# **SECTION 3**

## SUPPORTING DOCUMENTATION

## **Preface**

The Committee's recommended RLSA Overlay amendments are supported by a substantive analysis of several subject areas that have been discussed by the RLSA Review Committee. The full analysis is provided for in Section 3. These subject areas include:

- The RLSA Credit System analysis which compares current and proposed Credit projections derived from natural resource areas, agriculture, panther corridors, and restoration.
- The analysis shows how the recommended policy changes relate to the proposed 45,000 acre SRA cap, which aligns the RLSA Program with the goals of the Florida Panther Protection Program and provides a basis to evaluate long term transportation infrastructure plans.
- The population analysis compares different County study results and shows how the RLSA is consistent with adopted projections.
- The Concept Maps help to visualize how land uses may be distributed within the RLSA, and graphically illustrate one possible scenario for the distribution of potential Stewardship Sending Areas, Stewardship Receiving Areas, Agricultural Areas, Open Spaces, and other features of the RLSA that could occur at the 2025 Horizon Year and 2050 based on implementation of the recommended policies.
- The RLSA Transportation Analysis describes the development and evaluation of a set of long-range transportation plan improvements that support the land development potential at 2025 and at Build-Out as depicted in the 2025 and 2050 Concept Maps.

#### **Introduction**

The Committee on September 23, September 30, and December 18, 2008 reviewed and voted to accept the following analysis to support its recommendations regarding revisions to several of the RLSA Overlay and its related Credit System.

## Collier County Rural Land Stewardship Five Year Review Supporting Documentation [a working draft]

#### I. Introduction

The RLSA Overlay is a long-term strategic plan with a planning horizon year of 2025, the established HorizonYear in the Collier County Growth Management Plan. This analysis was performed for both the 2025 Horizon Year and for a theoretical "build-out" scenario in 2050 in order to evaluate the potential long-range implications of implementing the recommendations to amend certain RLSA policies set forth within this Phase II Report.

The RLSA Review Committee's (Committee) Phase II work focused in part on policy changes to strengthen the incentive to protect agriculture land and new panther corridors, to focus restoration activities, and to cap the total potential Stewardship Receiving Area (SRA) footprint within the RLSA program at 45,000 acres. Consistent

with the framework of the RLSA and the Stewardship Credit system, the Committee incentivized the preservation of agriculture lands by awarding new Stewardship Credits for agriculture land preservation and panther corridors, and changed the Credits associated with restoration to more specifically defined activities. The recommended changes required a reanalysis of the Stewardship Credit system and rebalancing of the Credits to align with the Committees recommended maximum SRA footprint and projected demands.

Further analysis was completed to determine if the recommended 45,000 SRA footprint could accommodate the acreage necessary for the projected population, and the goods and services required in towns and villages within the RLSA Overlay. Along with population, a transportation analysis was completed in order to evaluate a potential transportation network to support a maximum 45,000 acre SRA scenario.

## III. Stewardship Credit System Analysis

The Stewardship Credit System analysis begins with consideration of the generation of Credits under the currently adopted RLSA Overlay. The Committee's recommended Credit system changes are then evaluated and compared to the existing program.

## 1. CREDIT GENERATION UNDER CURRENTLY ADOPTED RLSA OVERLAY

## Base Credits

Base Credits are the Credits generated by use of the Natural Resource Index and the Land Use Layer System. They are created from FSAs, HSAs, WRAs and Open lands that are designated as SSAs by the property owners. To estimate the total potential Base Credits, a model run of the NRI values was performed using current mapping of AG1 and AG 2 land uses as recently adjusted during the Stage 1 process. It is assumed that all FSAs, HSAs and WRAs become SSAs with land use layers removed down to current AG1 or AG2 use. This model was applied to all of the FSAs, HSAs and WRAs lands regardless of whether they are in approved SSAs or not. Modeled credits were compared to actual SSA Base Credits generated from SSAs 1-13, and this analysis shows that actual Base Credits in these approved and pending SSAs are approximately 15% greater than the model due to the inclusion of more site specific data, such as listed species surveys which have enabled a greater level of accuracy in calculating NRI values. However, this variance will be less going forward based on the composition of future SSAs being more heavily weighted toward WRAs. Therefore an adjustment factor of +10% is applied to the model derived Base Credits (116,329). The rounded total estimate is **128,000 Base Credits**.

