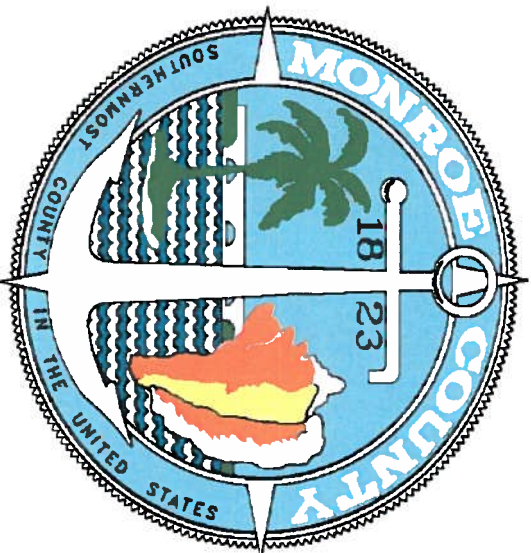


**County of Monroe
Growth Management Division**



We strive to be caring, professional and fair

INCIDENTAL TAKE PERMIT NUMBER TE083411-0

6th ANNUAL BIG PINE / NO NAME KEY MITIGATION REPORT

REPORTING YEAR 6: JANUARY 1, 2011 TO DECEMBER 31, 2011

County of Monroe

Growth Management Division

Department of Environmental Resources

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Board of County Commissioners

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George Neugent, Dist. 2
Sylvia J. Murphy, Dist. 5

We strive to be caring, professional and fair

CERTIFICATION

Pursuant to Block 11, K of Incidental Take Permit No. TE083411-0, the following certification is made:

Under penalty of law, I, *James Earl Shanks* certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of this report, the information submitted is true, accurate, and complete.

Table of Contents

SUMMARY	2
I. 2011 KEY DEER CENSUS.....	3
II. KEY DEER MORTALITY SUMMARY.....	3
III. KEY DEER MORTALITY DATA.....	4
IV. SUMMARY OF HABITAT MANAGEMENT ACTIVITIES.....	5
V. KEY DEER MORTALITY RATIO	5
VI. ANNUAL IMPACTS TO 500-METER LKMR BUFFERS	6
VII. CUMULATIVE IMPACTS TO MARSH RABBIT BUFFERS	7
VIII. LOWER KEYS MARSH RABBIT ROAD MORTALITY	7
IX. CUMULATIVE IMPACTS TO PROJECT AREA	7
X. DEVELOPMENT ACTIVITIES.....	9
XI. H VALUE ASSOCIATED WITH DEVELOPMENT	11
XII. CUMULATIVE H VALUE FOR ALL DEVELOPMENT.....	11
XIII. CONSTRUCTION OBSERVATIONS.....	12
XIV. ACQUISITIONS THROUGH DECEMBER 31, 2011	12
XV. ACQUISITIONS FOR 2011	12
XVI. CUMULATIVE “H” ACQUIRED	13
XVII. MANAGEMENT ACTIVITIES.....	13
XVIII. ASSESSMENT OF ALL MITIGATION PARCELS.....	14
IXX. EXOTIC / NUISANCE PLANT MONITORING REPORT.....	14
XX. MITIGATION CONFIRMATION STATEMENT	15
XXI. OTHER PERTINENT INFORMATION	16
XXII. UPDATED MASTER LIST OF ALL DEVELOPMENT	17

Exhibits

Exhibit 1	Map of Development Activities – Cumulative
Exhibit 2	Map of Development Activities – 2011
Exhibit 3	Map of Acquired Mitigation Parcels – Cumulative
Exhibit 4	Map of Acquired Mitigation Parcels - 2011

Appendices

Appendix I	Monroe County Land Steward Report
Appendix II	Master List

SUMMARY

Efforts to address the development impacts on the habitat of the Key Deer, Lower Keys Marsh Rabbit and the Eastern Indigo Snake on Big Pine Key and No Name Key started in the mid-1980s. In 1998, Monroe County, the Florida Department of Transportation (FDOT) and the Florida Department of Community Affairs (DCA), (permittees) signed a Memorandum of Agreement in which they committed to develop a Habitat Conservation Plan (HCP) for these two Keys.

The Habitat Conservation Plan (HCP) regulates development on Big Pine Key and No Name Key. It satisfies the functional and recreational needs of a rural community, while maintaining the long-term viability of covered species and their habitat. The HCP provides for minimization and mitigation of incidental take by regulating development and acquisition activities. The goals of the HCP ensure that future development activity does not have a negative impact on the Key Deer, Lower Keys Marsh Rabbit and the Eastern Indigo Snake. The Federal Incidental Take Permit, TE083411-0 (ITP) is the accompanying document to the HCP. The ITP has a twenty (20) year lifespan running from June 9, 2003 through June 30, 2023. The goal of the ITP is that acquisition will exceed development at a 3:1 ratio and habitat of the Key Deer, Lower Keys Marsh Rabbit and the Indigo Snake are kept above quasi-extinction population levels.

