

CHAPTER 2: COMMUNITY-WIDE ASSESSMENT

1. Population Analysis: Trends and Projections

Background

The population forecast was prepared¹ 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 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 2- 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

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							
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.