#### Restoration Credits

Restoration Credits are generated by application of Policy 3.11. Because these Credits are dependent on site specific conditions that require detailed evaluations and restoration planning and permitting by each property owner, as well as successful implementation, it was not possible to estimate these Credits at the inception of the RLSA Overlay. With 5 years of actual data from 13 approved and pending SSAs one can estimate the use of the restoration program. Notwithstanding, the same variables of site specific conditions, owner decisions, and permitting requirements will still apply to future restoration. For this estimate, the following approach has been used:

Total acres of FSA, HSA, and Restoration Zone within RLSA:	73,000
Acres of planned restoration, SSAs 1-13:	12,000
Acres deemed not suitable for restoration, SSAs 1-13	21,000
Maximum eligible acreage for future restoration:	40,000

For SSAs 1-13, approximately 29% of the total acreage is proposed for restoration. Assuming that the same percentage applies to the 40,000 acres that are eligible for future restoration, 11,600 additional acres would be restored (40,000 x 0.29 = 11,600). The projected additional restoration credits generated under the current system would be approximately 78,000 credits, as shown in the table below:

System	Potential Restoration (Acres)	Estimated Restoration (Potential acres x 29% )	Restoration Credits (credits/acre)	Estimated Credits
Camp Keais	15,000	4,350	8	34,800
OK Slough	25,000	7,250	6	43,500
TOTAL	40,000	11,600	N/A	78,300

The total estimate for restoration credits under the current system is:Approved restoration credits (SSAs 1-9, 11):28,000Pending restoration credits (SSAs 10, 12, 13):54,000Estimated future restoration credits (rounded):78,000Total restoration credit estimate for current system:160,000

#### Early Entry Bonus Credits

RLSA Policy 1.21 provides for a maximum of **27,000 Early Entry Bonus Credits**. These Credits are available until January 31, 2009, at which time they are no longer available.

Potential Credits and SRA acres under currently adopted RLSA Program		
Base Credits:	128,000	
Restoration Credits:	160,000	
Early Entry Bonus Credits:	27,000	
Total Credits:	315,000 Credits	
SRA Acres at 8 Credits per acre:	39,375 Acres	
Public Benefit Acres estimated at 10%:	3,937 Acres	
Total SRA Acres:	43,312 Acres	
Remaining Baseline development potential		
Open Land not included in SRAs or SSAs		
ACSC Open Land	15,000 Acres	
Non ACSC Open Land	28,700 Acres	
Total remaining Open Land	43,700 Acres	

#### 2. CREDIT GENERATION UNDER THE COMMITTEE'S RECOMMENDED RSLA OVERLAY MODIFICATIONS

Three proposed changes to the RLSA Overlay recommended by the Committee would change the Stewardship Credit estimates described previously. Two are new credit categories that resulted from the Florida Panther Protection Program, and the third is a proposed modification to the Restoration Credit system.

#### Agriculture Credits (Policy 2.2)

These Credits result from a property owner agreeing to eliminate non- agricultural uses from Open designated land and an alternative to development under baseline zoning rights. Estimates are calculated based on the acreage of privately owned Open designated land in the ACSC not already included in approved SSAs (approximately15,000 acres) at 2.6 Credits per acre yielding 39,000 Credits, and privately owned Open designated land outside of the ACSC (approximately 72,000 acres), less the amount of potential SRA acres proposed under the Florida Panther Protection Program (45,000) and less the acreage of a potential Panther Corridors on such Open Lands (approximately 1,300 acres) and miscellaneous land (700 acres). This results in an estimated 25,000 acres of Agriculture outside of the ACSC at 2.0 credits per acre, or 50,000 Credits. Therefore, the rounded total estimate is **89,000 total Agriculture Credits**.