This is the 6th Annual Big Pine Key / No Name Key Mitigation Report. Each year Monroe County develops an annual report and presents it to the U.S. Fish and Wildlife Service. This report fulfills the requirements of the ITP, gives a full accounting of development and acquisition activities from March 13, 1995 through December 31, 2011 and it reports on the bank balance of the “H” value debited by development activities and credited by acquisition and conservation activities.

I. 2011 KEY DEER CENSUS

For January 1, 2011 to December 31, 2011

Average count for full year = 61.3

The Key deer road-count index (referred to as the Key deer “census”) value is the average count from multiple road count surveys throughout the year on Big Pine Key and No Name Key. Key deer census, road count, and count index are hereafter used interchangeably. The road counts are conducted on the USFWS Survey Route, approximately monthly. The 2011 road-count value was derived from 12 standardized count surveys. For the period January through December, 2011, the census value was 61.3. The 2010 value was 57.1. The 13-year average was 43.2 as of 2000, and 58.4 as of 2011. The record high count index value for any year since 1975 (when the counts were started) occurred in 2006 (71.5).

II. KEY DEER MORTALITY SUMMARY

The other index of Key deer abundance is the mortality index (human-caused deer deaths documented on Big Pine and No Name Keys). The human-caused mortality index was 153 in 2011, this value was 113 in 2010. The 2011 count (153 human-caused) is the highest on record since the mortality counts were started in 1966. The second highest was the 2009 value (126 human-caused). Prior to 2009, 2010 and 2011, the highest mortality index (human-caused; 105) occurred in 2005. In 2011, the total mortality count (all known mortalities from all causes) on Big Pine Key and No Name Key was 184; this value was 142 in 2010 and 155 in 2009. Prior to 2009, 2010 and 2011, the highest total count of all known mortalities (all causes) on Big Pine Key and No Name Key (132) occurred in 2003.

Over the long-term, the Big Pine Key-No Name Key mortality index (count of human-caused deaths documented over the year) and the road count index have illustrated a fairly strong direct correlation, with an overall positive trend in each. However, from 2009 to 2011, the count indices were average whereas the mortality indices were high, exceptionally high in 2011. The high mortality index was due to an increase in the absolute number of road-kills, or deer-vehicle collisions (DVCs).

	Com bat	Diseas	Dog	Drown	Entan	Poach	Road	Misc*	Unk	Total	Road as % Total
2007	1	7	0	4	1	1	83	1	15	113	73%
2008	0	2	0	4	1	1	86	2	24	120	72%
2009	0	4	0	4	2	2	117	1	25	155	75%
2010	2	7	0	7	1	0	106	1	20	144	74%
2011	2	13	6	3	3	0	138	3	16	184	75%

Human-caused shown in **bold**

*Miscellaneous, known human causes

The proportion of all known Big Pine and No Name Key deaths that were due to DVCs in 2011 (75 percent) was similar to 2007, 2008, 2009, and 2010 (73, 72, 75, and 74 percent, respectively). In 2011, 83% of the total known Big Pine and No Name Key mortalities were attributed to all human causes combined (79-81% in 2007-2010). The long-term average proportion (encompassing 1966-2011) is approximately 83%. From 1983 to 2001, the 13-year average attributed to human causes had gradually declined from 91% to 73%. The 13-year average attributed to human causes (79% in 2011) has risen gradually since subsequent to the 2001 low (73%). Some of the deaths for which the cause was “undetermined”, and likely even some disease deaths, undoubtedly include a substantial number of cases that may actually be attributable to human causes, particularly DVCs. However, an unknown number of both natural and human-caused deaths go entirely undetected.

Of the road mortalities in which sex was determined since 1966, approximately 39% were females and 61% were males.

DVCs on U.S.1 comprised approximately 63 percent of all DVCs on Big Pine Key during 2011. Of the road mortalities documented since 1966, approximately 53 percent were on U.S.1. The 2011 proportion (63%) was the highest value since 1996 (70%). Similarly, DVCs on U.S.1 comprised approximately 62 percent of all mortalities from all sources on Big Pine Key and No Name Key combined. Of the total mortalities documented since 1966, approximately 50 percent were on U.S.1. The 2011 proportion (62%) was the highest value since 1996 (66%).

The proportion of DVCs that occurred on Big Pine Key overall was approximately 98 percent (grand mean, 94%; 13-year average ending 2011, 96%). The proportion of DVCs that were attributed to No Name Key was approximately 2 percent (grand mean, 6%; 13-year average ending 2011, 4%).

The long-term proportion of Big Pine and No Name Key deaths attributed to disease (1966—2006) was approximately 2 percent. The 13-year average increased from approximately 0.1 percent in 1966 to 5 percent (6.3 individual deer) as of 2011. The proportion appears higher in recent periods (5%, 1991-2011) compared to earlier decades (less than 1%, 1966-1990). The 2011 value (approximately 7%) was consistent with the more recent average.

