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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. According to the Endangered Species Act of 1973, “take of endangered species” is defined as: “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such activity.” 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. It supports the Applicants’ request to the U. S. Fish and Wildlife Service for the incidental take of Key Deer, Lower Keys Marsh Rabbit and Eastern Indigo Snake. 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 3rd 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, 2008 and it reports on the bank balance of the “H” value debited by development activities and credited by acquisition and conservation activities.

Based on Monroe County's review of documents submitted with this report, the County is confident in the accuracy of the "H" value accounting for approved and completed development activity and acquisitions on Big Pine Key and No Name Key from January 1, 2008 through December 31, 2008. Due to discrepancies in "H" impact calculations and land acquisition there remains some uncertainty in the total values reported for both impacts and mitigation. Monroe County is making every effort to reconcile these errors in a timely manner.

I. 2008 KEY DEER CENSUS

The Key Deer “census” value is the average count derived from multiple road counts throughout the year. For the period January through December 2008, the census value was 64.4. This 2008 value was derived from eleven (11) standardized road counts. The average census value for the 10 years ending in 2007 was 56.6. Accordingly, the 2008 value was up (14%) relative to the 10-year (1999 to 2008) average. The average census in 2007 was 50.9, which is relatively low. The 2007 decline followed five (5) years of consecutive increases.

II. KEY DEER MORTALITY SUMMARY

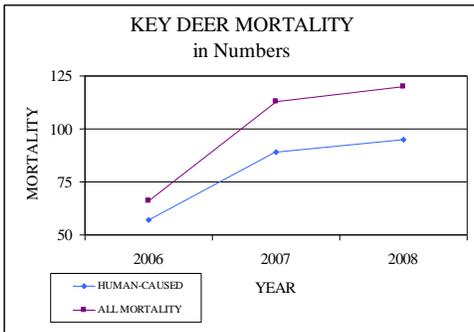
The other index of Key Deer abundance is the mortality index. The mortality index is the total Key Deer deaths documented on Big Pine and No Name Keys. It was 120 (95 human-caused) in 2008, up from 113 (90 human-caused) in 2007. Over the long-term, the mortality index and the census numbers have illustrated a fairly strong direct correlation with an overall positive trend. On average, a higher mortality index value in a given year will be paired with a higher road-count value. Both are generally correlated with a larger actual deer population. This was observed in 2008 with an increase in both road-count and mortality indices. In the available data, no correlative relationships were found to indicate proportional changes in differences between tracked variables (mortality and abundance indices and ratios).

	Combat	Disease	Dog	Drowning	Entanglement	Poached	Road-kill	Misc*	Undetermined	Grand Total
2007	1	7	0	4	1	1	83	1	15	113
2008	0	1	0	4	1	1	86	3	24	120
Avg: 1998-2007	0.3	6.7	1.9	4.6	1.6	0.1	80.3	0.4	18.4	114.5

Human-caused shown in **bold**

*Miscellaneous, known human causes

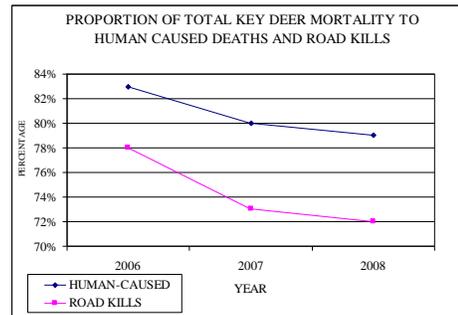
Key Deer have attained or exceeded carrying capacity within the HCP area, the core of the Key Deer’s range. Accordingly, in the absence of new and substantial threats or major changes in habitat that result in major changes in food availability, the expectation is that the Key Deer population within the core will likely fluctuate around the carrying capacity. Numerical fluctuations will result from source-driven as well as random variation in factors including mortality rates, environmental influences, annual productivity of the landscape, and annual productivity of reproductive female deer.



Human-caused deaths for Key Deer are a large portion of all known deaths. Human-related deaths include those due to road kills, entanglement, attacks from domestic predators and poaching. For the period of 2006-2008 the number of mortalities and human-caused death rates of Key Deer have increased. For the three years 2006, 2007 and 2008 there were 57, 89 and 95 human-caused deaths, respectively.

