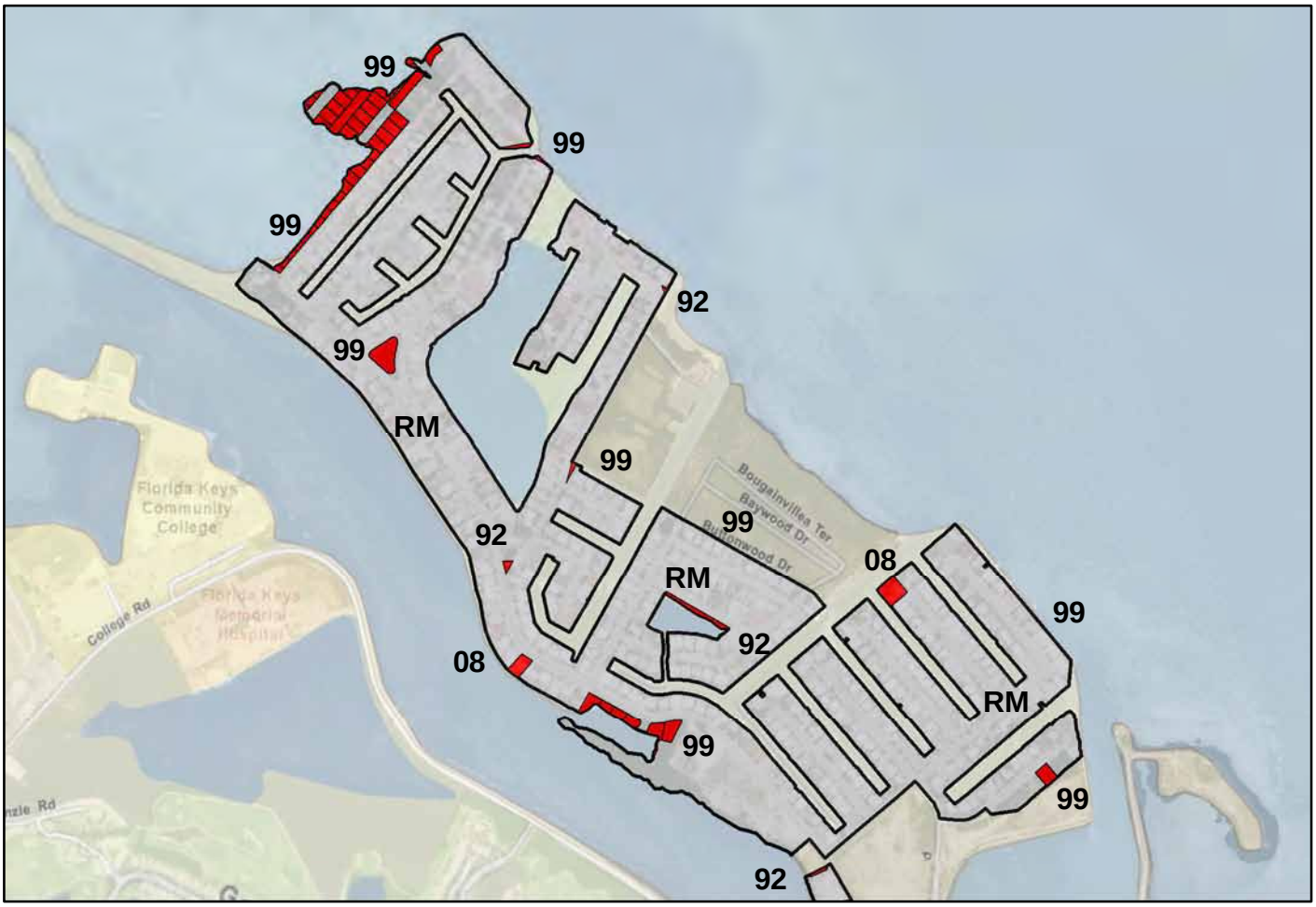
Non-Conforming PC

08-Multi-Family < 10 Units
92-Private Park
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

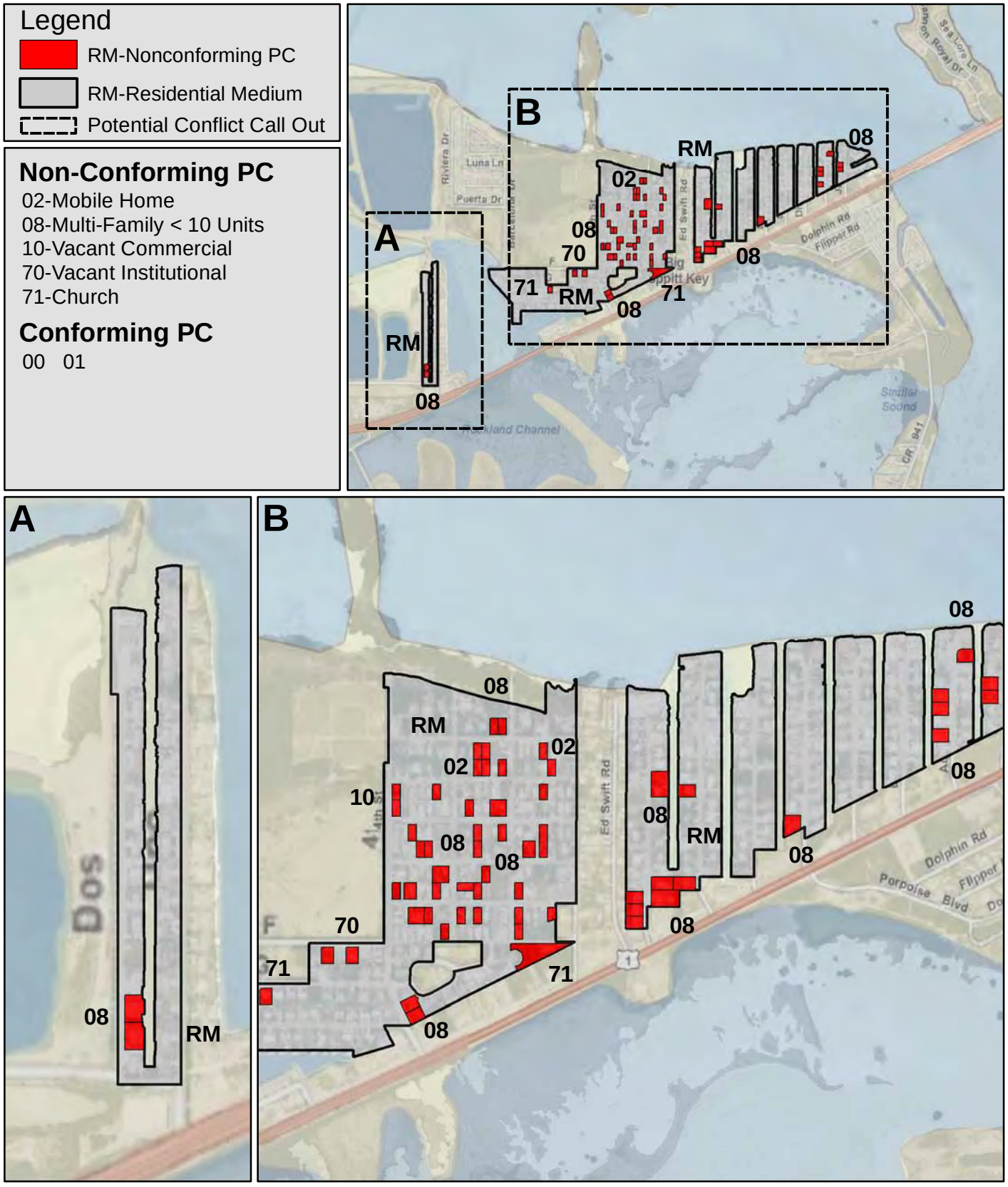
00 01





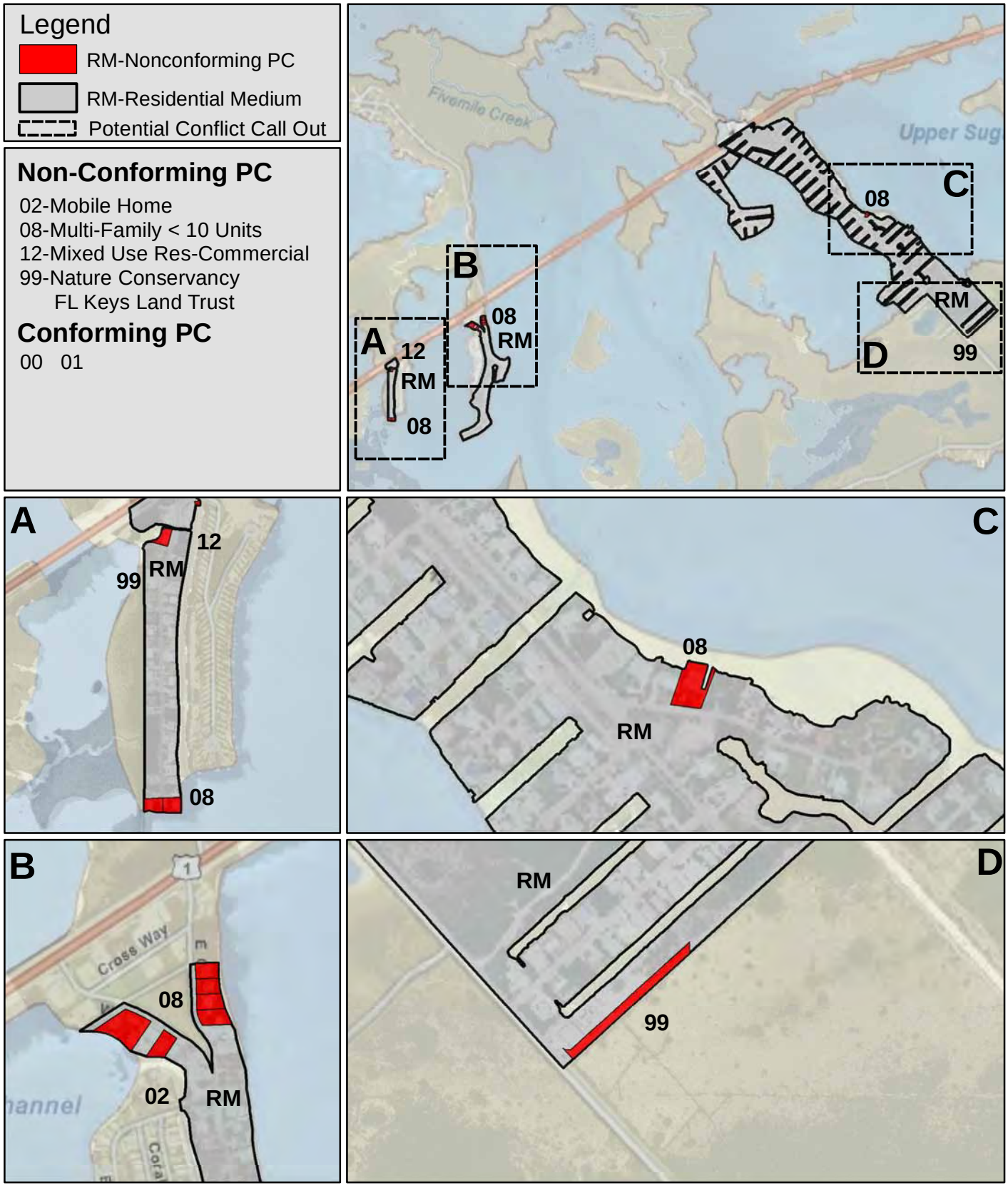
Lower Keys Planning Area

Potential Conflicts in Residential Medium District



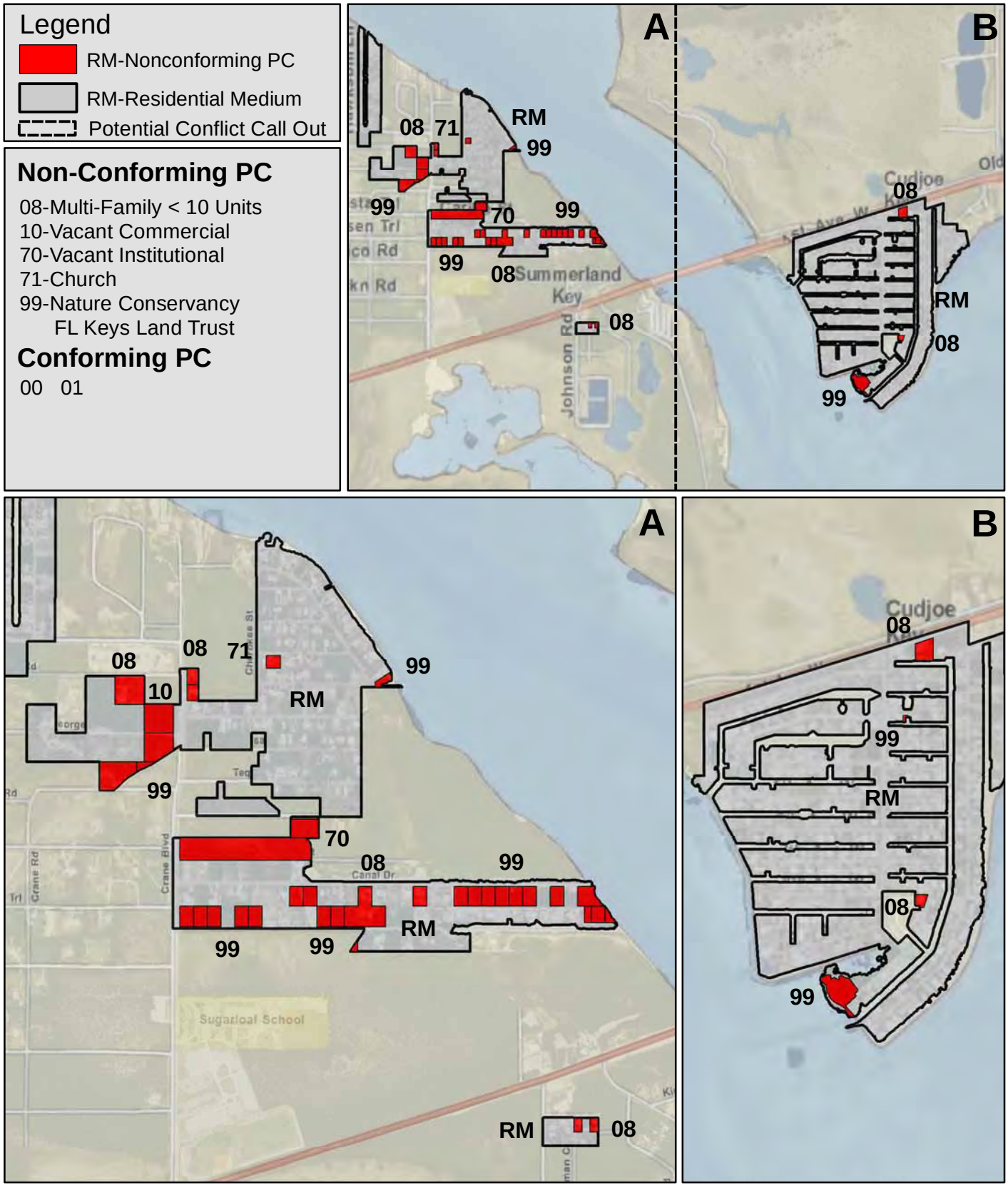
Lower Keys Planning Area

Potential Conflicts in Residential Medium District



Lower Keys Planning Area

Potential Conflicts in Residential Medium District



Lower Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

RM-Nonconforming PC

RM-Residential Medium

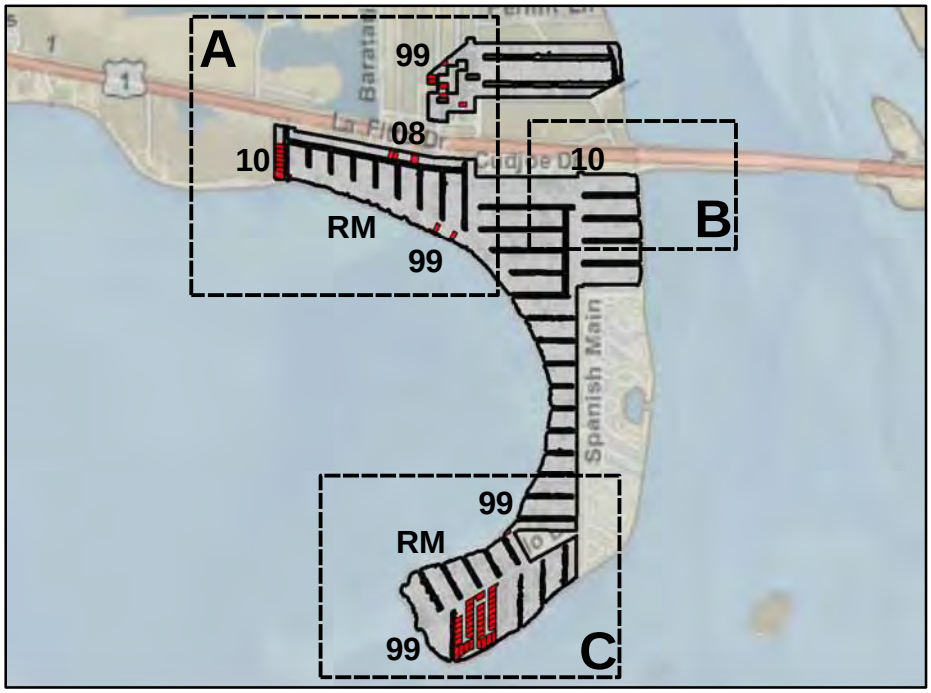
Potential Conflict Call Out

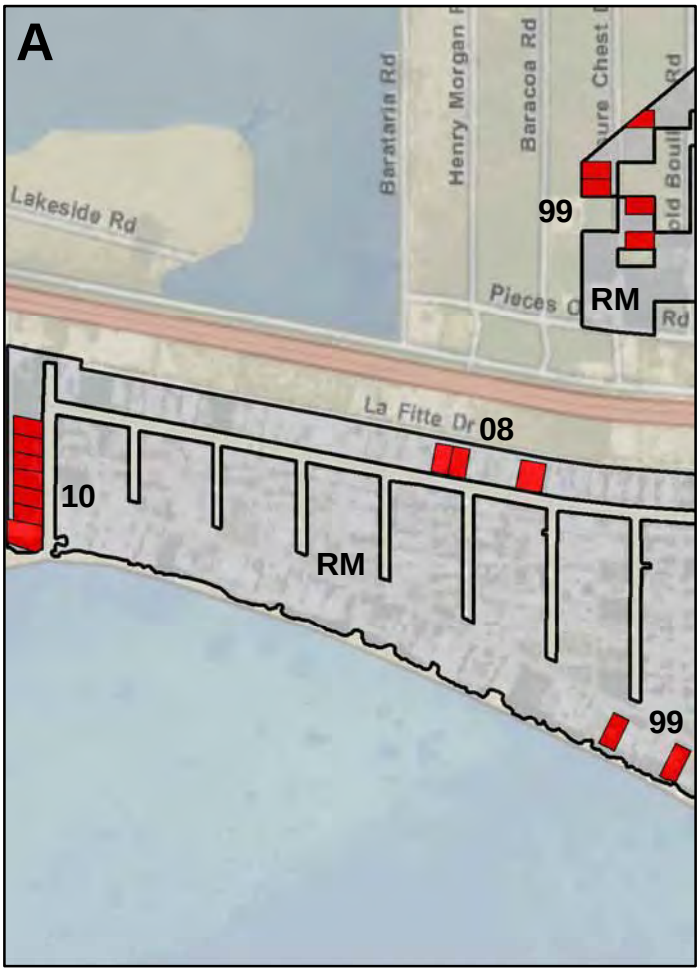
Non-Conforming PC

08-Multi-Family < 10 Units
10-Vacant Commercial
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

00 01





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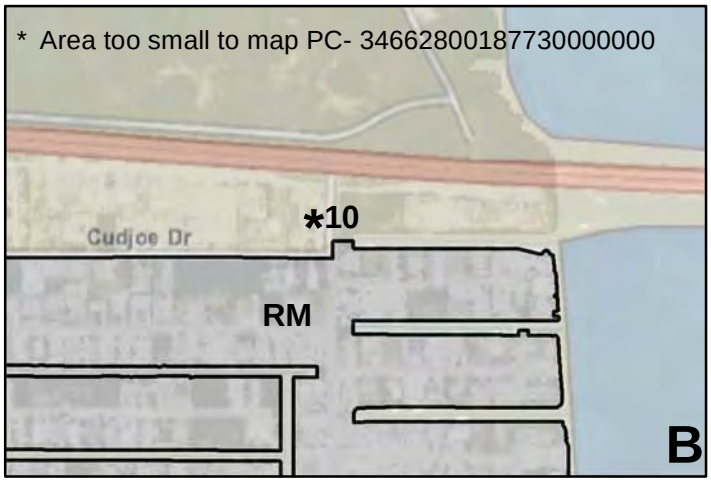
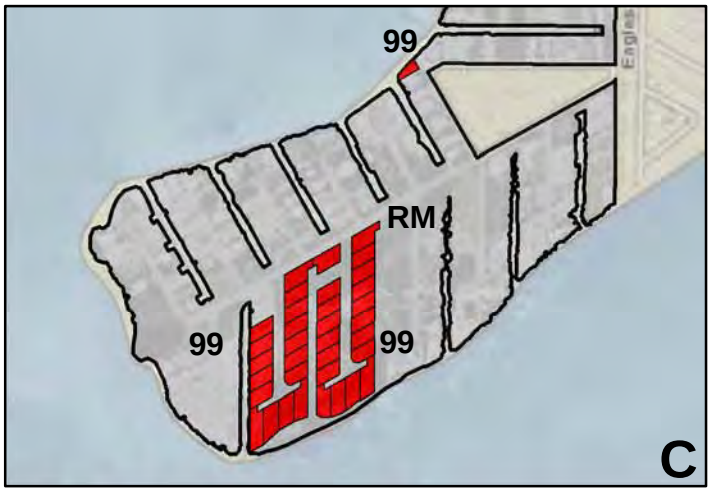




Lower Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

RM-Nonconforming PC

RM-Residential Medium

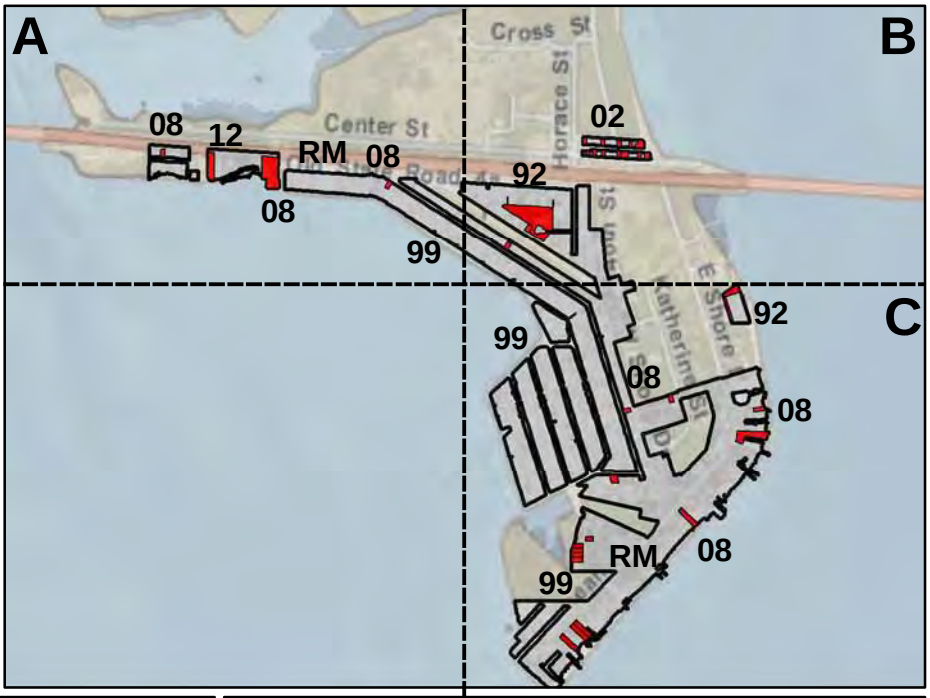
Potential Conflict Call Out

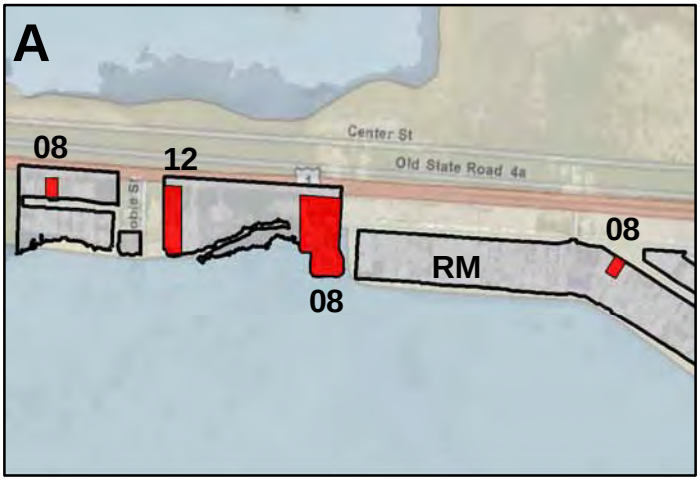
Non-Conforming PC

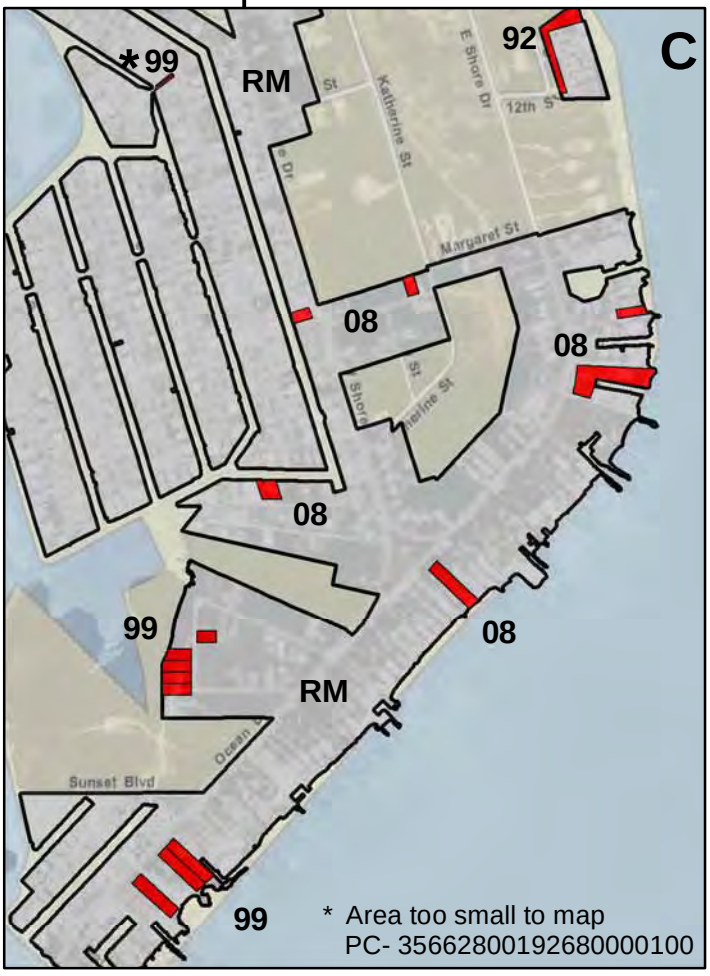
02-Mobile Home
08-Multi-Family < 10 Units
12-Mixed Use Rec-Commercial
92-Private Park
99-Nature Conservancy
FL Keys Land Trust

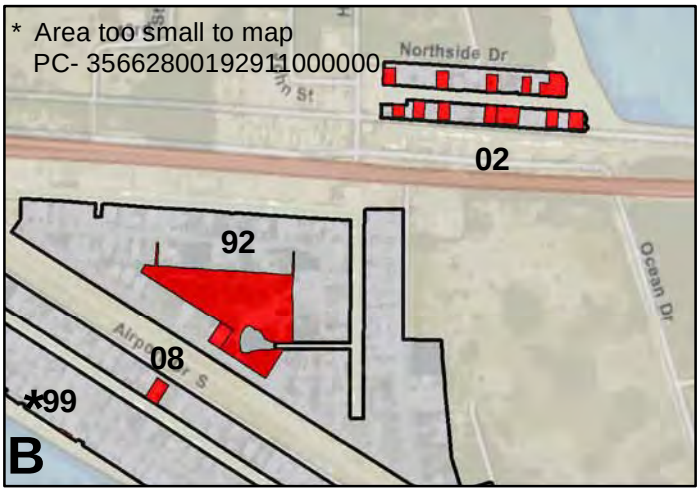
Conforming PC

00 01









Lower Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

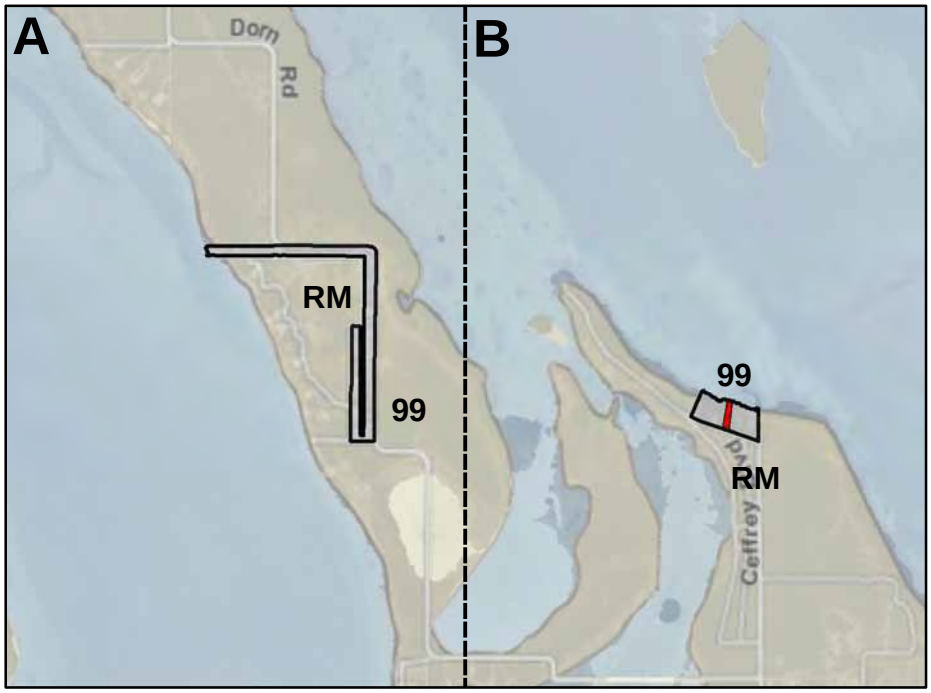
- RM-Nonconforming PC
- RM-Residential Medium
- Potential Conflict Call Out

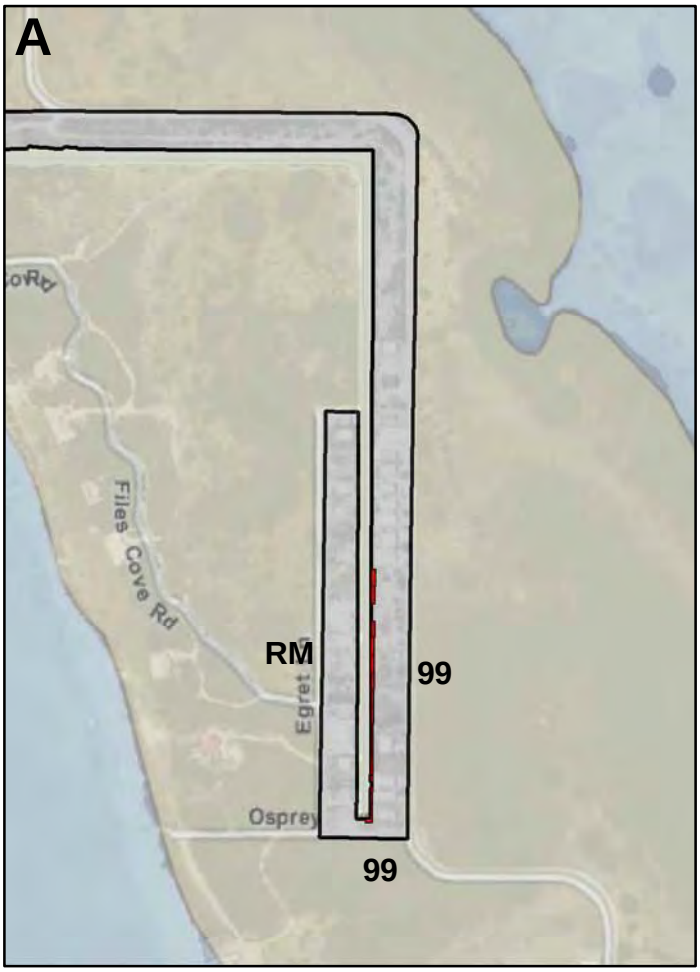
Non-Conforming PC

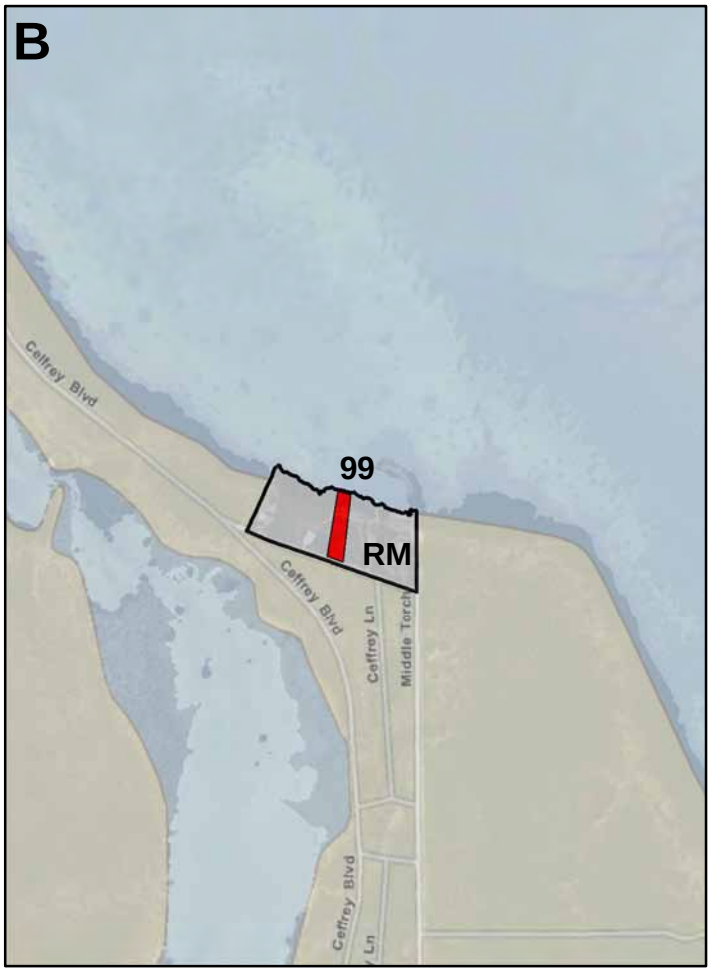
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

00 01







Lower Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

RM-Nonconforming PC

RM-Residential Medium

Non-Conforming PC

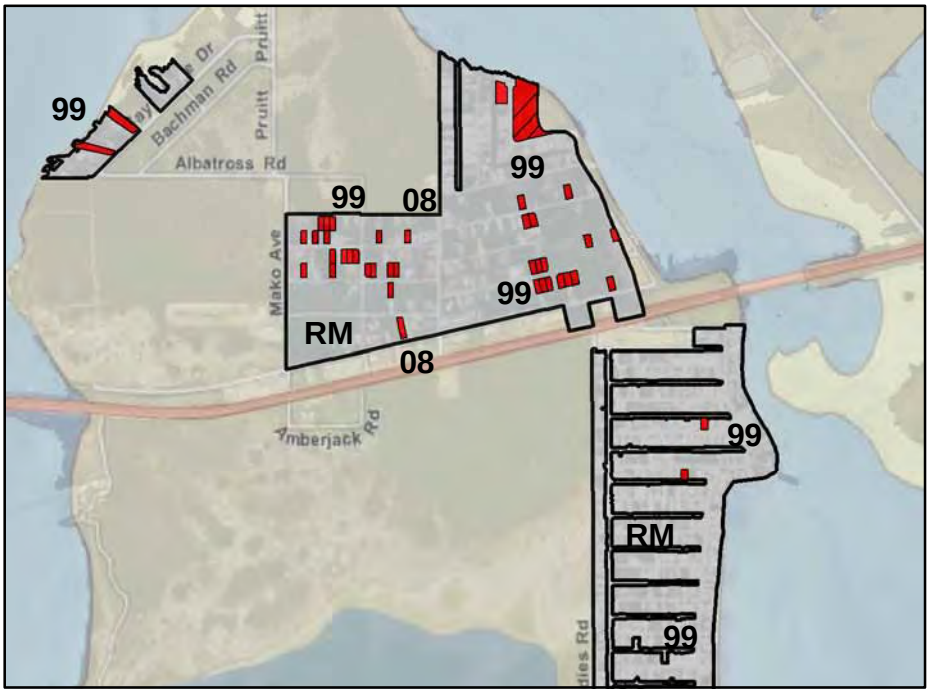
08-Multi-Family < 10 Units

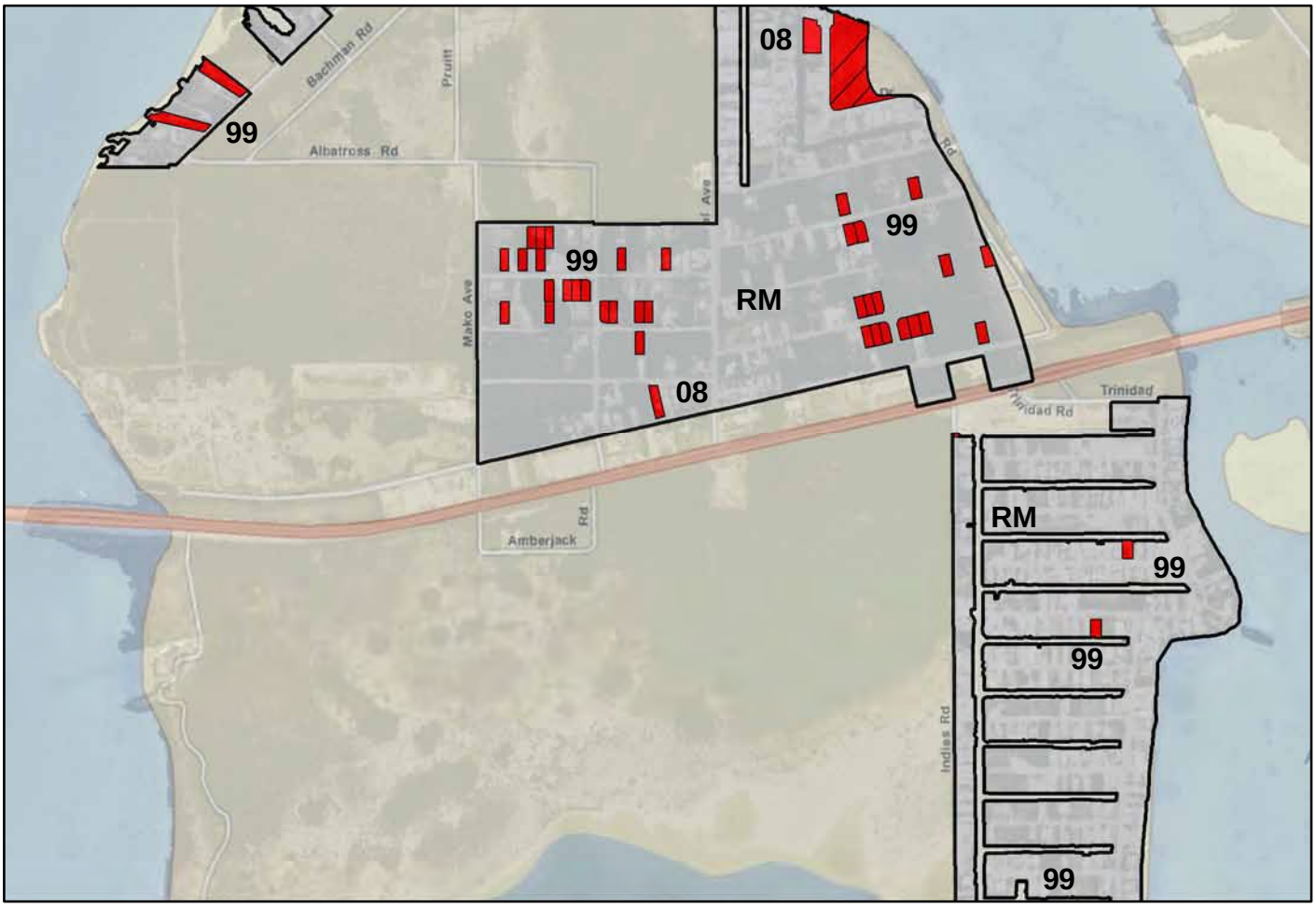
99-Nature Conservancy

FL Keys Land Trust

Conforming PC

00 01





Lower Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

RM-Nonconforming PC

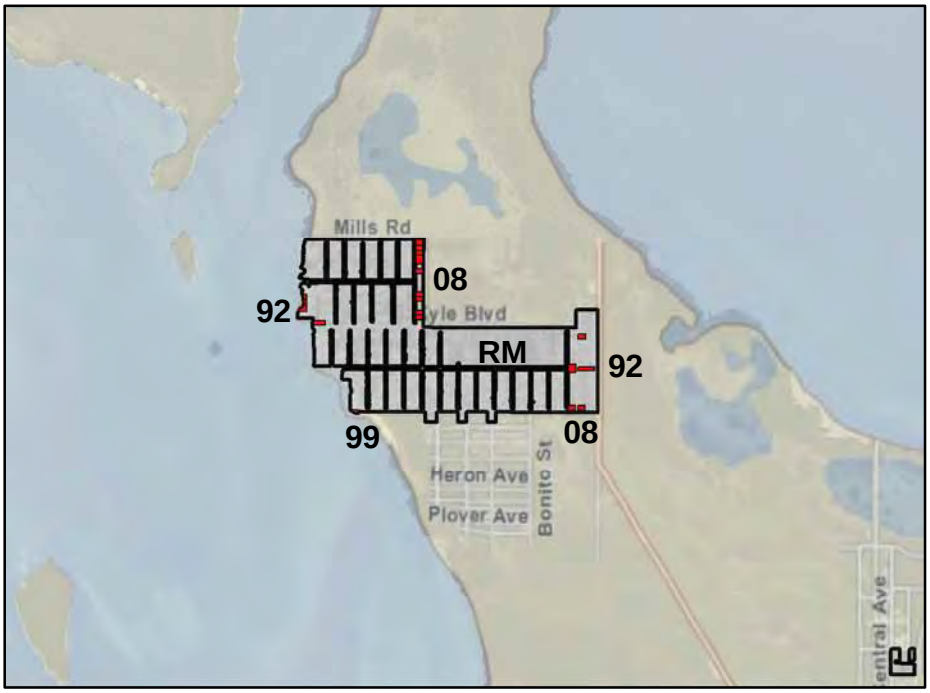
RM-Residential Medium

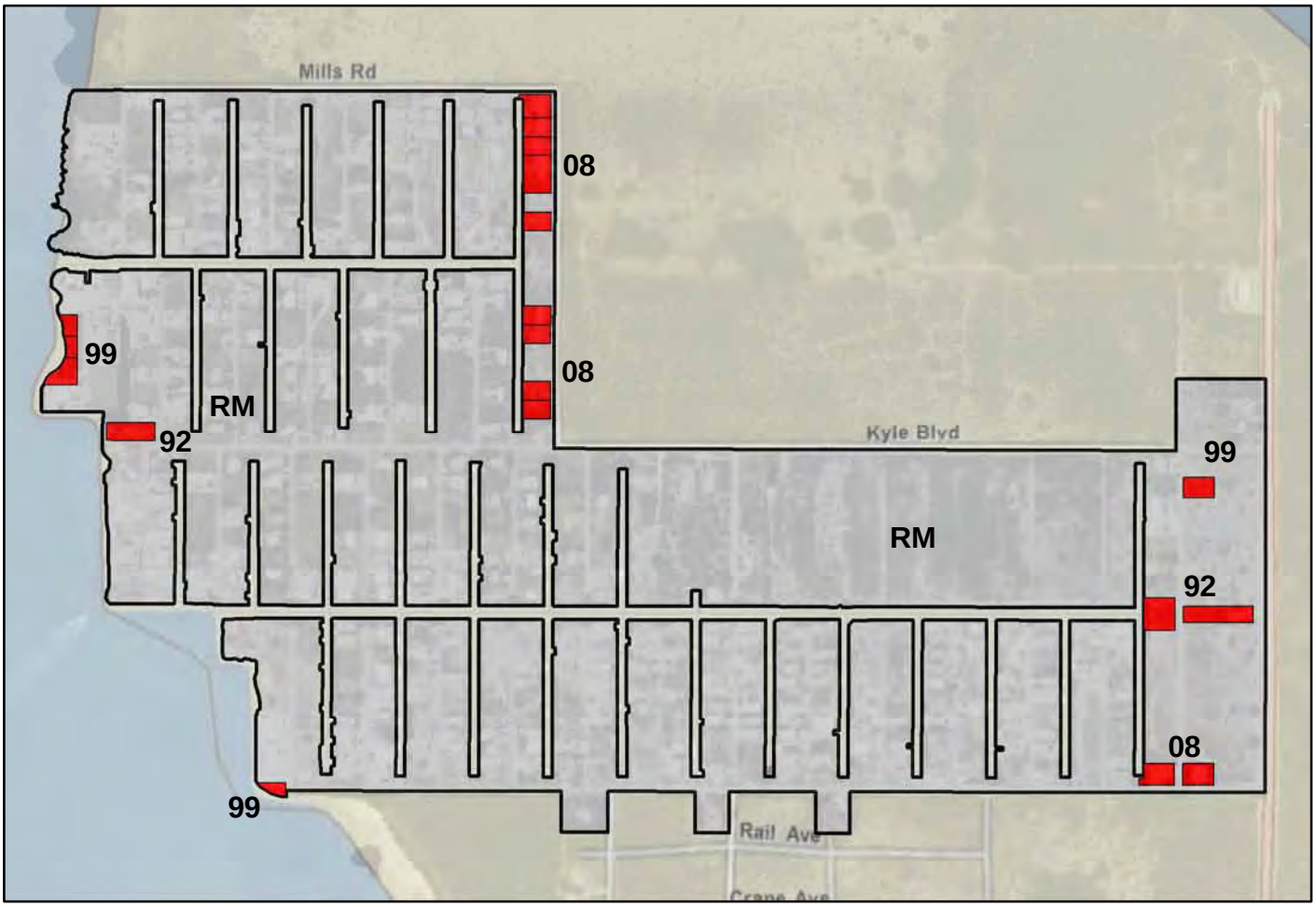
Non-Conforming PC

08-Multi-Family < 10 Units
92-Private Park
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