III. KEY DEER MORTALITY DATA

In 2011, as in 2009 and 2010, the mortality index was significantly higher than other years on record. However, based on available information including the two indices (summarized above), little can be surmised about the cause of the high values in 2011. Specifically, road mortalities increased, either commensurate with increased key deer population levels recently (which may or may not be well indicated by the count index on a given year), or mortalities occurred at a higher per capita rate than in previous years (e.g., mortality index represented an actual increase in mortality, and count index represented an actual lack of population increase). If the latter is true, one evident factor

that could partially explain it is that the proportion of mortalities attributed to U.S.1 was relatively high in 2011 (although this was not the case in 2009 and 2010, which had the next to highest mortality index values).

In the context of the long term record of the count index, the overall data from recent years seemed to indicate a possible reduction of the population growth rate (i.e., due to increased per capita mortality [abundance could decline], or simply a higher mortality rate with population growth [limits on the ongoing increase]) as of the late-1990s. **Key deer may have attained or exceeded carrying capacity within the HCP area, which is the core of the Key deer's range.** Accordingly, in the absence of new and substantial threats or major changes in habitat that result in major changes in food availability and/or survival, the Key deer population within the core may fluctuate around carrying capacity (the actual value of which cannot be directly calculated). Numerical fluctuations will result from source-driven and random variation in factors including environmental influences, annual productivity of the landscape, mortality rates, and annual variation in female productivity.

DVCs remain the prominent source of Key deer mortality. Roadside feeding may exacerbate the threat of DVCs to a subset of Key deer. However, The National Key Deer Refuge believes that roadside feeding in recent years is somewhat less than in earlier periods. Additionally, roadside feeding only increases the probability of risk within a subset of the overall population. Though roadside feeding may directly or indirectly influence DVCs to some degree, the more profound impacts of feeding in any context are changes in Key deer social behavior, movement, dispersion, nutrition, and possibly genetic patterns.

IV. SUMMARY OF HABITAT MANAGEMENT ACTIVITIES

The Monroe County Land Steward is responsible for managing all of the County's conservation lands, including the County's mitigation properties on Big Pine and No Name Keys. Over the past year, the Land Steward has conducted numerous invasive exotic plant removal projects, site cleanups and native plantings on County mitigation properties within the Big Pine Key planning area. Work sites included properties within Sands, Darios and Eden Pines Subdivisions and unplatted properties outside of subdivisions. Site work was completed by independent contractors and/or Monroe County Public Works Department working with the Land Steward.

V. KEY DEER MORTALITY RATIO

$$\begin{array}{l} \text{For January 2011 through December 2011} \\ \text{Ratio} = \frac{\text{human-related deaths}}{\text{average deer seen}} = \frac{153}{61.3} = 2.50 \end{array}$$

For January 2010 through December 2010

$$\text{Ratio} = \frac{\text{human-related deaths}}{\text{average deer seen}} = \frac{113}{57.1} = 1.98^1$$

For January 2009 through December 2009

$$\text{Ratio} = \frac{\text{human-related deaths}}{\text{average deer seen}} = \frac{126}{63.9} = 1.97$$

The ratio of human-related deaths (mortality index) to average number of deer seen (count index), 2.50, was well above the upper boundary of the 95% confidence interval (1.53) defined in the HCP, and substantially above the previously high value (1.98 in 2010) since the late 1980s. The 13-year average as of 2000 was 1.42 (95% CI=0.15). The 13-year average as of 2011 was 1.70 (95% CI=0.17). Compared to either of these multi-year ranges, the ratios in 2009, 2010, and 2011 were well outside the stated confidence limits.

VI. ANNUAL IMPACTS TO 500-METER LOWER KEYS MARSH RABBIT BUFFERS

January 1, 2011 – December 31, 2011

For Reporting Year 6, seven (7) development permits were issued resulting in 16,000 square feet of land impacting the Marsh Rabbits' 500-meter wetland buffer. No development permits were issued outside the Lower Keys Marsh Rabbit green zone.

2011 ANNUAL DEVELOPMENT IMPACT TO THE 500-METER WETLAND MARSH RABBIT BUFFER AREAS

REAL ESTATE	PERMIT NUMBER	ISSUE DATE	PERMIT TYPE	IMPACTS (BY ACREAGE)
00250150-000000	11100039	8/26/2011	SFR	0.172
00250390-000000	11102869	10/21/2011	SFR	0.172
00250520-000000	11101010	11/28/2011		0.172
00285310-000000	10107566	12/22/2011		0.12
00310700-000000	5101712	2/11/2011	Replacement SFR	0
00313620-000000	5102823	8/25/2011		0.17
00313820-000000	5102824	8/16/2011		0.17
		TOTAL PARCELS IMPACTED	(BY ACREAGE)	0.976

¹ The 2010 data reported a mortality index of 1.98, with human related deaths at 113

VII. CUMULATIVE IMPACTS TO MARSH RABBIT BUFFERS

Since 2003, the cumulative impact of all development projects affecting buffers for the Lower Keys marsh rabbit is 43.9 acres. Cumulative impacts to the Lower Keys Marsh Rabbit buffer since permit issuance (June 9, 2006) are 18.64 acres.