The total Key Deer mortality rates include all human-caused deaths, diseases and “undetermined” causes. “Undetermined” causes and diseased death rates may include a significant number of cases that could be attributable to human causes and road kills. The total Key Deer mortality rates for 2006, 2007 and 2008 were 66, 113 and 120, respectively.

The proportion of Key Deer mortalities to human-caused deaths, for the period between 2006 and 2007, decreased by 3% and road kill mortality rate decreased by 5%. Between 2007 and 2008, the proportion of the human-caused deaths and road kill mortality rates decreased by 1% each. This phenomenon is likely related to the substantial reduction in rate of long-term growth in the population after the mid-1990s. However, in general, deer-vehicle collisions along U.S. 1 appear to be proportionate with what would be expected given the census values and total mortalities.



III. KEY DEER MORTALITY DATA

The overall trend including both census and mortality indices suggest a period of relative stability over the last several years, which were preceded by several decades of growth in the population. In the context of the long term record of population indices, the overall data from recent years suggests a cessation (or substantial reduction in rate) of long-term growth in the population after the mid-1990s. The proportion of deaths attributed to disease was also up in the recent decade compared to earlier decades (mortality records were initiated in 1966). Assuming that the population response observed in recent years indicates a response to finite resources and an effect of carrying capacity (i.e., ultimate constraints such as total space); the importance placed on controlling mortality (including human sources) is validated. This is because the total population of Key Deer within the core, though historically high, remains quite low in the context of long-term viability of a large mammal.

Based on overall trends, the low proportion of deaths attributed to disease in 2008 (1%) was not expected, the overall proportion since 1966 was 2%. In the earlier period (1966-1990), it was nearly zero. More recently (1966-1990), it rose to approximately 5%. The single data-point for 2008 is difficult to assess, and may simply result from the relatively rare occurrences of disease detections in the overall sample of deer mortalities.

Road kills remain the greatest source of mortality to Key Deer. Roadside feeding may exacerbate threats to a subset of Key Deer associated with vehicle collisions. However, the National Key Deer Refuge (NKDR) believe that roadside feeding in recent years is somewhat less than in earlier periods, and that roadside feeding only increases the probability of risk within a subset of the overall population. Within the last decade, public education and law enforcement has apparently reduced the prevalence of roadside feeding. In 2007, NKDR Law Enforcement Officers documented approximately 90 public contacts with individuals or parties showing intentions of possible feeding. Each of these resulted in educational outreach, but no citations were issued in that year (P. Hughes, USFWS, pers. comm.). Further research on this topic would be useful, considering available publications differ in the level of importance attributed to roadside/tourist feeding versus various levels of feeding at residences. However, we are not aware of published evidence that roadside feeding itself is a major contributor to road kills. The overall impacts of feeding, which may directly or indirectly influence road kills to some degree, are likely much more complex, and more profound with respect to broader changes in patterns of Key Deer social behavior, movement, nutrition, dispersion, and possibly genetics. The Fish and Wildlife Service has indicated an interest in developing long-term, holistic plans to ensure that feeding continues to decline or be eliminated. Recognizing that all of us have a responsibility for this and other factors that impact Key Deer recovery potential, the County intends to collaborate on any such expanded program. As it is, law enforcement support and passive education ensue.

	Human-caused mortalities	All mortalities	Proportion mortalities human-caused	Census index
1997-2006 Average	89.4	116	0.77	59.0
1998- 2007 Average	88.9	115	0.78	56.6
2006	103	124	0.83	71.1
2007	90*	113	0.80	50.9
2008	95	120	0.79	64.4

*2007 human-caused mortality count was previously reported by the Fish and Wildlife Service as 89. This value (90 in 2007) constitutes a correction conveyed by the Fish and Wildlife Service. It is a minor data correction with no impact on 2007 conclusions.

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 one native planting on County mitigation properties within the Big Pine Key planning area. Work sites included lots within Eden Pines and Sands Subdivisions. Site work was done by independent contractors and/or Monroe County Public Works. Details related to the habitat management activities are provided in Appendix I – Land Steward Report.

V. KEY DEER MORTALITY RATIO

Another goal of the HCP is to ensure development activities do not result in an increase of human-related mortality of Key deer. The number of human-related deaths of Key Deer is directly related to the Key Deer Census. This ratio is directly correlated to the impact of development activities.