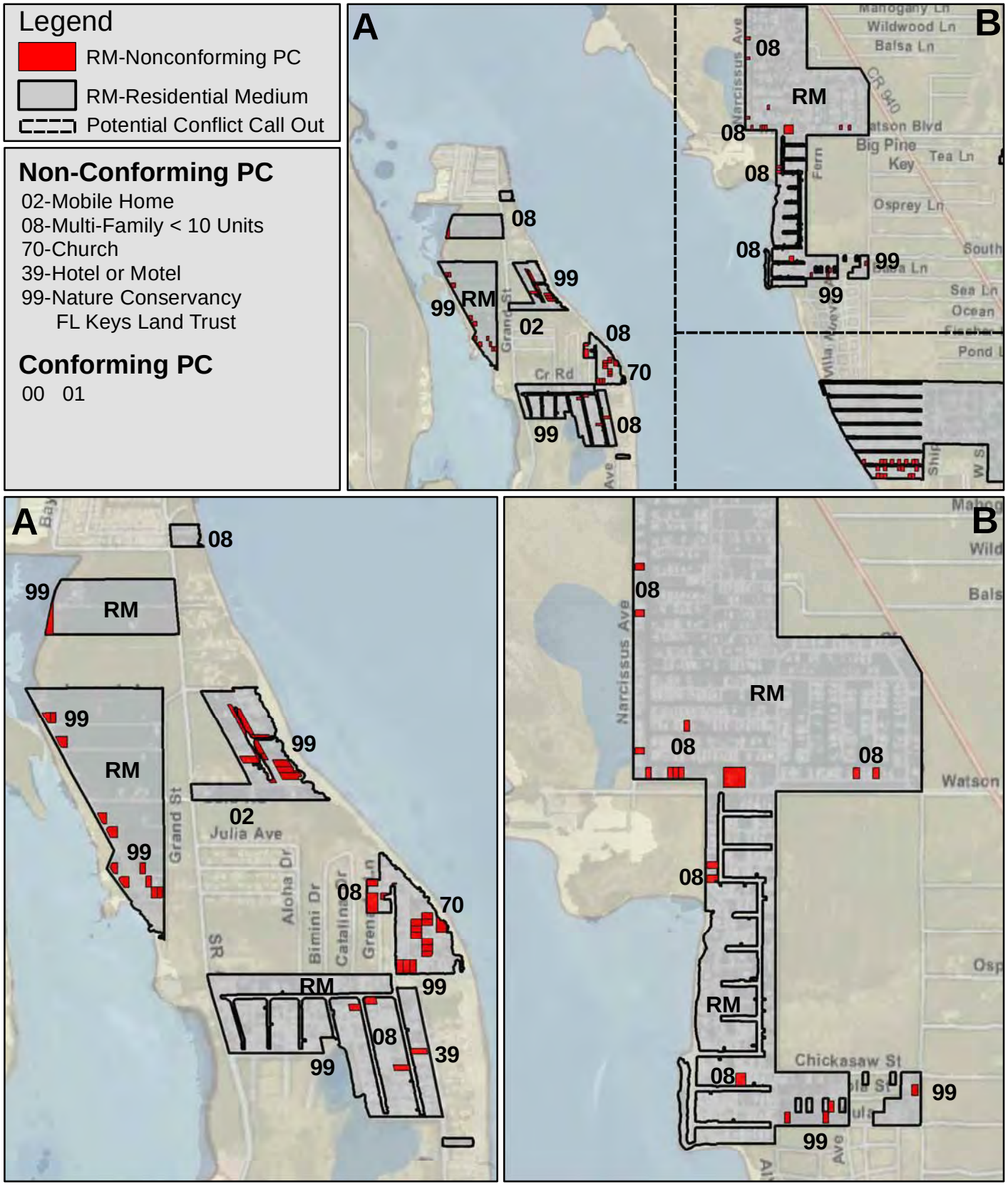
00 01





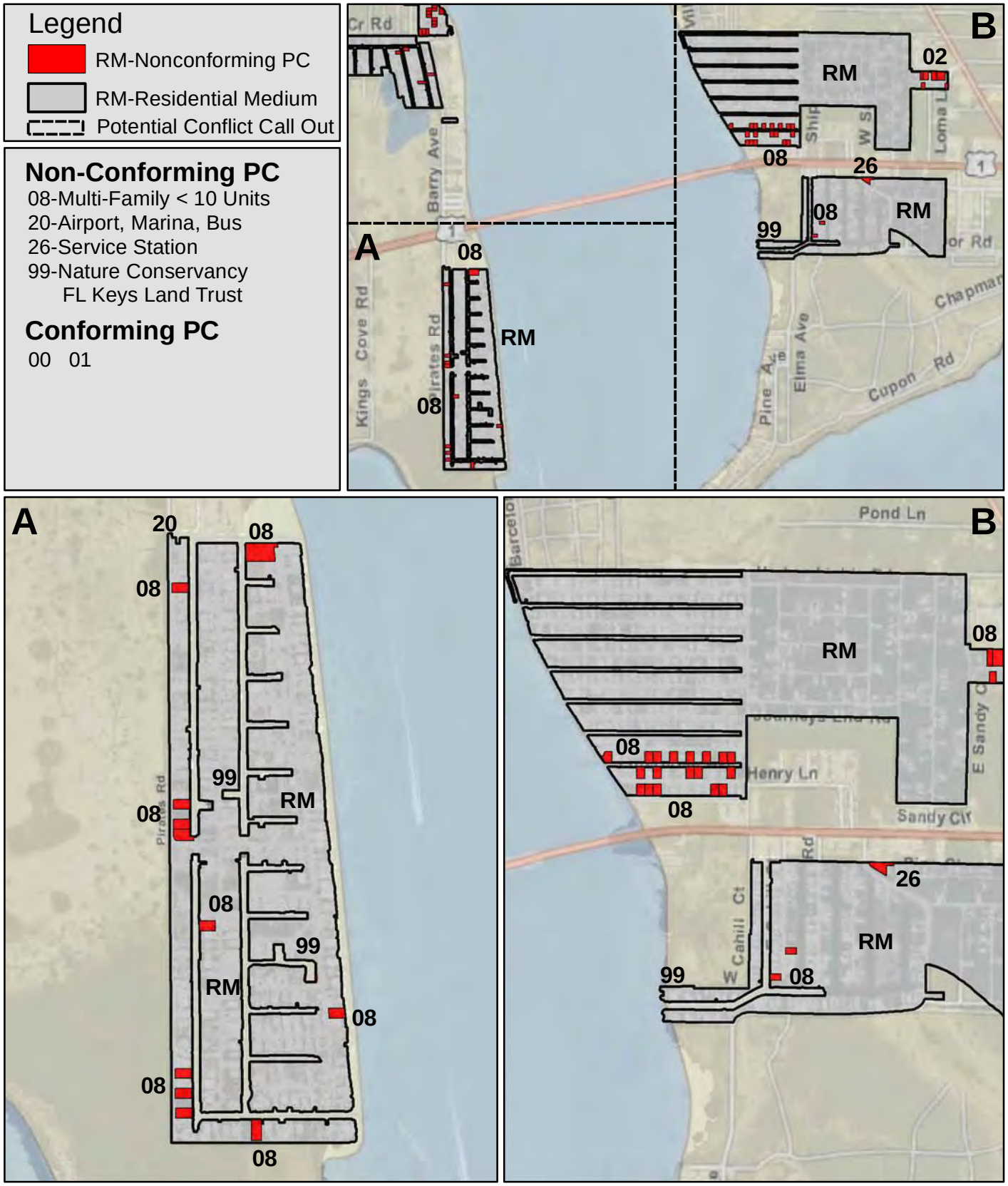
Lower Keys Planning Area

Potential Conflicts in Residential Medium District



Lower Keys Planning Area

Potential Conflicts in Residential Medium District



Lower Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

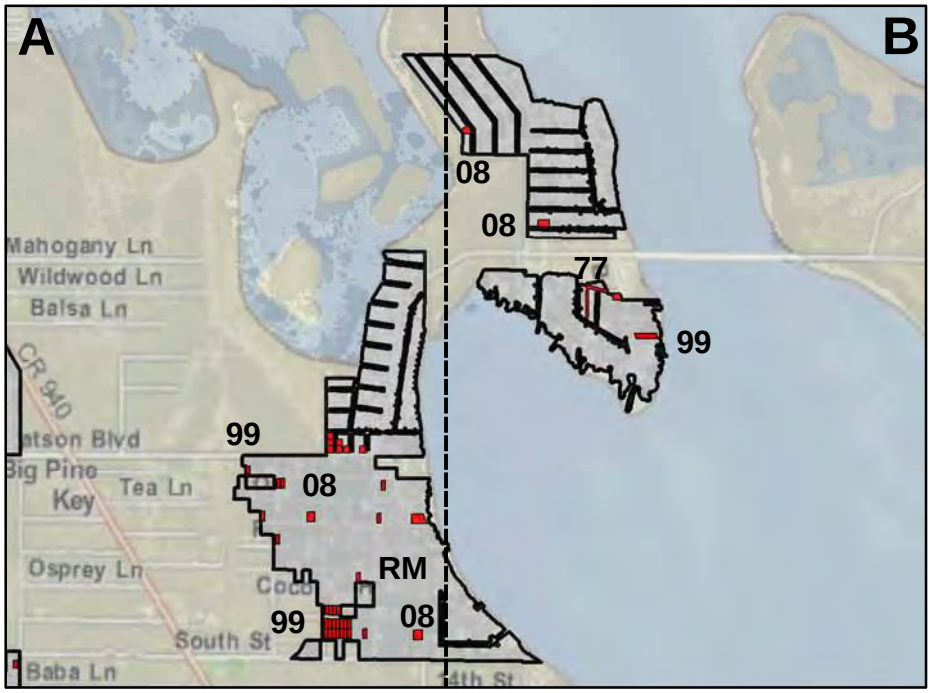
- RM-Nonconforming PC
- RM-Residential Medium
- Potential Conflict Call Out

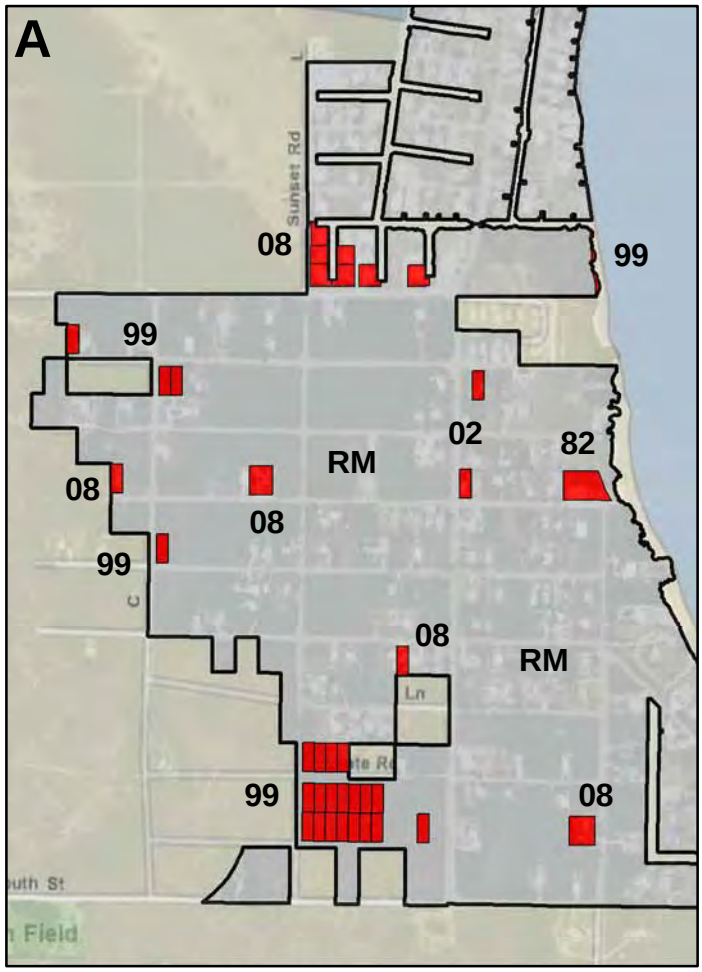
Non-Conforming PC

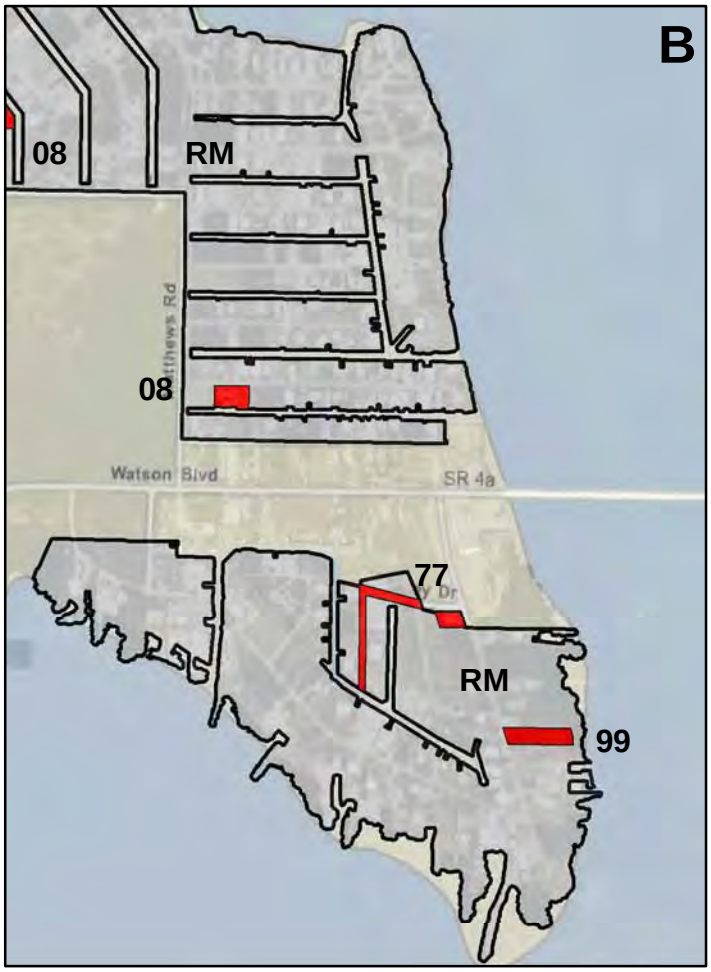
02-Mobile Home
08-Multi-Family < 10 Units
77-Club or Lodge
82-US Mainland Forest,Parks
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

00 01







Lower Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

RM-Nonconforming PC

RM-Residential Medium

Potential Conflict Call Out

Non-Conforming PC

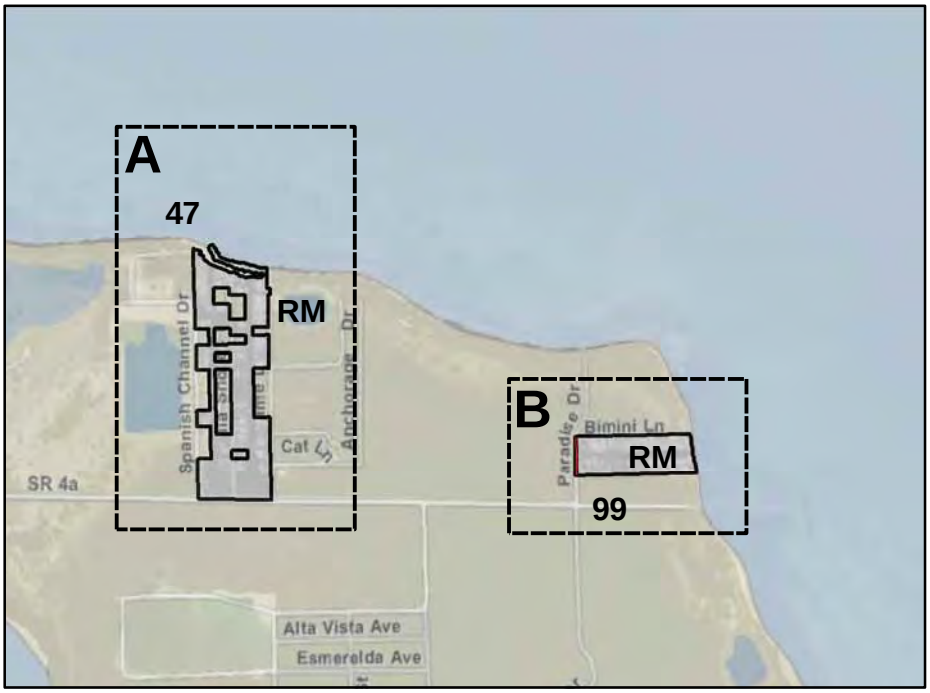
47-Gravel Pit

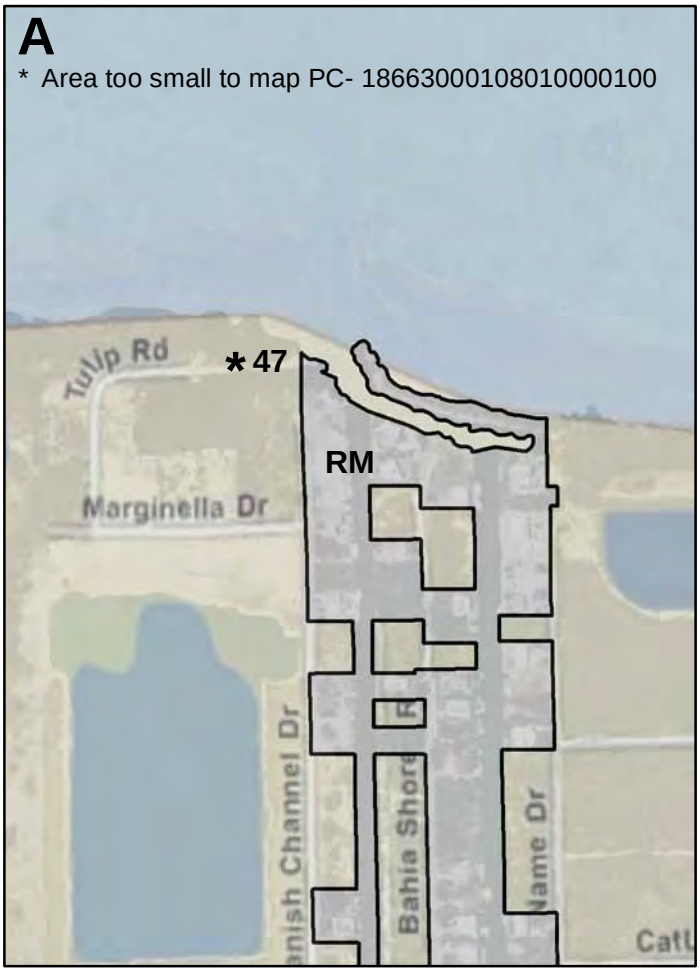
99-Nature Conservancy

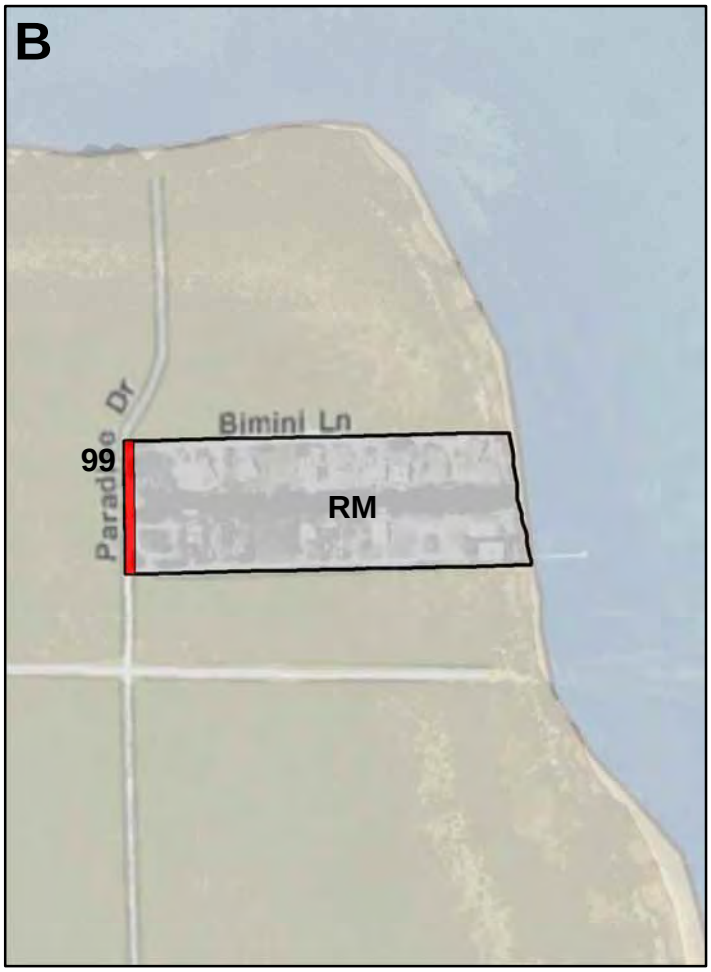
FL Keys Land Trust

Conforming PC

00 01







Lower Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

RM-Nonconforming PC

RM-Residential Medium

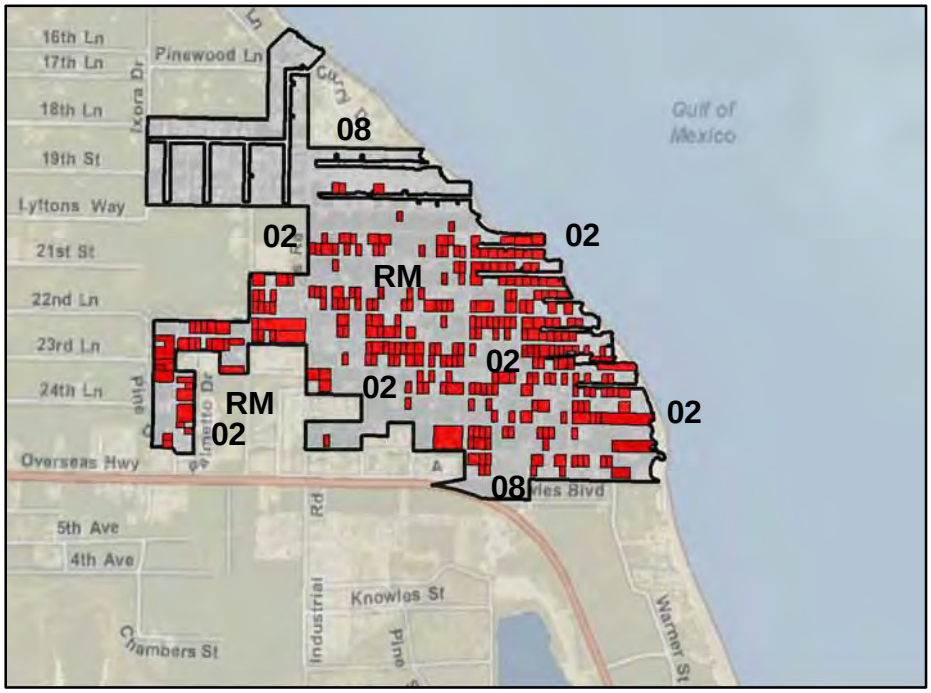
Potential Conflict Call Out

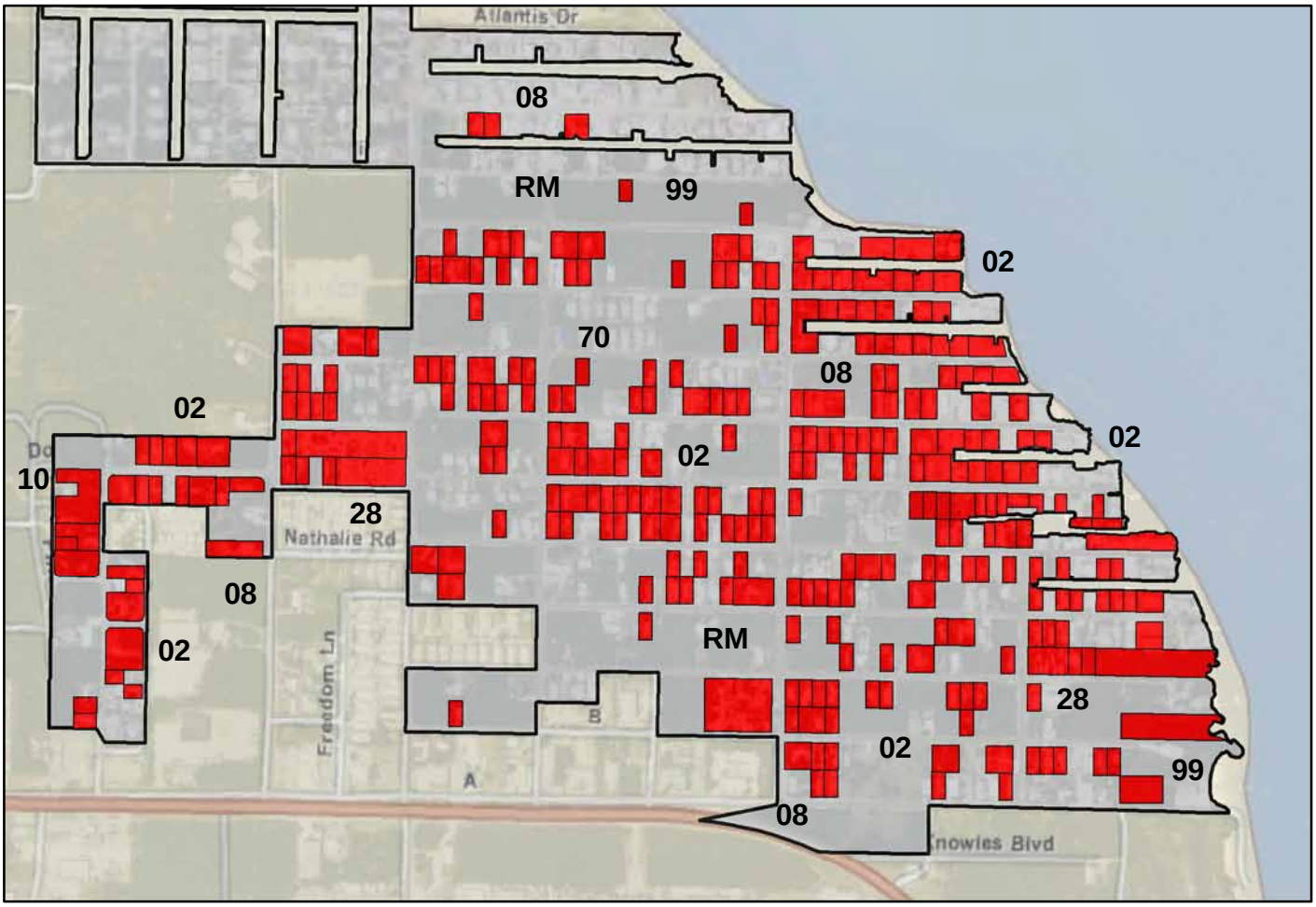
Non-Conforming PC

02-Mobile Home
08-Multi-Family < 10 Units
10-Vacant Commercial
28-Parking, Mobile Parks
70-Vacant Institutional
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

00 01





Lower Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

RM-Nonconforming PC

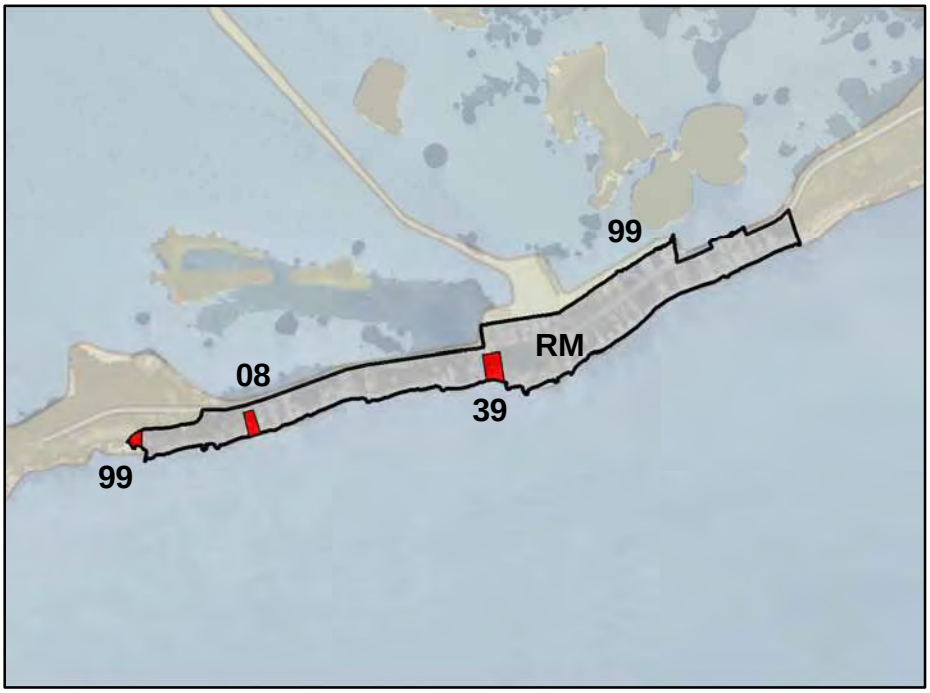
RM-Residential Medium

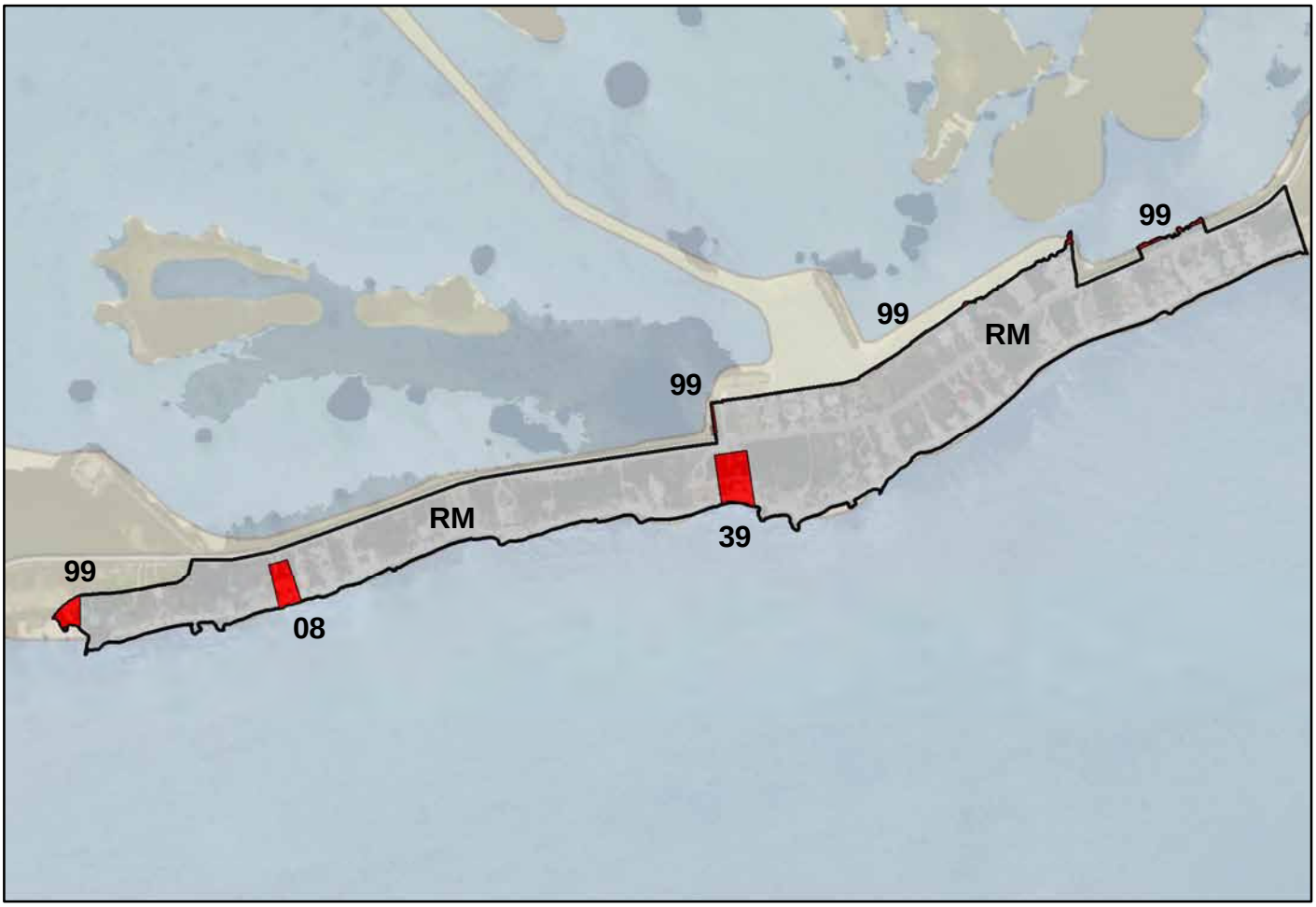
Non-Conforming PC

08-Multi-Family < 10 Units
39-Hotel or Motel
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

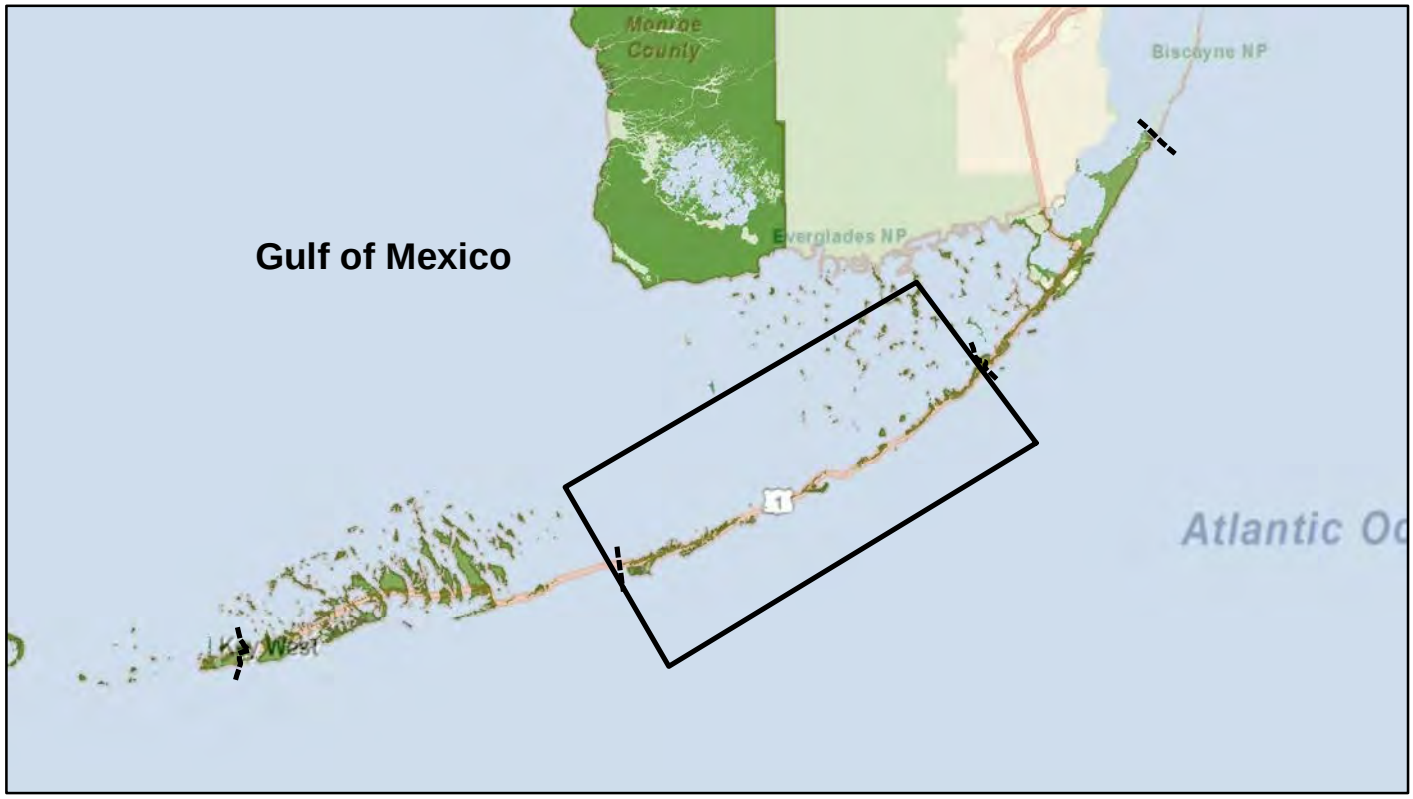
00 01

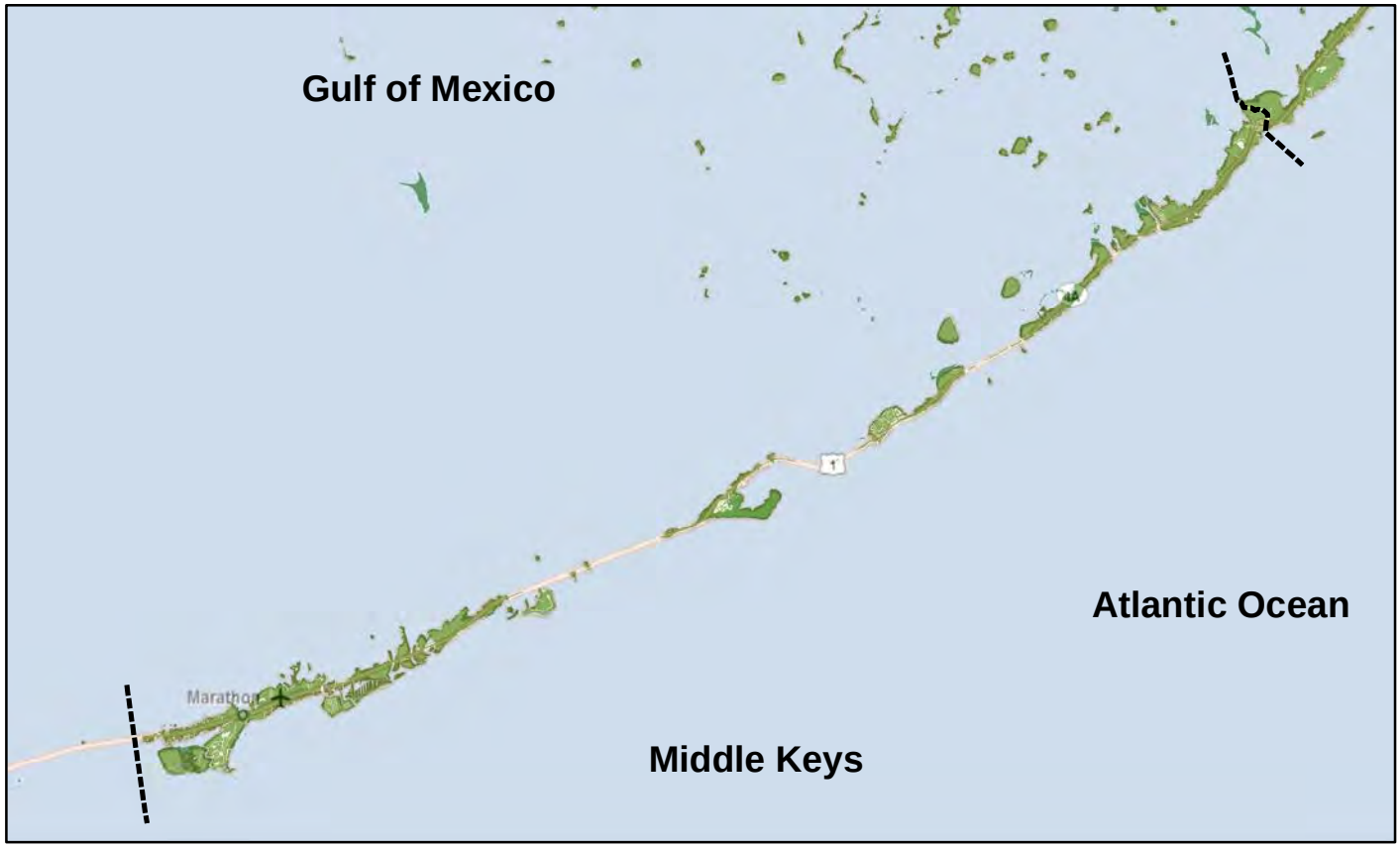




Middle Keys Planning Area

Potential Conflicts Analysis in Middle Keys





Middle Keys Planning Area

Potential Conflicts in Mixed Use Commercial District

Legend

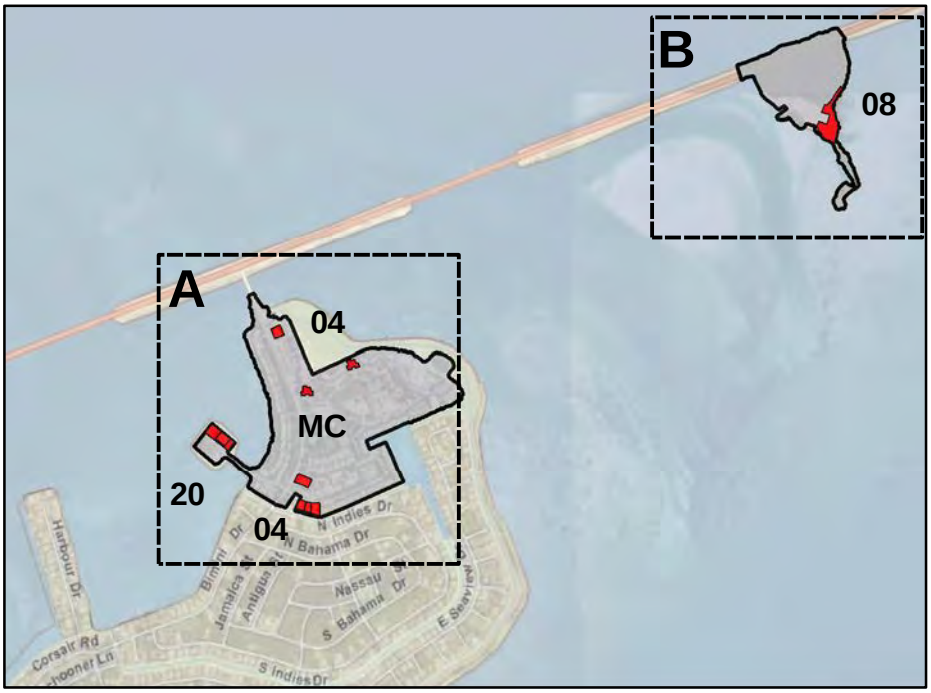
- MC-Noncomforming PC
- MC-Mixed Commercial
- Potential Conflict Call Out