## Panther Corridor Credits (Policy 3.11)

Panther Corridor Credits result from a property owners agreeing to designate land and construct improvements to implement the north and south Panther Corridors referenced in the Florida Panther Protection Program. These corridors will require the use of both Open Lands and WRAs. We currently estimate approximately 1,300 acres of Open land and 1000 acres of WRA land in the north and south corridors would be required for a total of 2,300 acres at 10 Credits per acre, or **23,000 Panther Corridor Credits**. It is possible for these acreages to be more or less, and the viability of these corridors is currently under review by the Florida Panther Protection Program Scientific Technical Review Committee.

#### Tiered Restoration Credit Estimates (Policy 3.11)

The proposed tiered restoration system is a modification to the current program to better define the type and relative value of different restoration types. For this estimate, we assume that 11,600 acres within future SSAs are suitable for restoration activities as previously described, with 600 acres dedicated for panther habitat restoration, and the remaining 11,000 acres split equally between the four other restoration types (caracara, exotic removal / burning, flow way, and native habitat restoration). For this analysis, we also assume that approved and pending SSAs will be considered as vested under the current program, and that future SSAs will use the tiered system. The calculations are as follows:

		Credits per	
<b>Restoration Type</b>	Acres	Acre	<b>Restoration Credits</b>
Panther Habitat	600	10	6,000
Caracara	2,750	4	11,000
Exotic			
Control/Burning	2,750	6	16,500
Flow Way	2,750	6	16,500
Native Habitat Rest.	2,750	8	22,000
Total	11,600	N/A	72,000

The total estimated restoration credits with implementation of the tiered system for future SSAs are shown below: Approved restoration credits (SSAs 1-9, 11): 28 000

Approved restoration credits (SSAs 1-9, 11):	28,000
Pending restoration credits (SSAs 10, 12, 13):	54,000
Estimated future restoration credits:	72,000
Tiered Restoration Credits:	154,000

These restoration estimates are subject to substantial variation based on site specific analysis for restoration suitability, decisions made by the property owner as to appropriate restoration, approval by the County and permitting agencies and successful restoration implementation.

Potential Credits and SRA acres under a revised RLSA Overlay

Should the three modifications described above be adopted without further changes, there would be the following resulting Credits and SRA acres:

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Base Credits:		128,000
Restoration Credits:		154,000
Early Entry Bonus Credits:		27,000
Agriculture Credits		89,000
Panther Corridor Credits		23,000
Total Credits:		421,000 Credits
SRA Acres at 8 Credits per acre:	52,625 Acres	
Public Benefit Acres at 10%:	5,263 Acres	
Total SRA Acres:	57,888 Acres	
Remaining Baseline development potential		
Open Land not included in SRAs or SSAs	0 Acres	

## 3. ADJUSTMENTS TO MEET 45,000 ACRE SRA CAP

In Policy 4.2, the Committee recommends a cap of 45,000 SRA acres in the RLSA and, as a result, certain adjustment will be necessary so that the RLSA Overlay Credit System will produce sufficient Credits to entitle 45,000 acres, without leaving a substantial number of excess Credits. The following items are recommended by the Committee:

- 1. The cap of 45,000 SRA acres should include public benefit acres. (Policy 4.2 and 4.20)
- 2. The proposed Tiered Restoration System should be used for all future SSAs (Policy 3.11).
- 3. No extension of the Early Entry Bonus Program beyond January 31, 2009. Approximately 7,000 EEBs not included in approved or pending SSAs will be eliminated (Policy 1.21).
- 4. A change in the SRA Credit Ratio from 8 Credits per SRA acre to 10 Credits per SRA acre for Credits generated from any future, non-vested SSAs (Policy 4.19).
- 5. SSA vesting will be applied as follows:
  - a. All approved SSAs would be vested at the 8 Credit per SRA acre ratio and in accordance with the restoration programs set forth therein. This represents a total of 73,488 credits. Any SRA acres entitled with these Credits will be computed at the current 8 Credit per acre ratio. This includes Credits and SRA acres already approved for and applied to the Town of Ave Maria.
  - b. Proposed SSAs 14, 15, and 16 would be vested at the current 8 Credit per SRA acre ratio to the extent required to entitle the proposed Town of Big Cypress DRI/SRA. These SSAs will include restoration designation credits at the current rate of 4 per acre in the Camp Keais Strand. Total restoration credits per acre will not exceed the level provided under the new tiered system as approved. This represents an estimated total of 24,000 Credits and 3,000 SRA acres.
  - c. Proposed SSAs 10, 12, and 13 will continue to be processed and approved under current adopted standards (8 Credits per SRA acre and non-tiered restoration). Should all of the proposed modifications be approved, the owners of these SSAs will agree to subsequently amend these SSAs to adjust to the 10 Credit per SRA acre ratio and tiered restoration system following approval and adoption of these new standards. This would reduce the estimated restoration credits by 10,000. Should the proposed modifications not be adopted, these SSAs will not be amended.
- 6. All new SSAs will conform to the new adopted standards.