A mean ratio of 1.53 is the breaking point between development impact and census values. If the ratio goes above 1.53, the amount of development and increase in human activity is impacting Key Deer deaths more than it should be. If the ratio is less than 1.53, the impact on development activities is small. (HCP Section 5.1.2)

For "Reporting Year 3," there is a ratio of 1.48. The ratio is less than 1.53; therefore, development impacts are small and not significantly impacting the deaths of Key Deer. In 2007, however, the ratio was 1.75. The high ratio during this year was due to the low number of deer seen (50.9).

$$\text{Ratio} = \frac{\text{Human-Related Deaths}}{\text{Key Deer Census}} = \frac{95}{64.4} = 1.48$$

VI. ANNUAL IMPACTS TO 500-METER WETLAND BUFFERS

January 1, 2008 – December 31, 2008

For Reporting Year 3, fourteen (14) development permits were issued resulting in 4.19 acres of land impacting the Marsh Rabbits' 500-meter wetland buffer. No development permits were issued outside the Lower Keys Marsh Rabbit green zone.

Three (3) commercial development permits were issued causing 2.65 acres of land to be impacted. The permits included development of 2,500 ft² of light industrial floor area and 2,500 ft² of commercial floor area. The TIB Bank expansion was the third commercial development permit to be issued.

Seven (7) residential unit development permits were issued impacting .92 acres of land impacting the 500-meter wetland buffer areas. In 2008, three (3) fence development permits were issued impacting 0.62 acres.

**2008 ANNUAL DEVELOPMENT IMPACT TO THE
500-METER WETLAND MARSH RABBIT BUFFER AREAS**

REAL ESTATE	PERMIT NUMBER	ISSUE DATE	PERMIT TYPE	PARCELS IMPACTED (BY ACREAGE)
00315970-000000	08100012	1/4/2008	FENCE	0.170
00111420-000100	05105317	2/1/2008	COMMERCIAL -	1.02
00111420-000500	05105321	2/1/2008		1.02
00316670-000000	08100610	2/19/2008	FENCE	0.310
00315960-000000	07105122	3/4/2008	FENCE	0.140
00289710-000000	03102303	4/29/2008	SFR	0.12
00249660-000000	06106296	5/13/2008	SFR	0.17
00249900-000000	07100309	6/5/2008	SFR	0.17
00245880-000000	07100308	6/5/2008	SFR	0.15
00249040-000000	07104806	9/16/2008	SFR	0.17
00275620-000000	07105046	11/21/2008	COMMERCIAL - TIB BANK EXPANSION	0.61
00312572-003400	04100574	12/8/2008	SFR	0.14
			TOTAL PARCELS IMPACTED (BY ACREAGE)	4.19

VII. CUMULATIVE IMPACTS TO MARSH RABBIT BUFFERS

Since permit issuance, the cumulative impact of all development projects affecting buffers for the Lower Keys marsh rabbit is 40.34 acres.

VIII LOWER KEYS MARSH RABBIT ROAD MORTALITY

Two mortalities were recorded in 2008. Both resulted from vehicle strikes. In one instance, predation is suspected. In the other, the Marsh Rabbit ran into the vehicle's path.

IX CUMULATIVE IMPACTS TO PROJECT AREA

REAL ESTATE NUMBER	PERMIT NUMBER	ISSUE DATE	PERMIT TYPE	ACRES
00245720-000000	03103814	1/2/2007	SFR	0.15
00249130-000000	04104077	1/10/2007	SFR	0.17
00248460-000000	4102831	1/17/2007	SFR	0.17
00248980-000000	04101652	1/18/2007	SFR	0.17
00289710-000000	3102303	1/19/2007	SFR	0.12
00249660-000000	6106296	1/19/2007	SFR	0.17
00245880-000000	7100308	1/19/2007	SFR	0.15
00249900-000000	7100309	1/19/2007	SFR	0.17
00249150-000000	03104466	1/24/2007	SFR	0.17
00285290-000000	03102339	1/25/2007	SFR	0.19
00285300-000000	04100750	1/25/2007	SFR	0.12
00248390-000000	05101386	1/25/2007	SFR	0.18
00245860-000000	05106290	1/25/2007	SFR	0.33
00247780-000000	04104936	2/23/2007	SFR	0.17
00248290-000000	05104382	2/23/2007	SFR	0.17
00312571-000200	97101893	3/12/2007	SFR	0.37
00248700-000000	05101709	3/26/2007	SFR	0.17
00249380-000000	05102876	3/26/2007	SFR	0.17
00248320-000000	05103466	3/30/2007	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	0.47
00286360-000000	7101477	7/31/2007	Commercial	10.17
00248960-000000	2105130	8/16/2007	SFR	0.17
00247930-000000	5104608	8/24/2007	SFR	0.18
00245900-000000	5106221	8/30/2007	SFR	0.15
00245600-000000	6100466	9/20/2007	SFR	0.14
00109340-000300	99103072	12/21/2007	SFR	0.14
00315970-000000	08100012	1/4/2008	FENCE	0.170