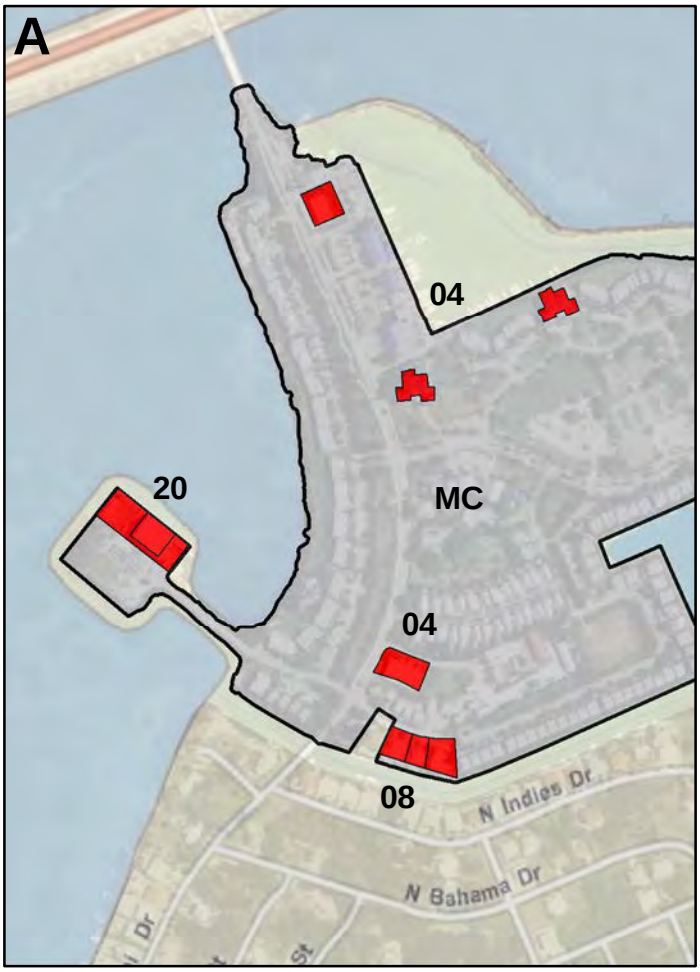
Non-Conforming PC

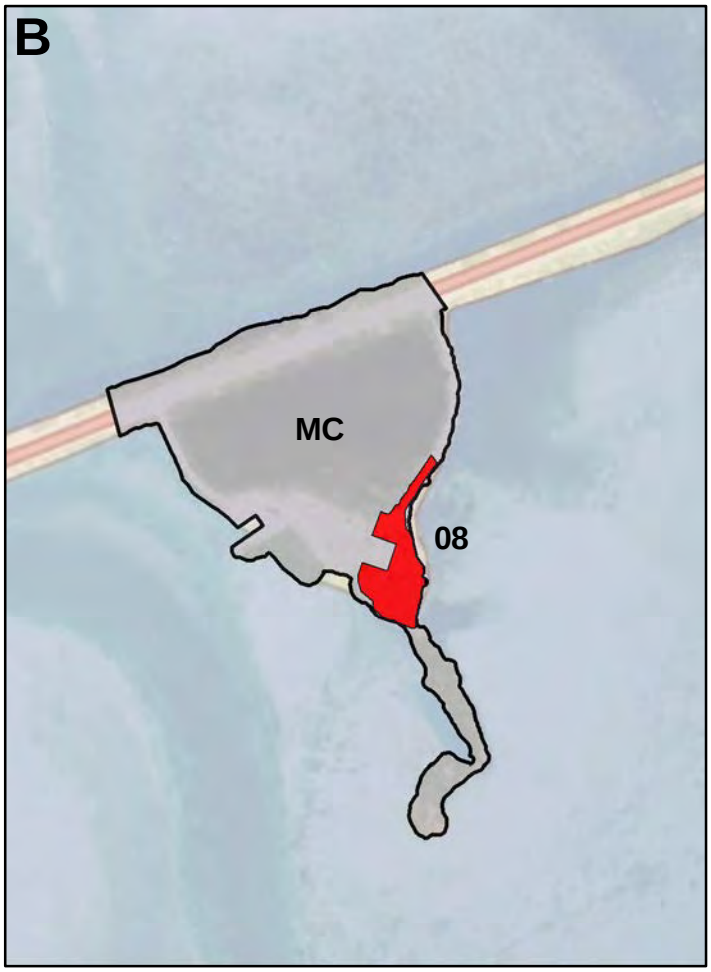
04-Condominium
08-Multi-Family <10
20-Airport, Marina, Bus

Conforming PC

00 01 03 10 11 12 13 14 15 16 17 18 19 21 22 23 24 25 26 29 30 31 32 33 34 35 36 37 38 39







Middle Keys Planning Area

Potential Conflicts in Mixed Use Commercial District

Legend

MC-Noncomforming PC

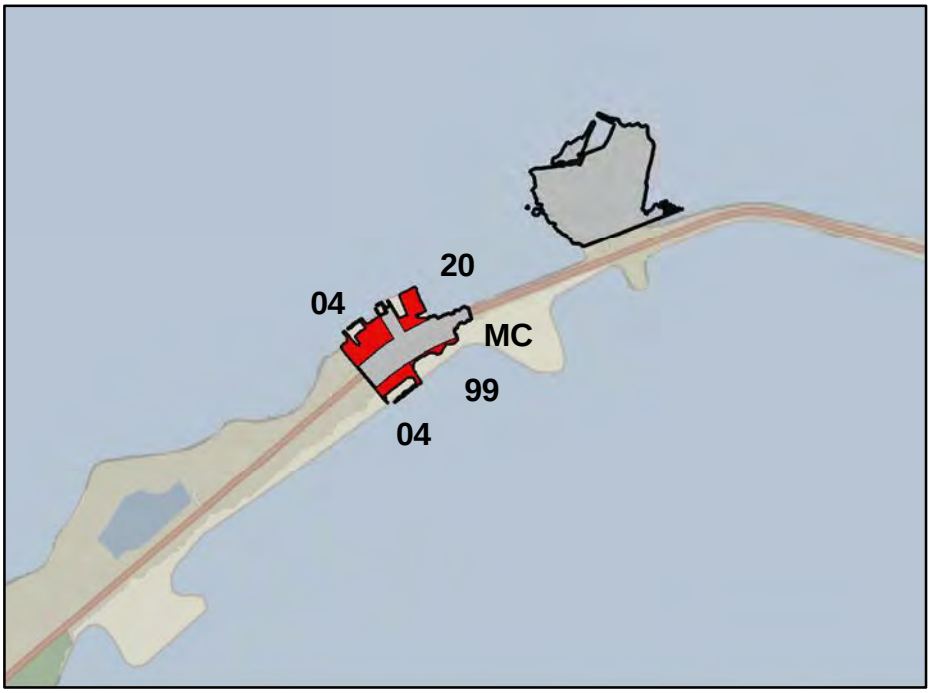
MC-Mixed Commercial

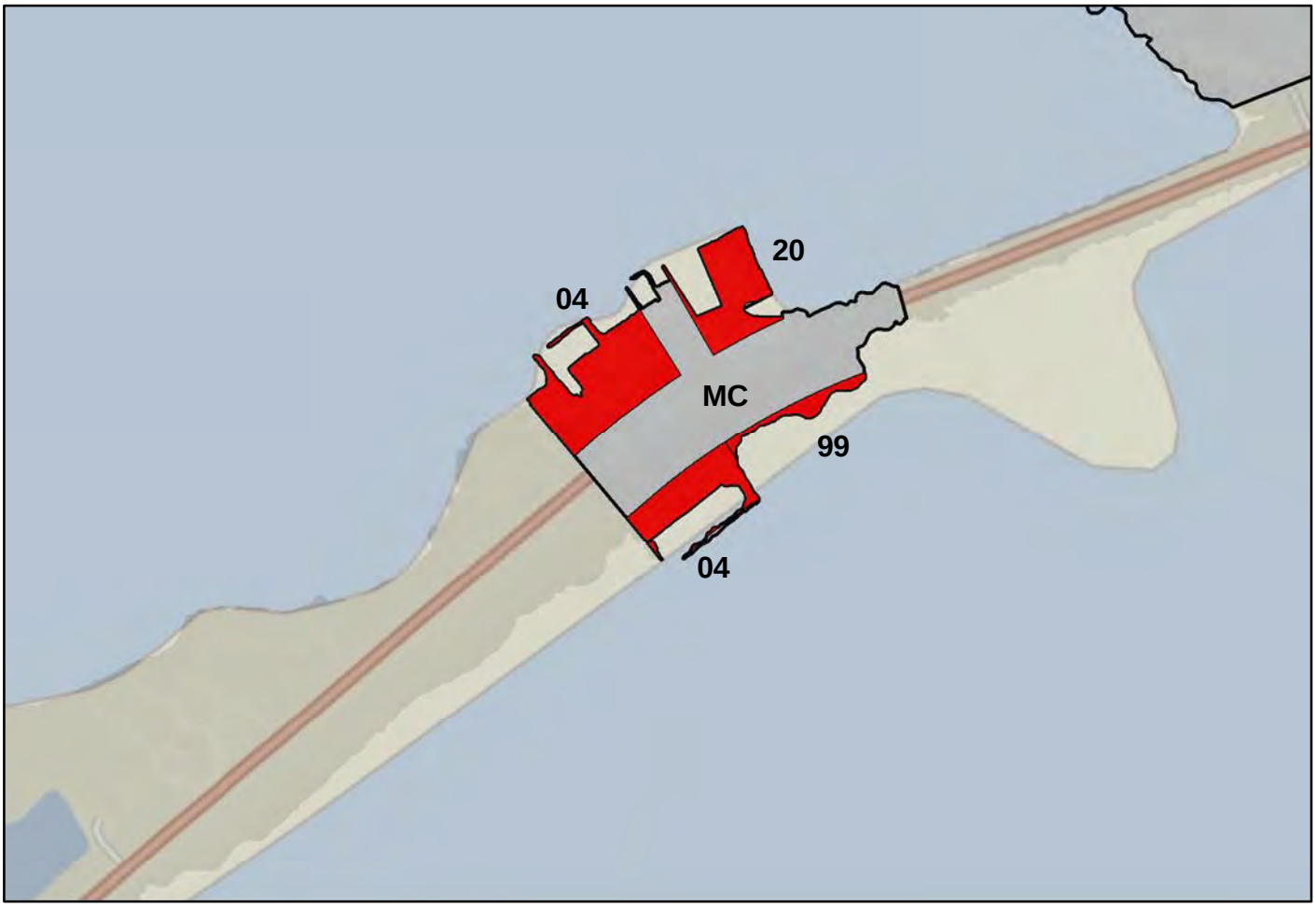
Non-Conforming PC

04-Condominium
20-Airport, Marina, Bus
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

00 01 03 10 11 12 13 14 15 16 17
18 19 21 22 23 24 25 26 29 30 31
32 33 34 35 36 37 38 39





Middle Keys Planning Area

Potential Conflicts in Mixed Use Commercial Fishing District

Legend

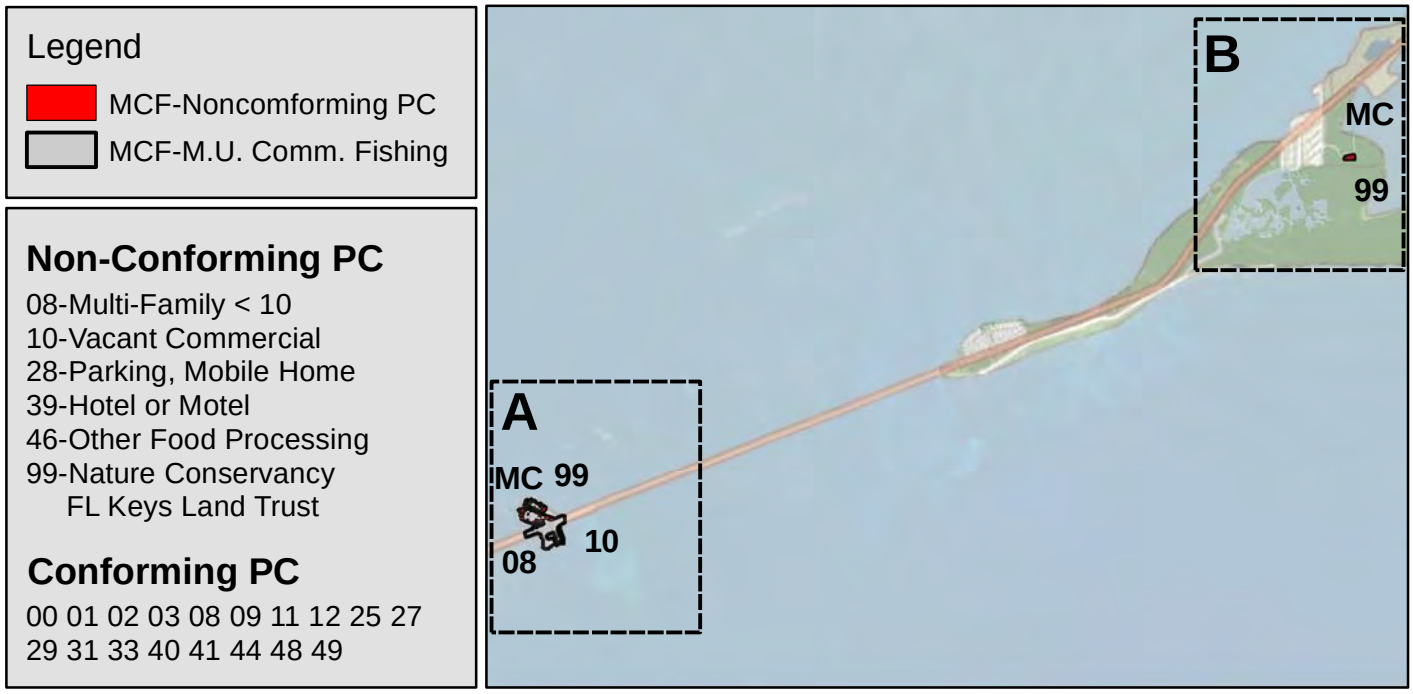
- MCF-Noncomforming PC
- MCF-M.U. Comm. Fishing

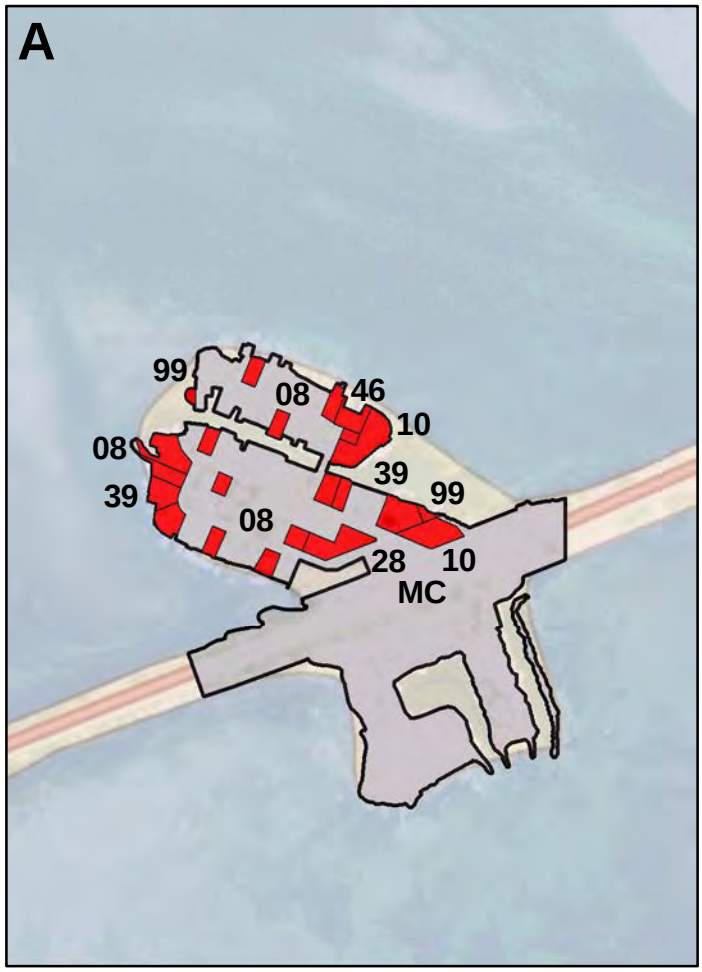
Non-Conforming PC

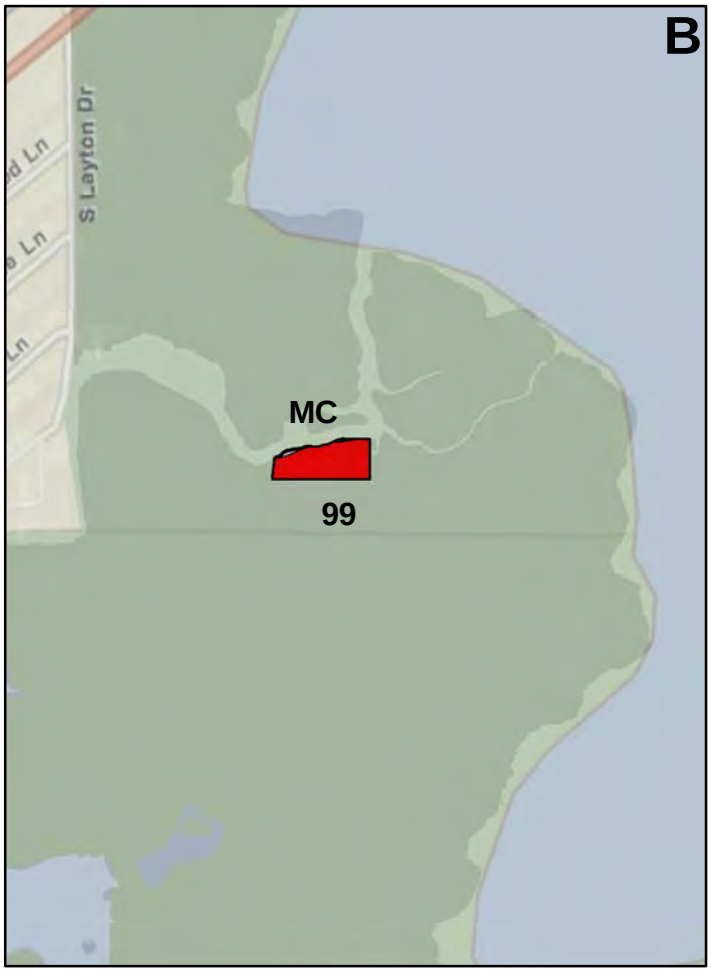
08-Multi-Family < 10
10-Vacant Commercial
28-Parking, Mobile Home
39-Hotel or Motel
46-Other Food Processing
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

00 01 02 03 08 09 11 12 25 27
29 31 33 40 41 44 48 49







Middle Keys Planning Area

Potential Conflicts in Recreation District

Legend

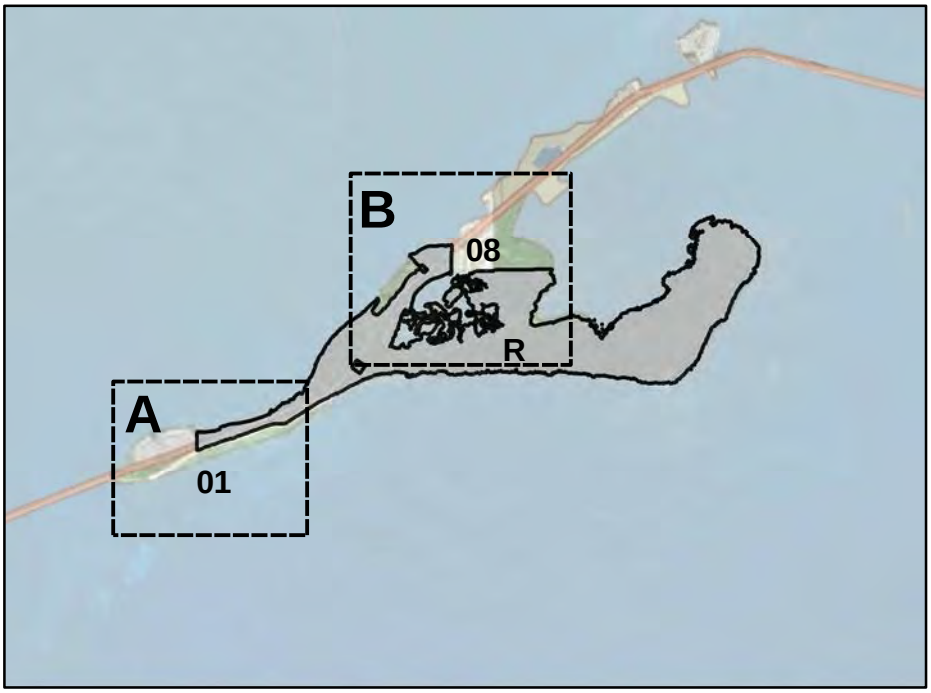
- R-Noncomforming PC
- R-Recreation
- Potential Conflict Call Out

Non-Conforming PC

01-Single Family
08-Multi-Family < 10

Conforming PC

27 80 82 86 87 88
89 92 95 96 99



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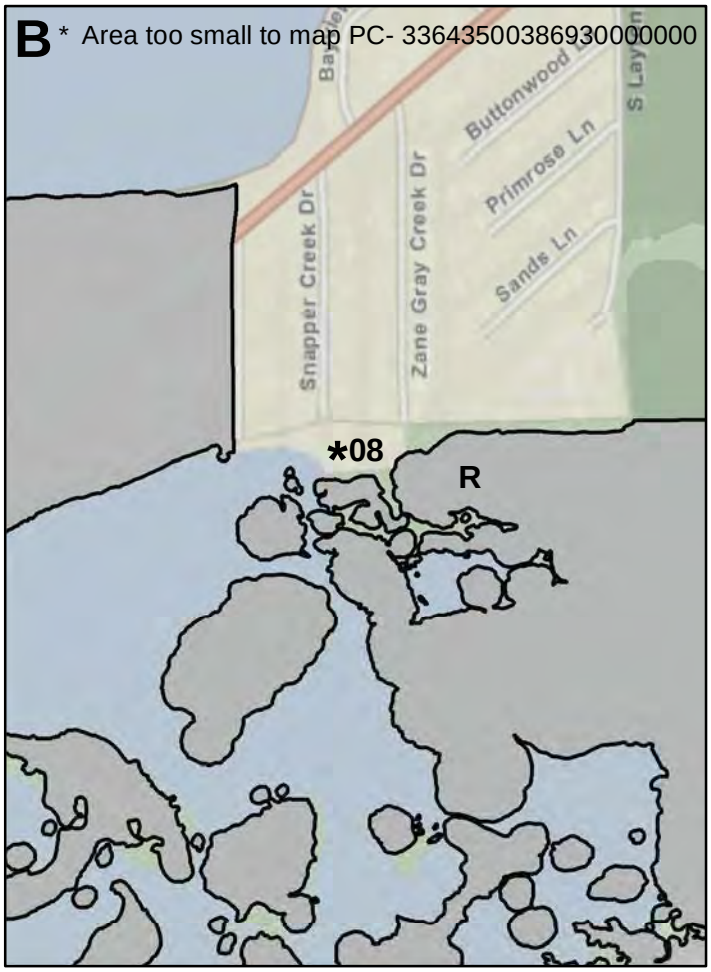

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Middle Keys Planning Area

Potential Conflicts in Residential Conservation District

Legend

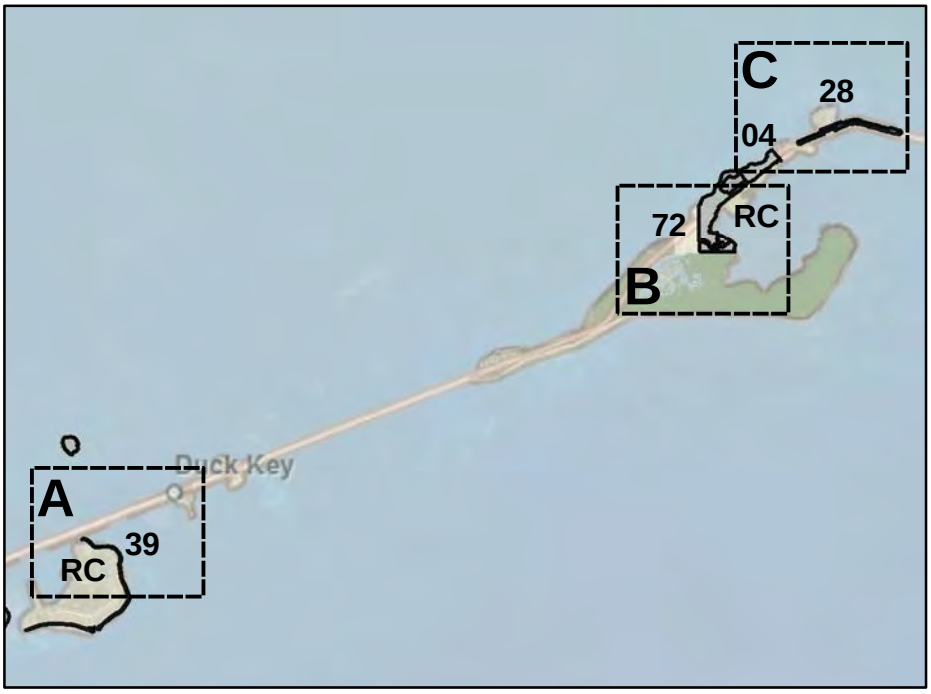
- RC-Noncomforming PC
- RC-Res. Conservation
- Potential Conflict Call Out

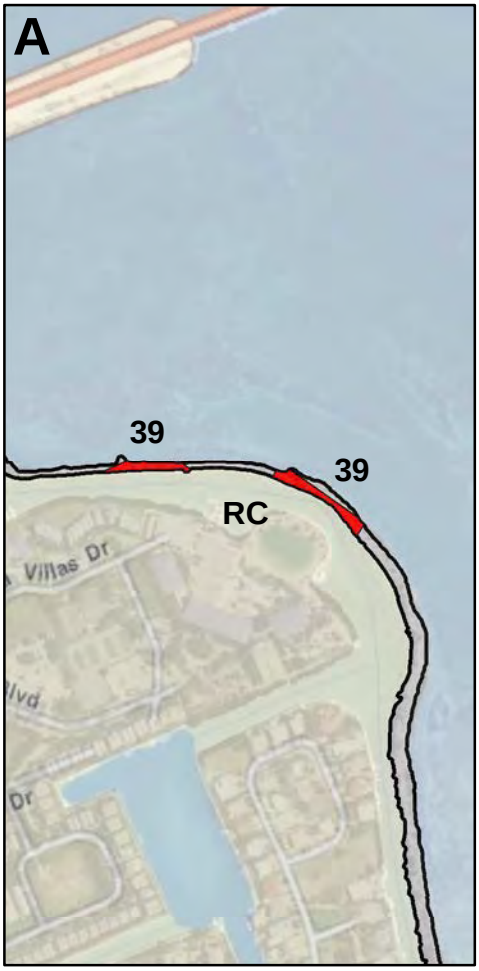
Non-Conforming PC

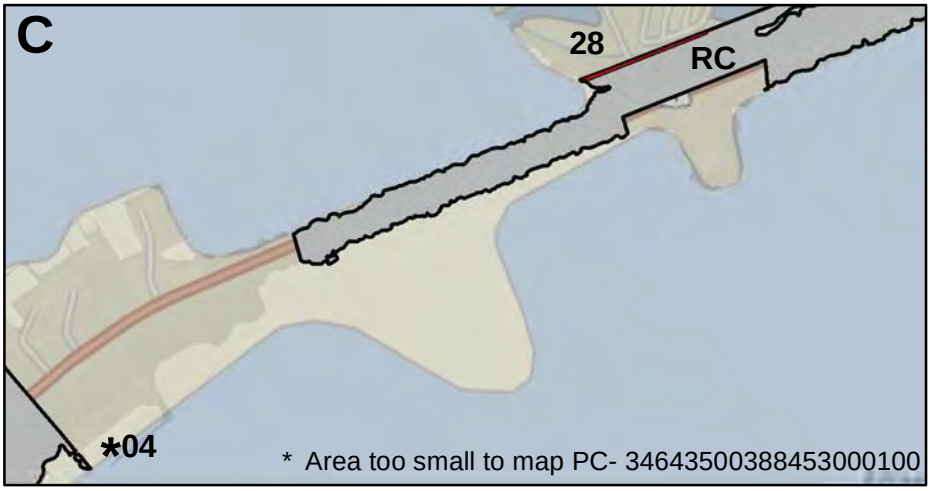
04-Condominium
28-Parking Lots, Mobile Parks
39-Hotel or Motel
72-Research Center

Conforming PC

00 01 80 86 87 88 91 99







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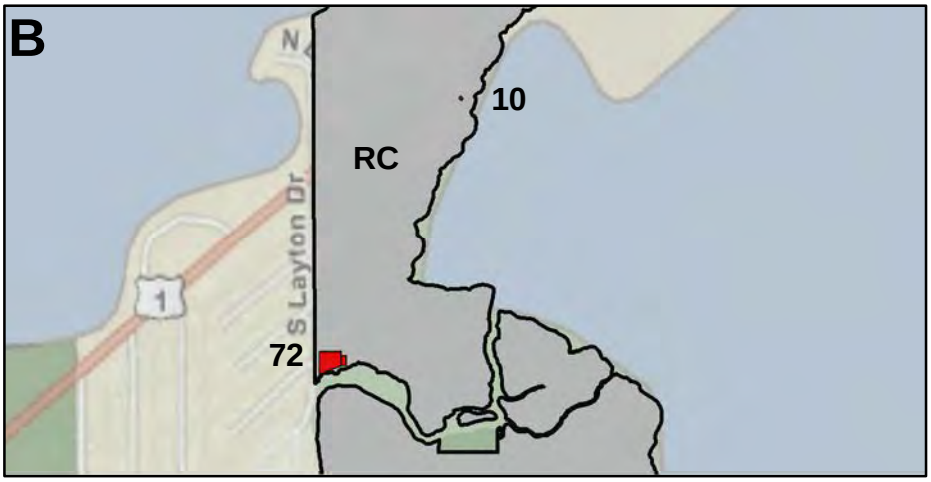


Middle Keys Planning Area

Potential Conflicts in Residential High District

Legend

RH-Noncomforming PC

RH-Residential High

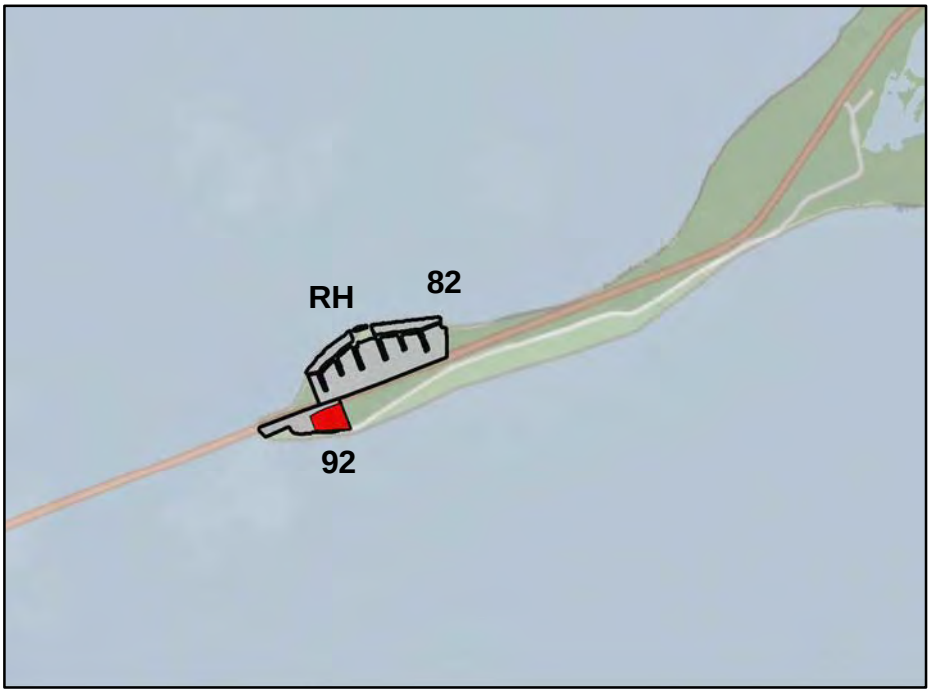
Non-Conforming PC

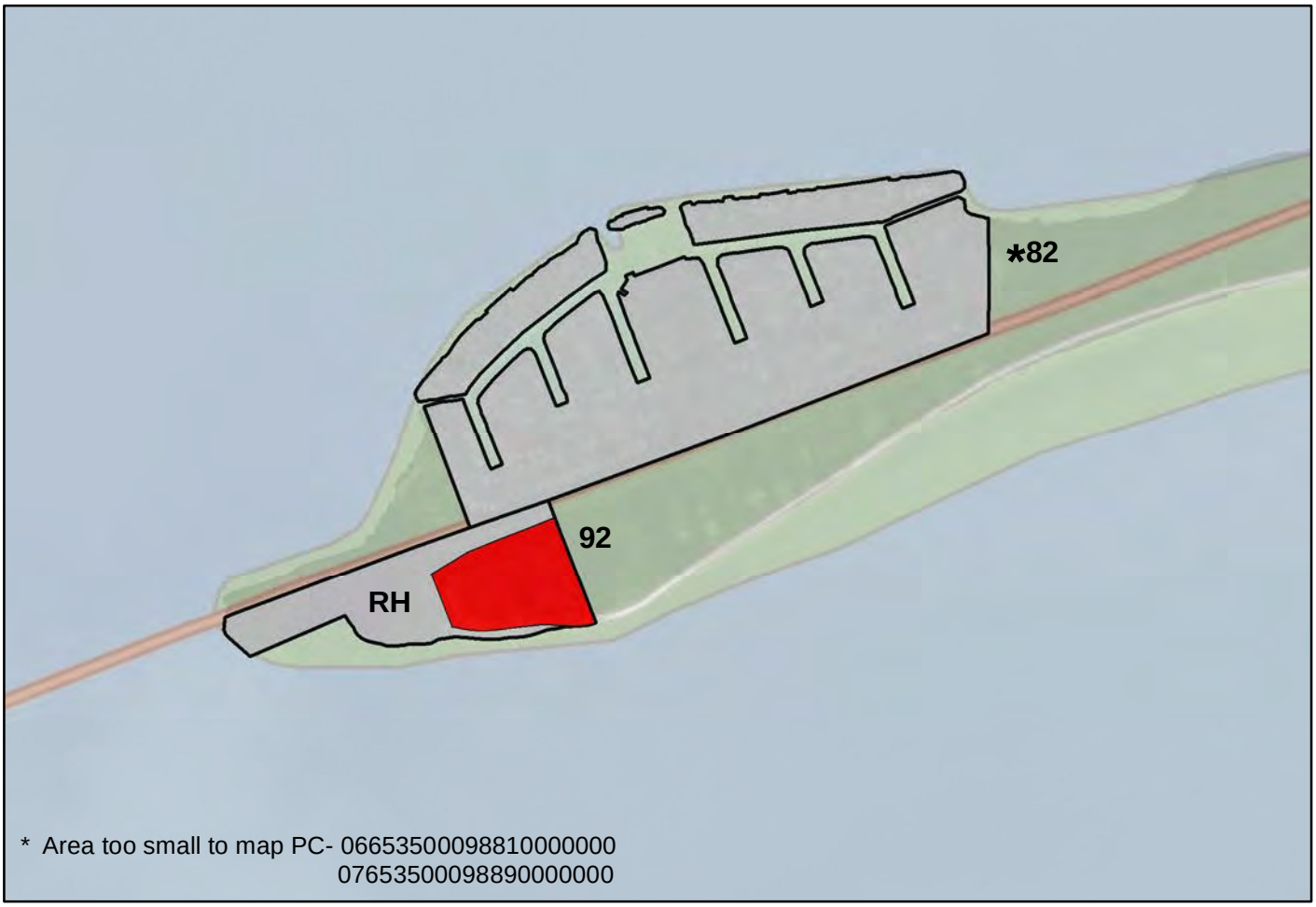
82-U.S. Mainland Forest
Parks, Rec Area

92-Private Park

Conforming PC

00 01 02 03 04 05
06 08 09 74 78





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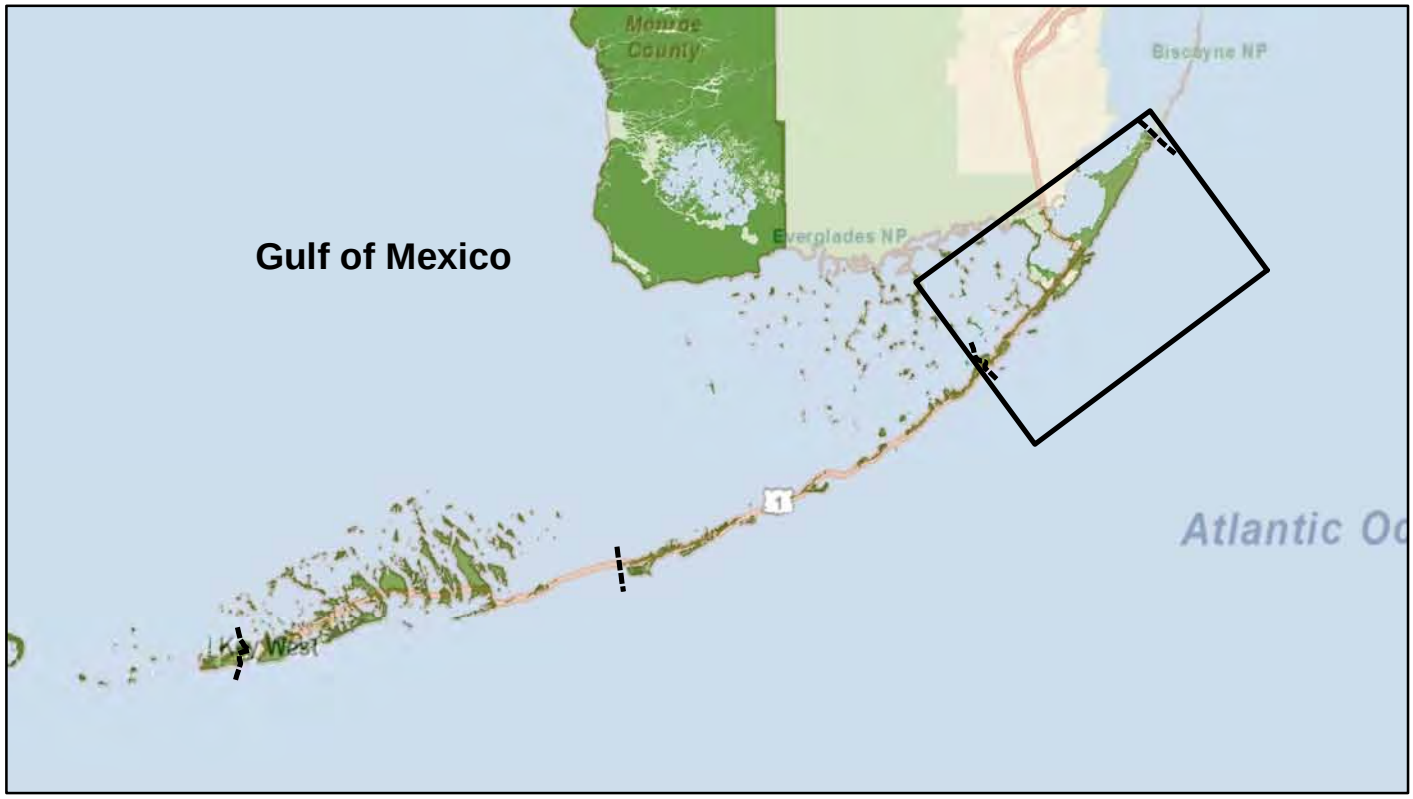
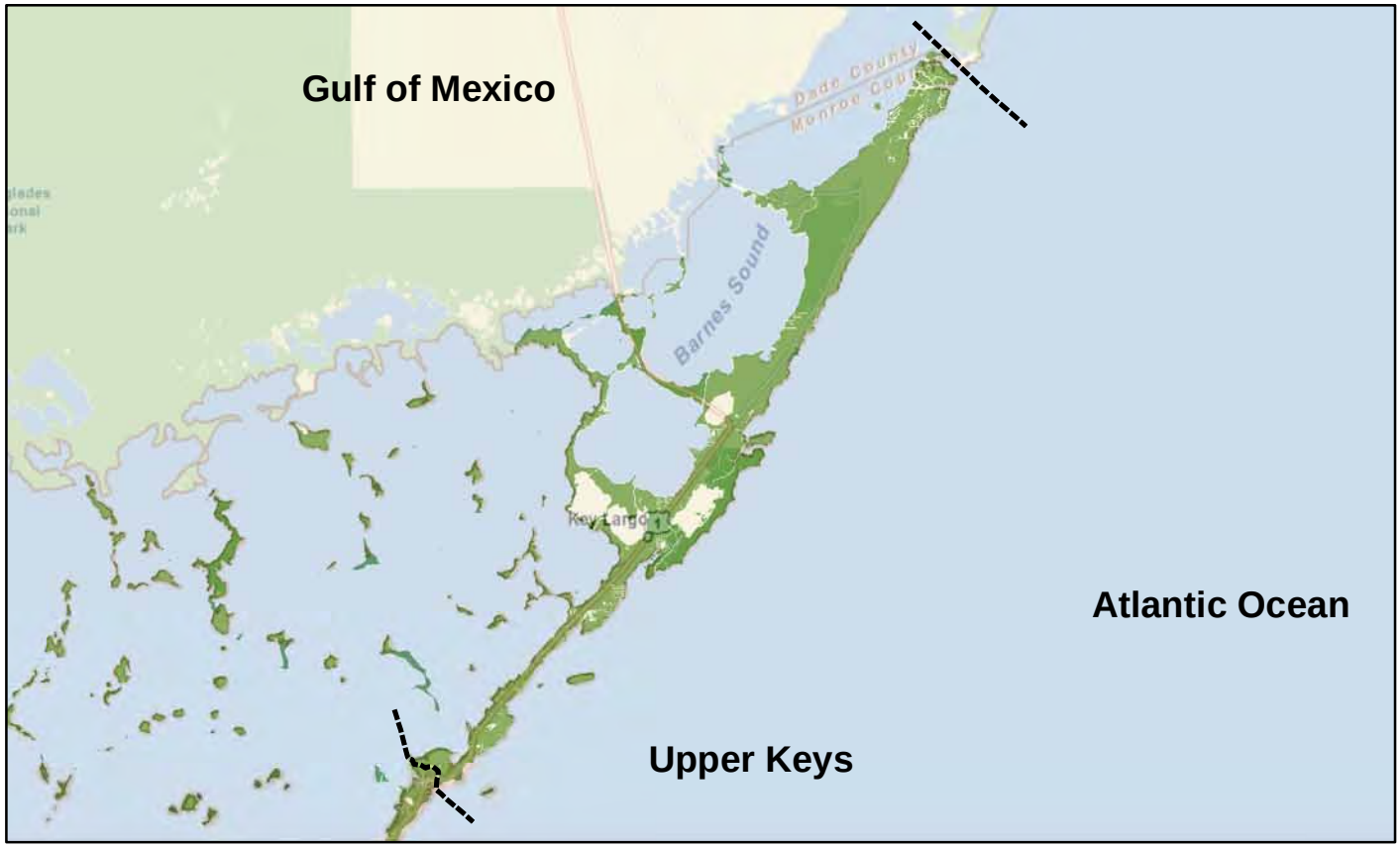
Upper Keys Planning Area