VIII. LOWER KEYS MARSH RABBIT ROAD MORTALITY

In both 2006 and 2007, the occurrence of at least one road kill on Big Pine Key was verbally reported by local naturalists, but not otherwise substantiated. In 2008, at least two mortalities were detected and the carcasses retrieved. One was killed by a vehicle on Wilder Road, along a stretch where a rabbit had previously been seen by USFWS personnel fleeing from a cat. In 2009, one was taken from Big Pine Key to a veterinarian, where it died. It reportedly involved a vehicle strike, but no other details were conveyed. A necropsy conducted on that mortality suggested that a predation attempt was likely, but that subsequently, a vehicle strike may have occurred as well. These observations indicate, as per the literature on Lower Keys marsh rabbits, that cats continue to suppress rabbit populations and that vehicle strikes are an additional threat. In 2010, no road mortalities were detected on Big Pine, No Name, or other areas outside of Naval Air Station Key West. In late February, 2011, one LKMR road mortality occurred and was retrieved on Key Deer Blvd., Big Pine Key.

IX. CUMULATIVE IMPACTS TO PROJECT AREA SINCE PERMIT ISSUANCE (6/9/2006)

REAL ESTATE NUMBER	PERMIT NUMBER	ISSUE DATE / DATE LAND ACQUIRED	PERMIT TYPE	ACRES
00249720-000000	98100115	10/26/2006	SFR	0.34
00316150-000000	97101902	10/26/2006	SFR	0.41
00313100-000000	98100811	11/22/2006	SFR	0.26
00245720-000000	03103814	1/2/2007	SFR	0.15
00249130-000000	04104077	1/10/2007	SFR	0.17
00248460-000000	04102831	1/17/2007	SFR	0.17
00248980-000000	04101652	1/18/2007	SFR	0.17
00245880-000000	07100308	1/19/2007	SFR	0.15
00249660-000000	06106296	1/19/2007	SFR	0.17
00249900-000000	07100309	1/19/2007	SFR	0.17
00249150-000000	03104466	1/24/2007	SFR	0.17
00248390-000000	05101386	1/25/2007	SFR	0.18
00285290-000000	03102339	1/25/2007	SFR	0.19
00285300-000000	04100750	1/25/2007	SFR	0.12
00247780-000000	04104936	2/23/2007	SFR	0.17
00312571-000200	97101893	3/12/2007	SFR	0.37

MONROE COUNTY

6th ANNUAL BIG PINE KEY / NO NAME KEY MITIGATION REPORT

JANUARY 1, 2011 - DECEMBER 31, 2011

P. 7 of 18

00248700-000000	05101709	3/26/2007	SFR	0.17
00249380-000000	05102876	3/26/2007	SFR	0.17
00248310-000000	05103866	3/30/2007	SFR	0.17
00312572-003300	02100058	4/23/2007	SFR	0.14
00309761-000101	97101413	5/3/2007	SFR	0.58
00286360-000000 - MARINER'S	07101477	7/31/2007	Commercial	10.17
00248960-000000	02105130	8/16/2007	SFR	0.17
00247930-000000	05104608	8/24/2007	SFR	0.18
00245900-000000	05106221	8/30/2007	SFR	0.15
00245600-000000	06100466	9/20/2007	SFR	0.14
00109340-000300	99103072	12/21/2007	SFR	0.14
00111420-000100	05105317	2/1/2008	Commercial	1.02
00111420-000500	05105321	2/1/2008	Commercial	1.02
00111420-000100	07102786	2/1/2008	SFR	1.02
00111420-000100	07103037	2/1/2008	SFR	
00111420-000500	07102787	2/1/2008	SFR	1.02
00111420-000500	07103036	2/1/2008	SFR	
00111460-000000	02100313	4/23/2008	Public	1.64
00289710-000000	03102303	4/29/2008	SFR	0.12
00249660-000000	06106296	5/13/2008	SFR	0.17
00245880-000000	07100308	6/5/2008	SFR	0.15
00249900-000000	07100309	6/5/2008	SFR	0.17
00246170-000000	07105045	8/13/2008	SFR	0.14
00249040-000000	07104806	9/16/2008	SFR	0.17
00111090-000000 & 00275620-000000	07105046	11/21/2008	Commercial	1.26
00312572-003400	04100574	12/8/2008	SFR	0.14
00266770-000000	06104582	2/9/2009	SFR	0.35
00266780-000000	06104582	2/19/2009	SFR	0.00
00248690-000000	08102594	3/12/2009	SFR	0.17
00111690-000900	08103853	4/24/2009	Commercial	3.02
00247820-000000	08103005	8/25/2009	SFR	0.17
00250410-000000	09101886	10/30/2009	SFR	0.17
00296820-000000	97101361	12/16/2009	SFR	0.17
00111690-000400	09105095	1/4/2010	Commercial	1.99
00250510-000000	09102323	3/8/2010	SFR	0.17
00248640-000000	09102011	5/20/2010	SFR	0.17
00313510-000000	05103051	12/1/2010	SFR	0.20
00247640-000000	10105246	1/19/2011	SFR	0.18
00310700-000000	5101712	2/11/2011	SFR	0.15
00110830-000103	8103871	7/12/2011	SFR	1.12
00313820-000000	5102824	8/16/2011	SFR	0.17
00313620-000000	5102823	8/25/2011	SFR	0.17
00250150-000000	11100039	8/26/2011	SFR	0.17
00250390-000000	11102869	10/21/2011	SFR	0.17
00250520-000000	11101010	11/28/2011	SFR	0.17
00285310-000000	10107566	12/22/2011	SFR	0.12
				32.58