00111420-000100	05105317	2/1/2008	COMMERCIAL	1.02
00111420-000500	05105321	2/1/2008		1.02
00316670-000000	08100610	2/19/2008	FENCE	0.310
00315960-000000	07105122	3/4/2008	FENCE	0.140
00289710-000000	03102303	4/29/2008	SFR	0.12
00249660-000000	06106296	5/13/2008	SFR	0.17
00249900-000000	07100309	6/5/2008	SFR	0.17
00245880-000000	07100308	6/5/2008	SFR	0.15
00249040-000000	07104806	9/16/2008	SFR	0.17
00275620-000000	07105046	11/21/2008	COMMERCIAL - TIB BANK EXPANSION	0.61
00312572-003400	04100574	12/8/2008	SFR	0.14
			DEVELOPMENT IN ACRES	19.40

X DEVELOPMENT ACTIVITIES

a. March 13, 1995 – December 31 2007

The total "H" value of all development activities between March 13, 1995 and December 31, 2007 is 0.4121 "H" value. See Master List (Appendix)

b. January 1, 2008 – December 31, 2008

The total "H" value for Reporting Year 3 is 0.0343 "H".

2008 DEVELOPMENT ACTIVITY

REAL ESTATE NUMBER	PERMIT NUMBER	ISSUE DATE / DATE LAND ACQUIRED	H VALUE OF PROPERTY	H IMPACT	Parcel Acreage	DEVELOPMENT / ACQUISITION
00111090-000000 & 00275620-000000	07105046	11/21/2008	0.0115	0.0003		COMMERCIAL
00111420-000100	05105317	2/1/2008	0.0060	0.0060	1.0200	COMMERCIAL
00111420-000500	05105321	2/1/2008	0.0062	0.0062	1.0200	COMMERCIAL
00111460-000000	08100313	4/23/2008	0.0110	0.0012		COMMERCIAL
00111460-000000	02100313	4/23/2008	0.0155	0.0000		COMMERCIAL
Key Deer Boulevard	FINAL	6/1/2008	0.0130	0.0130		COMMERCIAL
00295640-000000	08100741	4/21/2008	0.0023	0.0005		FENCE
00306180-000000	07104663	6/16/2008	0.0015	0.0003		FENCE
00315960-000000	07105122	3/4/2008	0.0009	0.0002		FENCE
00315970-000000	08100012	1/4/2008	0.0013	0.0003		FENCE

00316670-000000	08100610	2/19/2008	0.0028	0.0006		FENCE
00111420-000100	07102786	2/1/2008				SFR
00111420-000100	07103037	2/1/2008				SFR
00111420-000500	07102787	2/1/2008				SFR
00111420-000500	07103036	2/1/2008				SFR
00245880-000000	07100308	6/5/2008	0.0009	0.0009		SFR
00246170-000000	07105045	8/13/2008	0.0010	0.0010		SFR
00249040-000000	07104806	9/16/2008	0.0008	0.0008		SFR
00249660-000000	06106296	5/13/2008	0.0008	0.0008		SFR
00249900-000000	07100309	6/5/2008	0.0008	0.0008		SFR
00289710-000000	03102303	4/29/2008	0.0013	0.0010		SFR
00312572-003400	04100574	12/8/2008	0.0005	0.0005		SFR
H Impact				0.0343		

XI H VALUE ASSOCIATED WITH DEVELOPMENT JANUARY 1, 2008 THROUGH DECEMBER 31, 2008

	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
Reporting Year 3	1/1/2008 - 12/31/2008	0.0343	0.1505	11	1	0.001		4.2

XII CUMULATIVE H VALUE FOR ALL DEVELOPMENT

Total "H" impact for both time periods is 0.4464 "H". See Appendix 3 for master list of all activity.