Potential Conflicts Analysis in Upper Keys





Upper Keys Planning Area

Potential Conflicts in Airport District

Legend

AD-Nonconforming PC

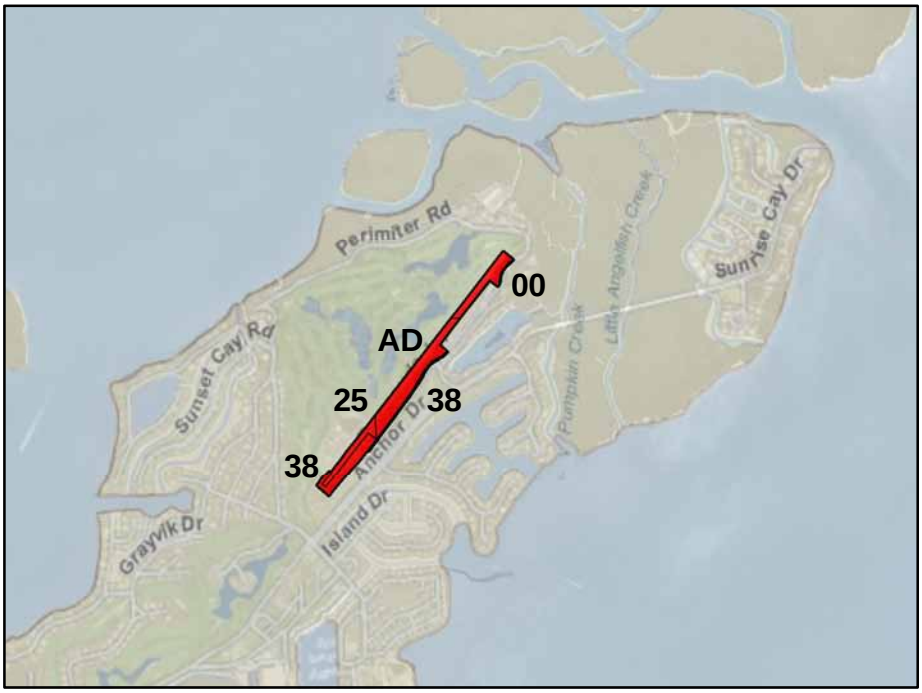
AD-Airport

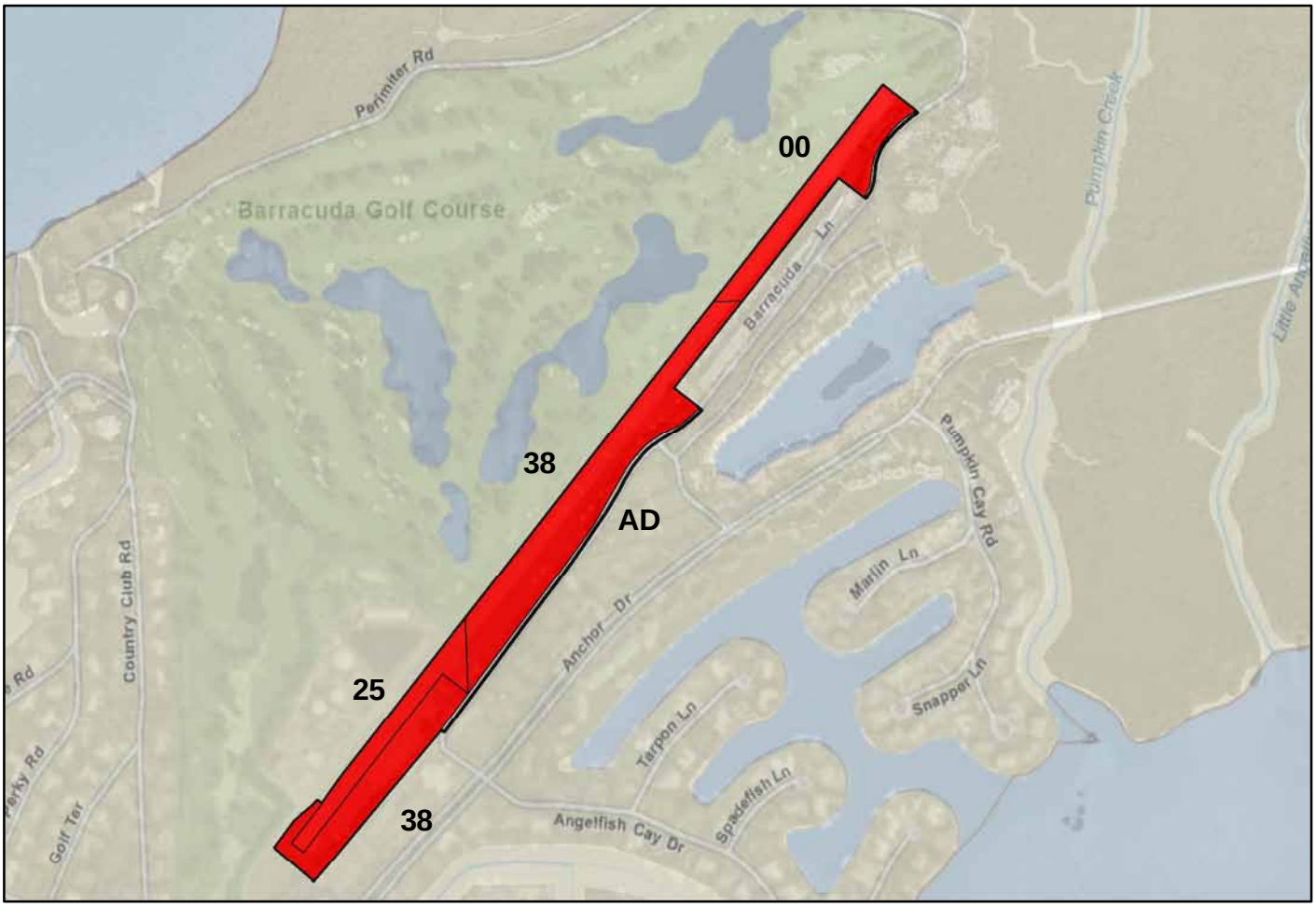
Non-Conforming PC

00-Vacant Residential
25-Repair Shop (Non-automotive)
38-Golf Course

Conforming PC

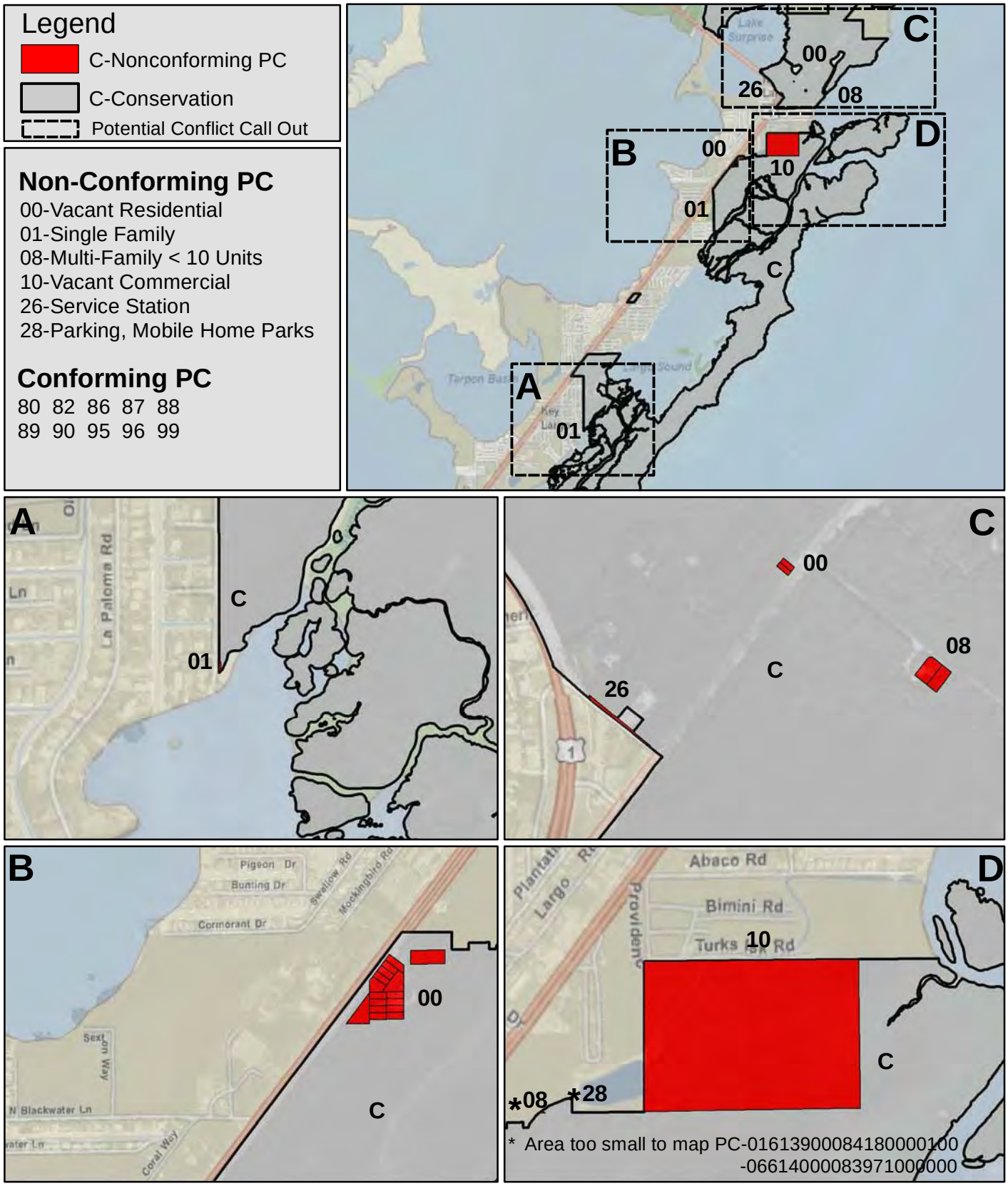
20





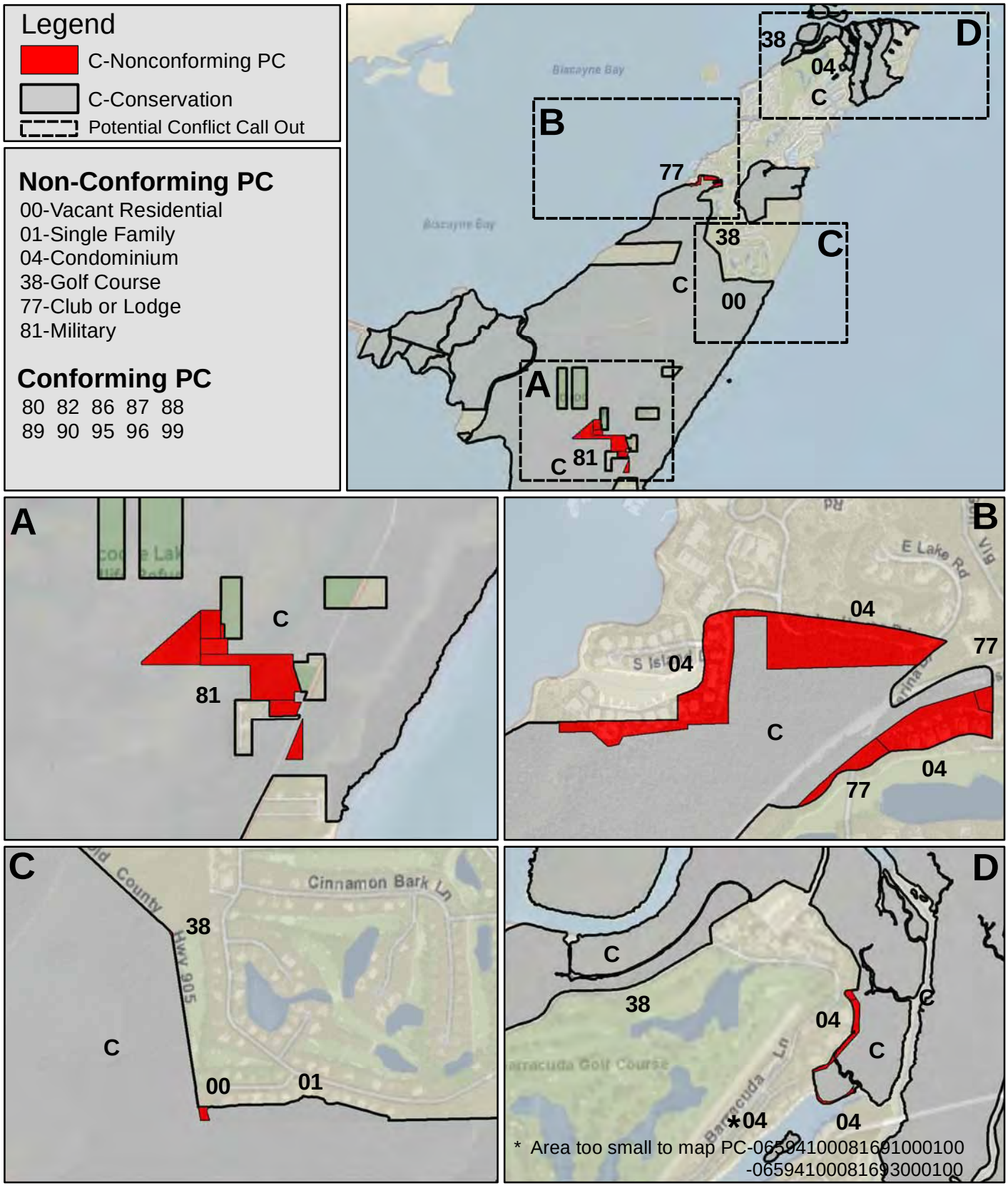
Upper Keys Planning Area

Potential Conflicts in Conservation District



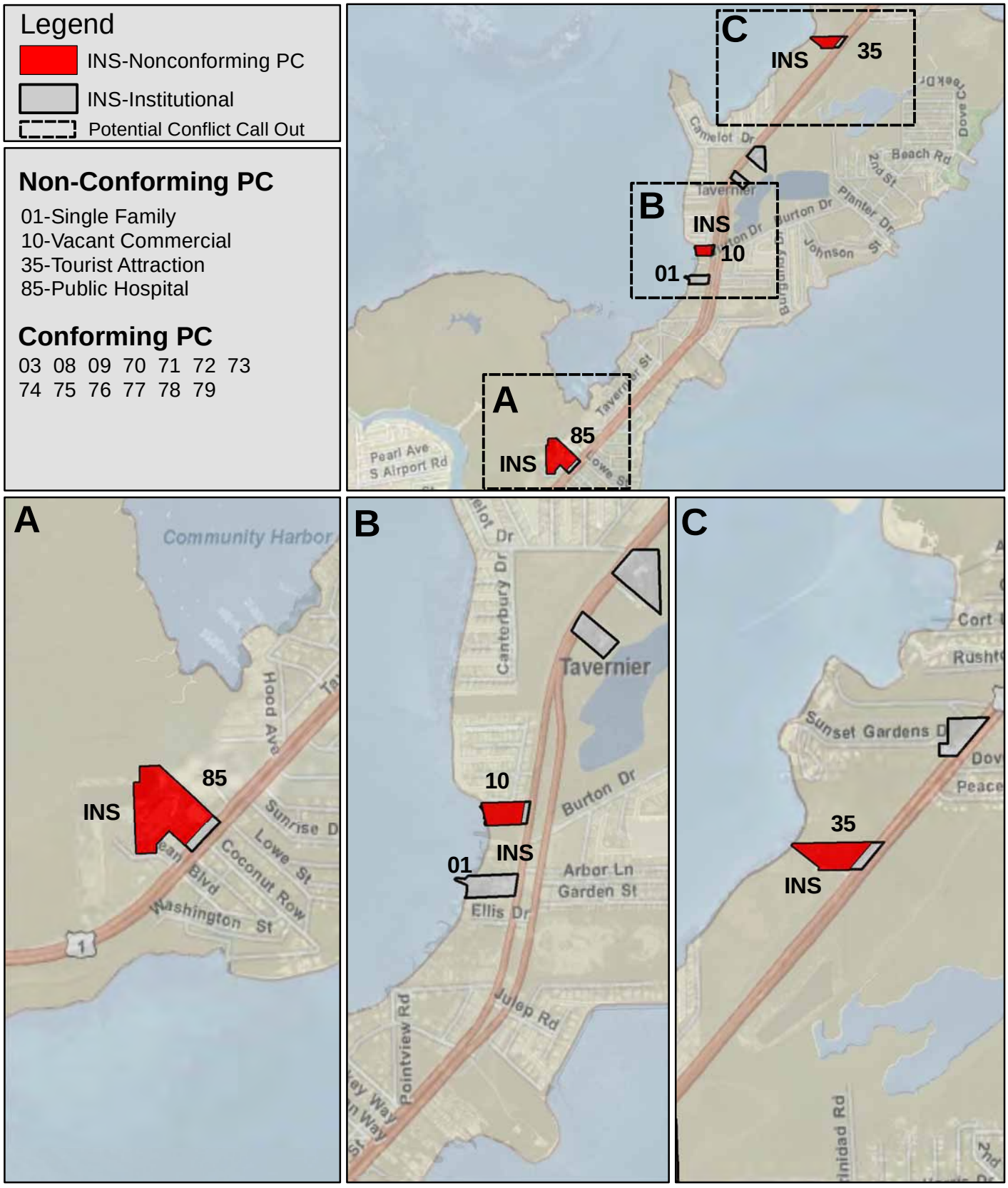
Upper Keys Planning Area

Potential Conflicts in Conservation District



Upper Keys Planning Area

Potential Conflicts in Institutional District



Upper Keys Planning Area

Potential Conflicts in Institutional District

Legend

INS-Nonconforming PC

INS-Institutional

Non-Conforming PC

02-Mobile Home

Conforming PC

03 08 09 70 71 72 73
74 75 76 77 78 79

Upper Keys Planning Area

Potential Conflicts in Mixed Use Commercial District

Legend

MC-Nonconforming PC

MC-Mixed Commercial

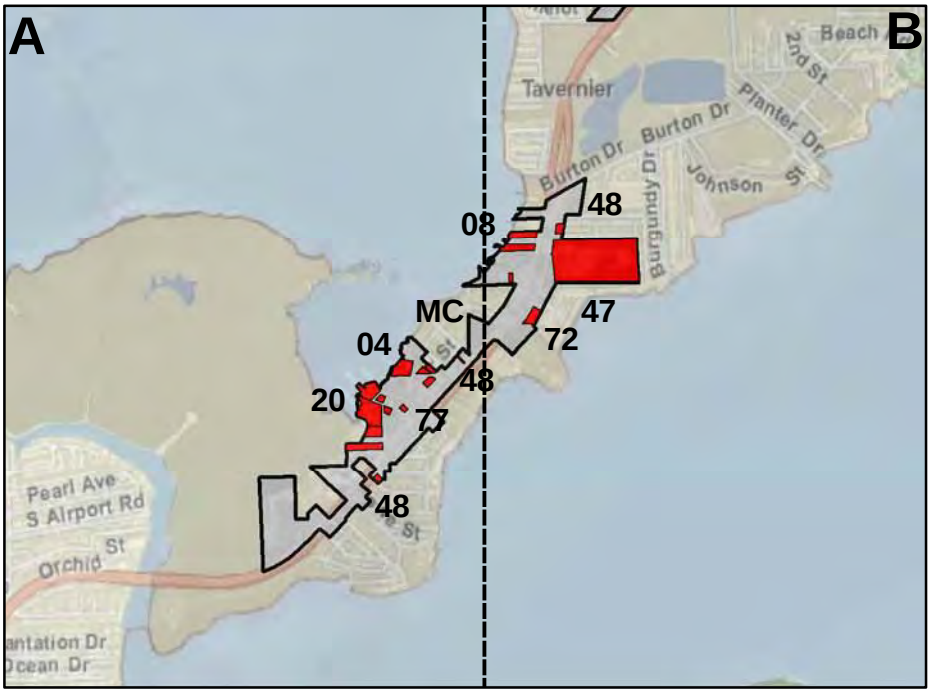
Potential Conflict Call Out

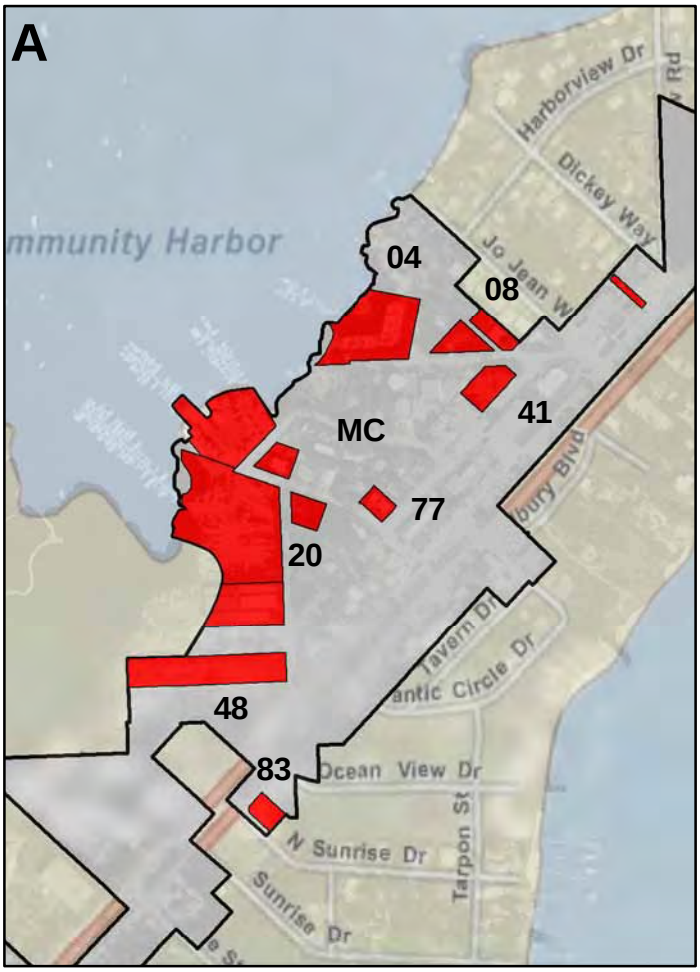
Non-Conforming PC

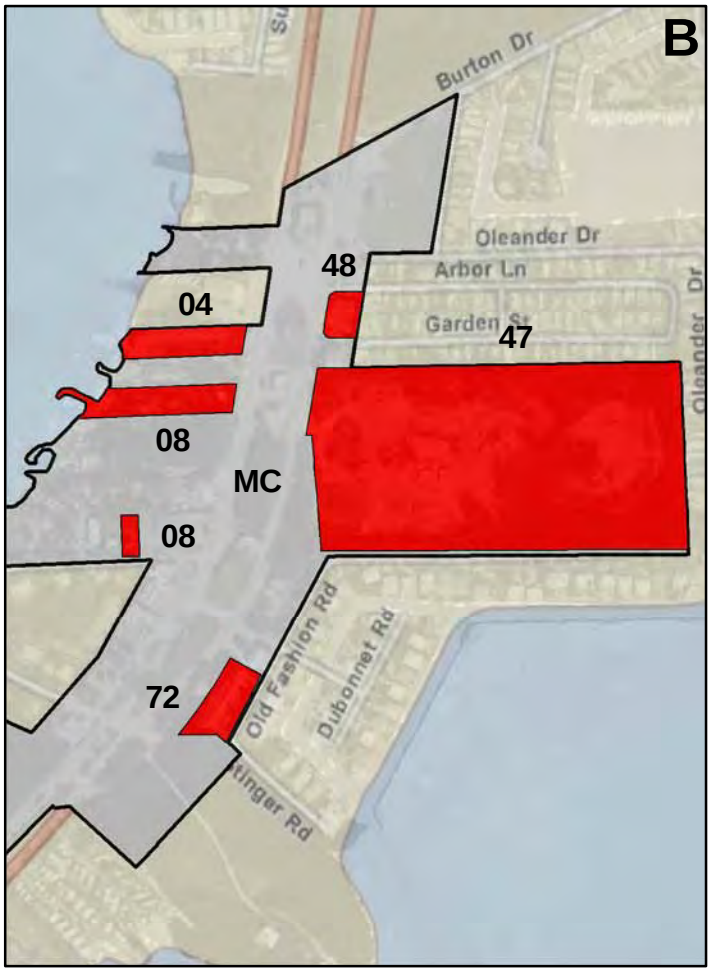
04-Condominium
08-Multi-Family < 10
20-Airport, Marina, Bus
47-Gravel Pit
48-Warehousing
72-Research Center
77-Club or Lodge
83-Public School

Conforming PC

00 01 03 10 11 12 13 14 15 16 17
18 19 21 22 23 24 25 26 27 28 29
30 3132 33 34 35 36 37 38 39

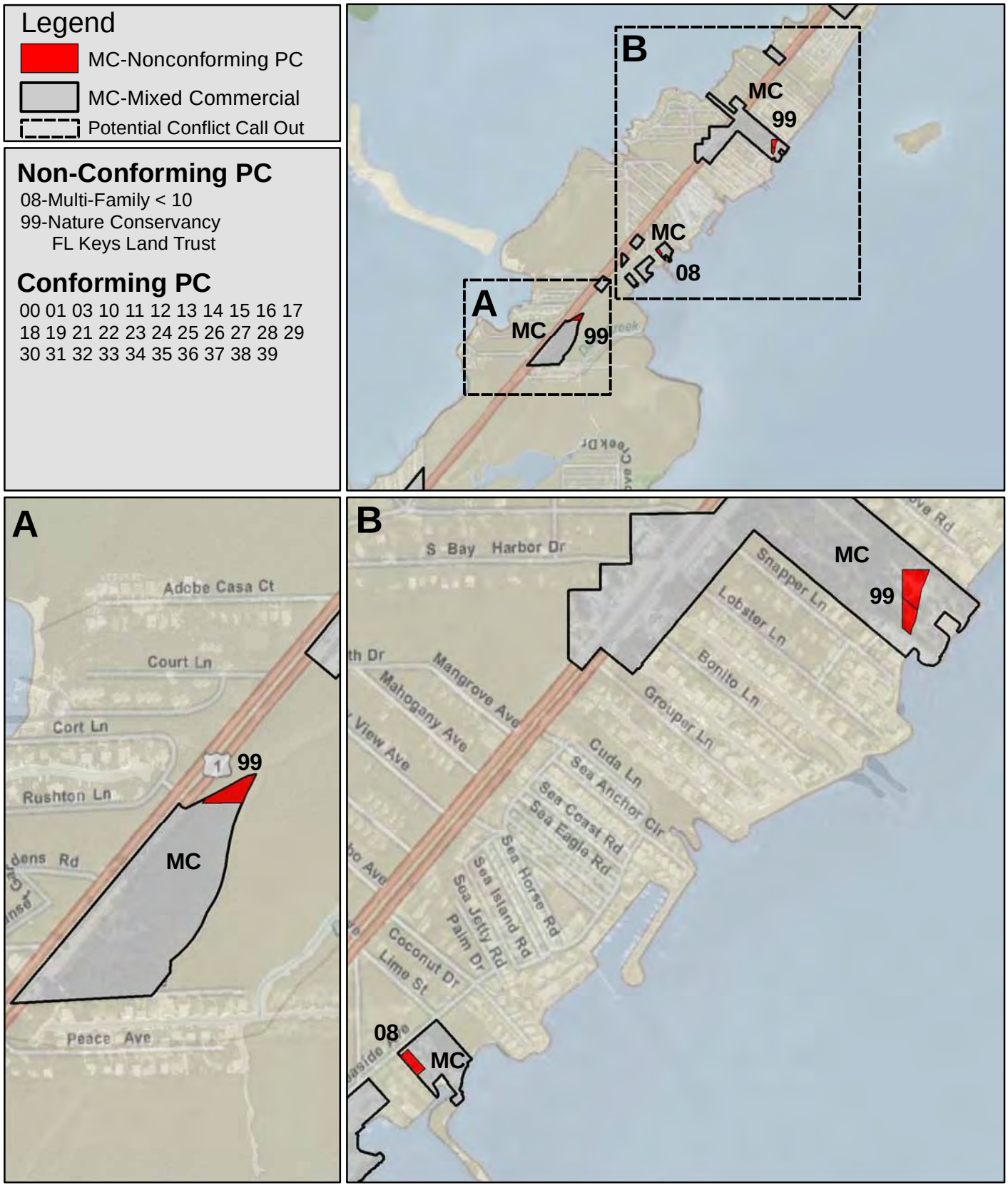






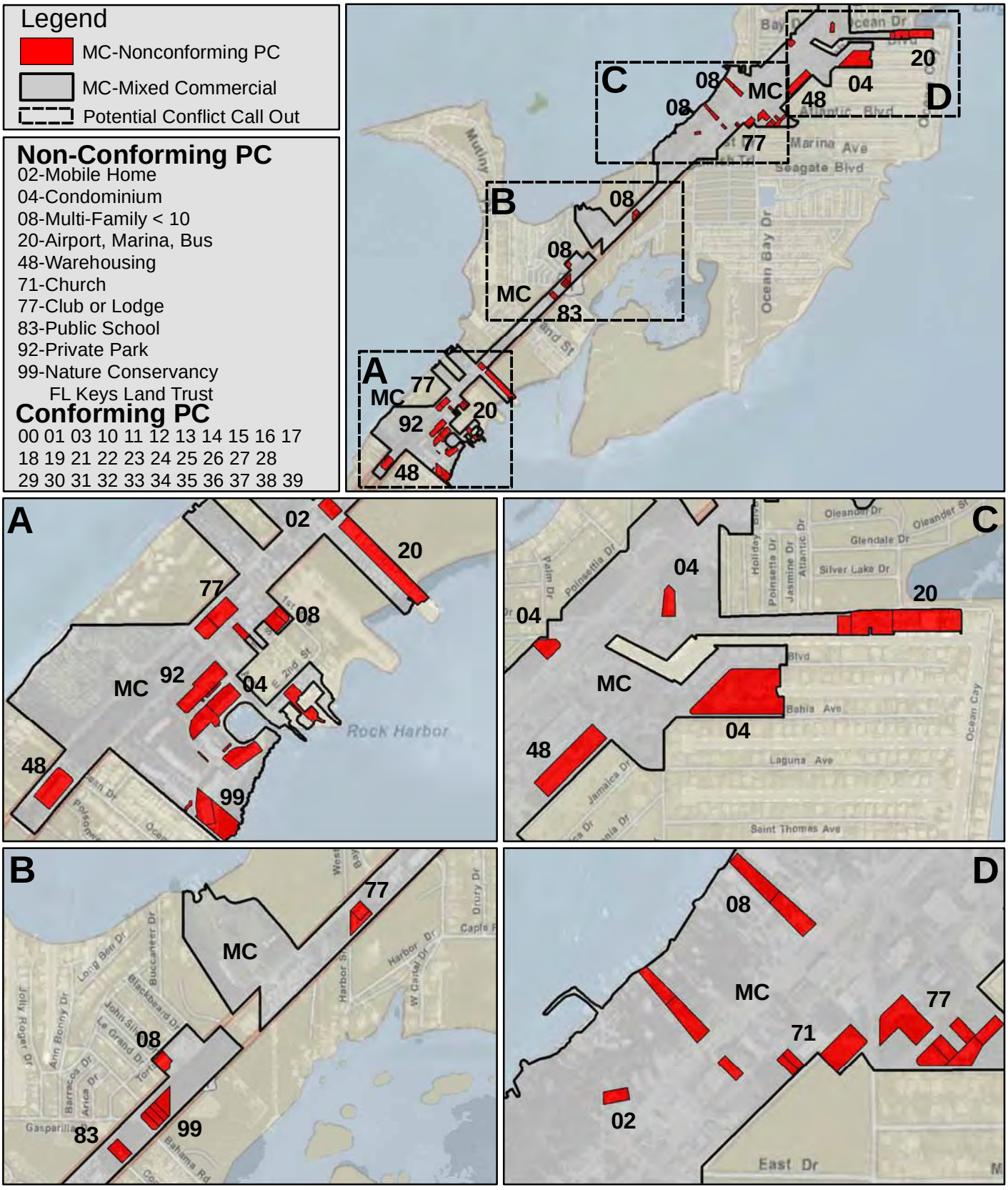
Upper Keys Planning Area

Potential Conflicts in Mixed Use Commercial District



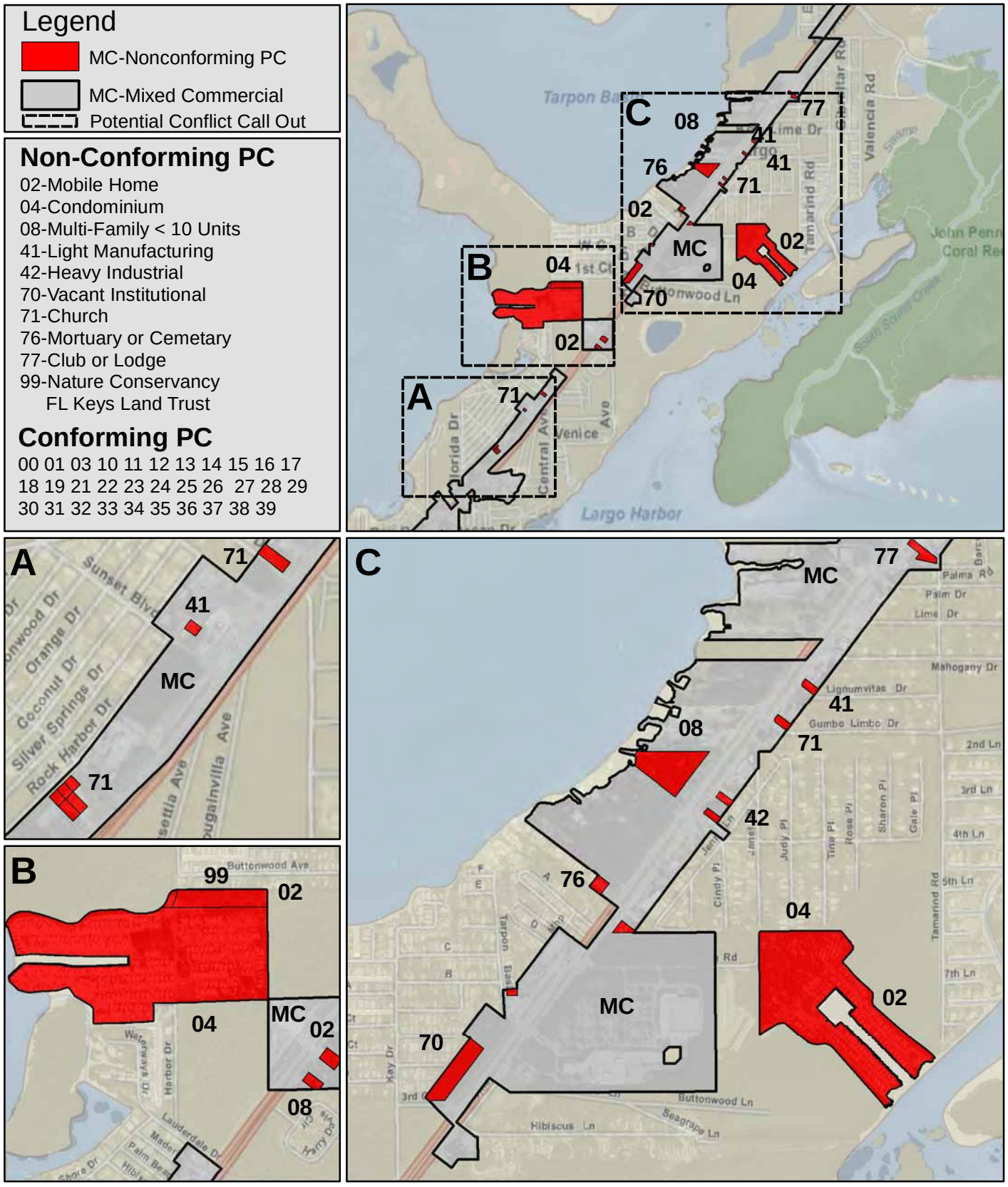
Upper Keys Planning Area

Potential Conflicts in Mixed Use Commercial District



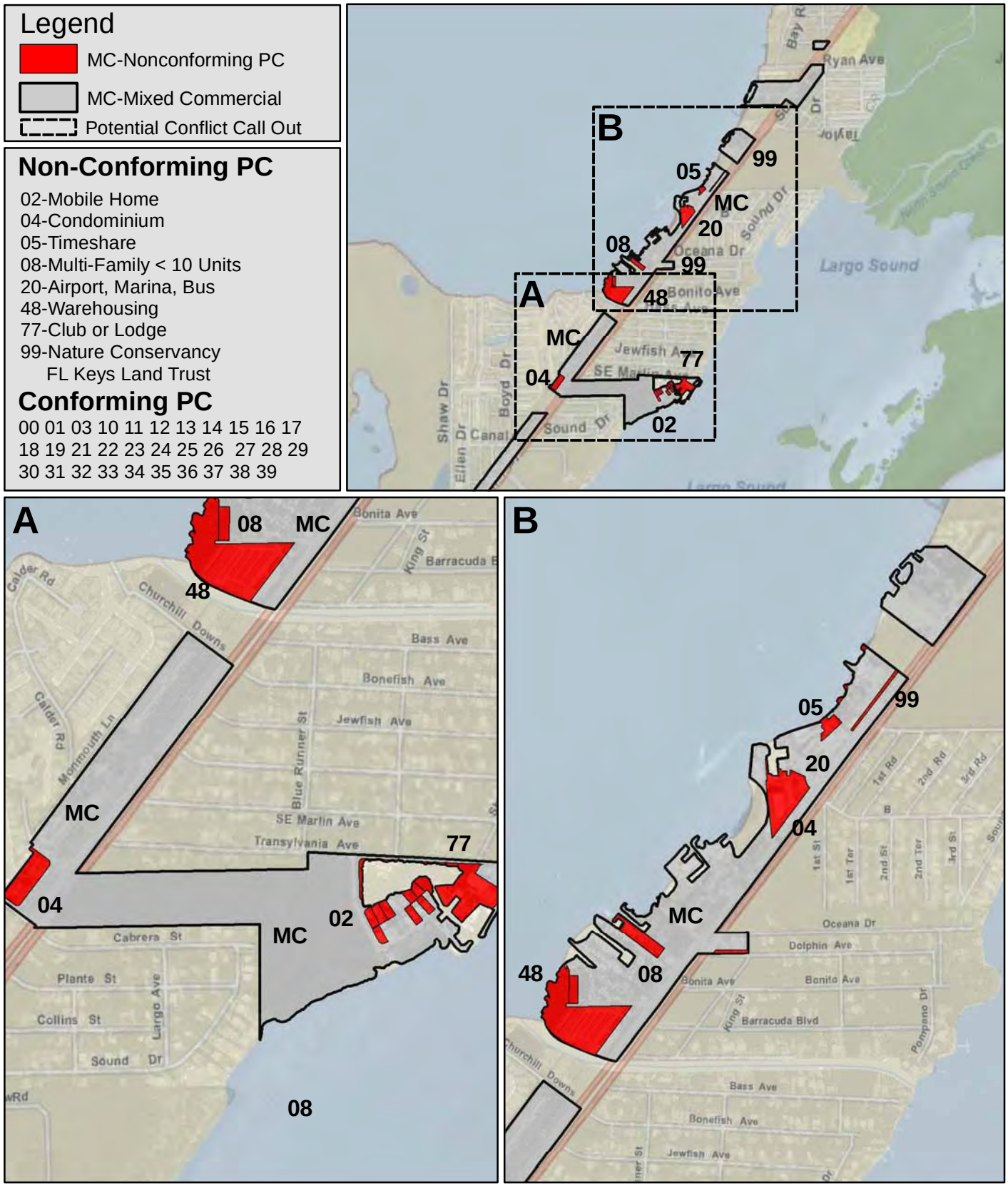
Upper Keys Planning Area

Potential Conflicts in Mixed Use Commercial District



Upper Keys Planning Area

Potential Conflicts in Mixed Use Commercial District



Upper Keys Planning Area

Potential Conflicts in Mixed Use Commercial District

Legend

MC-Nonconforming PC

MC-Mixed Commercial

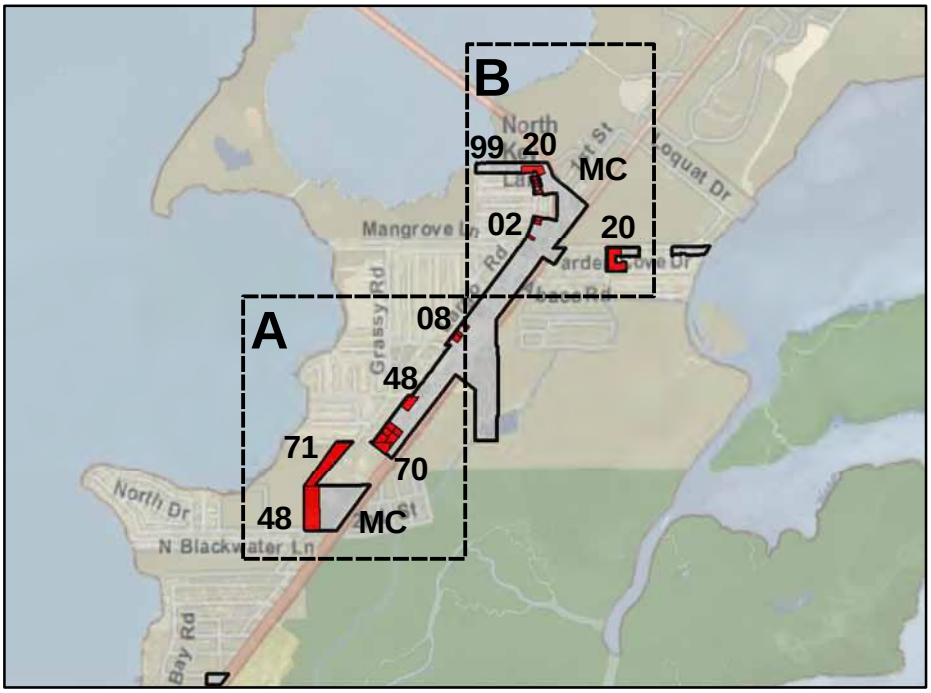
Potential Conflict Call Out

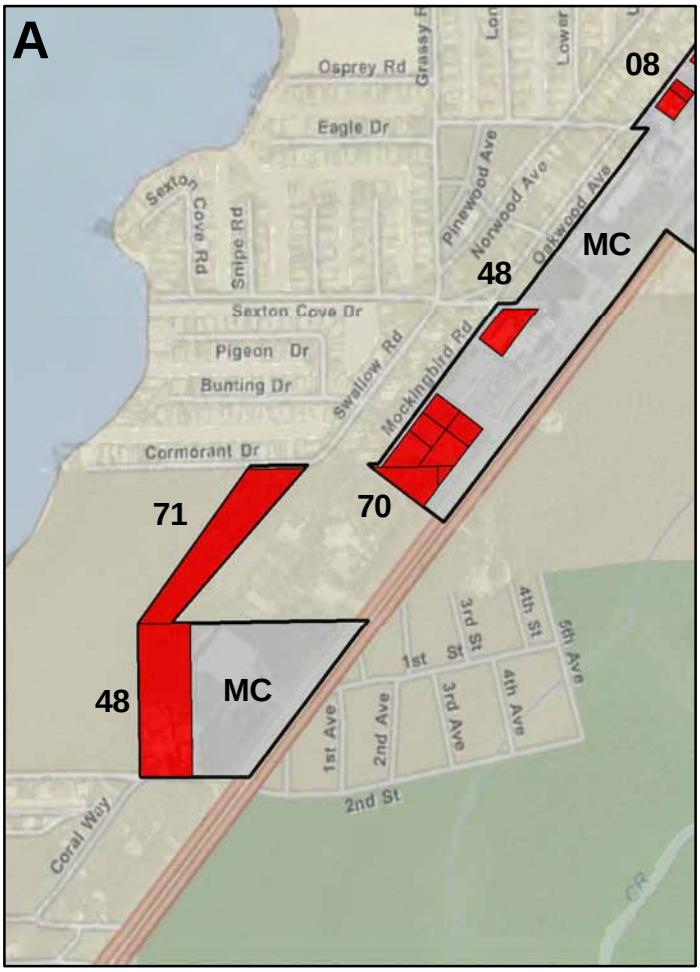
Non-Conforming PC

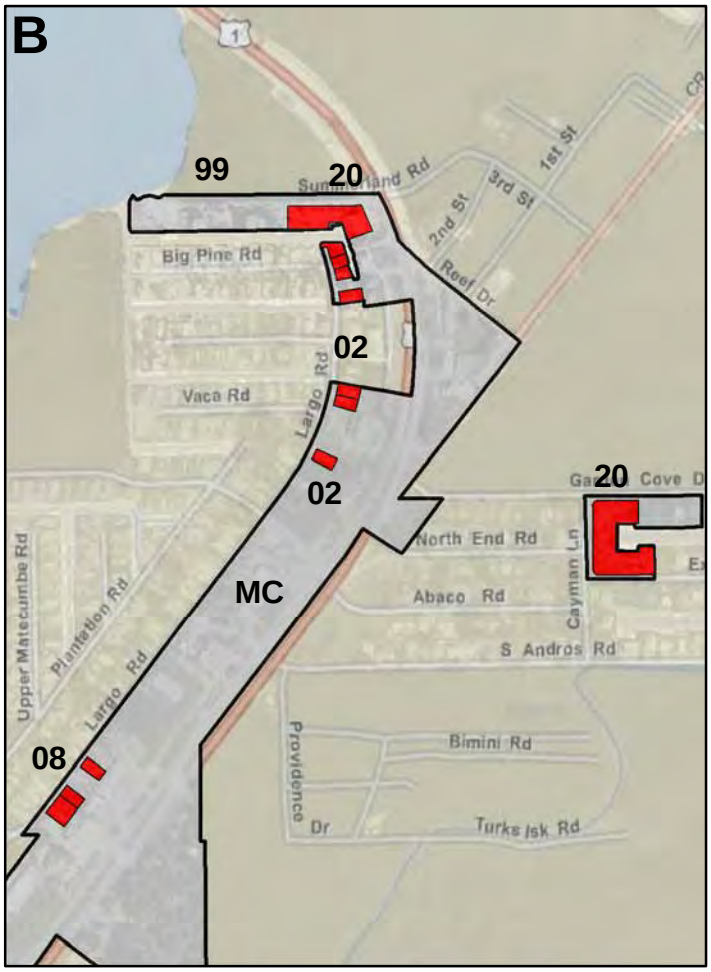
02-Mobile Home
08-Multi-Family < 10 Units
20-Airport, Marina, Bus
48-Warehousing
70-Vacant Institutional
71-Church
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

00 01 03 10 11 12 13 14 15 16 17
18 19 21 22 23 24 25 26 27 28 29
30 31 32 33 34 35 36 37 38 39