With these adjustments, the following table shows the resulting number of Credits and potential SRA acres:

Estimated Credits (assuming full property owner participation):			
Base Credits from all NRI based SSAs 128,000			
Early Entry Bonus Credits (upon phase out)	20,000		
Restoration Credits	144,000		
Agriculture Credits (40,000 acres)	89,000		
Panther Corridors (assumes 2,300 acres)	23,000		
Total Estimated Credits	404,000 Credits		
Projected SSA supply of Credits			
SSAs 1-9, 11 Vested Credits (approved)	73,488 credits		
SSAs 14-16 Vested Credits (estimated)	24,000 credits		
SSA Credits vested at 8 Credits per SRA acre	97,488 credits		
Remaining SSAs at 10 Credits per SRA acre	306,512 credits		

Projected SRA acres assuming all Credits are used:	
SRA acres entitled at 8 Credits per acre	12,186 acres
SRA acres entitled at 10 Credits per acre	30,651 acres
Subtotal of Credit entitled SRAs	42,837 acres
Public benefit acres estimated at 10%	4,283 acres
Total potential SRA acres	47,120 acres
Remaining Baseline development potential	0
Open Land not included in SRAs or SSAs	0 acres

#### Credit estimates and excess Credits

The total supply of Credits entitles less than 45,000 acres of SRAs, but estimated public benefit acres must also be considered. Because the RLSA is a voluntary, market based system and these estimates assume 100% property owner participation in the RLSA Program, and each category of estimate has a range of assumptions built in to the estimated number, it is advisable to allow for some variance. The above estimates result in sufficient Credits that, together with public benefit acres, provides for an approximate 5% variance in total potential SRA acres. There are a number of factors that could offset this potential "excess" including but not limited to: less than 100% participation by all property owners in the RLSA, less than 10% public benefit acres, purchase of land and/or Credits by a publicly funded conservation program, less than 100% success rate in restoration implementation, and lack of market demand for all of the potential Credits.

## 4. COMPARISON OF ALTERNATIVE CREDIT SYSTEMS

The following three tables illustrate the land use summaries at full utilization using the current and revised and recalibrated programs. With the proposed revisions, the acreage of potential SRAs increases nominally from 43,300 acres (Tables 4.1 and 4.2) to 45,000 acres (Table 4.3). However the potential development footprint of Open Land converted to baseline development could be reduced dramatically, depending on the use of the new Agriculture Credit. Table 4.1 shows 100% of Open Lands converted to baseline uses under the current program and Table 4.3 shows 100% of Open Lands placed in Agriculture SSAs under the revised program.

It is unrealistic to expect that all of the Open land outside of SRAs would be converted to baseline development under the current program. Market incentives that favor well planned, compact, mixed use communities with a wide range of housing options served by high quality infrastructure and services would satisfy most of the demand for new homes in the RLSA. In addition, Golden Gate Estates already offers a significant supply of 2.25 to 5 acre lots without such services for those that prefer this alternative.

Table 4.2 shows a more realistic scenario for comparison, where 10% of ACSC Open lands are converted (based on ACSC regulations limiting site alterations to 10% of any site) and 25% of non ACSC Open Lands are converted. Comparing Table 4.2 and Table 4.3 still demonstrates that the potential development footprint is reduced by approximately 7,000 acres using the revised RLSA system.