X DEVELOPMENT ACTIVITIES

a. March 13, 1995 – December 31 2010

The total "H" value of all development activities between March 13, 1995 and December 31, 2010 is 0.3538 "H" value. See Master List (Appendix). The reported "H" impact for Reporting Year 5 (2010) was .3563, however this value included permits which have expired and therefore impacts did not occur. The value reported in this report is based on analysis of the master list and comparison of issued permits and is accurate to the best of the County's knowledge.

b. January 1, 2011 – December 31, 2011

The total "H" value for Reporting Year 6 is 0.00742 "H".

SFR							
RE	Permit	Permit Issue Date	Parcel H	H Impact	H Credit	Permit Tier	Permit type
00110830-000103	8103871	7/12/2011	0.0069	0		3	SFR
		1				3	SFR
00247640-000000	10105246	1/19/2011	0.0008	0.0008		3	SFR
		1				3	SFR
00250150-000000	11100039	8/26/2011	0.0008	0.0008		3	SFR
		1				3	SFR
00250390-000000	11102869	10/21/2011	0.0008	0.0008		3	SFR
		11				3	SFR
00250520-000000	11101010	11/28/2011	0.0012	0.0012		3	SFR
		11				3	SFR
00285310-000000	10107566	12/22/2011	0.0007	0.0007		3	SFR
		11				3	SFR
00310700-000000	5101712	2/11/2011	0.001	0.001		2	SFR
		1				2	SFR
00313620-000000	5102823	8/25/2011	0.0007	0.0007		2	SFR
		1				2	SFR
00313820-000000	5102824	8/16/2011	0.0007	0.0007		2	SFR
		1				2	SFR
TOTAL 'H' IMPACT SFR				0.0067			

Fences							
RE	Permit	Permit Issue Date	Parcel H	H Impact	H Credit	Tier	Permit type
00301860-000000	11102522	6/3/2011	0.0005	0.0001		1	Fence/wall
00245800-000000	11100052	1/5/2011	0.0005	0.0001		3	Fence/wall
00312572-003000	11105461	11/17/2011	0.0008	0.00016		2	Fence/wall
00312700-000000	11101273	3/17/2011	0.0008	0.00016		2	Fence/wall
00312950-000000	11103228	8/15/2011	0.001	0.0002		2	Fence/wall
00112341-001300	11101308	3/21/2011	0.0063	0		1	Fence/wall
TOTAL 'H' IMPACT FENCES				0.00072			

Land Clear							
RE	Permit	Permit Issue Date	Parcel H	H Impact	H Credit	Tier	Permit type
00304660-000000	11105708	12/6/2011	0.000	0		1	Land Clear
00108120-000500	11101235	3/16/2011	0.001	0		1	Land Clear (exotics)
00111540-000000	11103901	8/18/2011	0.015	0		1	Land Clear (exotics)
00312571-001500	11105405	11/9/2011	0.001	0		2	Land Clear (exotics)
00319491-001900	11105893	12/1/2011	0.000	0			Land Clear (exotics)
00319491-002000	11105891	12/1/2011	0.000	0			Land Clear (exotics)
00111150-000100	11103902	8/18/2011	0.005	0		1	Land Clear (major pruning)
00246221-005300	11102179	5/4/2011	0.001	0		1	Land Clear (Tree replacement)
00251150-000000	11102362	5/23/2011	0.001	0		1	Land Clear (trimming)
00108050-000103	11102032	4/27/2011	0.004	0		1	Land Clear(hazard tree removal)
00279050-000000	11102547	5/24/2011	0.001	0		1	Land Clear(hazard tree removal)
00293170-000000	11100794	2/18/2011	0.001	0		1	Land Clear(hazard tree removal)
00304200-000000	11100588	2/22/2011	0.000	0		1	Land Clear(hazard tree removal)
00301900-000000	11102847	6/13/2011	0.001	0		3	Land Clear(hzrd tree pruning)
TOTAL 'H' IMPACT LAND CLEAR				0			

Commercial Development							
RE	Permit	Permit Issue Date	Parcel H	H Impact	H Credit	Tier	Permit type
TOTAL 'H' IMPACT COMMERCIAL				0.00			
TOTAL 'H' IMPACTS (all permits)				0.00742			