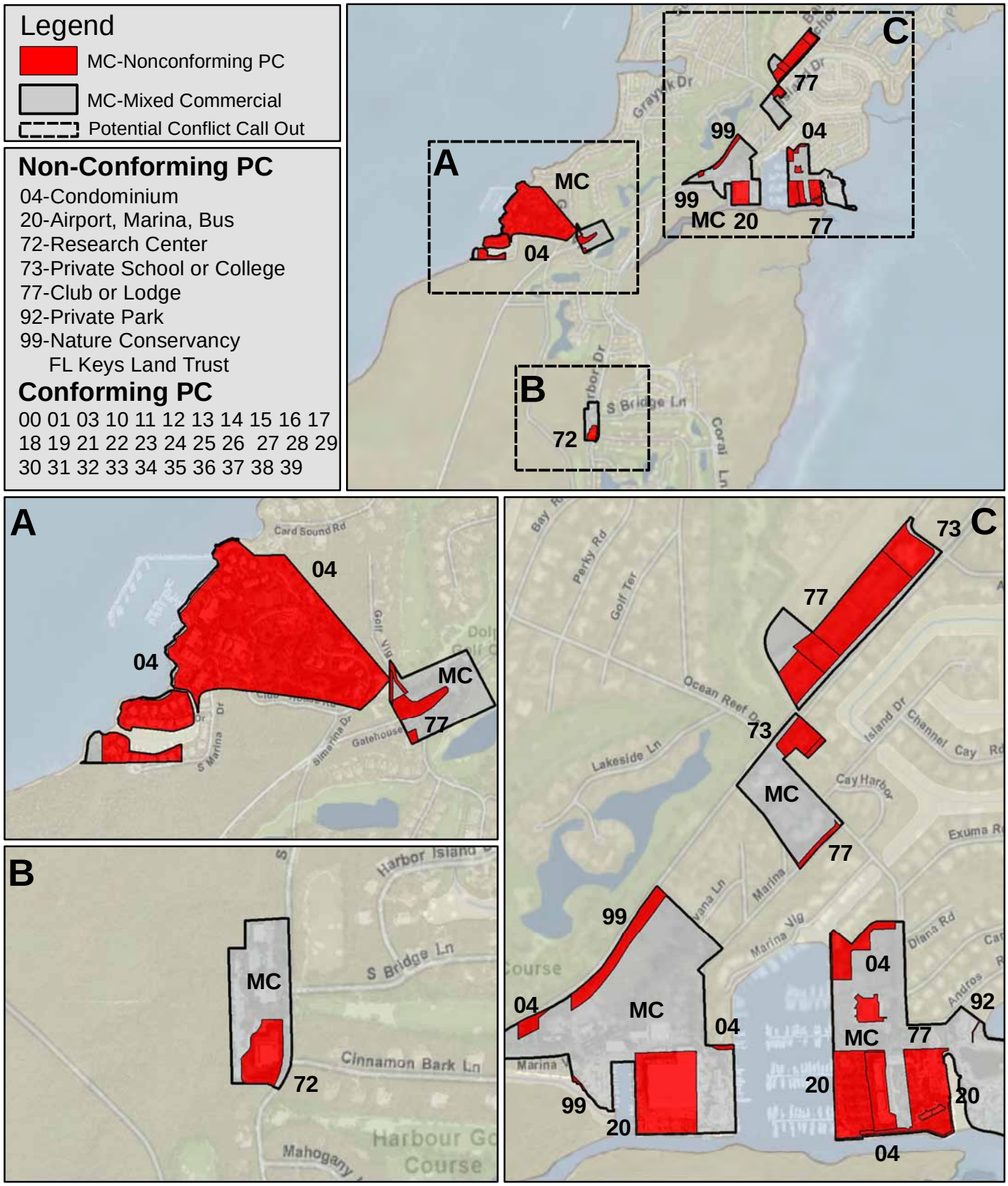






Upper Keys Planning Area

Potential Conflicts in Mixed Use Commercial District



Upper Keys Planning Area

Potential Conflicts in Mixed Use Commercial Fishing District

Legend

MCF-Nonconforming PC

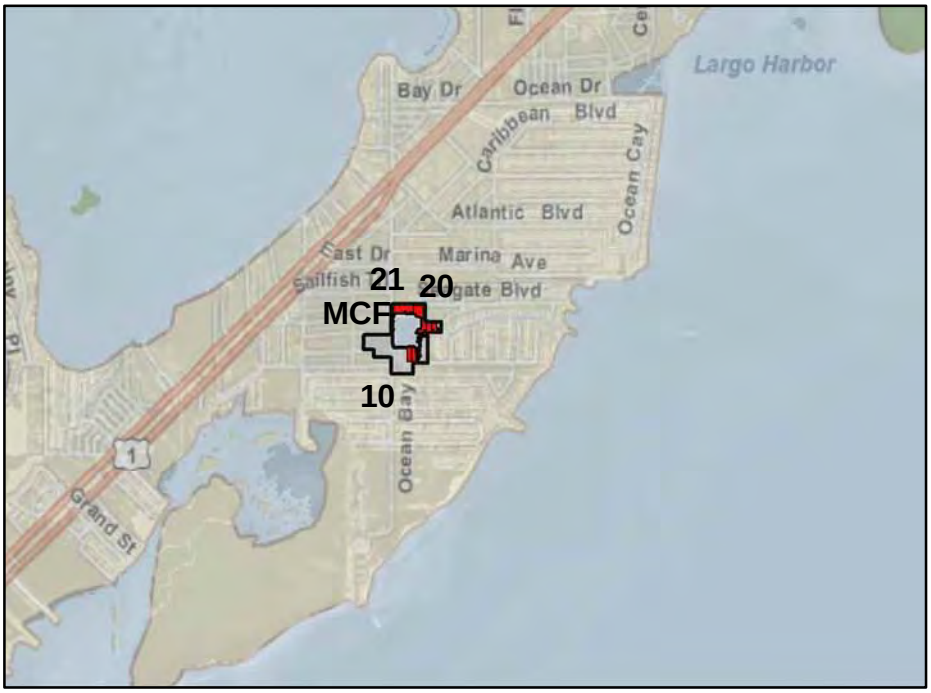
MCF-Mixed Com. Fishing

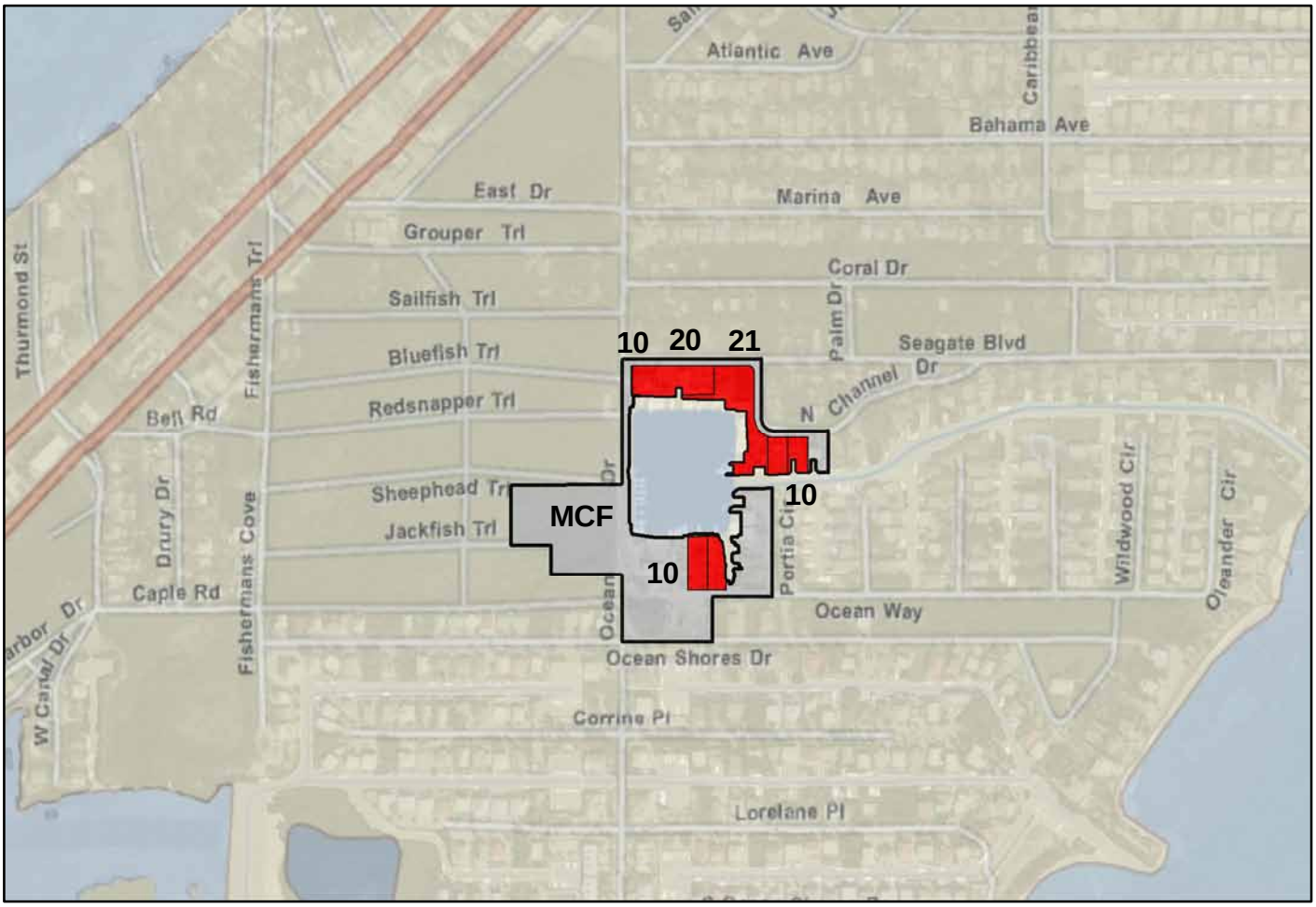
Non-Conforming PC

10-Vacant Commercial
20-Airport, Marina, Bus
21-Restaurant or Cafeteria

Conforming PC

00 01 02 03 08 09 11 12 25 27
29 31 33 40 41 44 48 49





Upper Keys Planning Area

Potential Conflicts in Mixed Use Commercial Fishing District

Legend

MCF-Nonconforming PC

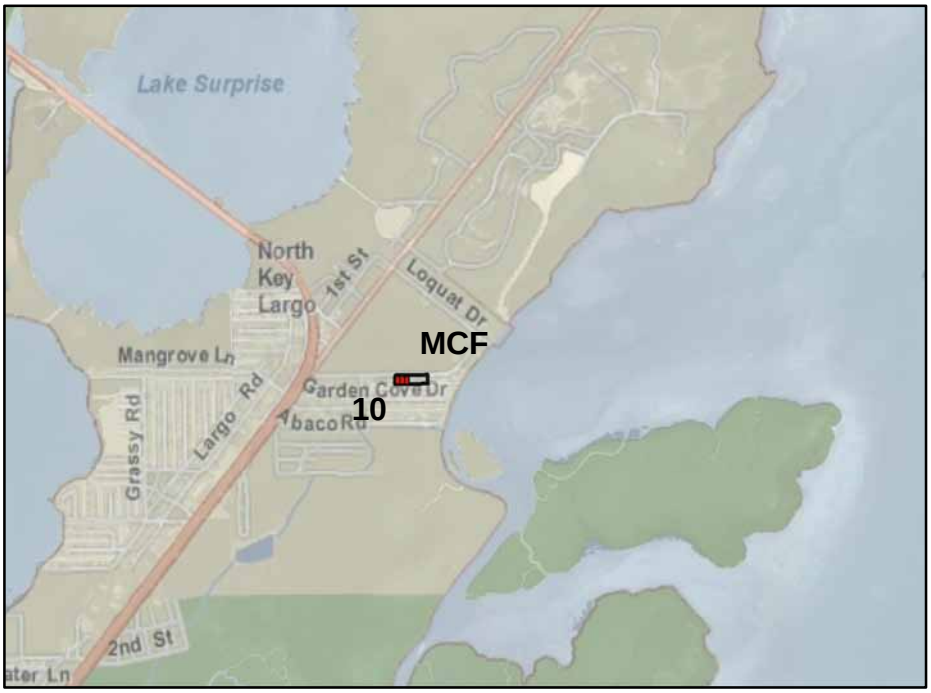
MCF-Mixed Com. Fishing

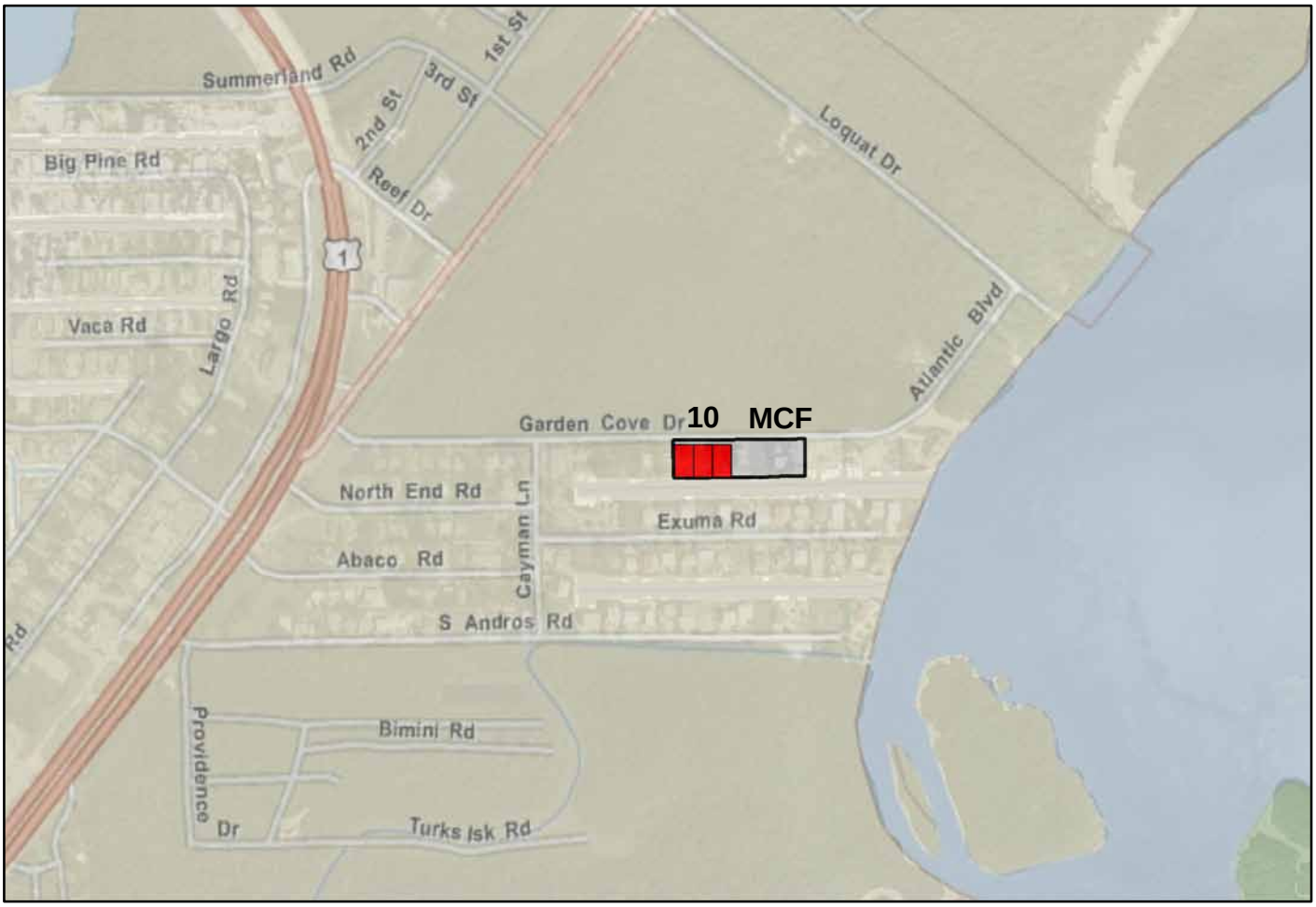
Non-Conforming PC

10-Vacant Commercial

Conforming PC

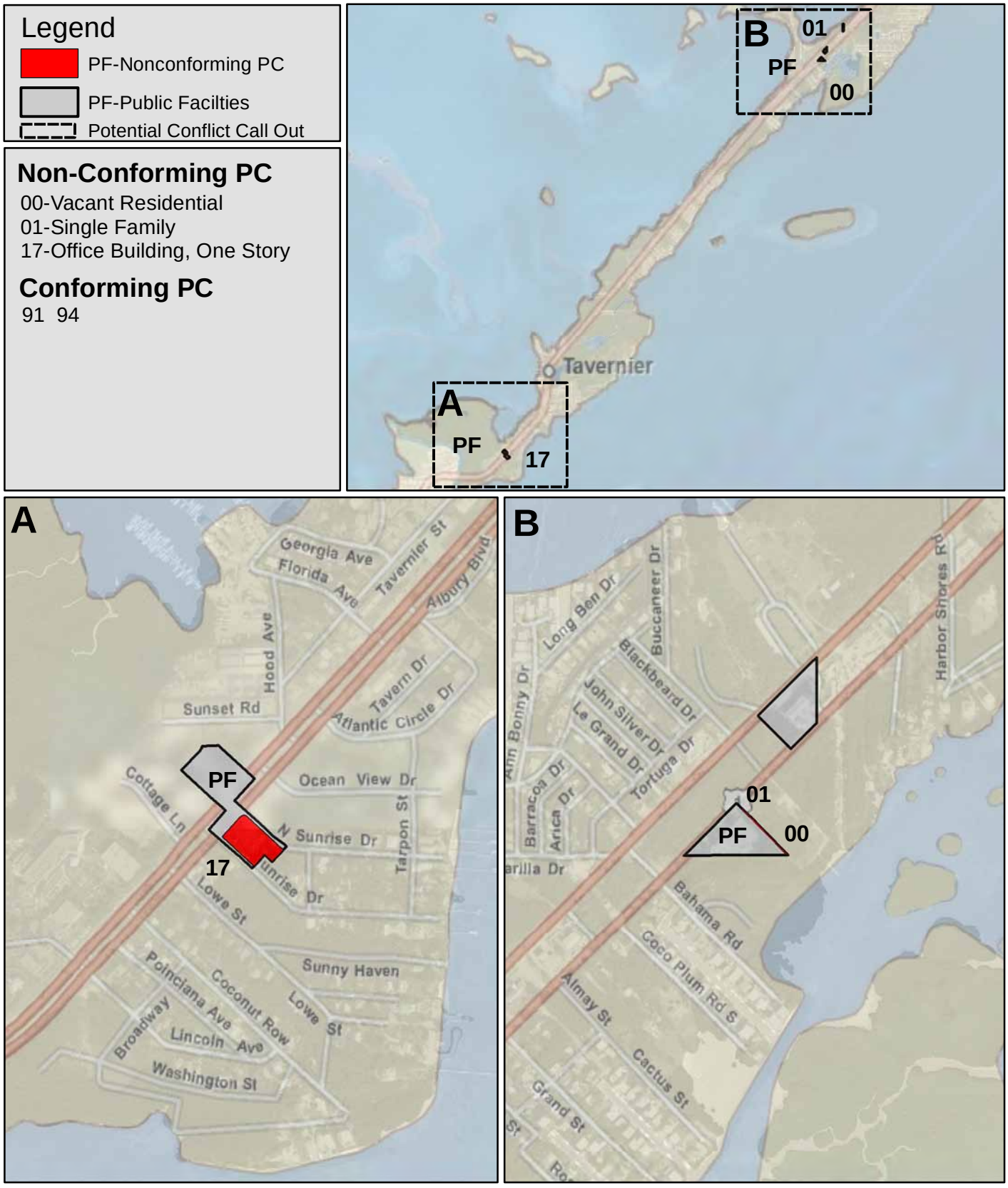
00 01 02 03 08 09 11 12 25 27
29 31 33 40 41 44 48 49





Upper Keys Planning Area

Potential Conflicts in Public Facilities District



Upper Keys Planning Area

Potential Conflicts in Public Facilities District

Legend

PF-Nonconforming PC

PF-Public Facilties

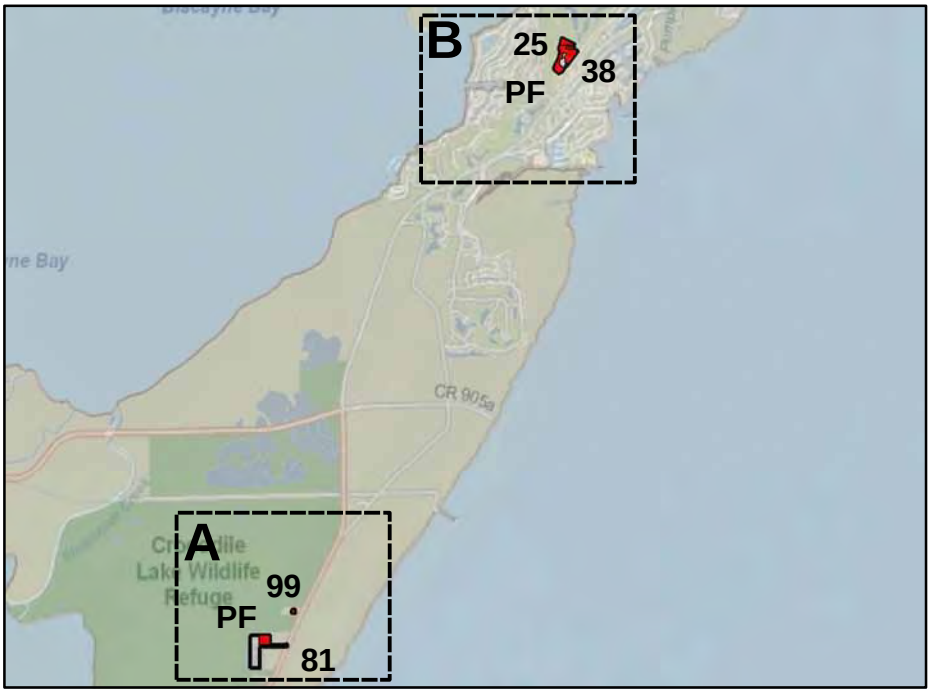
Potential Conflict Call Out

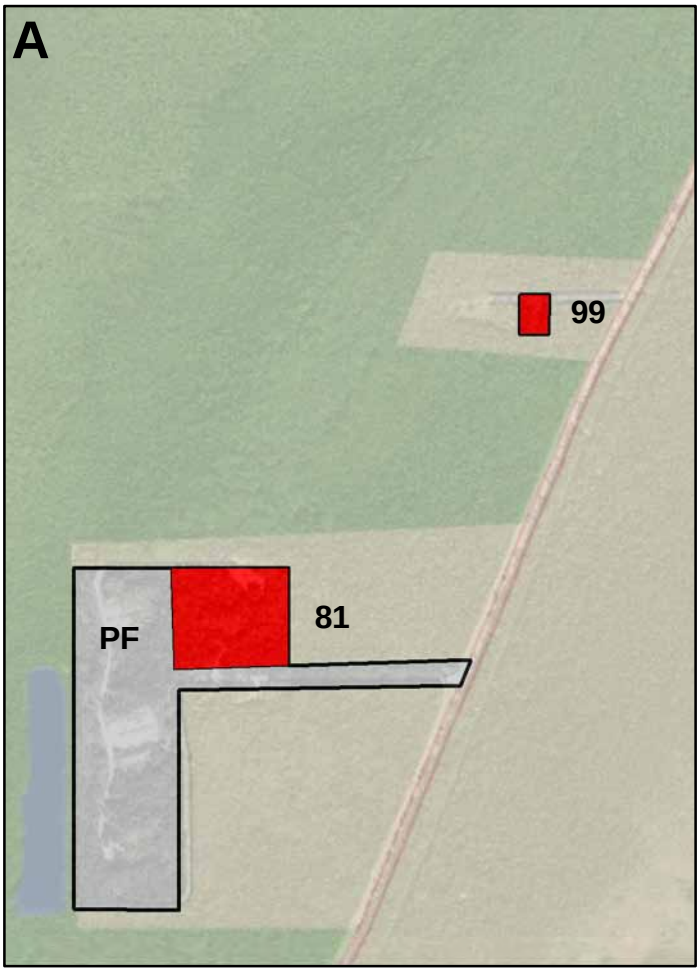
Non-Conforming PC

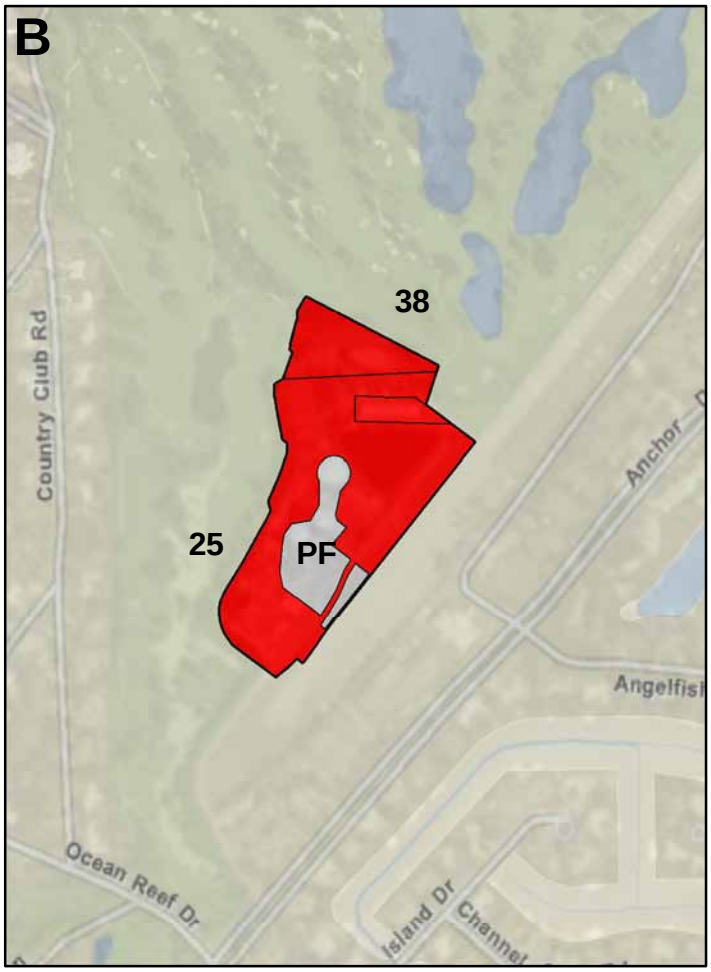
25-Repair Shop (Not Automotive)
38-Golf Course
81-Military
99-Nature Conservancy
FL Keys Land Trust

Conforming PC

91 94

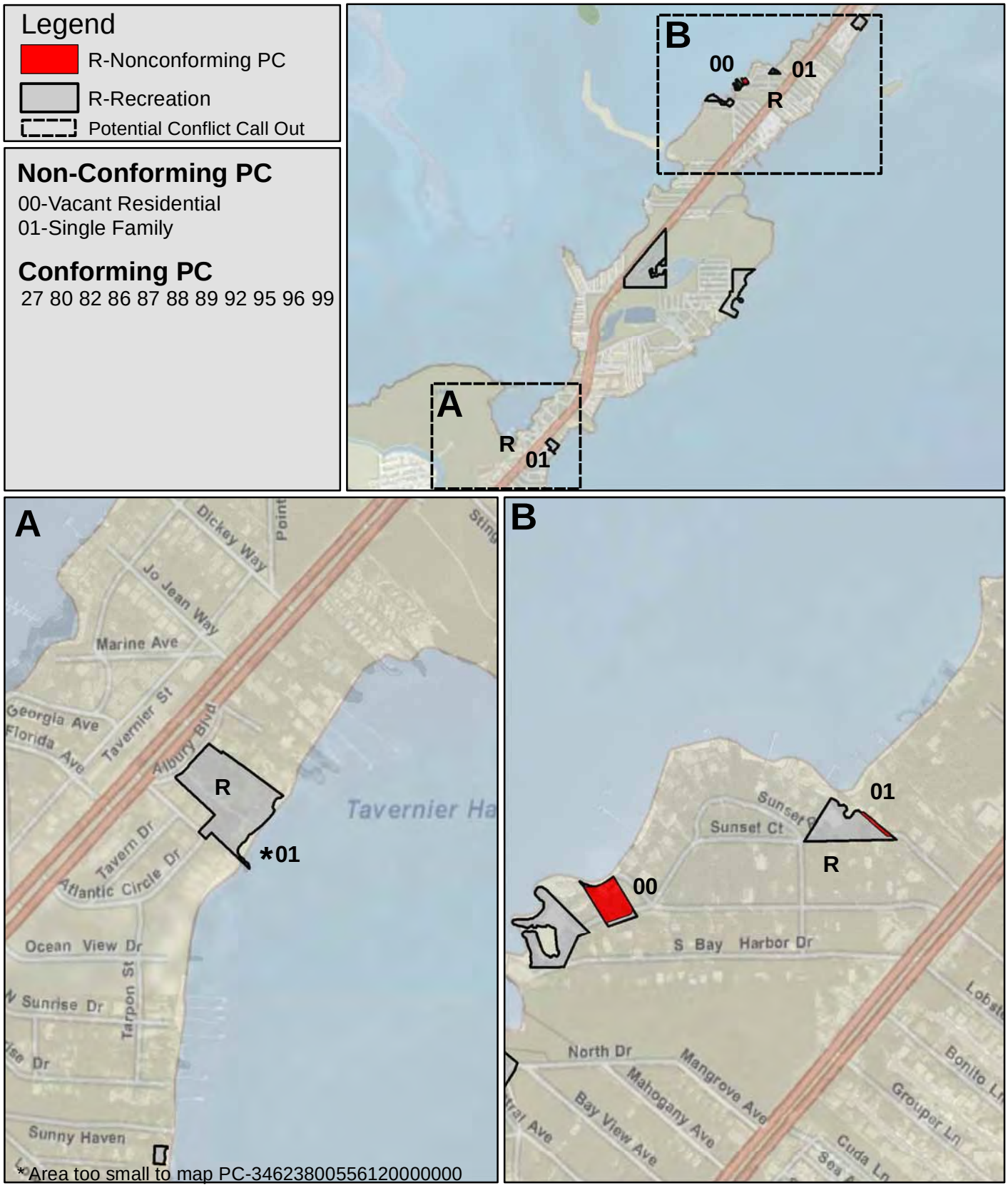






Upper Keys Planning Area

Potential Conflicts in Recreation District



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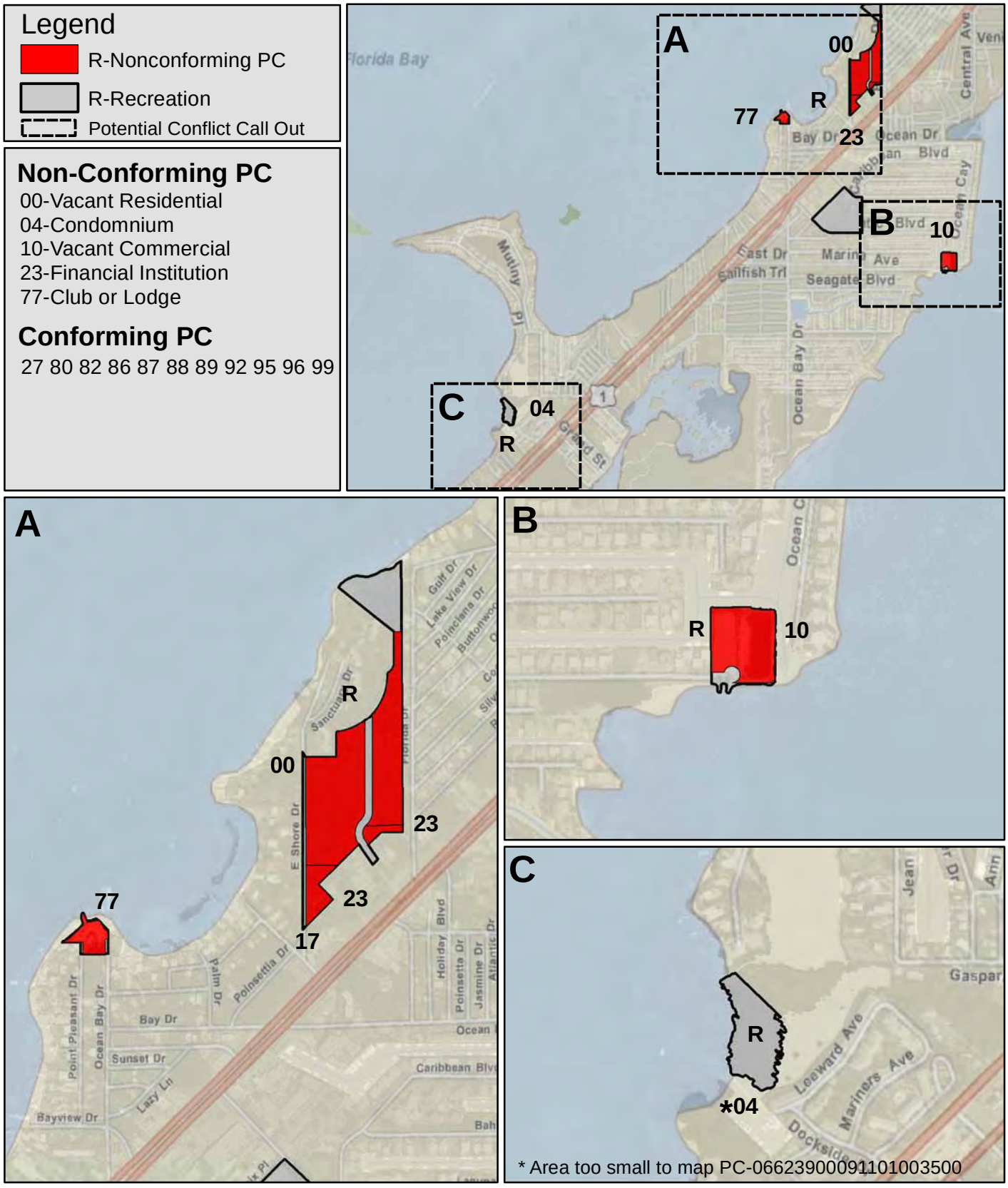
Upper Keys Planning Area

Potential Conflicts in Recreation District



Upper Keys Planning Area

Potential Conflicts in Recreation District

Legend

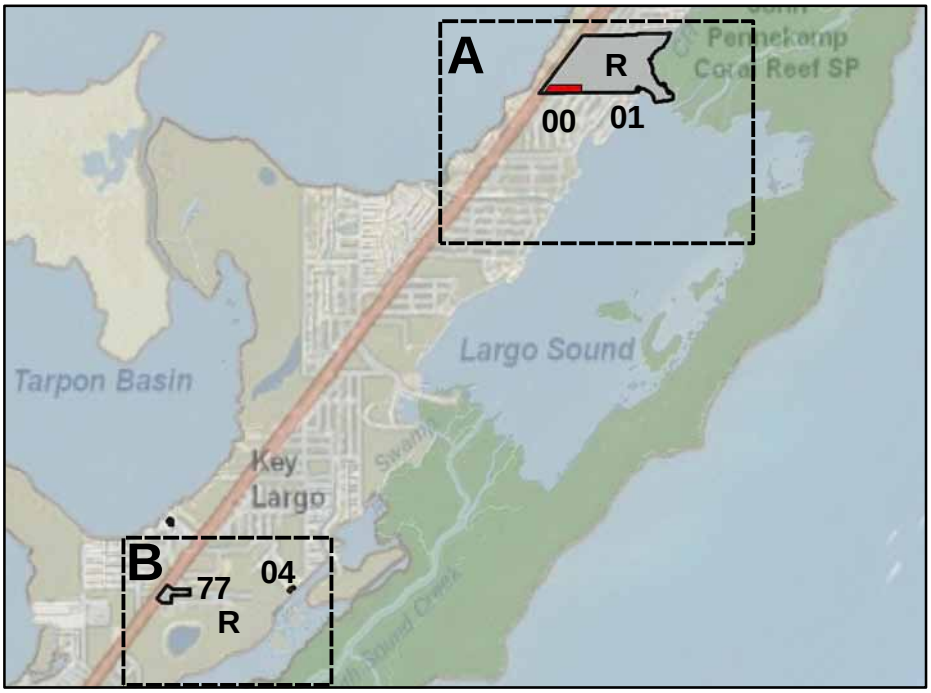
- R-Nonconforming PC
- R-Recreation
- Potential Conflict Call Out

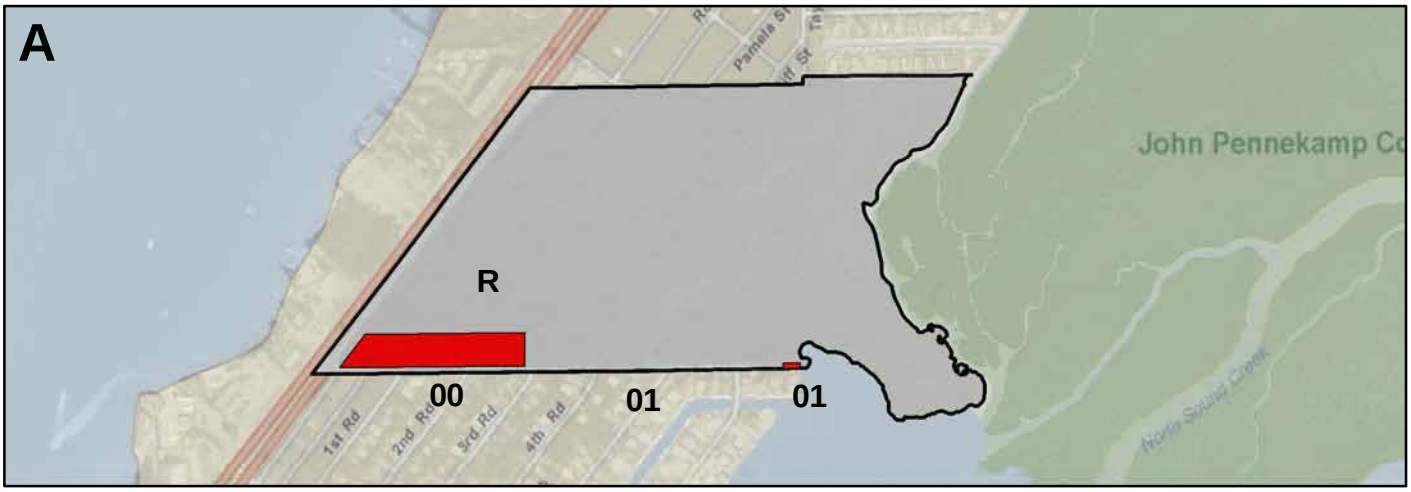
Non-Conforming PC

00-Vacant Residential
01-Single Family
04-Condominium
77-Club or Lodge

Conforming PC

27 80 82 86 87 88 89 92 95 96 99





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Upper Keys Planning Area

Potential Conflicts in Recreation District

Legend

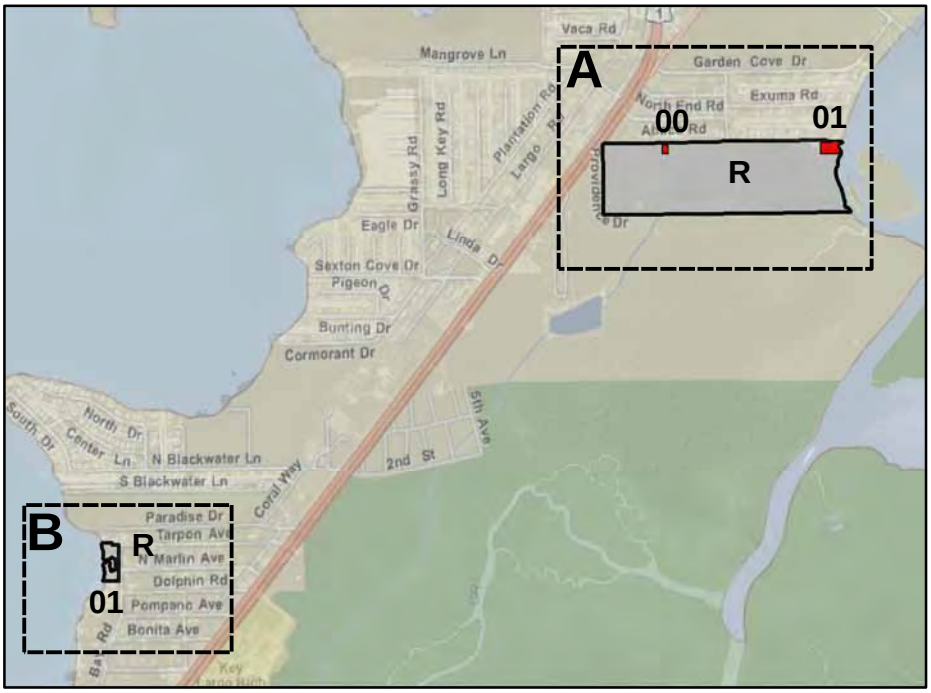
- R-Nonconforming PC
- R-Recreation
- Potential Conflict Call Out

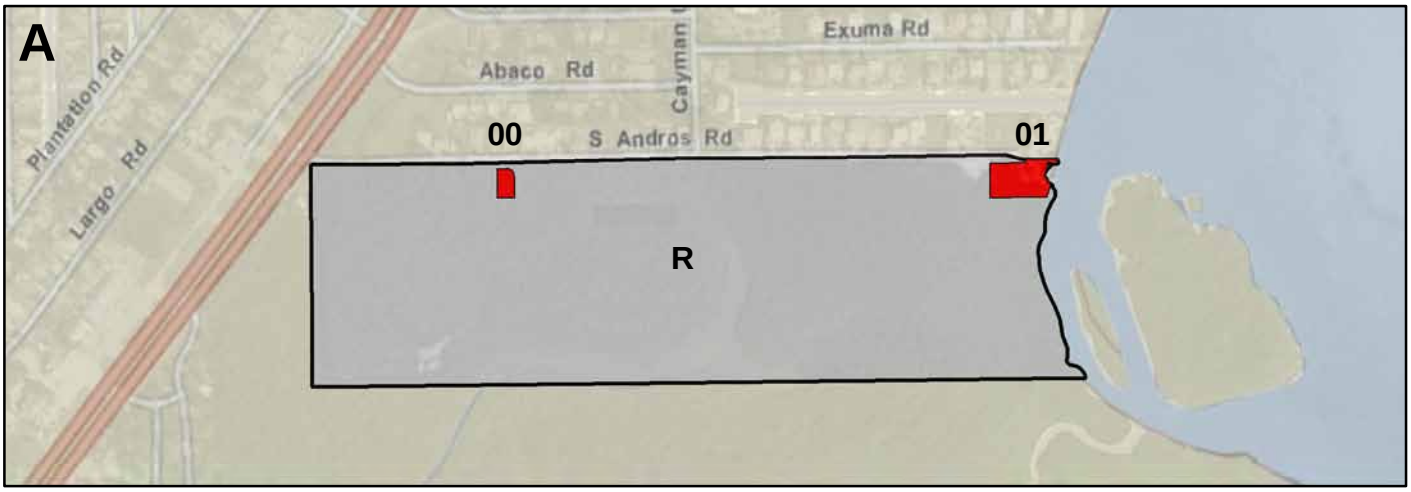
Non-Conforming PC

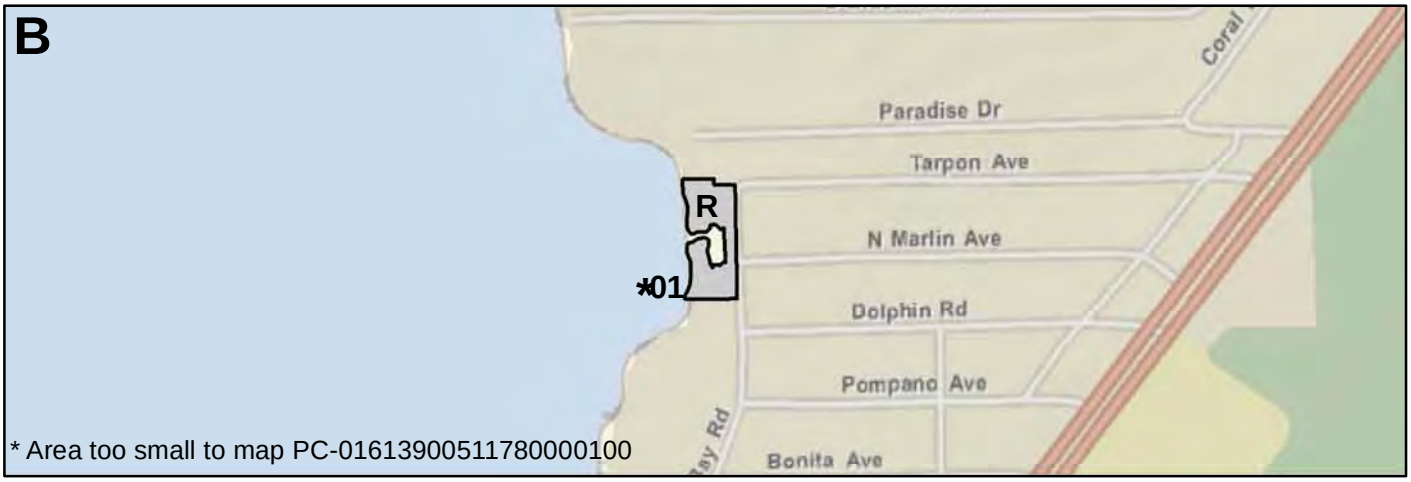
00-Vacant Residential
01-Single Family

Conforming PC

27 80 82 86 87 88 89 92 95 96 99







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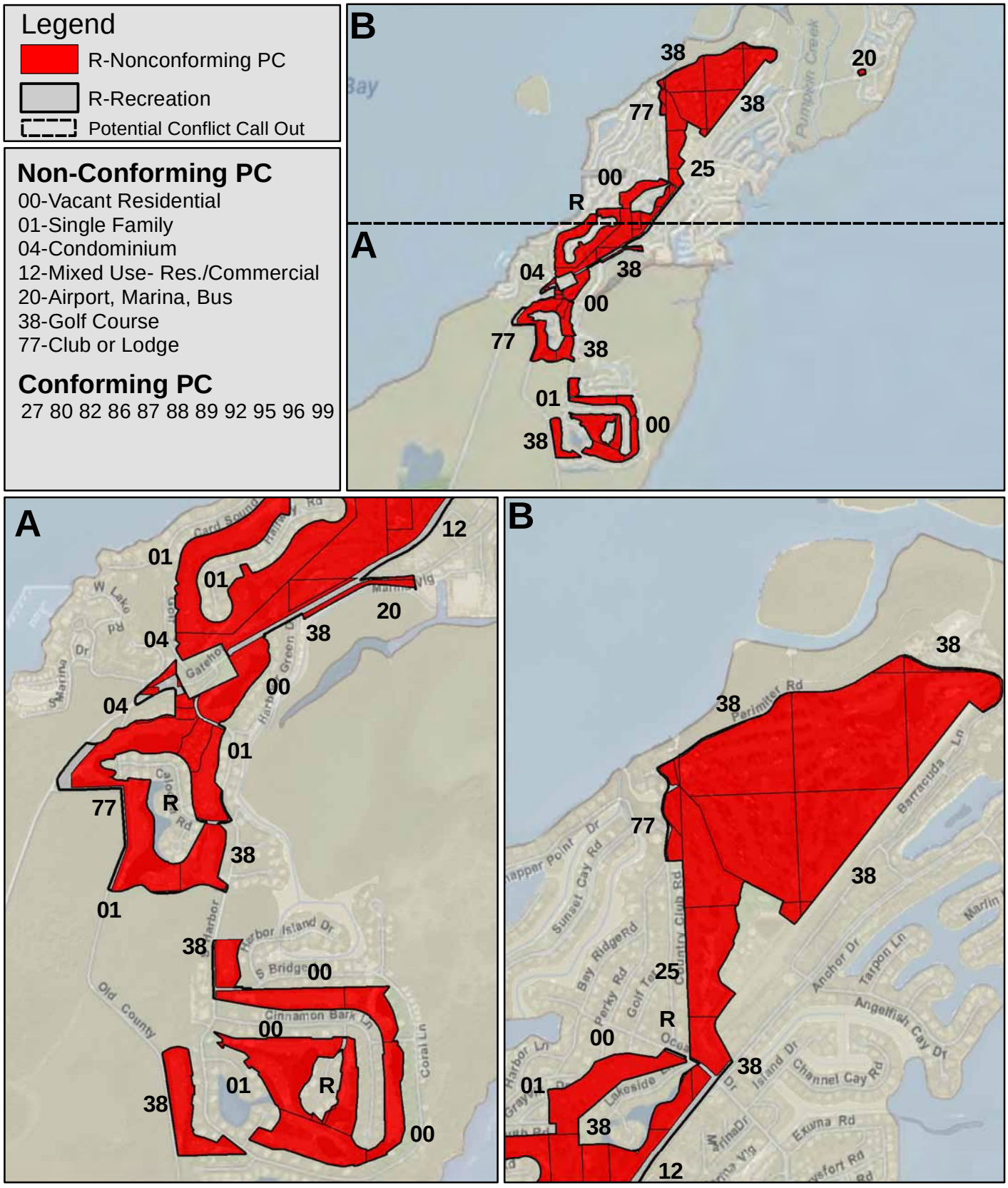
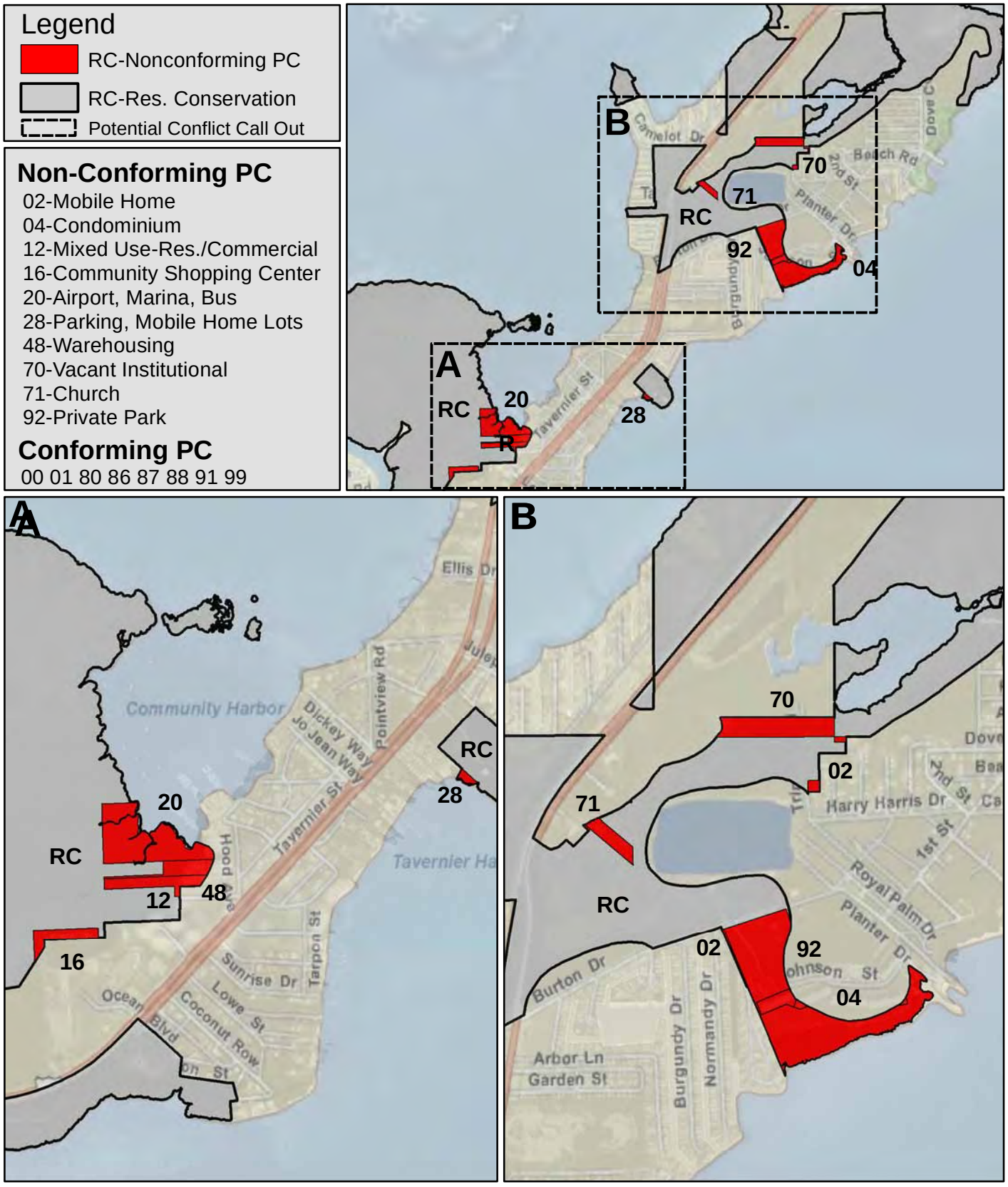
Upper Keys Planning Area