100% baseline conversion			
	Acres	% of Total	
NRI based SSAs	92,000		
SSA Subtotal	92,000	47.0%	
Open Land conversion to baseline rights	43,700		
SRAs	43,300		
Potential Development Footprint	87,000	44.4%	
Public Land and Miscellaneous	16,846	8.6%	
Total RLSA	195,846	100.0%	

Table 4.1: Current RLSA Land Use Summary at full utilization with
100% baseline conversion

	Acres	% of Total
NRI based SSAs	92,000	
SSA Subtotal	92,000	47.0%
ACSC Open Land conversion at 10%	1,500	
Non ACSC Open Land conversion at 25%	7,175	
SRAs	43,300	
Potential Development Footprint	51,975	26.5%
Open Land remaining in Agriculture	35,025	17.9%
Public Land and Miscellaneous	16,846	8.6%
Total RLSA	195,846	100.0%

 Table 4.2:
 Current RLSA Land Use Summary with partial baseline conversion

 Table 4.3: Revised and recalibrated RLSA Land Use Summary at full utilization

	Acres	% of Total
NRI based SSAs	92,000	47.0%
Agriculture SSAs	40,000	20.4%
Panther Corridors	2,300	1.1%
SSA Subtotal	134,300	68.5%
Potential Development (SRAs)	45,000	23.0%
Public Land and Miscellaneous	16,546	8.5%
Total RLSA	195,846	100.0%

Under the revised and recalibrated RLSA system, in addition to agricultural uses retained on the majority of 92,000 acres of NRI based SSAs, 40,000 additional acres of agricultural land are protected as Agriculture SSAs. Two important Panther corridors are also incentivised.

It should also be noted that current RLSA Overlay Policy 4.10 requires a minimum of 35% of each SRA to be open space. As a result, a minimum of 15,750 acres of the total 45,000 acres of SRA will be open space, and a maximum of 29,250 acres will be developed land. This results in a net developed footprint equal to 15% of the total RLSA acreage.

## **III.** Population Analysis

This analysis is based on the projected population within the RLSA and does not include or accommodate projected urban populations in areas beyond the RLSA.

Population projections for the horizon year of 2025 were reviewed from multiple sources as shown in **Table II-1**. First, the Collier County Build-Out Study is an analysis done by County Comprehensive Planning staff in 2005 to evaluate a potential population of the RLSA at that time. That study estimated a RLSA population projection of 71,600 by 2025. The more recent Collier County East of CR 951 Interactive Growth Model (2008) analyzed a projected population for the county east of CR 951 area, and included a discrete projection for the RLSA. This study projected an RLSA population of 45,000. The Collier County MPO 2025 land use forecast uses the county's accepted projections of a population of 56,300. Using the data derived from the transportation analysis and SRA requirements contained in the RLSA Overlay, a projected population of 51,303 is obtained, slightly below the County's accepted MPO projections.

	SF Dwelling Units	SF Population	MF Dwelling Units	MF Population	TOTAL Dwelling Units	Total Population
Collier County Build-out Study	17,100	43,400	14,800	28,200	31,900	71,600
Collier County Interactive Growth Model	n/a	n/a	n/a	n/a	24,663	45,400
Collier MPO 2025 Forecast	13,900	34,200	11,800	22,100	25,700	56,300
RLSA Overlay Forecast	12,656	28,476	13,044	22,827	25,700	51,303

Table II-1 2025 Horizon Year Projections within the RLSA

There is no requirement for Collier County to "accept" population projections beyond the established horizon year of 2025 and therefore an MPO population figure is not included in

**Table II-2.** However several other sources have included "build-out" projections including the 2005 Collier County Build-out Study, and the Collier County Interactive Growth Model, both illustrated in Table II-2. For the purposes of this analytical comparison we used the maximum SRA 45,000 acres and extrapolated a population based on the SRA requirements for towns and villages and the adopted Collier County persons per households.