Summary of "H" Impact for Big Pine Key and No Name Key¹

	Baseline	Year 1A	Year 1B	Year 2	Year 3	TOTAL
SFR	0.0513	0.0309	0.0049	0.0211	0.0058	0.114
Fence	0.1118	0.0164	0.0008	0.0000	0.0018	0.1308
Commercial	0.0590	0.0053	0.1104	0.0000	0.0267	0.2014
Accessory	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
TOTAL	0.2223	0.0526	0.1161	0.0211	0.0343	0.4464

¹ Values subject to revision upon full reconciliation of development permits and land acquisition activity
MONROE COUNTY

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, 2007

March 13, 1995 – December 31, 2007

For the reporting period of March 13, 1995 through December 31, 2007, Monroe County acquired parcels with a total “H” value of 1.7903 “H”.

XV ACQUISITIONS FOR 2008

January 1, 2008 – December 31, 2008

During Reporting Year 3, Monroe County acquired parcels with a total “H” of 0.1505 “H”.

2008 ACQUISITIONS

REAL ESTATE NUMBER	ISSUE DATE / DATE LAND ACQUIRED	H VALUE OF PROPERTY	CREDITS TO H BANK	DEVELOPMENT / ACQUISITION
00108130-002200	2/14/2008	0.0012	0.0012	ACQUISITION
00298180-000000	2/25/2008	0.0005	0.0005	ACQUISITION
00111075-036000	3/25/2008	0.0189	0.0189	ACQUISITION
00108130-002600	3/28/2008	0.0018	0.0018	ACQUISITION
00111070-030000	8/23/2008	0.0080	0.0080	ACQUISITION
00107970-000000	10/8/2008	0.0008	0.0008	ACQUISITION
00277640-000000	10/8/2008	0.0016	0.0016	ACQUISITION
00299600-000000	10/8/2008	0.0010	0.0010	ACQUISITION
00299610-000000	10/8/2008	0.0005	0.0005	ACQUISITION
00299650-000000	10/8/2008	0.0005	0.0005	ACQUISITION
00299660-000000	10/8/2008	0.0010	0.0010	ACQUISITION
00299670-000000	10/8/2008	0.0010	0.0010	ACQUISITION
00299950-000000	10/8/2008	0.0016	0.0016	ACQUISITION
00259930-000000	11/3/2008	0.0009	0.0009	ACQUISITION
00259940-000000	11/3/2008	0.0018	0.0018	ACQUISITION
00259950-000000	11/3/2008	0.0007	0.0007	ACQUISITION
00307030-000000	11/3/2008	0.0010	0.0010	ACQUISITION
00289170-000000	11/3/2008	0.0024	0.0024	ACQUISITION
00289180-000000	11/3/2008	0.0012	0.0012	ACQUISITION
00314760-000000	11/3/2008	0.0021	0.0021	ACQUISITION
00255370-000000	12/6/2008	0.0013	0.0013	ACQUISITION
00108490-000100	12/18/2008	0.1007	0.1007	ACQUISITION
	H acquired	0.1505	0.1505	

XVI CUMULATIVE “H” ACQUIRED

Staff has identified 125 additional parcels which were added to the master list and corresponding “H” credited to the “H” bank. Funding sources included Florida Community Trust, P2000 grants, Monroe County and ROGO donations. Funding sources of forty-eight (48) parcels were not identified. All warranty deeds were pulled and purchase dates verified as being purchased after March 13, 1995. There were 108 Tier I parcels with a total “H” value of 0.2180 “H”, 14 Tier II parcels having an "H" value of 0.0197 “H” and three Tier III parcels with an "H" value of 0.0015 “H”. The total “H” credited to the “H” bank is 0.2395”H”.

Total “H” acquired for both time periods is 1.9408 “H”.

XVII MANAGEMENT ACTIVITIES CONDUCTED DURING JANUARY 1, 2008 – DECEMBER 31, 2008

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 one native planting on County mitigation properties on Big Pine Key. Work sites included lots within Eden Pines, Doctors Arm, and Sands 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 approximately 900 mitigation parcels on Big Pine Key. Many of these parcels are individual lots within developed subdivisions. This situation creates a large amount of edge effect between developed parcels and the subject mitigation lands. These effects can include the constant threat of invasive exotic plant invasion and the potential for dumping and encroachment by the residents. The Monroe County Land Steward is working to address these management issues by conducting invasive exotic removal projects, noticing residents of encroachment issues and working with Monroe County Public Works to clean up any dumping. Additionally, the Land Steward is creating an informational brochure for homeowners that will provide information regarding invasive exotic plant species, native plants and the proper disposal of landscape debris.