Potential Conflicts in Recreation District



Upper Keys Planning Area

Potential Conflicts in Residential Conservation District



Upper Keys Planning Area

Potential Conflicts in Residential Conservation District

Legend

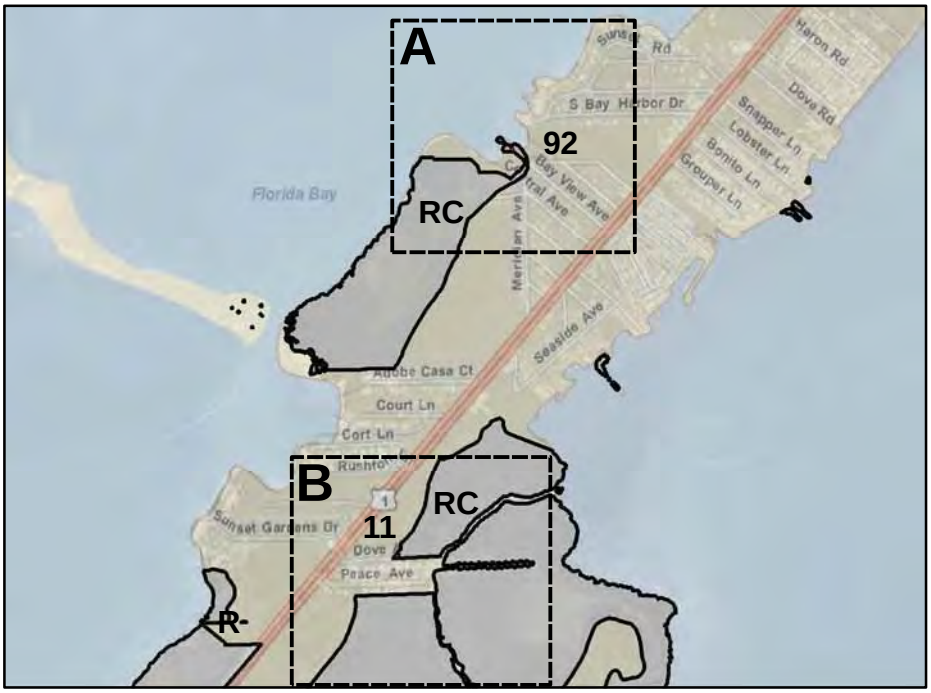
- RC-Nonconforming PC
- RC-Res. Conservation
- Potential Conflict Call Out

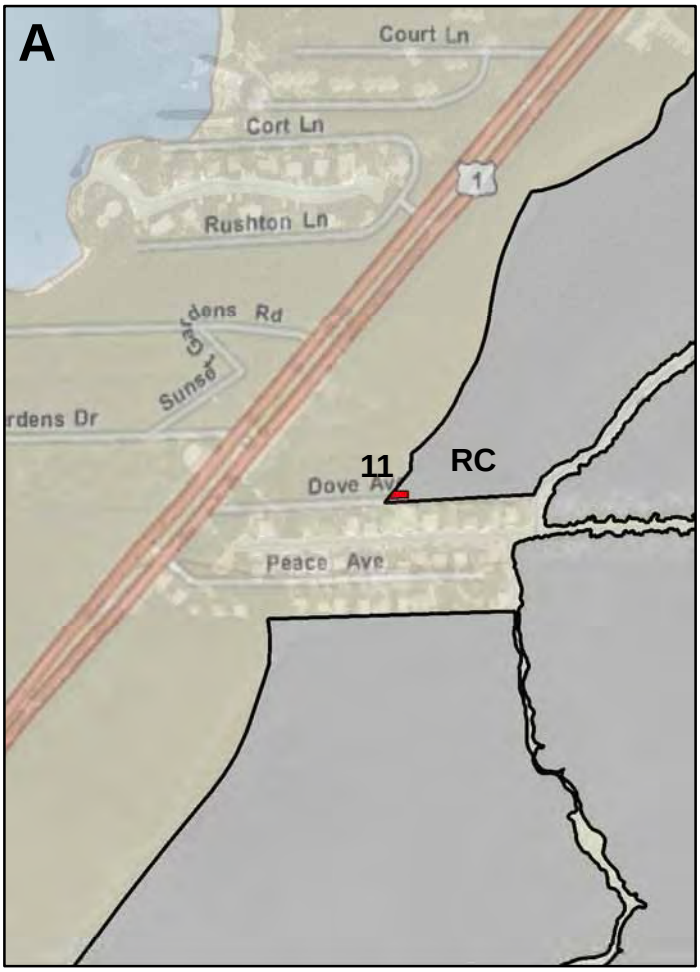
Non-Conforming PC

11-Stores, One Story
92-Private Park

Conforming PC

00 01 80 86 87 88 91 99





Upper Keys Planning Area

Potential Conflicts in Residential Conservation District

Legend

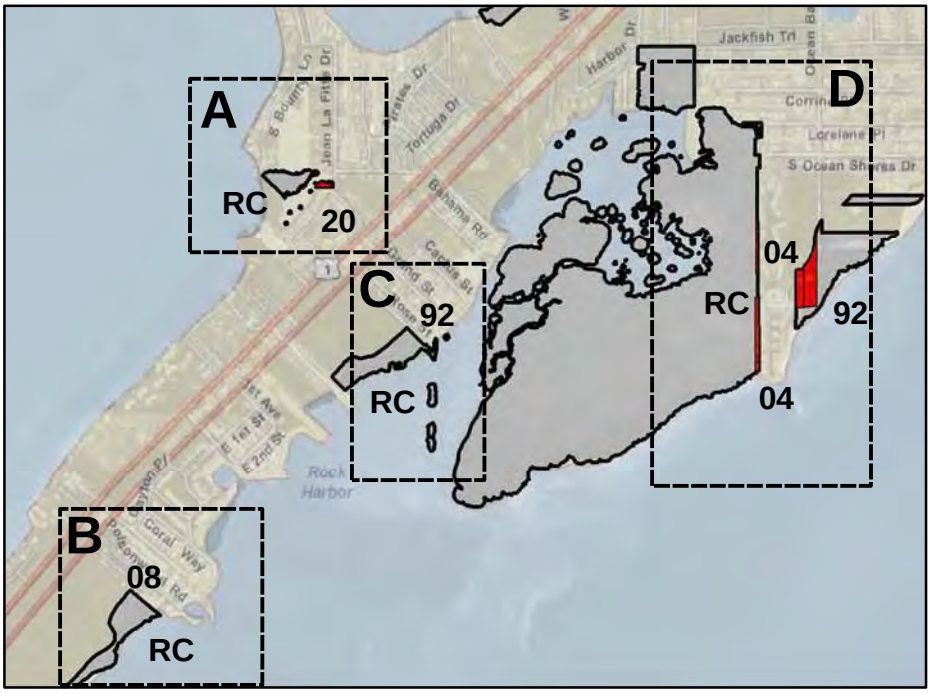
- RC-Nonconforming PC
- RC-Res. Conservation
- Potential Conflict Call Out

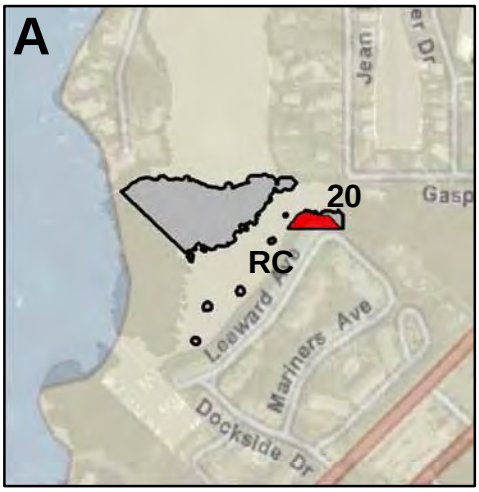
Non-Conforming PC

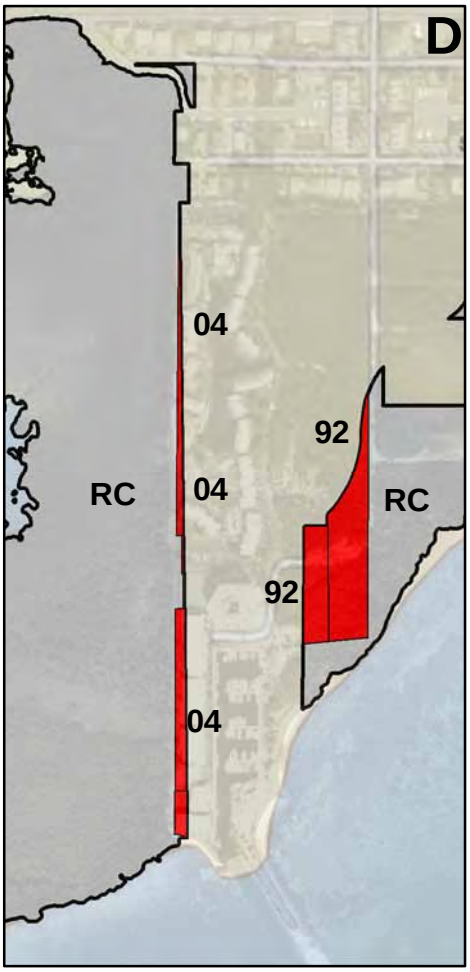
04-Condominium
08-Multi-Family < 10 Units
20-Airport, Marina, Bus
92-Private Park

Conforming PC

00 01 80 86 87 88 91 99

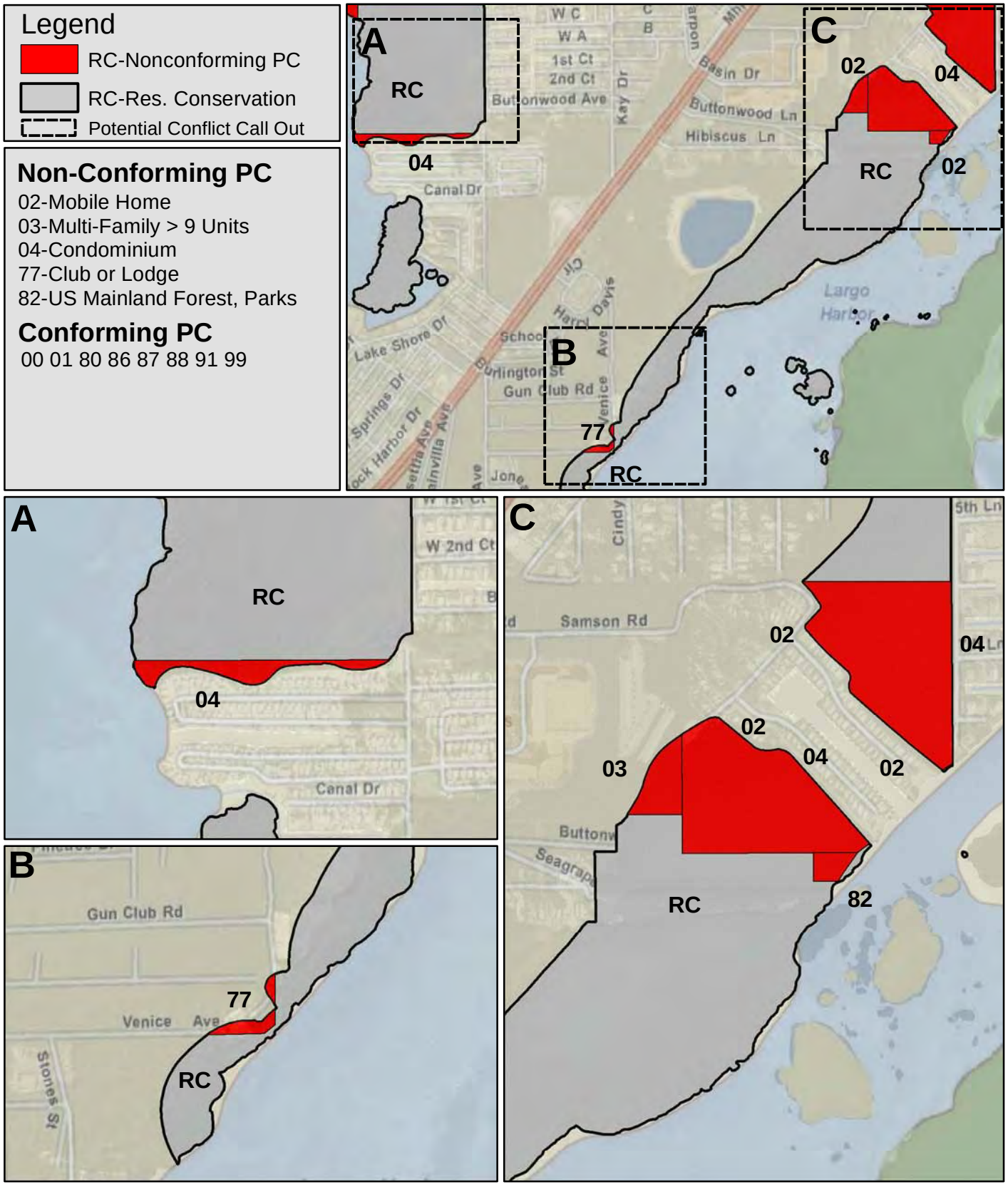






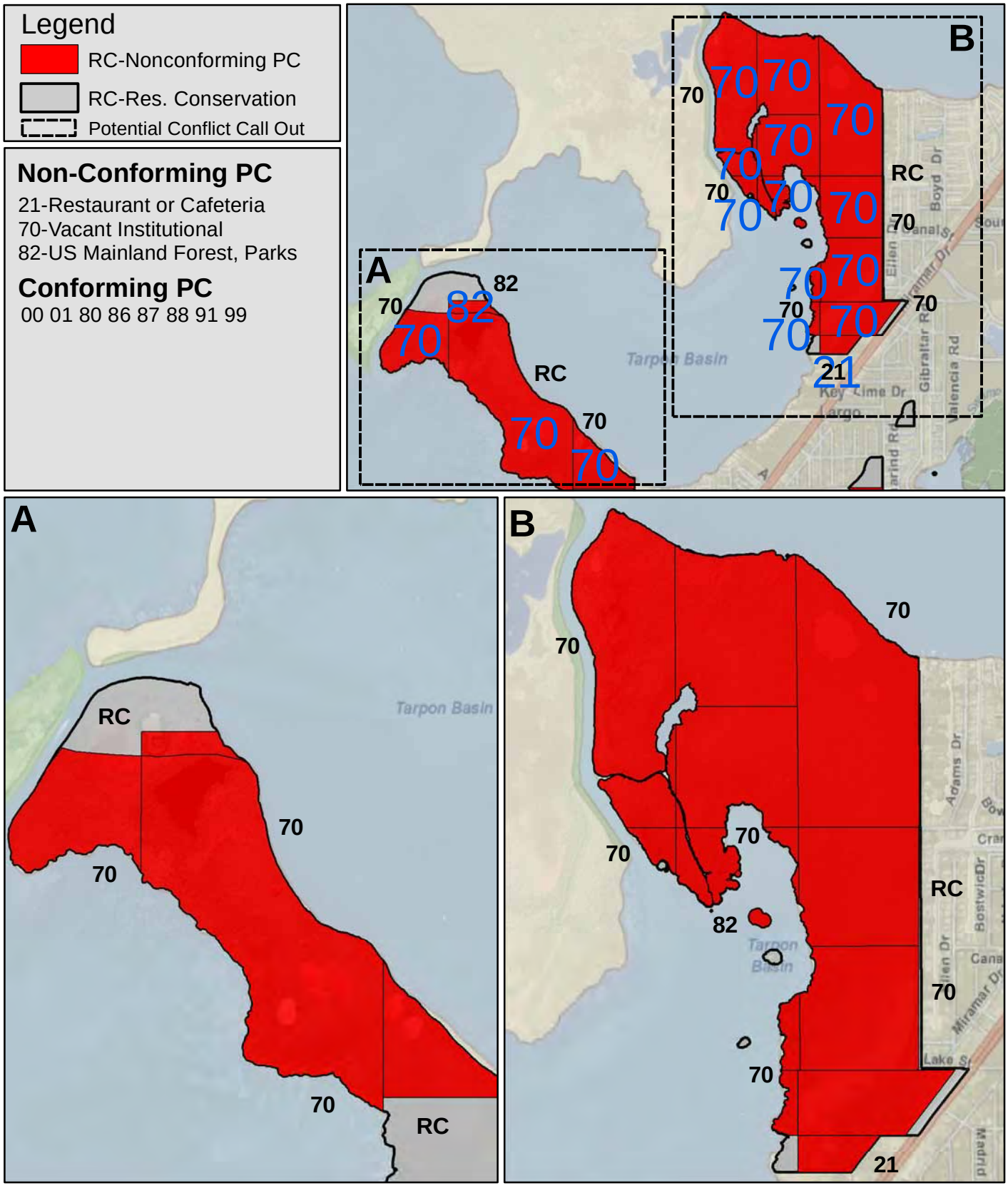
Upper Keys Planning Area

Potential Conflicts in Residential Conservation District



Upper Keys Planning Area

Potential Conflicts in Residential Conservation District



Upper Keys Planning Area

Potential Conflicts in Residential Conservation District

Legend

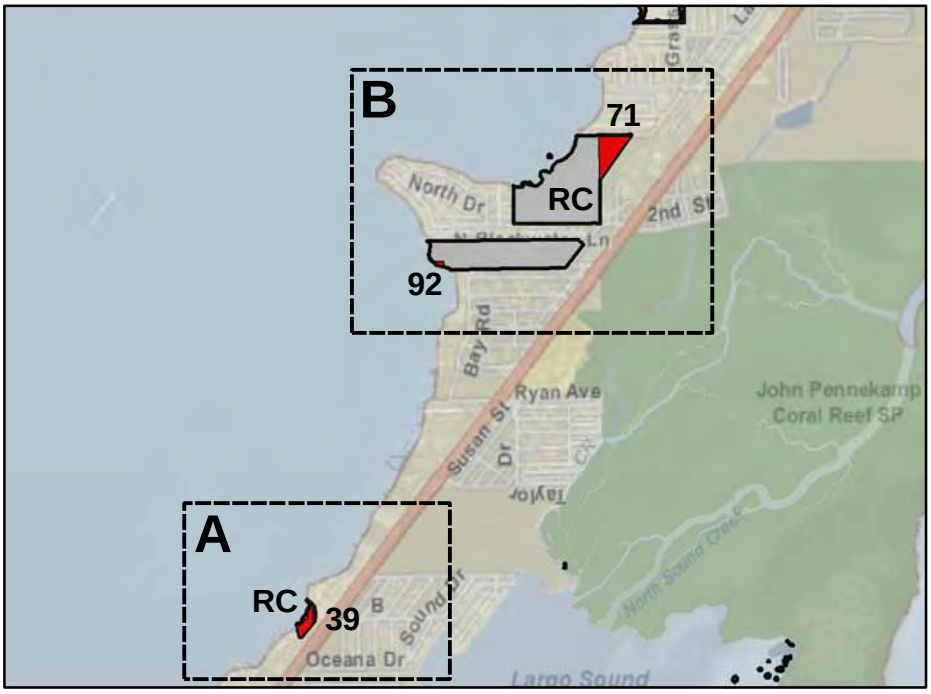
- RC-Nonconforming PC
- RC-Res. Conservation
- Potential Conflict Call Out

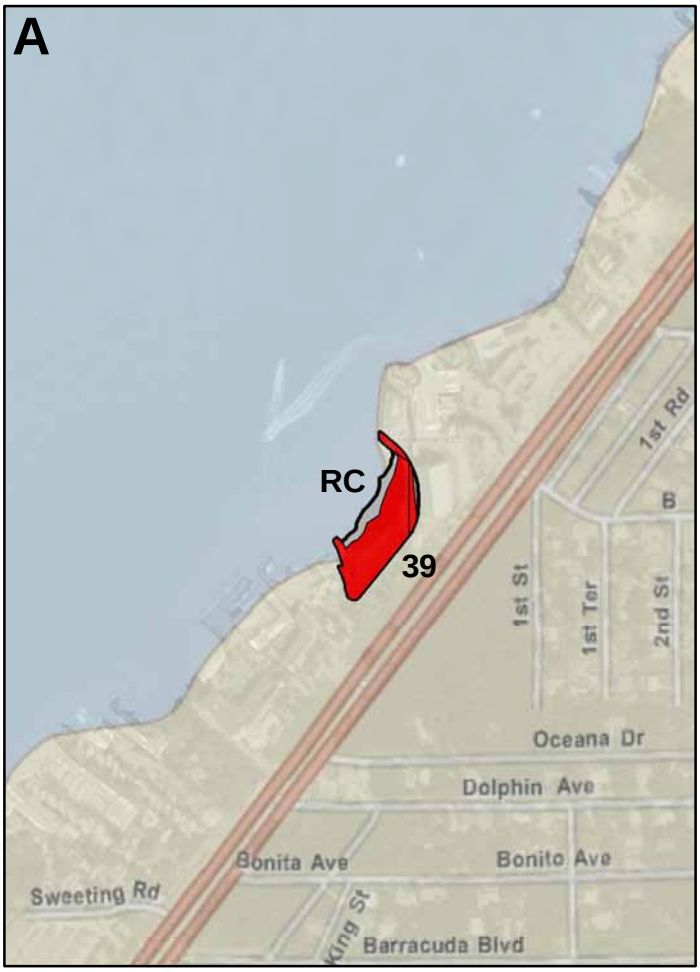
Non-Conforming PC

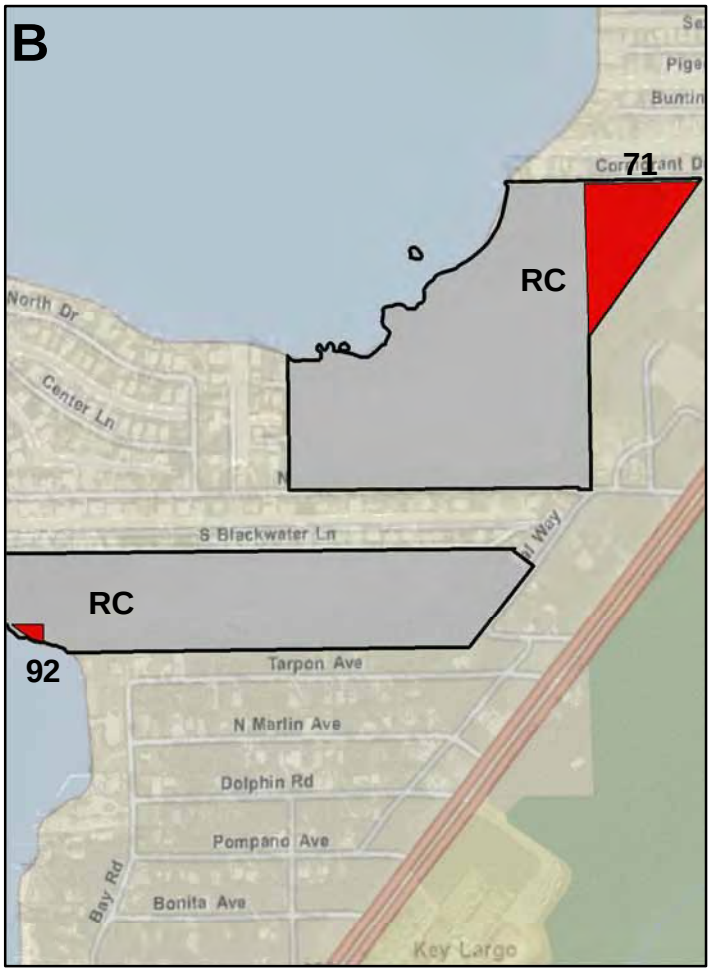
39-Hotel or Motel
71-Church
92-Private Park

Conforming PC

00 01 80 86 87 88 91 99

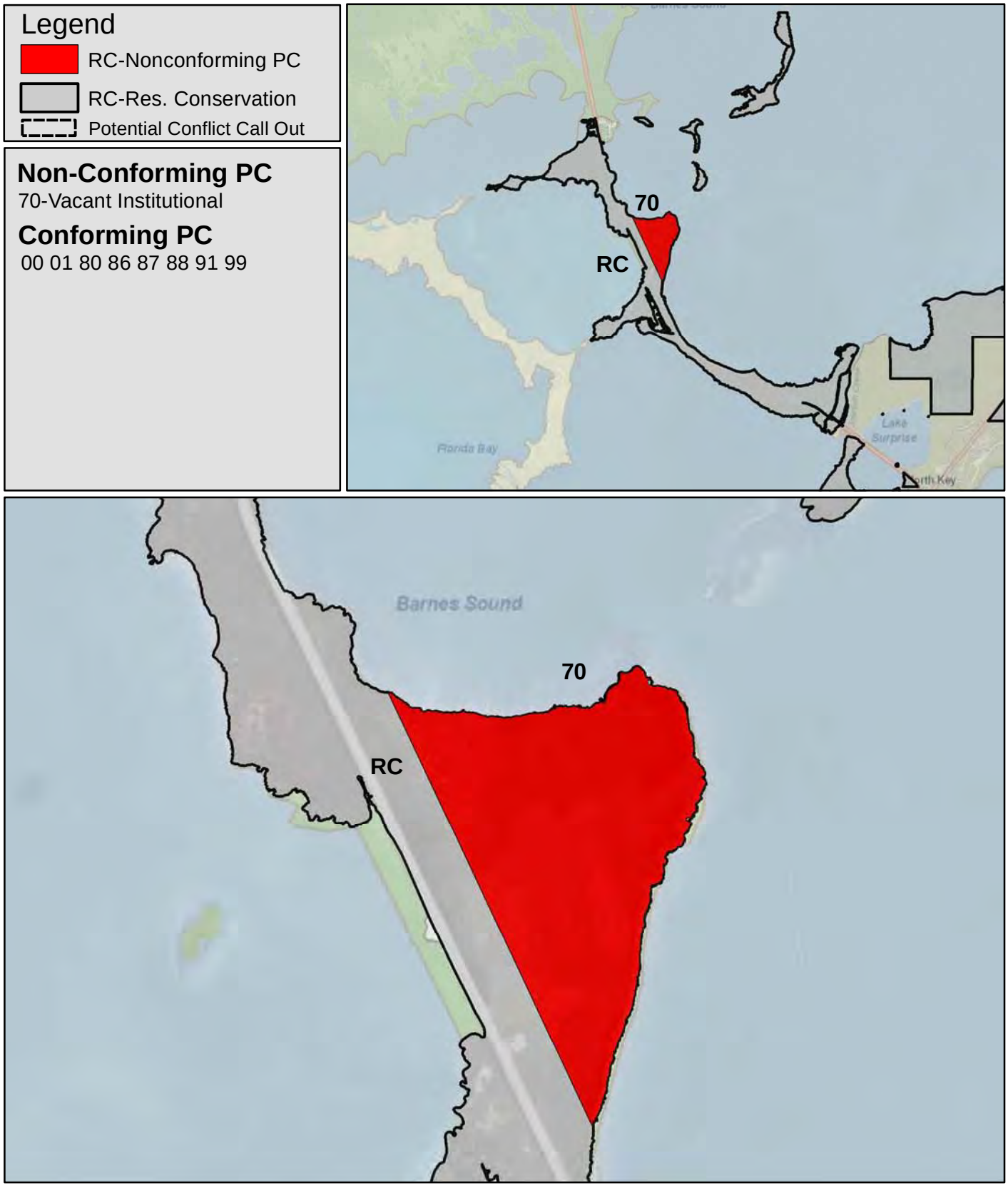






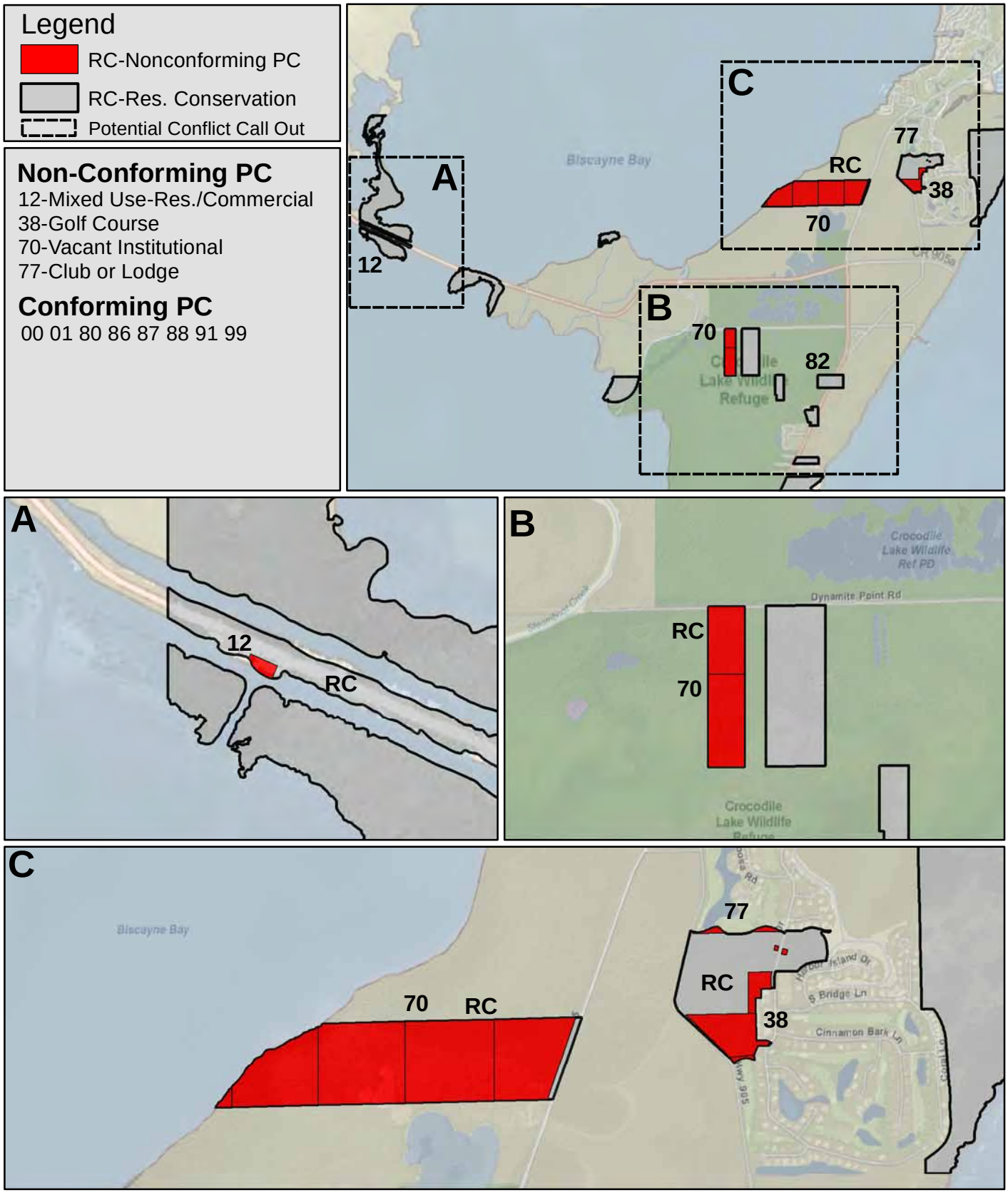
Upper Keys Planning Area

Potential Conflicts in Residential Conservation District



Upper Keys Planning Area

Potential Conflicts in Residential Conservation District



Upper Keys Planning Area

Potential Conflicts in Residential Conservation District

Legend

RC-Nonconforming PC

RC-Res. Conservation

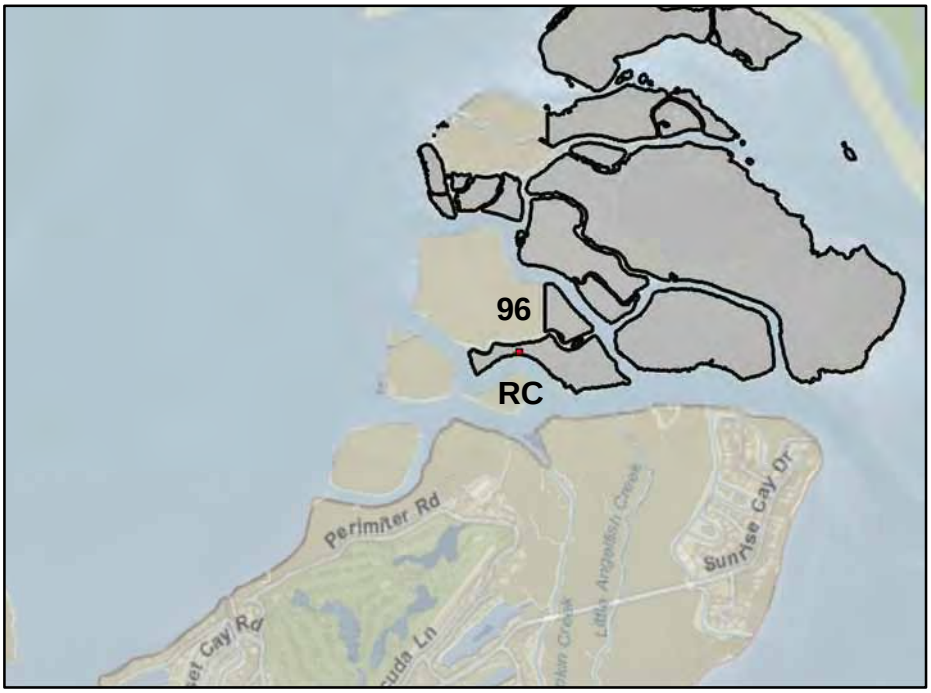
Potential Conflict Call Out

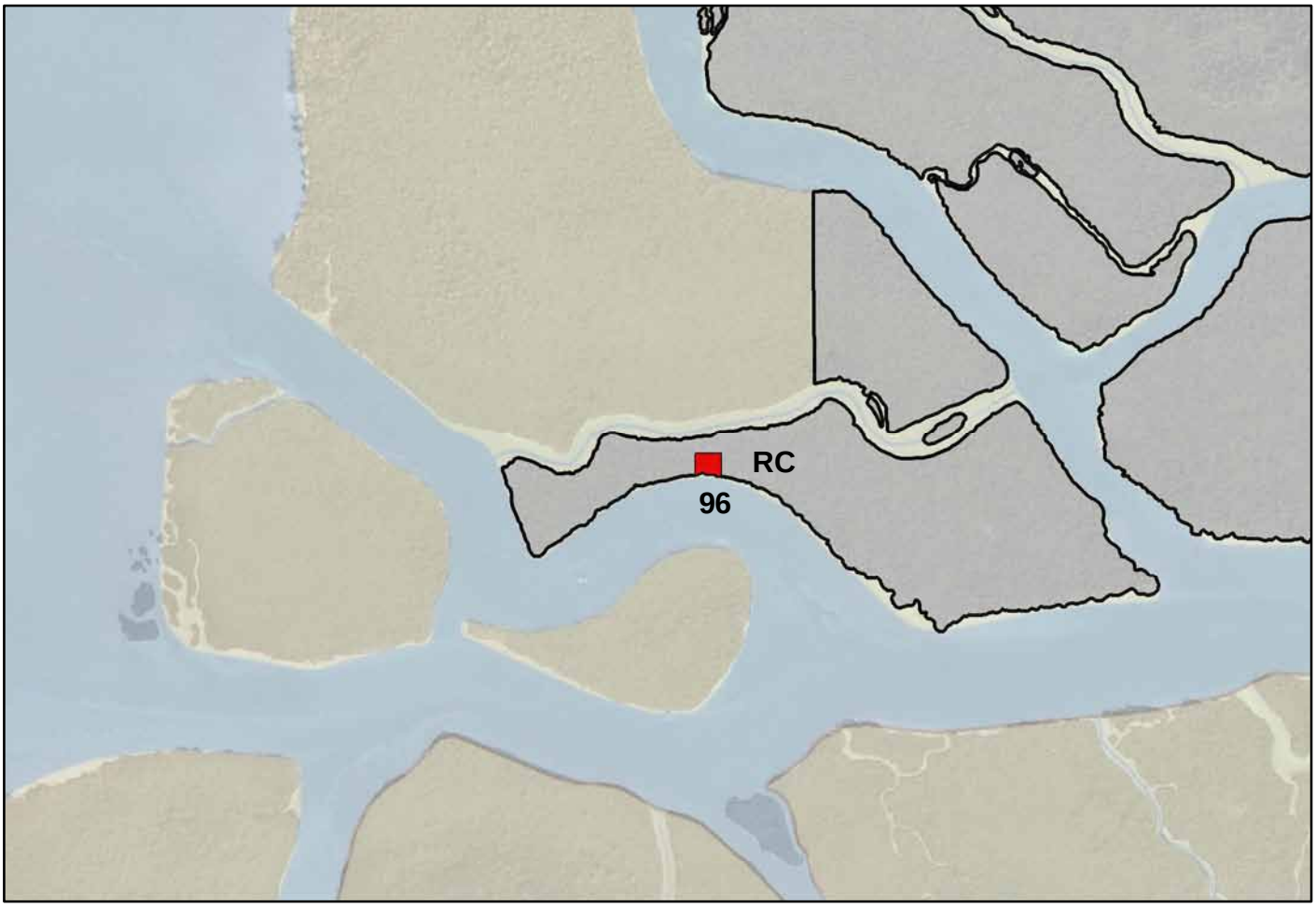
Non-Conforming PC

96-Non-Gov. Owned Land-Everglades

Conforming PC

00 01 80 86 87 88 91 99





Upper Keys Planning Area

Potential Conflicts in Residential High District

Legend

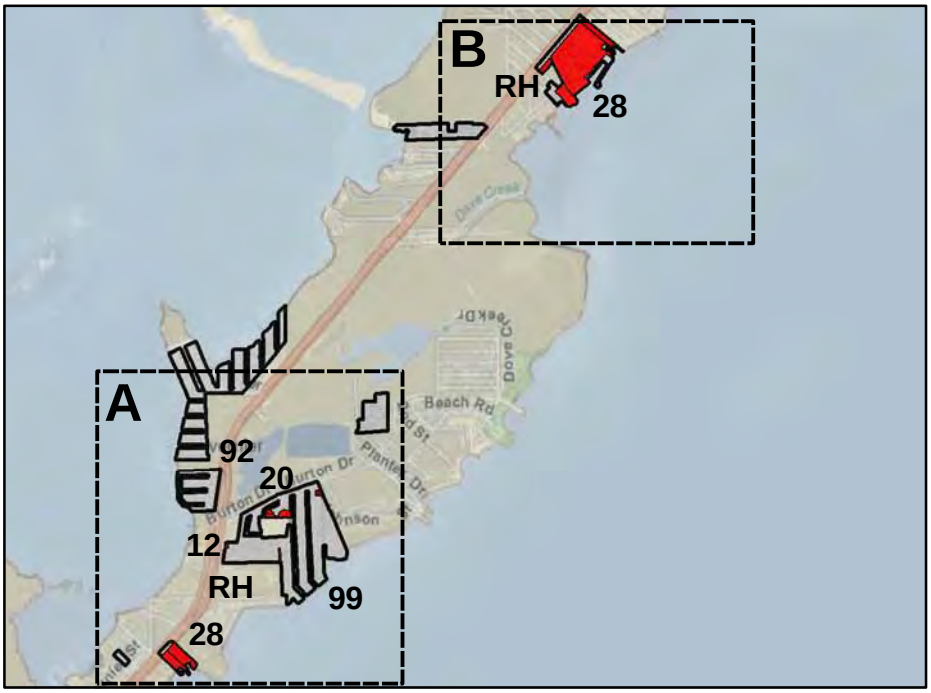
- RH-Nonconforming PC
- RH-Residential High
- Potential Conflict Call Out

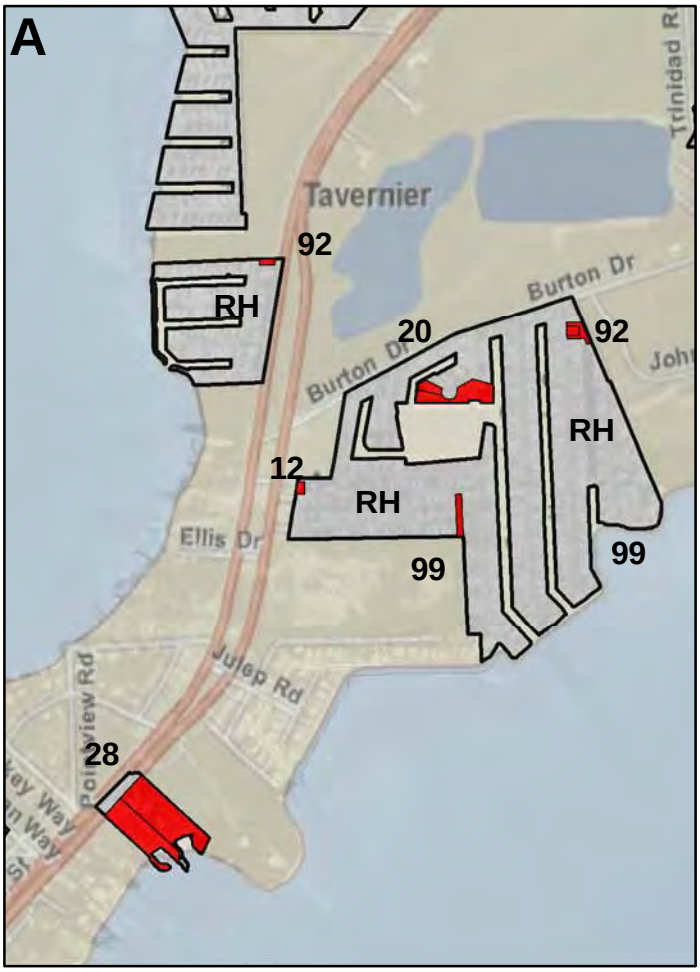
Non-Conforming PC

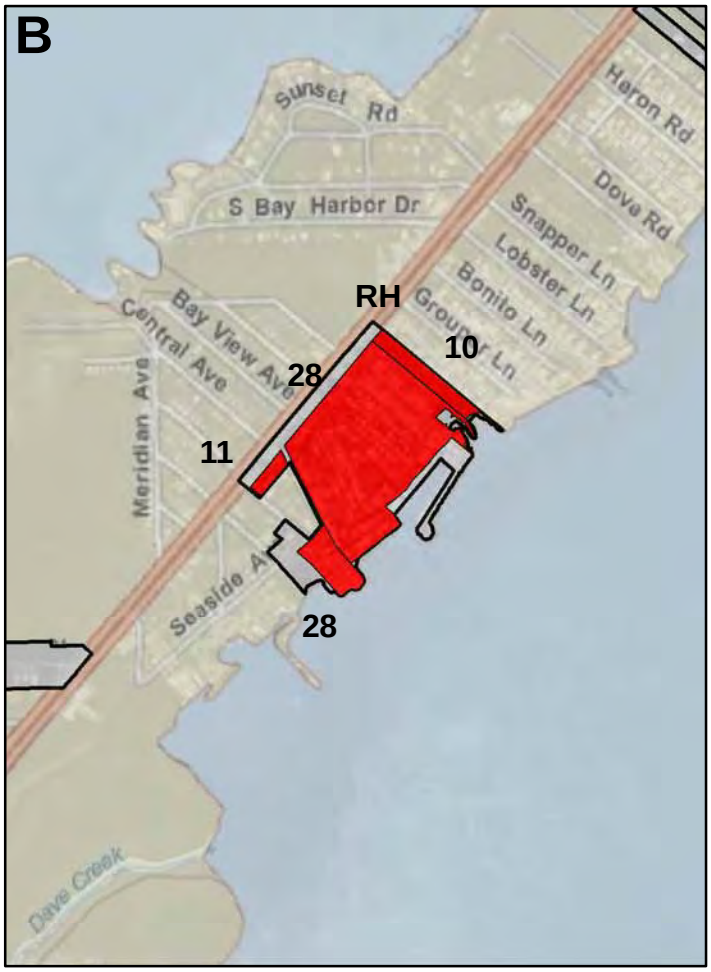
10-Vacant Commercial
11-Stores, One Story
12-Mixed Use-Res./Commercial
20-Airport, Marina, Bus
28-Parking, Mobile Lots
92-Private Park
99-Nature Conservancy
Fl Keys Land Trust