XI H VALUE ASSOCIATED WITH DEVELOPMENT JANUARY 1, 2011 THROUGH DECEMBER 31, 2011

Reporting Year	Period	Himpact ¹	Hmitigation ¹	No. of Residential ²	No. Tier 1 ³	Tier 1 H ³	Native Habitat (acres) ²	Rabbit Buffer (acres) ¹
6	1/1/2011 - 12/31/2011	.00742	.0688	9	0	0	0.00	0.976

XII CUMULATIVE H VALUE FOR ALL DEVELOPMENT

Total "H" impact for both time periods is 0.3612 "H". See Appendix 3 for master list of all activity. Note that the H impact for Single Family Residences (SFR) for Year 2 (2007) was revised to 0.0178 due to three (3) permits that were issued (and counted) in 2007 and re-issued (and counted again) in 2008. These permits were:

RE #	Permit #
00245880-000000	07100308
00249660-000000	06106296
00249900-000000	07100309

Summary of "H" Impact for Big Pine Key and No Name Key²

	Baseline	Year 1 2006	Year 2 2007	Year 3 2008	Year 2009	Year 5 2010	Year 6 2011	TOTAL
SFR	0.0525	0.0341	0.0178	0.0058	0.0049	0.0025	0.0067	0.1231
Fence	0.0201	0.0166	0.0001	0.0016		0.00164	0.00072	0.04076
Commercial	.0590	0.0211	0.089	.0255	0	0.00136	0	0.19596
Public				0.0012				0.0012
Accessory	0.0002							0.0002
TOTAL	.1306	.0718	0.1069³	.0341	.0049	.0055	0.00742	0.3612

² Values reflect revisions following reconciliation of development permits and land acquisition activity

³ Revised from 5th annual report due to permits counted in 2007 and 2008 and deleted from 2007 total

XIII CONSTRUCTION OBSERVATIONS

The permittees made no observation of direct or incidental take of Key deer during construction monitoring of County facilities and road expansion activities.

XIV ACQUISITIONS THROUGH DECEMBER 31, 2011

There are a total of 1088 parcels that comprise the mitigation lands under the Monroe County's Habitat Conservation Plan (HCP). These lands are managed by the Monroe County Land Steward and, in some instances, the US Fish and Wildlife Service Key Deer Refuge staff. A total of 113 parcels are located on No Name Key and the remaining 975 parcels are on Big Pine Key. Acquired parcels are summarized below:

March 13, 1995 – December 31, 2010

For the reporting period of March 13, 1995 through December 31, 2010, Monroe County acquired parcels with a total "H" value of 2.0366 "H".

XV ACQUISITIONS FOR 2011

January 1, 2011 – December 31, 2011

During Reporting Year 5, Monroe County acquired parcels with a total "H" of .0688 "H".

2011 ACQUISITIONS					
REAL ESTATE NUMBER	ISSUE DATE / DATE LAND ACQUIRED	H VALUE OF PROPERTY	CREDITS TO H BANK	TIER	
00111072-080000	2/8/2011	0.0089	0.0089	1	
00111072-055000	2/8/2011	0.0087	0.0087	1	
00111072-056000	2/8/2011	0.0089	0.0089	1	
00111074-053000	2/8/2011	0.0054	0.0054	1	
00281920-000000	2/23/2011	0.0016	0.0016	1	
00281930-000000	2/23/2011	0.0008	0.0008	1	
00295950-000000	4/14/2011	0.0006	0.0006	1	
00255870-000000	4/21/2011	0.0006	0.0006	1	
00255560-000000	5/9/2011	0.0012	0.0012	1	
00251760-000000	6/1/2011	0.0010	0.0010	1	
00251770-000000	6/1/2011	0.0005	0.0005	1	
00273810-000000	6/1/2011	0.0010	0.0010	1	
00273820-000000	6/1/2011	0.0005	0.0005	1	
00273830-000000	6/1/2011	0.0010	0.0010	1	
00273840-000000	6/1/2011	0.0005	0.0005	1	

00273850-000000	6/1/2011	0.0010	0.0010	1
00273860-000000	6/1/2011	0.0005	0.0005	1
00273871-000000	6/1/2011	0.0010	0.0010	1
00273880-000000	6/1/2011	0.0005	0.0005	1
00273910-000000	6/1/2011	0.0010	0.0010	1
00273920-000000	6/1/2011	0.0005	0.0005	1
00110600-000000	6/3/2011	0.0083	0.0083	1
00110620-000000	6/3/2011	0.0032	0.0032	1
00110630-000000	6/3/2011	0.0029	0.0029	1
00110680-000000	6/3/2011	0.0017	0.0017	1
00265840-000000	7/25/2011	0.0007	0.0007	2
00312571-001600	7/26/2011	0.0012	0.0012	2
00312571-001700	7/26/2011	0.0012	0.0012	2
00266730-000000	7/28/2011	0.0012	0.0012	2
00262670-000000	9/7/2011	0.0007	0.0007	1
00262680-000000	9/7/2011	0.0013	0.0013	1
00262690-000000	9/7/2011	0.0007	0.0007	1
H acquired			0.0688	

XVI CUMULATIVE "H" ACQUIRED

Total cumulative "H" acquired is 2.1054 "H".