IXX EXOTIC / NUISANCE PLANT CONTROL PROGRAM MONITORING REPORT

Since permit issuance, numerous invasive exotic removal projects occurred on the mitigation parcels on Big Pine Key this past year. Specifically, in cooperation with the National Key Deer Refuge and The Nature Conservancy, projects were completed in the following subdivisions: Eden Pines; Palm Villa; Kinercha; Pine Key Yacht Club; Koehn's; Doctor's Arm; Sands; and Cahill Pines & Palms. Additionally, the Monroe County Invasive Exotic Plant Technicians worked to maintain areas free of invasive exotics and nuisance vegetation. The only remaining area containing a substantial amount of invasive exotic plant species is Sands Subdivision. However, the mitigation lands within Sands Subdivision are slated for an invasive exotic removal project within the upcoming year.

Monroe County Planning and Environmental Resources Department is in receipt of the Florida Keys Invasive Exotic Task Force field maps, dated February 26, 2007, depicting percent coverage information for nuisance and invasive exotic vegetation for Big Pine and No Name Keys. These maps are in the process of being digitized which will allow accurate assessments of mitigation parcels, documenting compliance with the exotic / nuisance plant control program on County conservation lands. This information will be provided in a subsequent 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, 2008 is 1.9408 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, 2007 is 0.4464 H.

The ratio of mitigation H (acquired lands) to H impact (from development activities) is:
 $1.9408 \text{ H} / 0.4464 \text{ H} = 4.34:1\text{H}$.

5% lag in meeting mitigation requirements

$$\begin{aligned} \% \text{lag} &= 1 - [\text{H value mitigated} / \text{H value impacted at 3:1 mitigation ratio}] \\ &= 1 - [1.9408\text{H} / 0.4464\text{H}] \\ &= 1 - 4.347 \\ &= -3.34 \\ &= -334\% \text{ is less than } 5\%. \end{aligned}$$

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.

XXI OTHER PERTINENT INFORMATION

I. FENCES

After careful review and analysis of the March 13, 1995 to December 31, 2008 fence development records within the project area, staff has identified eleven (11) fence permits recorded in the Master List recorded in error. Two parcels are in Tier 1. One is a fence replacement. The other parcel had an existing SFR constructed two years prior to the issuance of the fence permit

Pursuant to the HCP, Action Item 8.1.1 (e) states "Do not consider fencing of developed property in Tier II or III (whether developed with principal or accessory uses) to have H impact additional to the development as modeled in the HCP as a reduction in K." For each residential unit development activity, the "H" of the parcel has a multiplier of one (1). Any other development on the property would not have an "H" value because the residential development consumed the entire "H" value.							
13 fence permits recorded in the Master List recorded in error.							
Two fence permits are located in Tier 1. One is a replacement. One parcel had an existing house constructed two years before the fence permit. The remaining 9 are located in Tiers 2 and 3.							
REAL ESTATE	PERMIT	ISSUE DATE /	H VALUE OF	H	TIER	NOTES	SFR Data
00110190-000000	98101752	10/23/1998	0.0042	0.0008	1	Replacement-	Replacement-
00289510-000000	08101971	5/27/2008	0.0022	0.0004	1	Existing SFR	5/12006
00272280-000000	96100986	7/22/1996	0.0014	0.0003	2	Existing SFR	2/14/1995
00311670-000000	96101541	10/24/1996	0.0010	0.0002	2	Existing SFR	Existing SFR
00272450-000000	97100459	3/20/1997	0.0012	0.0002	2	Existing SFR	Existing SFR
00312572-004600	98102564	2/2/1999	0.0009	0.0002	2	Existing SFR	Existing SFR
00271340-000000	99101592	6/16/1999	0.0007	0.0001	2	Existing SFR	Existing SFR
00269900-000000	00102241	6/13/2000	0.0010	0.0002	2	Existing SFR	1994
00245220-000000	95100495	4/6/1995	0.0008	0.0002	3	Existing SFR	Existing SFR
00245230-000000	95100496	4/6/1995	0.0007	0.0001	3	Existing SFR	Existing SFR
00308730-000000	02100041	1/29/2002	0.0003	0.0001	3	Existing SFR	Existing SFR
00244520-000000	00101801	4/18/2000	0.0008	0.0002	3	Existing SFR	1994
00110830-000102	96100164	3/12/1996	0.0092	0.0018	3	accessory - storage containers	FENCE
TOTAL "H" VALUE 0.0030							