Conforming PC

00 01 02 03 04 05
06 08 09 74 78







Upper Keys Planning Area

Potential Conflicts in Residential High District

Legend

RH-Nonconforming PC

RH-Residential High

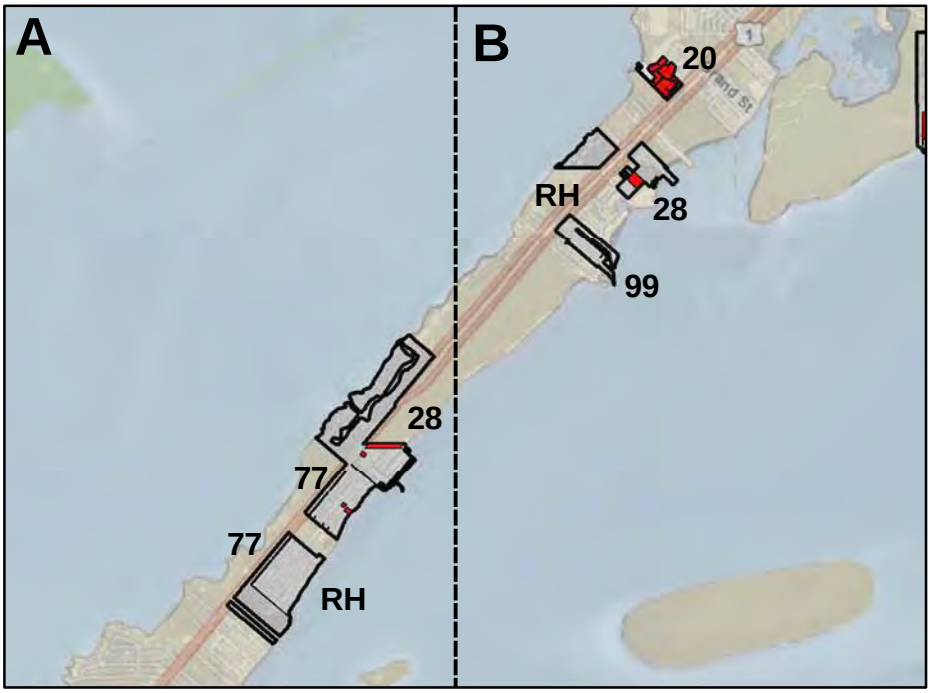
Potential Conflict Call Out

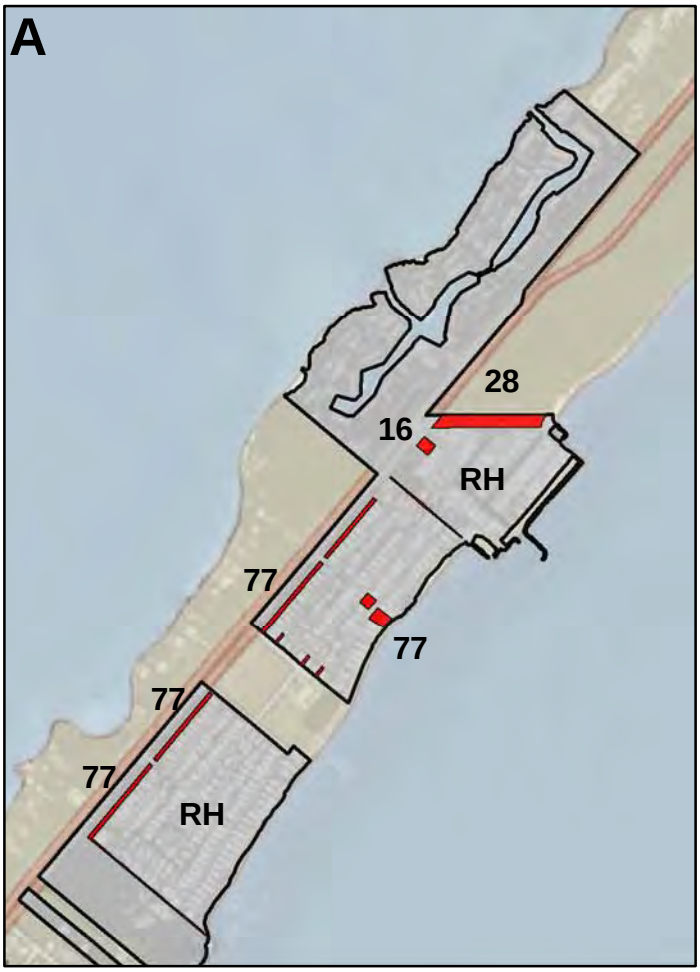
Non-Conforming PC

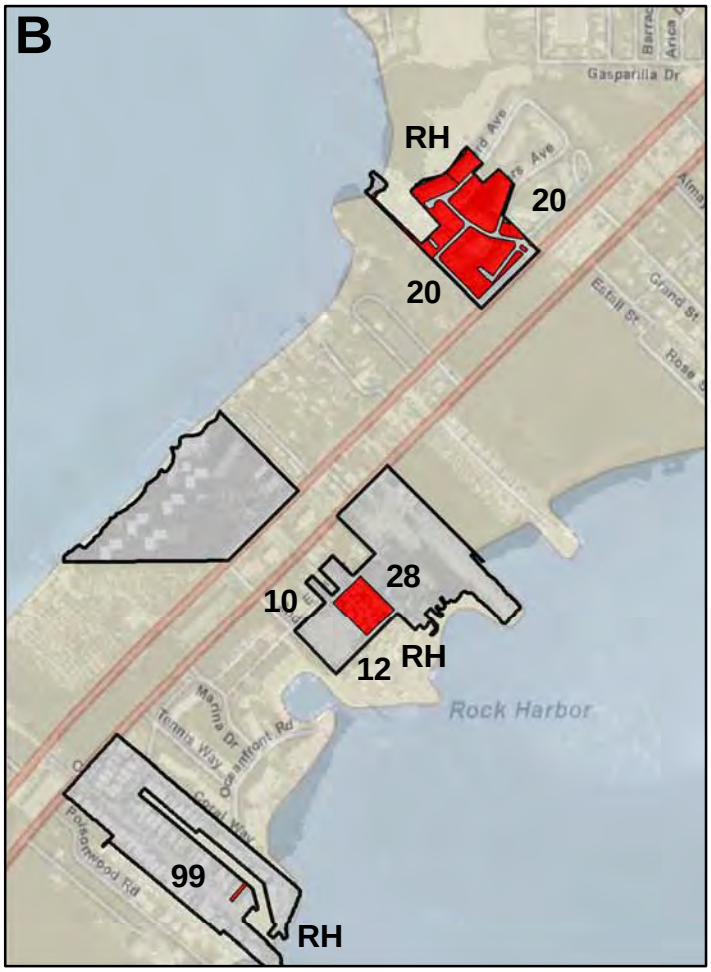
10-Vacant Commercial
12-Mixed Use-Res./Commercial
16-Community Shopping Center
20-Airport, Marina, Bus
77-Club or Lodge
99-Nature Conservancy
Fl Keys Land Trust

Conforming PC

00 01 02 03 04 05
06 08 09 74 78

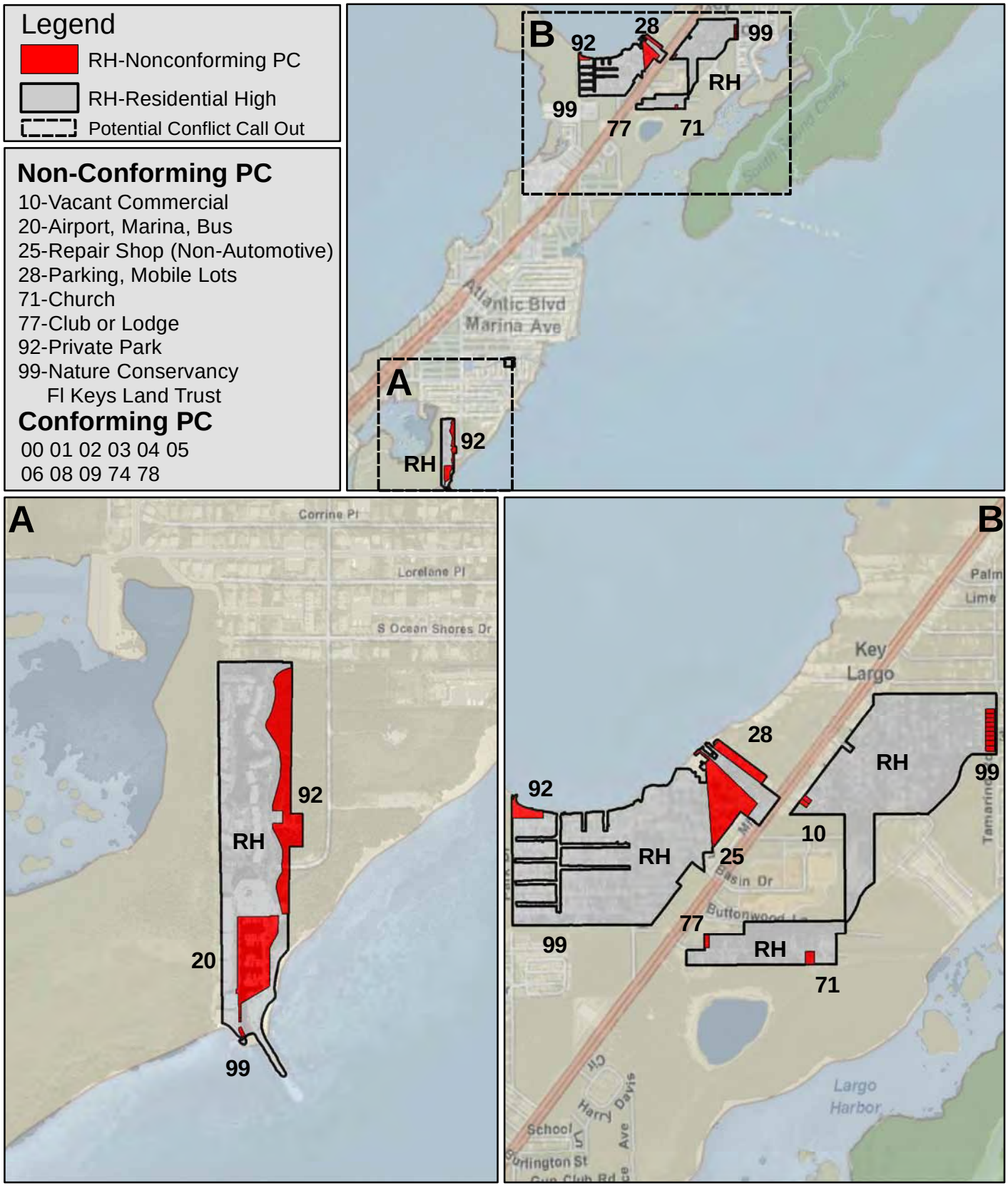






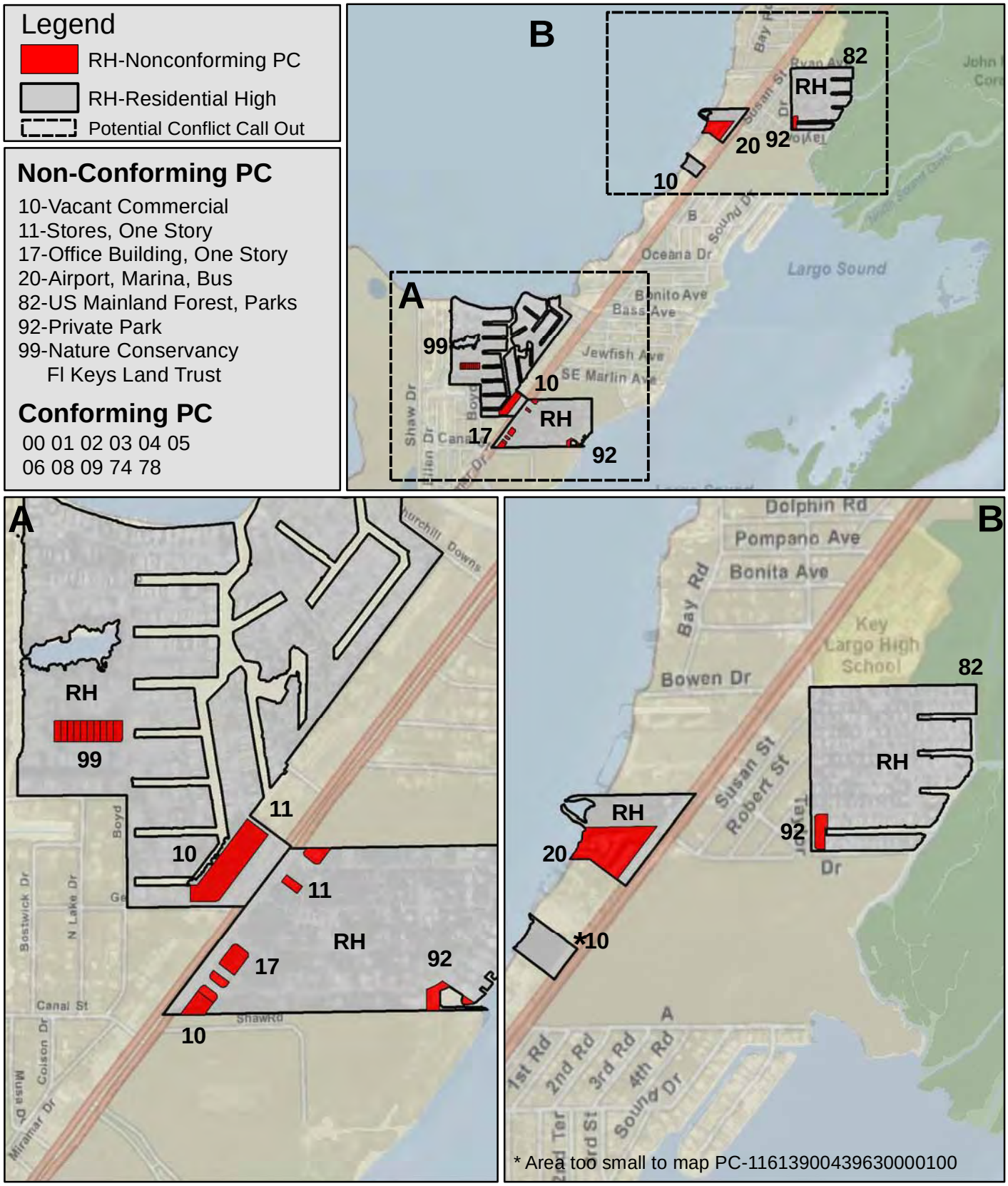
Upper Keys Planning Area

Potential Conflicts in Residential High District



Upper Keys Planning Area

Potential Conflicts in Residential High District



Upper Keys Planning Area

Potential Conflicts in Residential High District

Legend

RH-Nonconforming PC

RH-Residential High

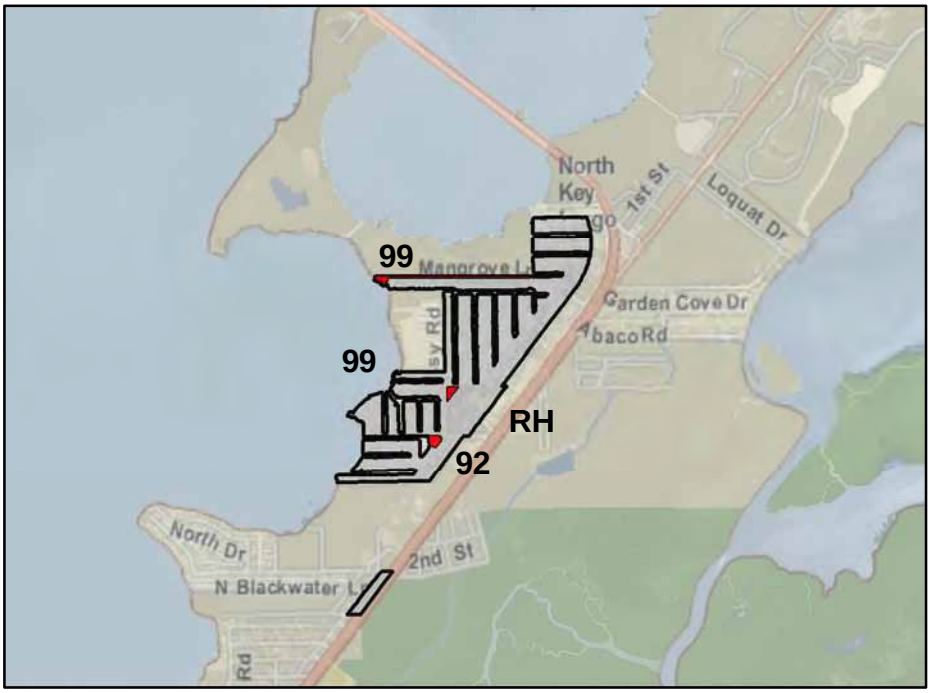
Potential Conflict Call Out

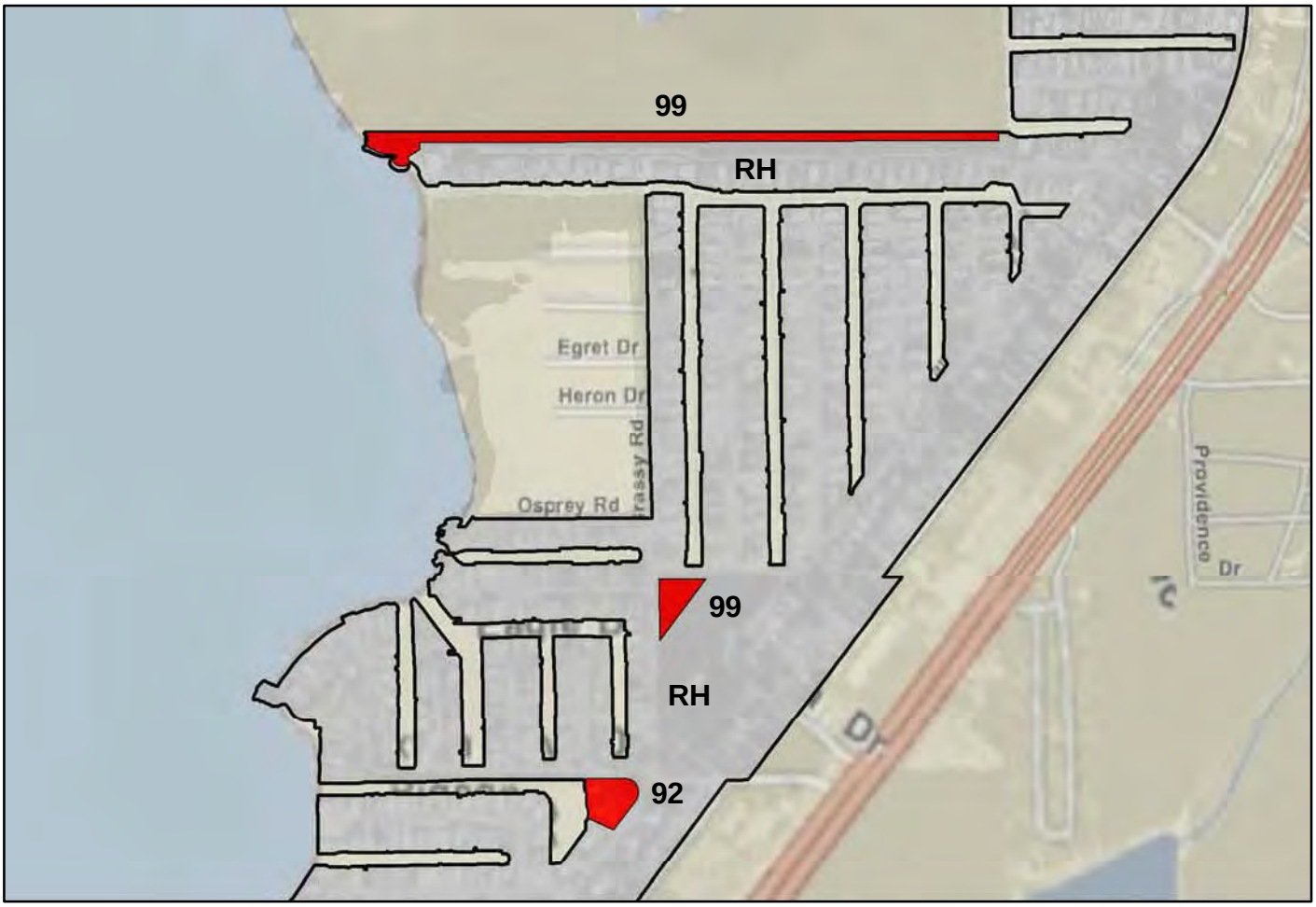
Non-Conforming PC

92-Private Park
99-Nature Conservancy
Fl Keys Land Trust

Conforming PC

00 01 02 03 04 05
06 08 09 74 78





Upper Keys Planning Area

Potential Conflicts in Residential High District

Legend

RH-Nonconforming PC

RH-Residential High

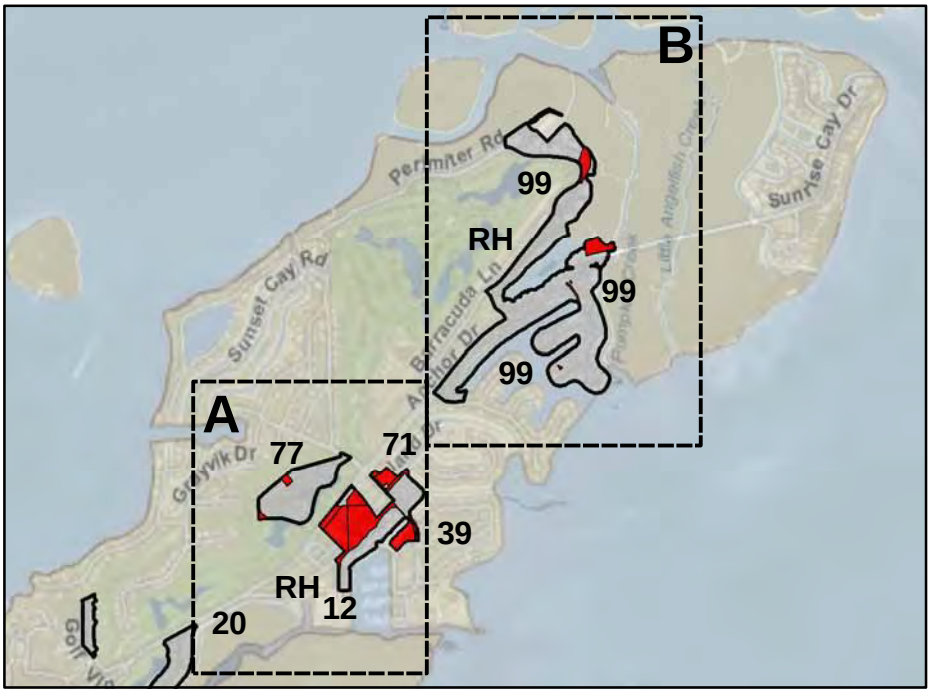
Potential Conflict Call Out

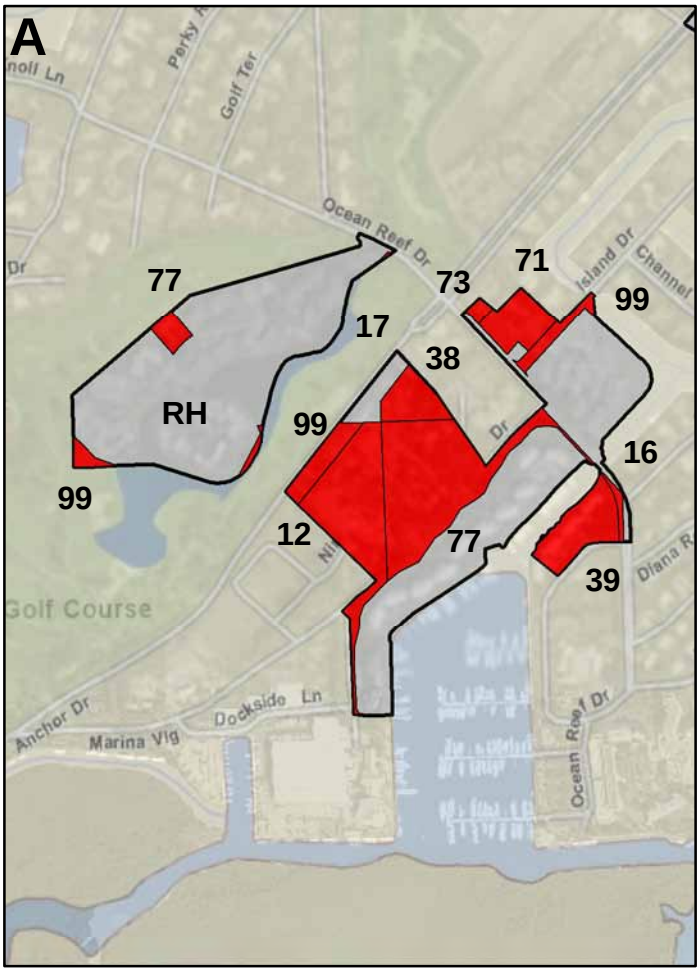
Non-Conforming PC

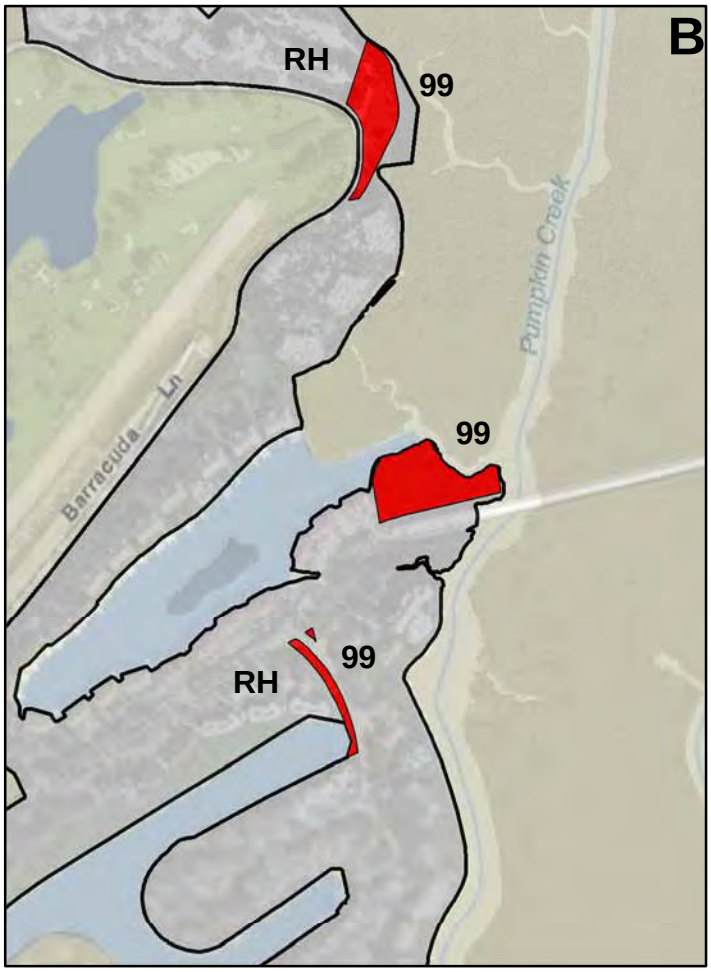
10-Vacant Commercial
11-Stores, One Story
17-Office Building, One Story
20-Airport, Marina, Bus
82-US Mainland Forest, Parks
92-Private Park
99-Nature Conservancy
Fl Keys Land Trust

Conforming PC

00 01 02 03 04 05
06 08 09 74 78

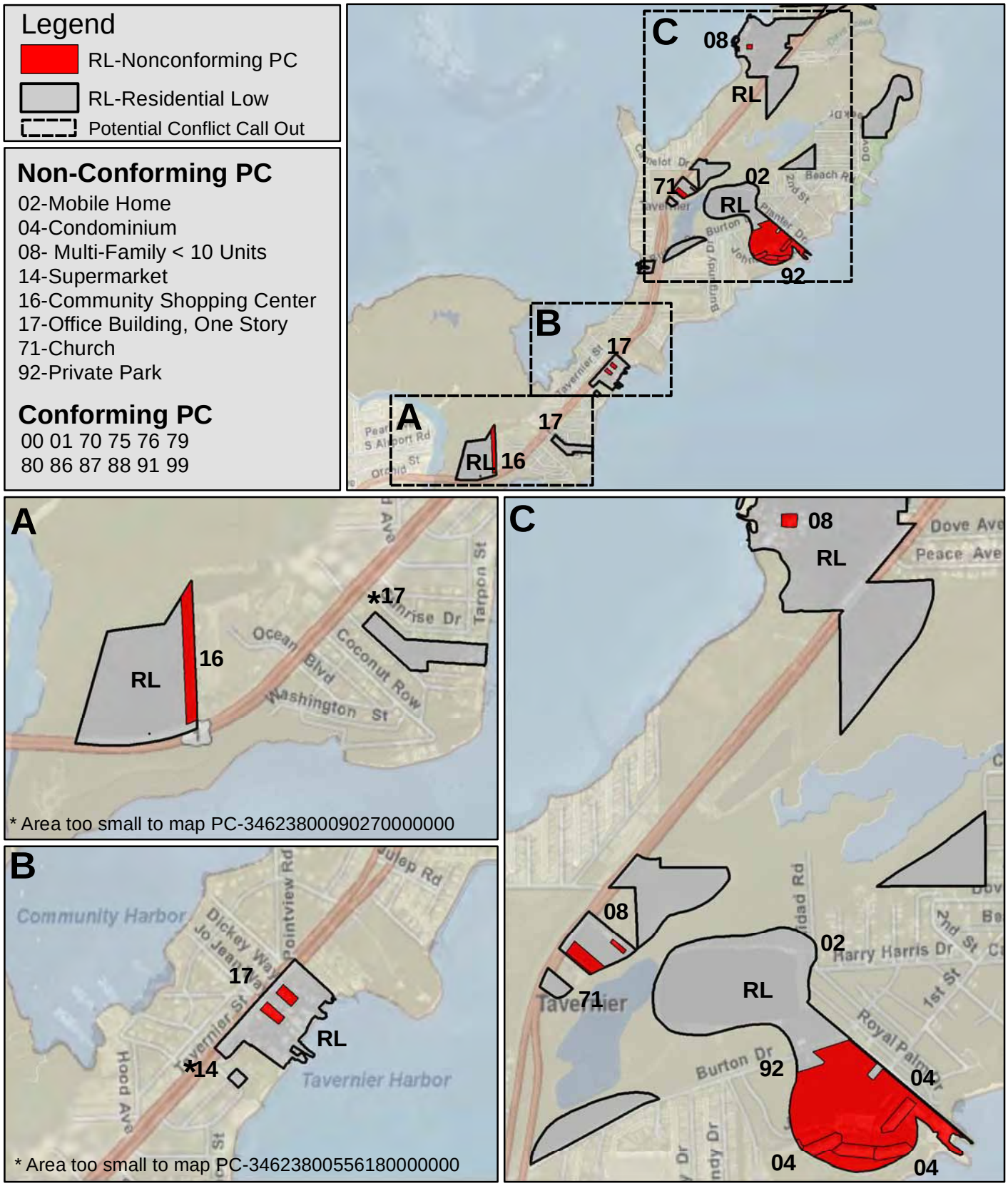






Upper Keys Planning Area

Potential Conflicts in Residential Low District



Upper Keys Planning Area

Potential Conflicts in Residential Low District

Legend

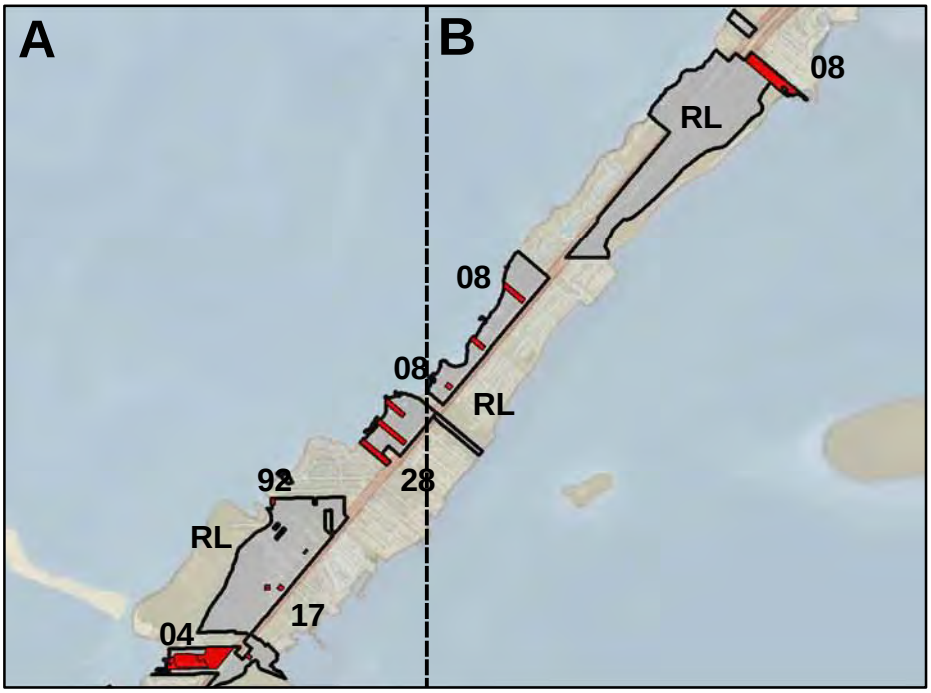
- RL-Nonconforming PC
- RL-Residential Low
- Potential Conflict Call Out

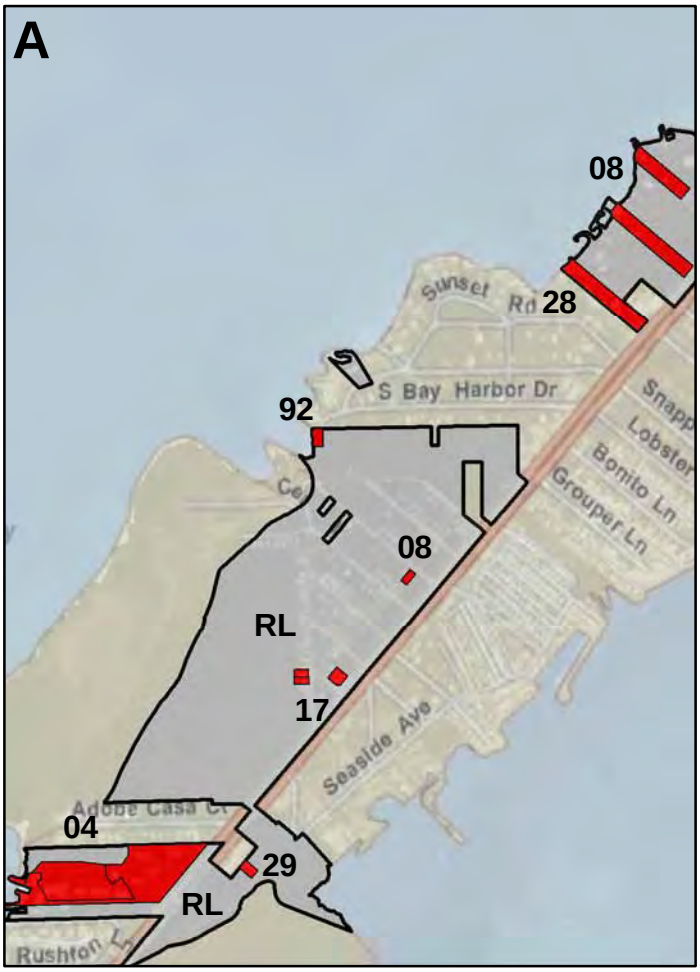
Non-Conforming PC

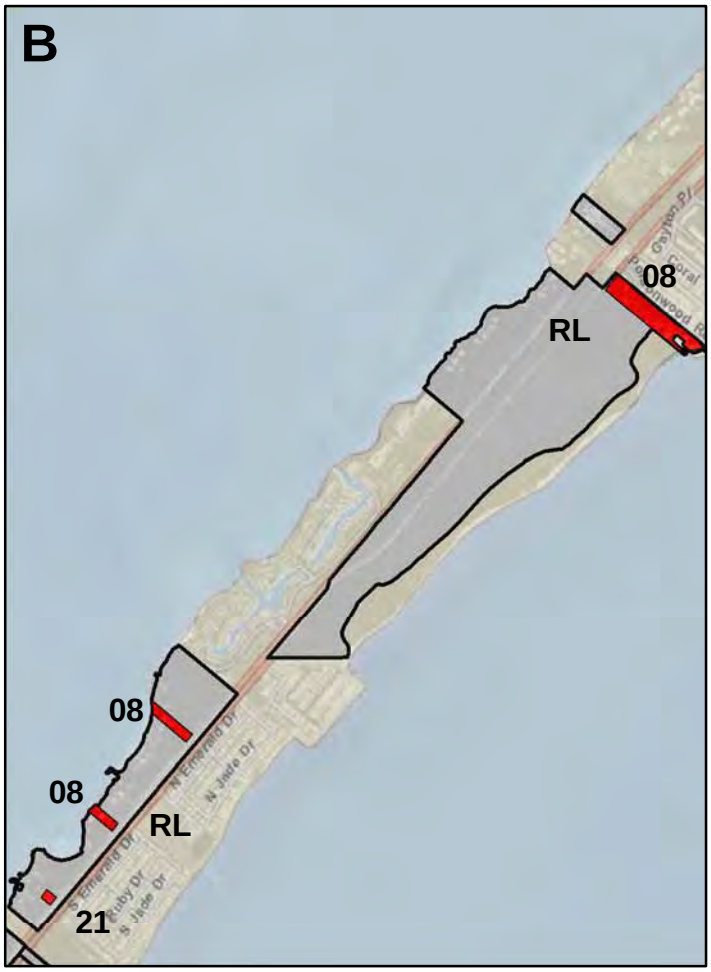
04-Condominium
08- Multi-Family < 10 Units
17-Office Building, One Story
21-Restaurant or Cafeteria
28-Parking, Mobile Lots
29-Wholesale Outlet
92-Private Park

Conforming PC

00 01 70 75 76 79
80 86 87 88 91 99

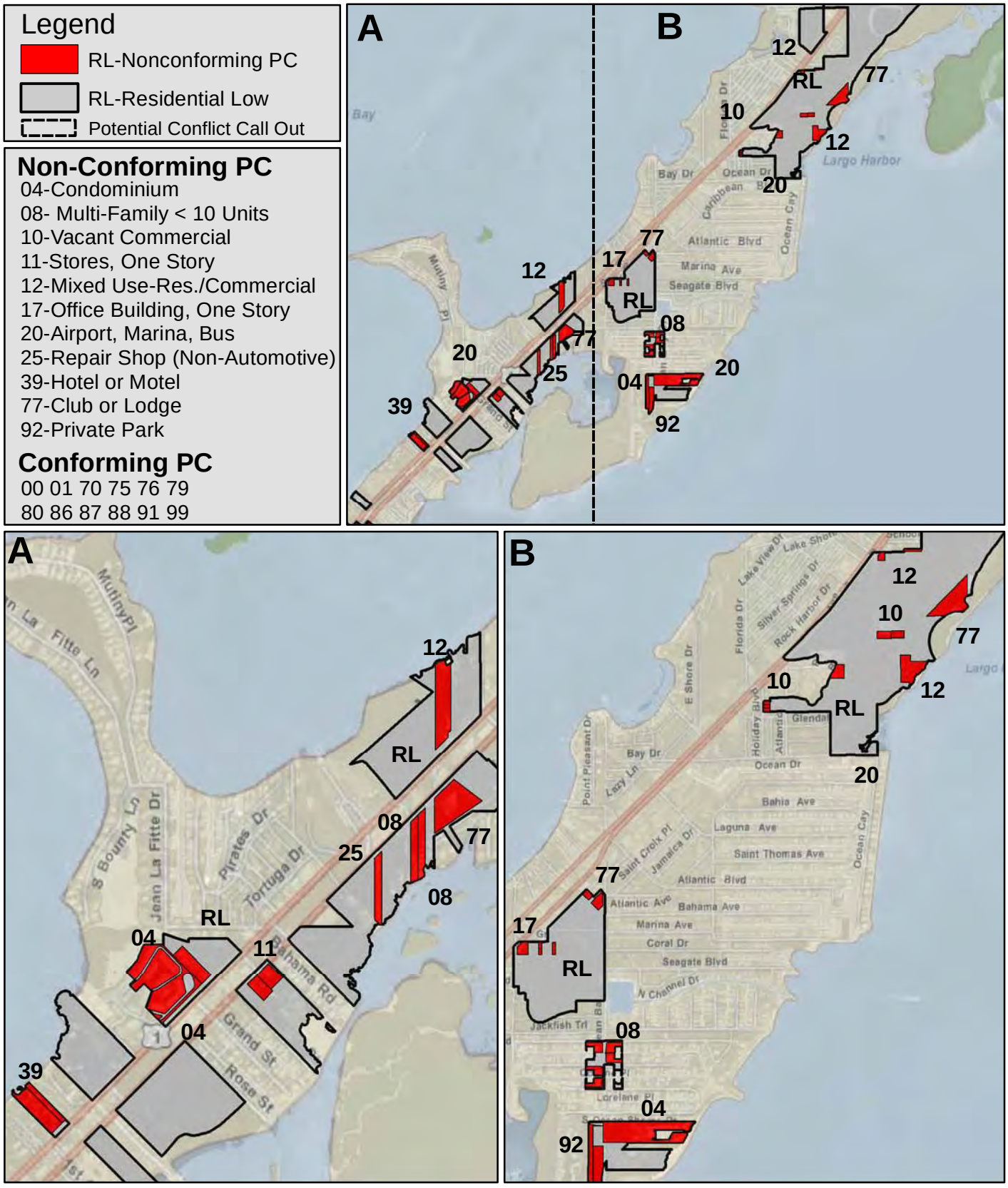






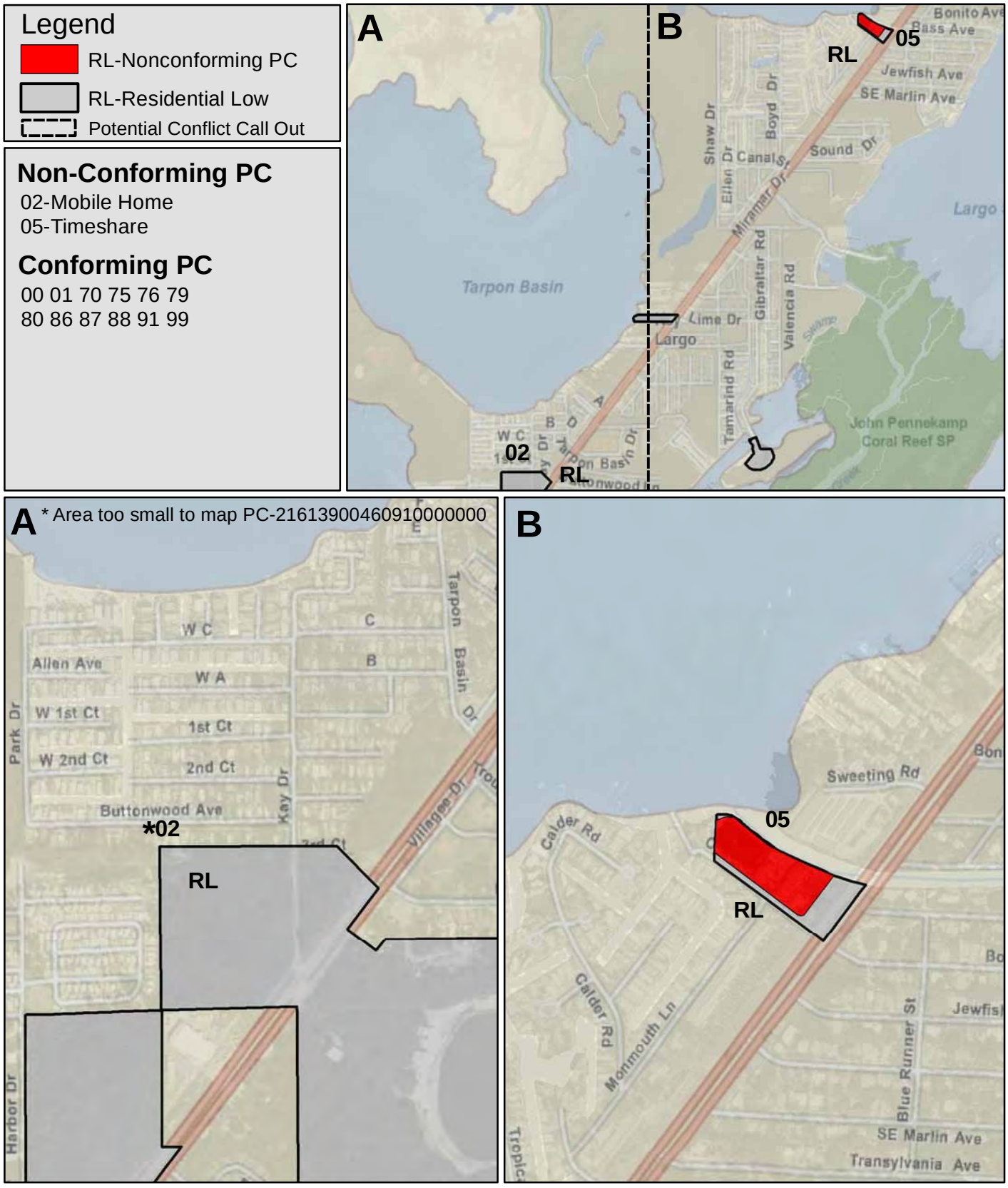
Upper Keys Planning Area

Potential Conflicts in Residential Low District



Upper Keys Planning Area

Potential Conflicts in Residential Low District



Upper Keys Planning Area

Potential Conflicts in Residential Low District

Legend

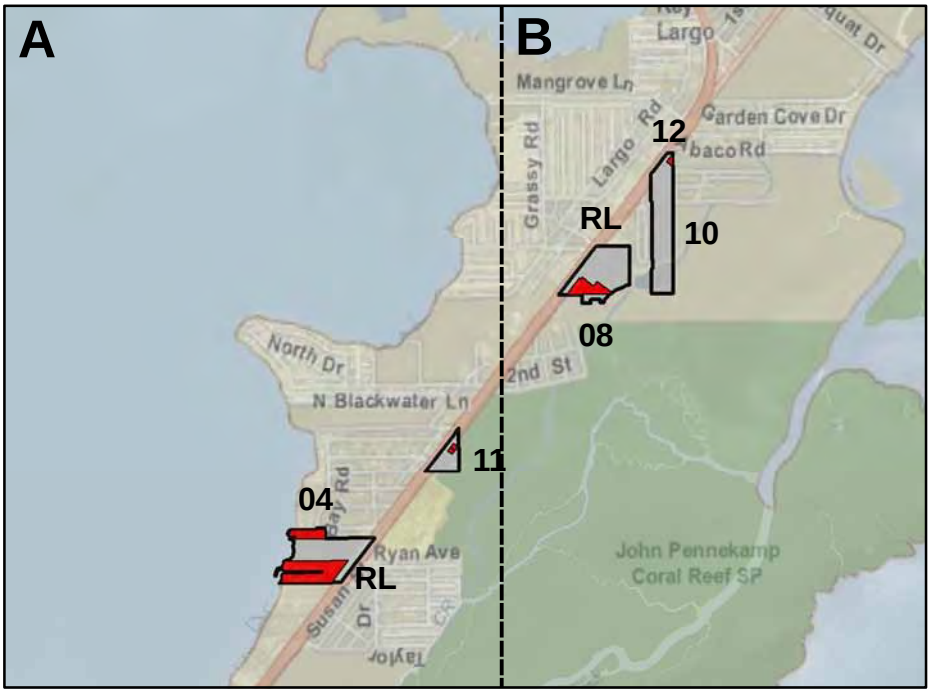
- RL-Nonconforming PC
- RL-Residential Low
- Potential Conflict Call Out