XVII MANAGEMENT ACTIVITIES CONDUCTED DURING JANUARY 1, 2011 – DECEMBER 31, 2011

The Monroe County Land Steward is responsible for managing all of the County's conservation lands, including the County's mitigation properties on Big Pine Key. Over the past year, the Land Steward has conducted numerous invasive exotic plant removal projects, site cleanups and native planting projects on County mitigation properties. Work sites included lots within Sands, Darios and Eden Pines Subdivisions and unplatted parcels outside of subdivisions. Site work was done by independent contractors and/or Monroe County Public Works. Additionally, the Monroe County Invasive Exotic Plant Technicians continue to monitor these and other mitigation properties to ensure that the sites remain free of invasive exotic plant species.

XVIII ASSESSMENT OF ALL MITIGATION PARCELS

There are 1,088 mitigation parcels on Big Pine and No Name Keys. Many of these parcels are individual lots within developed subdivisions. This situation creates a large amount of edge between developed parcels and the subject mitigation lands. The edge effects include the constant threat of invasive exotic plant invasion and the potential for dumping and encroachment by neighboring residents. The Monroe County Land Steward is working to address these management issues by conducting invasive exotic removal projects, notifying residents of encroachment issues and working with Monroe County Public Works to clean up dumping. Additionally, the Land Steward has created an informational brochure for homeowners that provides information regarding invasive exotic plant species, native plants and the proper disposal of landscape debris.

IXX EXOTIC / NUISANCE PLANT CONTROL PROGRAM MONITORING REPORT

Site visits were conducted and aerial photo interpretation was used to determine the level of infestation of invasive exotic vegetation. For the purposes of this report, an “invasive exotic plant” is one that is listed on the Exotic Pest Plant Council’s list as either a Category I or a Category II species (list attached). A total of 66 parcels were found to have invasive exotic infestation level greater than 10 percent. These parcels comprise approximately 6.1 percent of the total number of parcels (1,088).

The greatest concentration of invasive exotics occurring on Monroe County Mitigation Lands is found in Sands Subdivision. However, Monroe County continues to make progress on the eradication of exotics in Sands. Within the past year, the County hired contractors to conduct invasive exotic removals on nineteen lots within this subdivision. The invasive exotic removals were followed by site cleanup and native vegetation planting as needed. Additional invasive exotic removal projects are planned for the coming years, subject to available funding.

The Monroe County Land Steward and Invasive Exotic Plant Technicians continue to monitor and treat invasive exotic plant species on Monroe County Mitigation Lands.

Please see Appendix I for the Invasive Exotic Vegetation Status Report.

XX MITIGATION CONFIRMATION STATEMENT

3H:1H mitigation to impact ratio

The cumulative H value of lands acquired as mitigation since March 13, 1995 through the end of the reporting period, December 31, 2011 is 2.1054 H.

The cumulative H value of parcels impacted by development activities, at the 3:1 ratio, since March 13, 1995 through the end of the reporting period, December 31, 2011 is 0.3612 H.

The ratio of mitigation H (acquired lands) to H impact (from development activities) is:
2.1054 H / 0.3612 H = 5.82:1H.

5% lag in meeting mitigation requirements

H _{impact} :	= 0.3612
Mitigation required (H _{impact} X 3):	= 1.08
Mitigation Provided:	= 2.1054
% of required mitigation provided:	= 194%

The permittees are not lagging behind in the 3H:1H mitigation requirement by more than 5%.

Statement of confirmation

The permittees confirm that mitigation has occurred as to maintain a 3H:1H ratio with respect to development activities and demonstrates by the calculations above that the cumulative H value of lands acquired as mitigation does not lag by more than 5 percent allowed to fully mitigate the cumulative H value of impacts authorized through the reporting period.