II. BIG PINE KEY FIRE STATION #13

The Big Pine Fire Station #13 (RE number 00111460-000000) is an expansion of the same use. The fire station structure size expanded from 3,320 ft² to 8,189 ft². This development activity (Permit Number 08100313), will consume 0.0012 "H".

Monroe County has recorded 0.0012 "H" value into the "H" bank. However, the County is in receipt of a letter from Chief James K. Callahan dated July 15, 2009 stating the "the number of personnel, apparatus, equipment and service area remains the same.

“Because roadway mortality is the largest cause of human-related mortality of Key Deer, the “H” value for a development activity is multiplied by a factor that accounts for the traffic generated by the specific land use or type of activity” (P. 3 HCP). Because traffic generated from the expansion will stay the same, no “H” should be deducted from the “H” bank. For this reason, the county requests the Fish and Wildlife Service to review this project based upon Chief’s letter. The County additionally requests the Fish and Wildlife Service to notify the County on its determination of the project’s “H”.

III. MASTER LIST ADDITIONS

Staff found one hundred and twenty-five (125) conservation parcels that were omitted from the Master List leaving the “H” bank short a credit of 0.2392 “H”. To prove their eligibility into the “H” bank, warranty deeds were pulled and a GIS data layer comparison was completed.

a. Warranty Deeds

Warranty deeds were pulled for the 125 parcels. All parcels were purchased after the baseline of March 13, 1995, making the parcels’ “H” value eligible to be considered part of the 3rd Annual Mitigation Report.

b. Monroe County Data

Data from the Master List and Monroe County Property Appraiser (MCPA) were used to create two (2) GIS layers to further confirm the potential increase of “H” into the “H” bank.

The first GIS layer consisted of data from the Master List which included all properties purchased from March 13, 1995 through December 31, 2008. The MCPA September 2008 data was provided to create the second GIS layer. A comparison of the MCPA GIS conservation layer and the Master List GIS layer clearly showed which parcels were and were not included into the Master List.

c. Grouping or Clustering

Staff researched the possibility of grouping or clustering of parcels as a possibility that one parcel’s “H” might be included with the “H” of another adjacent parcel or parcels. This would account for the lack of that parcel’s “H” into the “H” bank. After visual inspections of all parcels, it was noted the 125 parcels were clearly not part of any grouping or clustering of other parcels.

d. Funding

The 125 county-owned lands were purchased with Florida Community Trust money, P2000 grants, Monroe County purchases, ROGO donations and unidentified acquisition sources. Three (3) parcels were purchased with Florida Community Trust grant money, (8) parcels were purchased

with P2000 grant money, thirteen (13) parcels were bought purchased with Land Authority money and fifty-three (53) parcels were donated as part of Rate of Growth Ordinance (ROGO). *The acquisition source has not been identified on forty-eight (48) parcels. Assumptions can be made that these forty-eight (48) parcels were ROGO donations. Below is the breakdown of funding sources and total "H".

PURCHASE AND GRANT TYPES	COUNT	"H" BANK
FLORIDA COMMUNITIES TRUST GRANT	3	0.0153
*UNIDENTIFIED ACQUISITION SOURCE	48	0.1238
MONROE COUNTY LAND AUTHORITY /P2000	8	0.0144
MONROE COUNTY LAND AUTHORITY	13	0.0102
ROGO DONATIONS	53	0.0755
TOTAL	125	0.2392

e. Tiers

The 125 parcels were sorted by Tiers and associated "H" values subtotaled. In Tier I, there are 108 county-owned parcels with an "H" value of 0.2180"H". In Tier II, there are 14 county-owned parcels with an "H" value of 0.0197 "H." In Tier III, three (3) county-owned parcels had an "H" value of 0.0015 "H."