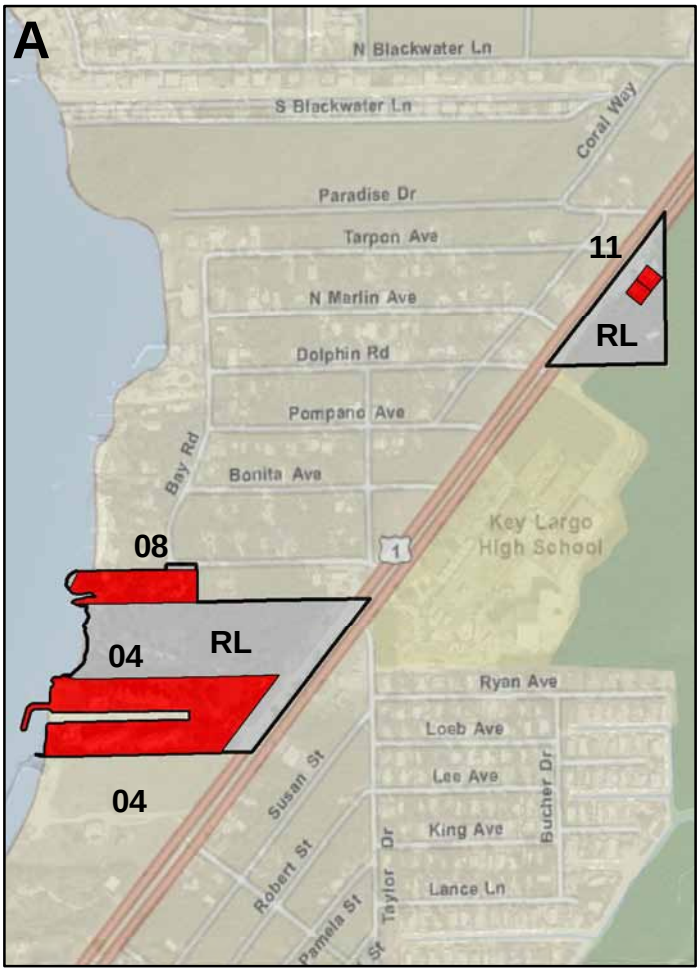
Non-Conforming PC

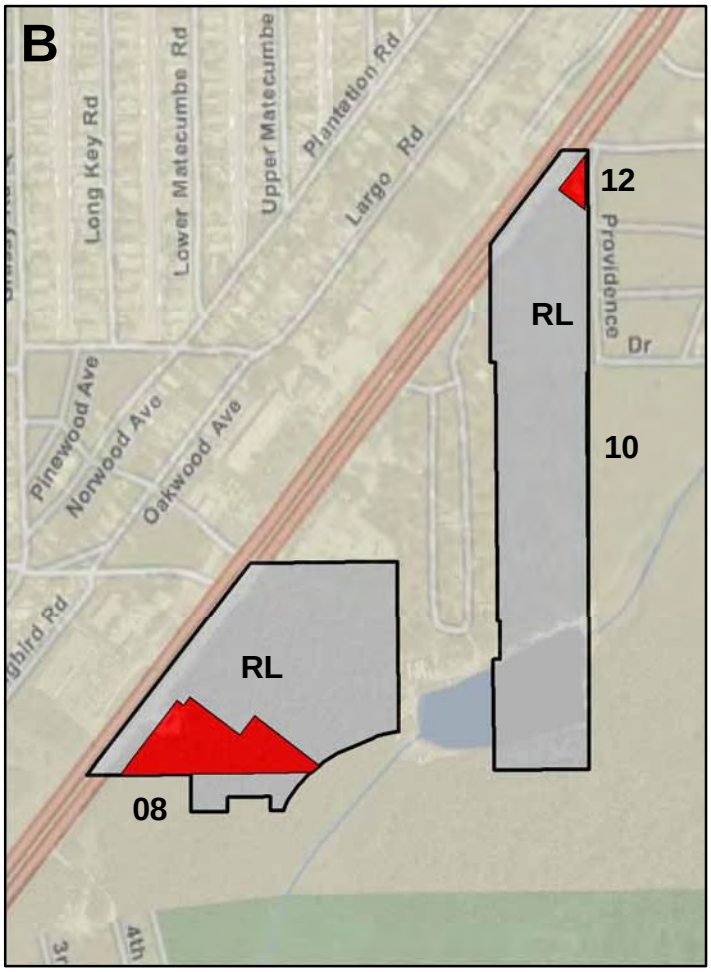
04-Condominium
08-Multi-Family < 10 Units
10-Vacant Commercial
11-Stores, One Story
12-Mixed Use-Res./Commercial

Conforming PC

00 01 70 75 76 79
80 86 87 88 91 99

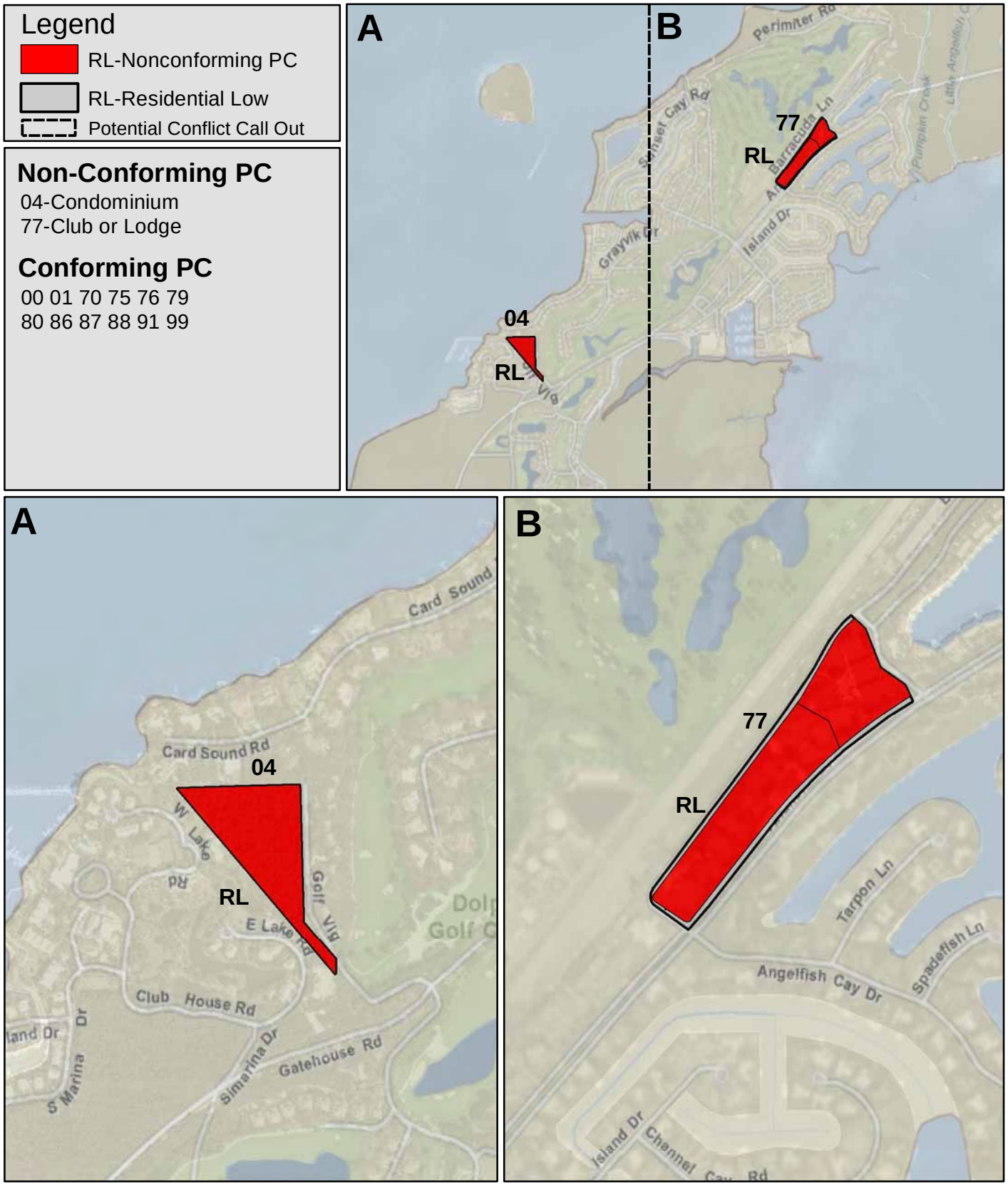






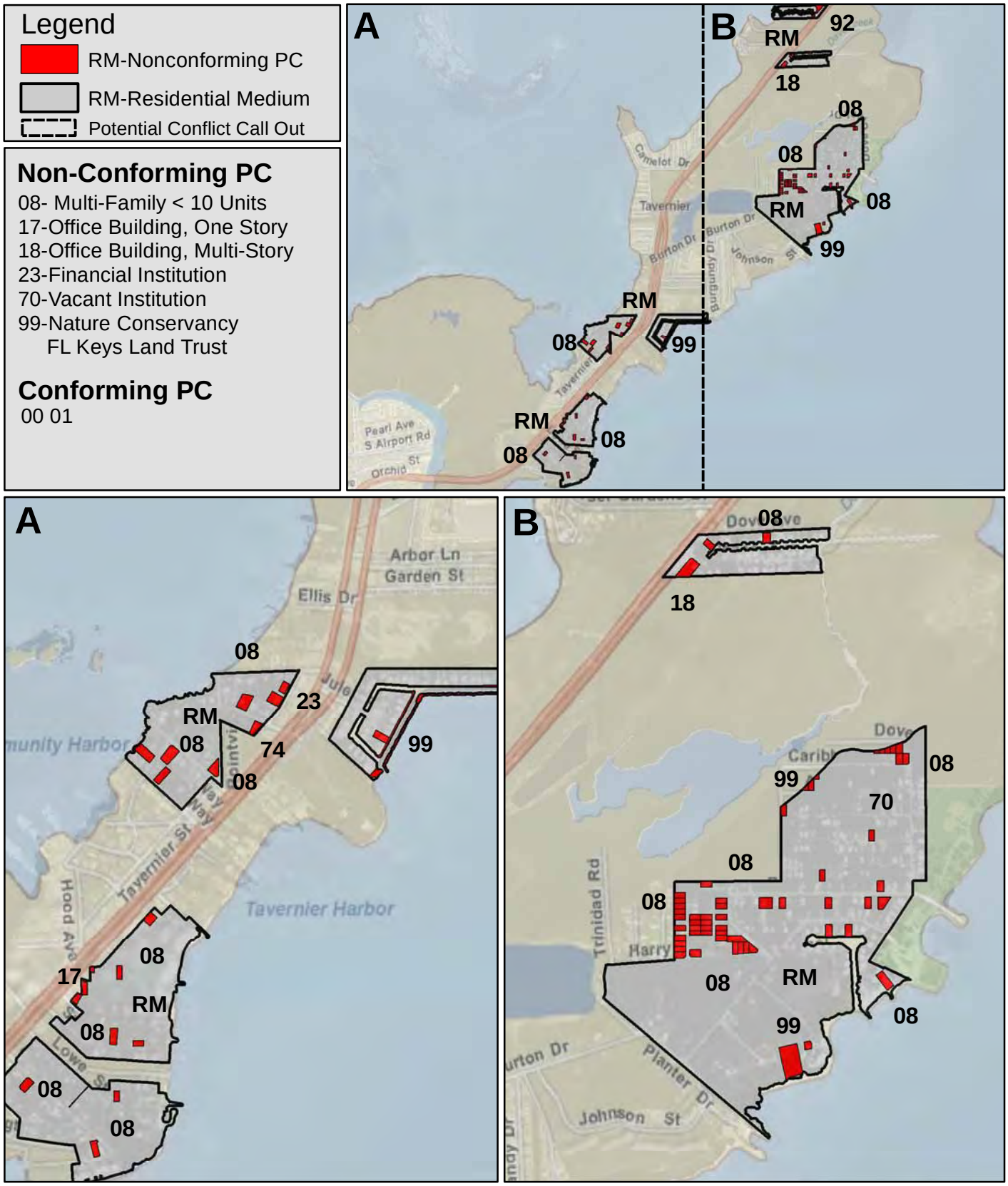
Upper Keys Planning Area

Potential Conflicts in Residential Low District



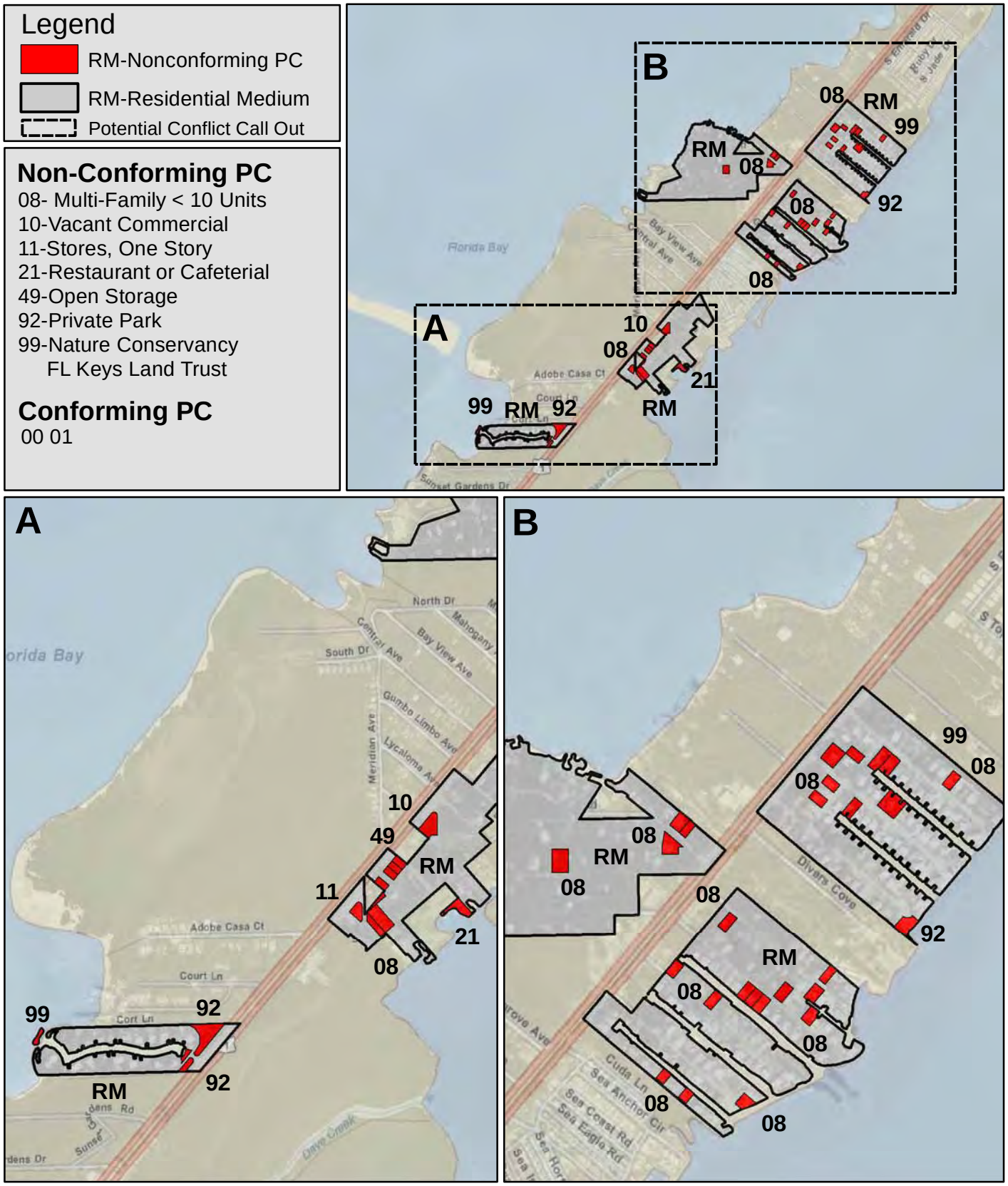
Upper Keys Planning Area

Potential Conflicts in Residential Medium District



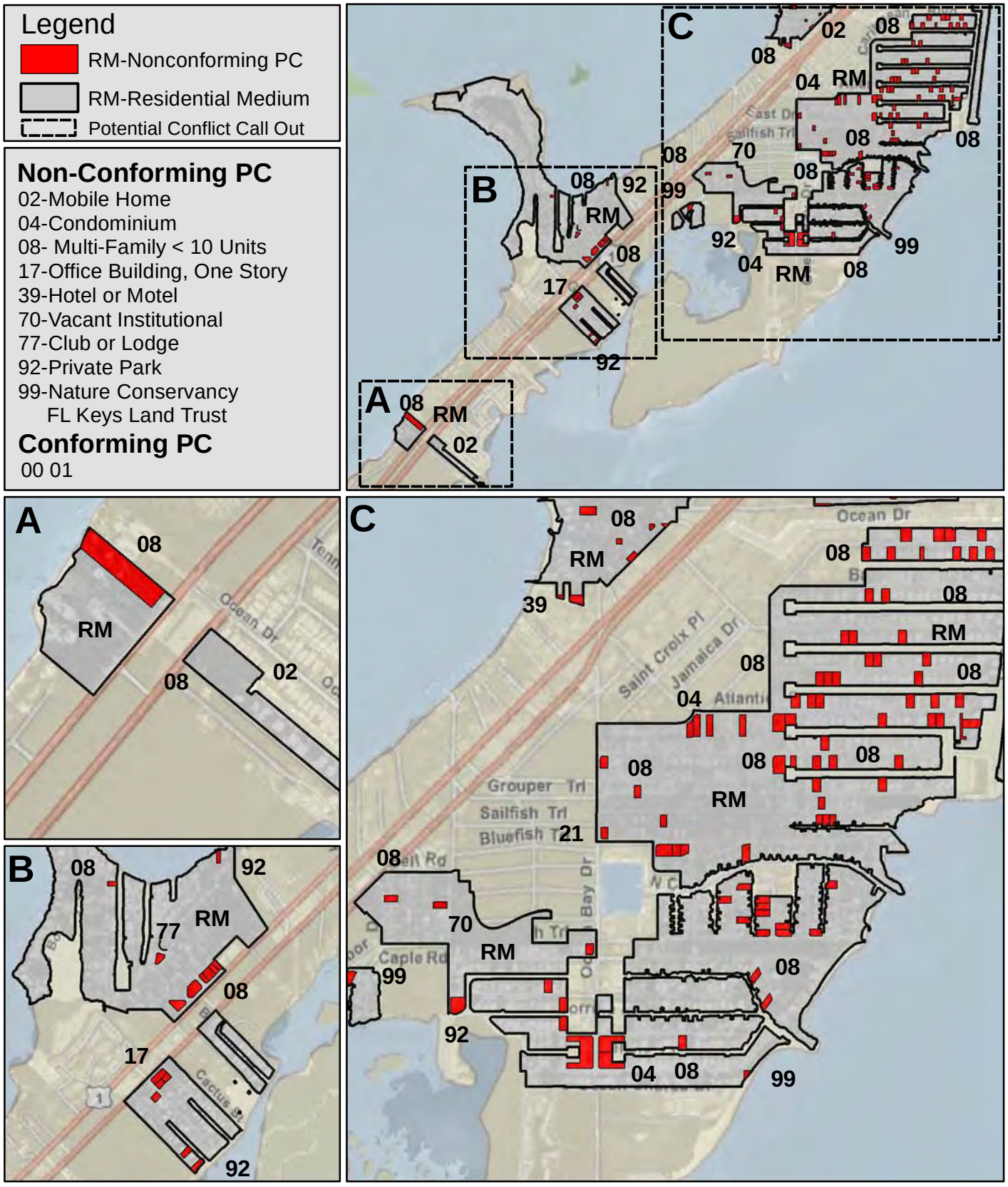
Upper Keys Planning Area

Potential Conflicts in Residential Medium District



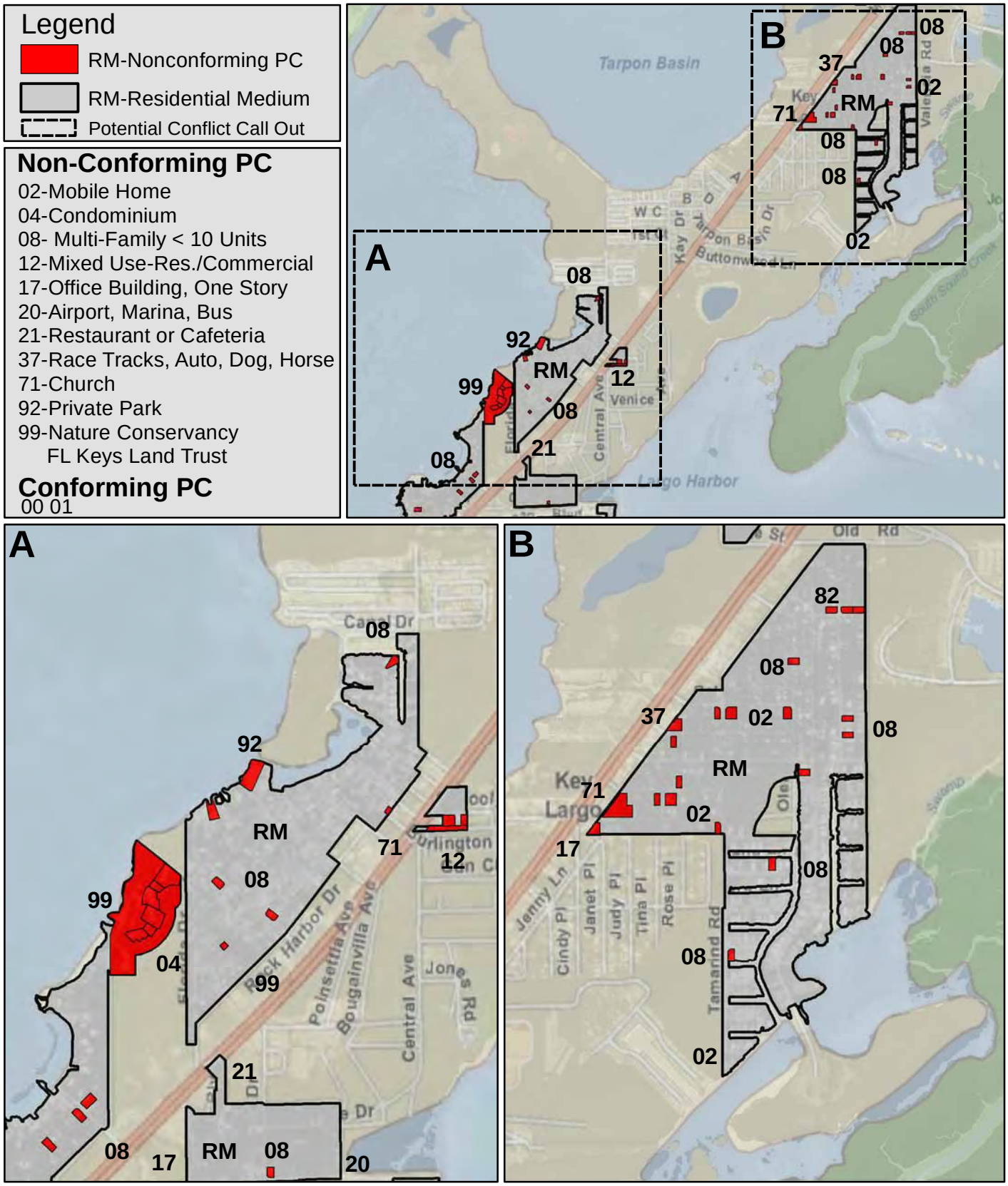
Upper Keys Planning Area

Potential Conflicts in Residential Medium District



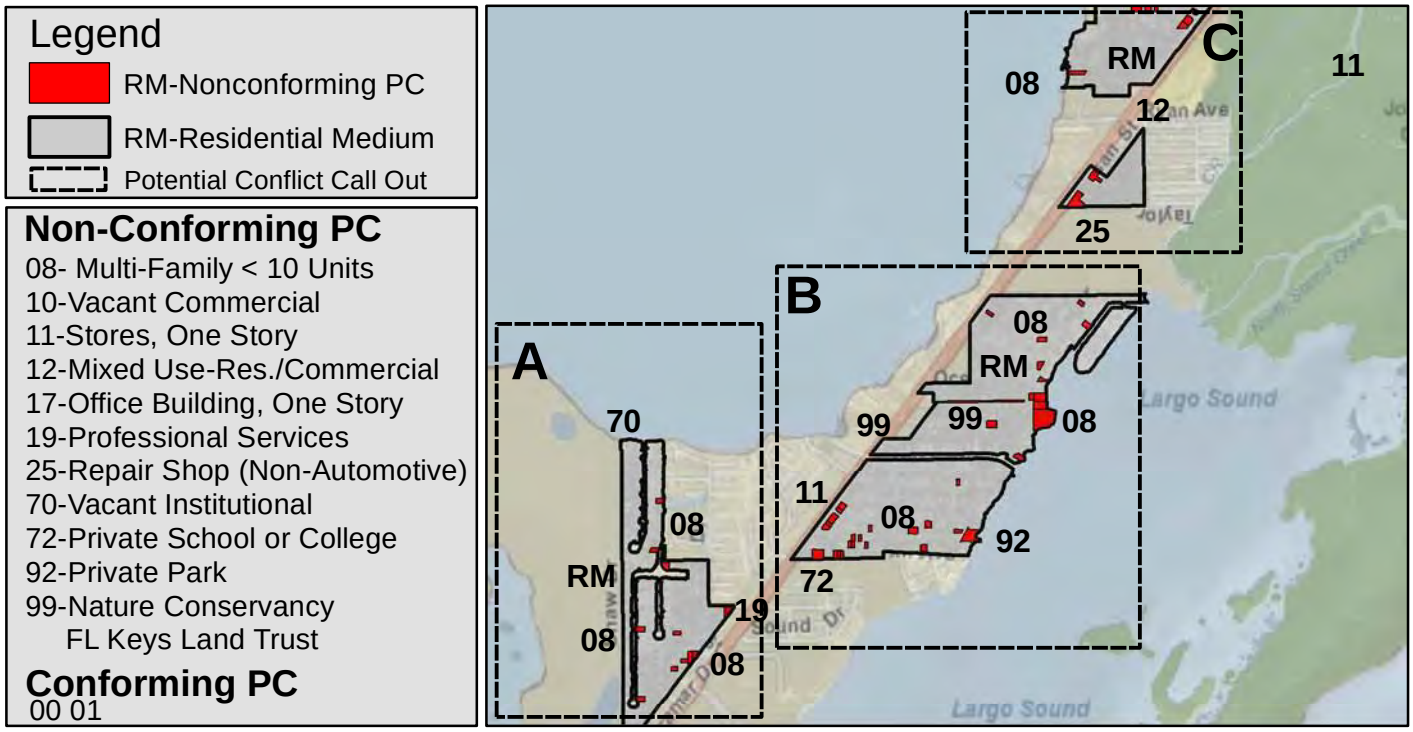
Upper Keys Planning Area

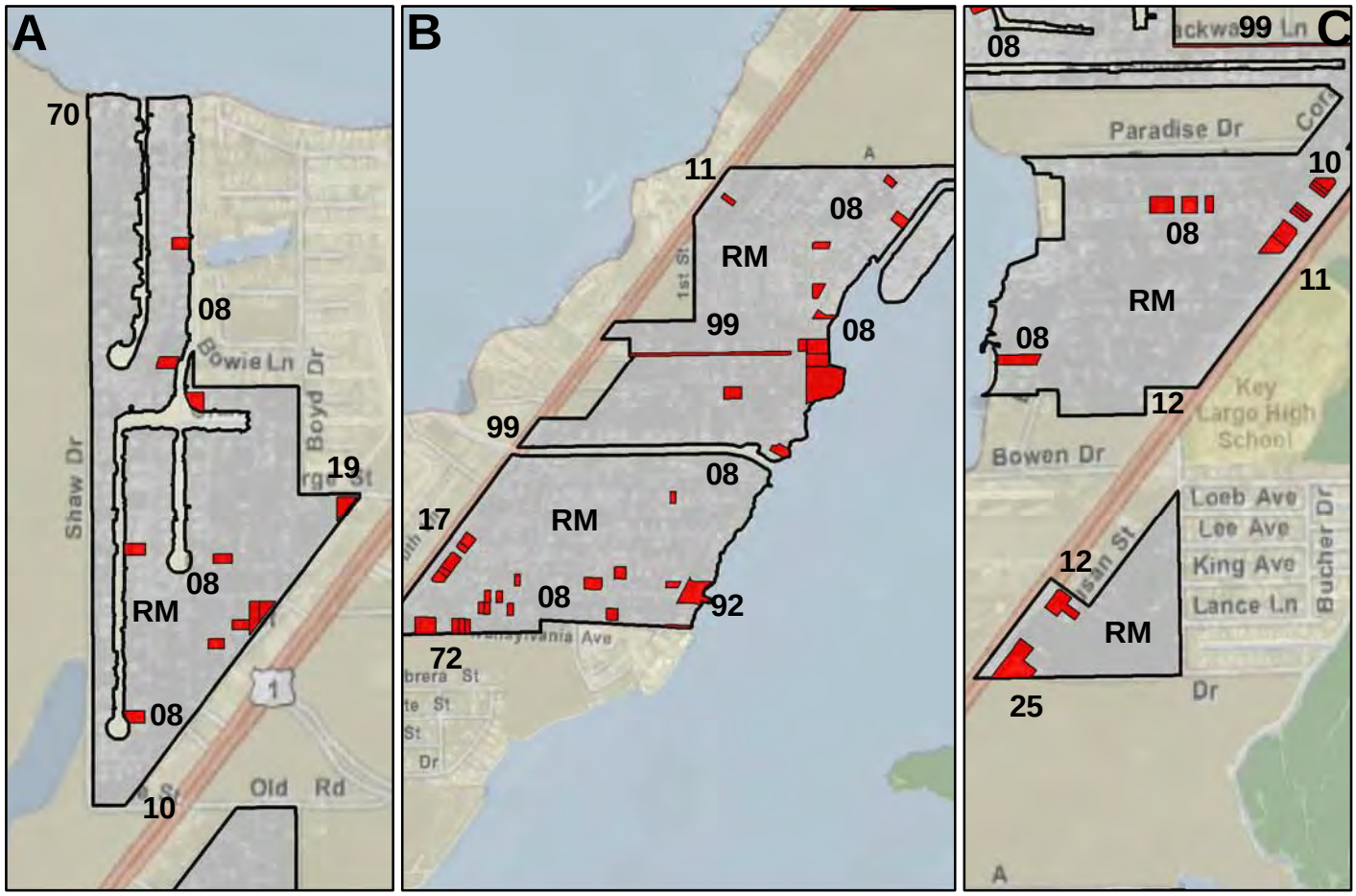
Potential Conflicts in Residential Medium District



Upper Keys Planning Area

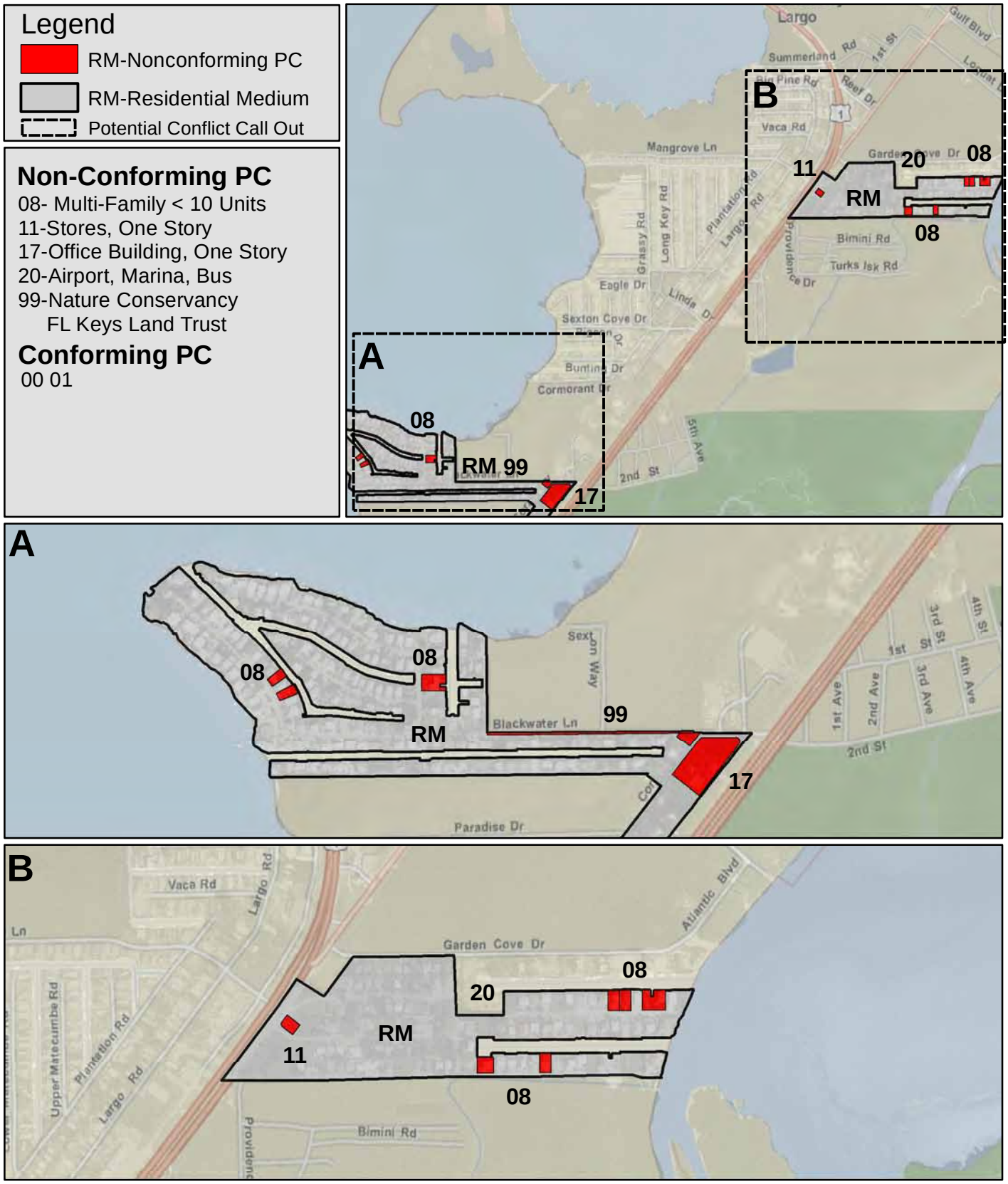
Potential Conflicts in Residential Medium District





Upper Keys Planning Area

Potential Conflicts in Residential Medium District



Upper Keys Planning Area

Potential Conflicts in Residential Medium District

Legend

RM-Nonconforming PC

RM-Residential Medium

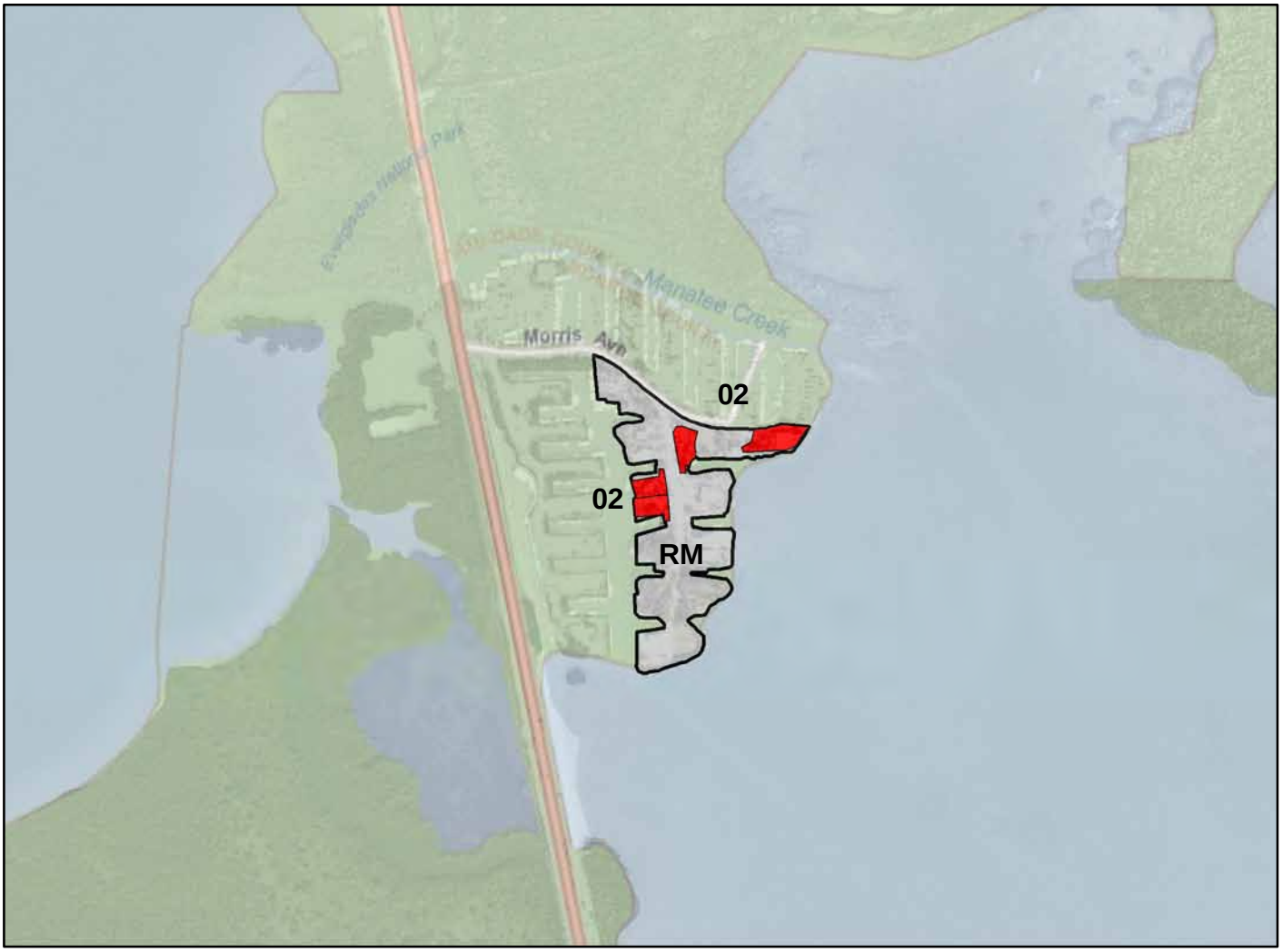
Potential Conflict Call Out

Non-Conforming PC

02-Mobile Home

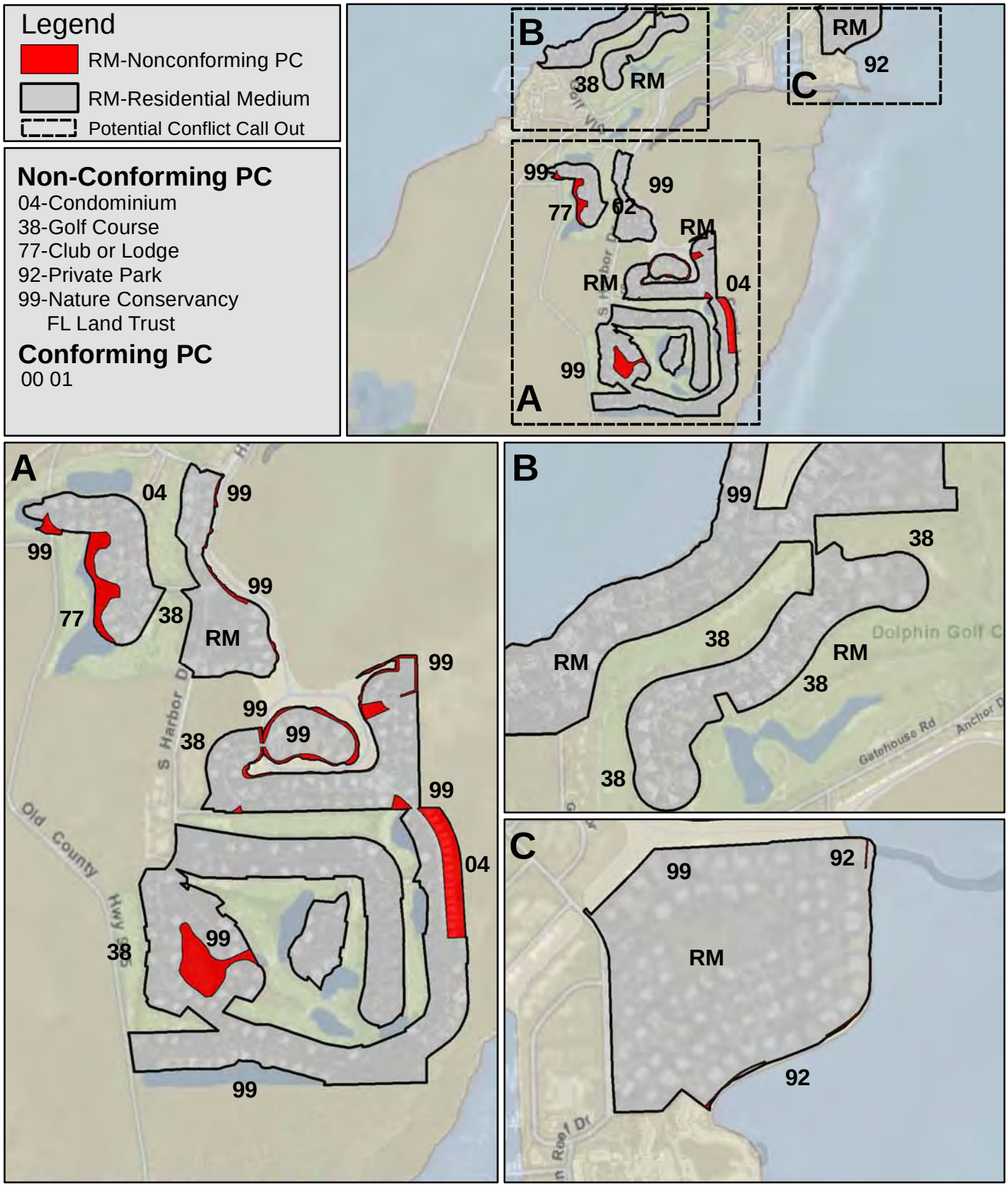
Conforming PC

00 01



Upper Keys Planning Area

Potential Conflicts in Residential Medium District



Upper Keys Planning Area

Potential Conflicts in Residential Medium District