Townsley Schwab, Sr. Director of Planning & Environmental Resources

XXI OTHER PERTINENT INFORMATION

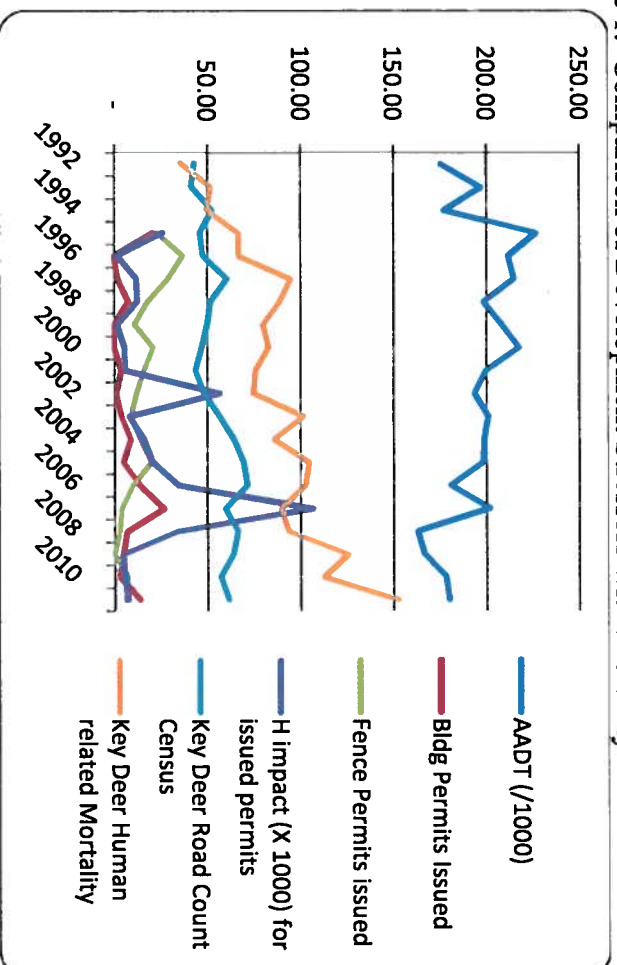
The Key Deer mortality data continues to be a concern. As reported, a total of 184 Key Deer were killed in 2011, with 153 of these being credited as human related mortality. This, in conjunction with the census count, yields a mortality index of 2.5.

The HCP states a presumption that the mortality index reflects herd dynamics and increases in the index can be attributed to development. However, the actual traffic counts on U.S. 1 on Big Pine Key have decreased over the last four years, with only a slight increase (169 AADT) in 2011. For the reporting period 1995 through present, Monroe County has issued 119 permits for new single family residences. Since 2006, there have been 65 building permits issued, however 39 of these permits are on hold either due to the FEMA injunction or through legislative extensions. The presumed correlation of development resulting in increased deer mortality does not appear to be reflected in this data. In fact, in 2007 Monroe County issued 27 new building permits, traffic count on US 1 was 20,215 AADT and the deer mortality ratio was at the predicted average of 1.5. However in 2010 traffic counts were 17,842 AADT (11% lower than 2007) and only 3 new building permits were issued. When factoring in the 'H' of the issued permits, the correlation of development to mortality breaks down even further.

	AADT	BLDG PERMITS	H IMPACT	KEY DEER CENSUS	KEY DEER MORTALITY	MORTALITY RATIO
1992	17,568			43.1	36	0.84
1993	19,738			41.7	52	1.25
1994	17,743			52.6	50	0.95
1995	22,688	21	0.02614	46.2	67	1.45
1996	21,186	0	0.00172	47.8	67	1.40
1997	21,496	2	0.01208	60.7	95	1.57
1998	19,866	8	0.0126	51.8	89	1.72
1999	20,843	0	0.00176	50	80	1.60
2000	21,774	0	0.00562	47.1	83	1.76
2001	19,991	4	0.0058	43.7	76	1.74
2002	19,364	1	0.05678	48.4	75	1.55
2003	20,115	4	0.00808	56.6	102	1.80
2004	19,894	9	0.016224	64.3	86	1.34
2005	19,844	5	0.02092	69.5	105	1.51
2006	18,095	14	0.03468	71.5	103	1.44
2007	20,215	27	0.10692	59.9	90	1.50
2008	16,308	7	0.03408	66.4	94	1.42
2009	16,680	5	0.0049	63.9	126	1.97
2010	17,842	3	0.0055	57.1	113	1.98
2011	18,011	9	0.00742	61.3	153	2.50
		119				

As illustrated in Figure 1 below, when development related stressors (traffic, building permits and H impact) are graphed against the Key Deer mortality, no trends are apparent in linking these stressors with the increasing mortality index.

Figure 1. Comparison of Development Stressors with Mortality



XXII UPDATED MASTER LIST OF ALL DEVELOPMENT PERMITTED ON BIG PINE KEY AND NO NAME KEY

The master list of all development has been added as Appendix II. Florida has a very broad public records laws. Most written communications to or from the County regarding County business are public record, available to the public and media upon request. All reports and corresponding data will be published to the Monroe County web site: <http://monroecofl.virtualtownhall.net>.

The H balance reflected in this 5th Annual Report covers all occurrences of impacts dated from March 13, 1995 to December 31, 2010. The H value remaining for impacts:

Total H value allowed for impacts	1.100 H
Running total of cumulative H value for each permit approval since March 13, 1995 through December 31, 2011	-(0.3612H)
Remaining H value available for development impacts	0.7388 H

Monroe County is allowed 1.1 “H” for development and 3.3 “H” for acquisitions. The mitigation required for the current level of development is 1.08 “H” (0.3612 x 3 = 1.083

“H”). Currently, there is 0.7388 “H” remaining for development and 1.19 “H” remaining for acquisition.

Monroe County has demonstrated the cumulative “H” value of lands acquired as mitigation does not lag any more than five percent (5%) behind what is necessary to fully mitigate the cumulative “H” value of impacts authorized by the ITP through the reporting period.