TIER	COUNT	'H' VALUE
I	108	0.2180
II	14	0.0197
III	3	0.0015
TOTAL	125	0.2392 "H"

f. "H" and Funding Sources

The 125 parcels were sorted by funding sources, tier designation and associated "H" value. The Florida Community Trust Grant has a total "H" 0.0153. Unidentified Acquisition Sources has 0.1238 "H." The MCLA/P2000 Grants accumulated 0.0144 "H", The ROGO acquired parcels added 0.0755 "H" to the "H" bank. The forty-eight (48) parcels which have unidentified funding sources have an "H" of 0.0755 "H". The total "H" bank could be credited 0.2392"H."

ADD-ON CREDITS TO "H" BANK	TIER
0.0096	1 Total
0.0057	2 Total
0.0153	FCT GRANT-ADD-ON Total
0.1226	1 Total
0.0012	2 Total
0.1238	UNIDENTIFIED ACQUISITION SOURCE-ADD-ON Total
0.0096	1 Total
0.0048	2 Total
0.0144	MCLA/P2000-ADD-ON Total
0.0085	1 Total
0.0012	2 Total
0.0005	3 Total
0.0102	MCLA-ADD-ON Total
0.0677	1 Total
0.0068	2 Total
0.001	3 Total
0.0755	ROGO-ADD-ON Total
0.2392	Grand Total

- g. Total "H"
 The 125 acquisitions added 0.2392 "H" to the "H" bank for the 3rd Annual Big Pine Key / No Name Key Mitigation Report. The inclusion of the 125 parcels is consistent with the ITP and HCP rules and regulations.

IV. ROAD WIDENING AND PAVING
 Road widening and paving of existing roads since March 13, 1995 through June 9, 2003 were reviewed by the County and the Service. Many of these projects were not undertaken. Of those completed, none were determined to have caused habitat loss nor believed to substantially increase the risk of Key Deer mortality. These road projects were not counted toward the cumulative H impacts.

Key Deer Boulevard and adjacent bike path paving project was completed in 2008 and had an "H" impact of 0.0130 "H".

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

The master list of all development has been added Appendix III. 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 3rd Annual Report covers all occurrences of impacts dated from March 13, 1995 to December 31, 2008. The H value remaining for impacts:

Total H value allowed for impacts	1.100 H
Running total of cumulative H value <u>for each permit approval since March 13, 1995</u> <u>through December 31, 2008</u>	- (0.4464H)
Remaining H value available for development impacts	0.6536 H

Rabbits and snakes are both impacted by development. In 2008, 5.74 acres of land impacted both species. No development permits were issued outside the rabbit green zone. Two rabbit mortalities caused by vehicle strikes were reported in 2008. The Eastern Indigo Snake, though impacted by development, has not been documented in some time.

Development in 2008 caused a debit of 0.0662 "H" and a credit of 0.1505 "H" to the "H" bank. For the reporting period of March 13, 1995 through December 31, 2008, development activity debited the "H" bank 0.2841 "H" and acquisition activity credited the "H" bank 1.9408 "H". Monroe County is allowed 1.1 "H" for development and 3.3 "H" for acquisitions. The mitigation required for development is 0.8524 "H" ($0.2841 \times 3 = 0.8524$ "H"). Currently, there is 0.2476 "H" remaining for development and 1.3592 "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.

The Land Steward is responsible for the County's management of acquisition lands. Under the HCP, 902 mitigation parcels are managed. Seventy-eight (78) or 8.6% of the parcels were found (mainly in Sands Subdivision) to have invasive exotic infestation greater than 10%. The county hired contractors to complete invasive exotic removals on 13 lots in Sands Subdivision. Site cleanup and native vegetation planting will be completed as needed. Future projects are planned subject to funding.

Forty-three (43) fence permits were included in the master list in error. After careful examination, 42 of the 43 parcels had existing SFR existing prior to the issuance of the fence permit. One fence permit was a replacement. The "H" value of 0.131"H" was credited back into the "H" bank.

The Big Pine Fire Station #13 was expanded by 4,869 ft². The county is asking FWS to review the calculations on the "H" based on the Fire Chief's letter. Currently, Monroe County has debited the "H" bank 0.0012 "H". After FWS approval, the county anticipates no deduction from the "H" bank and respectfully asks to credit the "H" bank 0.0012 "H" (the development impact of the project).

Key Deer Boulevard and adjacent bike path paving were completed. This project has a development impact of 0.130 "H".