	SF Dwelling Units	SF Population	MF Dwelling Units	MF Population	TOTAL Dwelling Units	Total Population
Collier County Build-out Study	66,403	220,722	65,879	168,421	132,238	389,193
Collier County Interactive Growth Model	n/a	n/a	n/a	n/a	106,493	210,632
RLSA Overlay Forecast	72,700	163,602	40,514	70,970	113,214	234,572

Table II-2 Build-Out Projections within the RLSA

Note: Table II - RLSA Overlay Forecast totals include SRA development and Baseline development existing in 2000.

How the projected population might be accommodated within SRAs is addressed in the following RLSA Concept Maps.

## RLSA Concept Maps

To help visualize how land uses may be distributed within the RLSA, and to graphically illustrate the Comparison of alternatives previously described three Maps have been prepared the currently adopted RLSA Overlay Map (Figure A); the 2025 RLSA Concept Map (Figure B); and the 2050 RLSA Concept Map (Figure C). Map A is a rendering of the Overlay Map and Maps B and C each present one possible scenario for the distribution of potential Stewardship Sending Areas, Stewardship Receiving Areas, Agricultural Areas, Open Spaces, and other features of the RLSA that could occur at the 2025 Horizon Year and 2050 based on implementation of the recommended policies. The Maps also depict the primary transportation network and the possible location of Panther Corridors. The Concept Maps use symbols to depict possible locations of Towns, Villages and Compact Rural Developments. The range of potential size for any Town, Village or CRD varies widely, and one should not assume that each Town or Village symbol represents the maximum allowable size, as this would result in a total

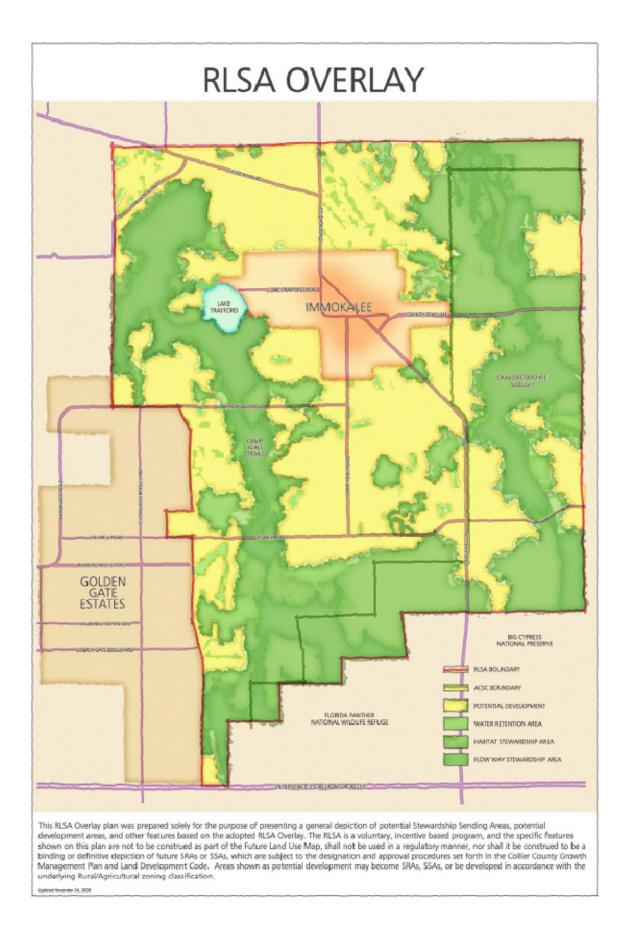
SRA development footprint well in excess of what is possible under the proposed cap. For example, a Town will fall within a range of 1,500 acres -5,000 acres under the proposed policies.

In 2025, the forecasted number of dwelling units is 25,700 and the MPO forecasted population is 56,300. The 2025 Concept Map depicts 10 potential SRAs of varying size that collectively would accommodate the forecasted 2025 population and also provide for future growth. Please note that these maps depict "approved" SRAs and not fully developed Towns and Villages, as it commonly takes 10-25 years before an approved Town or Village would be completed. To accommodate this fact, the total acreage of approved SRA Towns and Villages shown is approximately 24,000 acres and it is estimated that collectively approximately 1/2 of the SRA acreage would be fully developed at this time with occupied homes and associated non- residential uses.

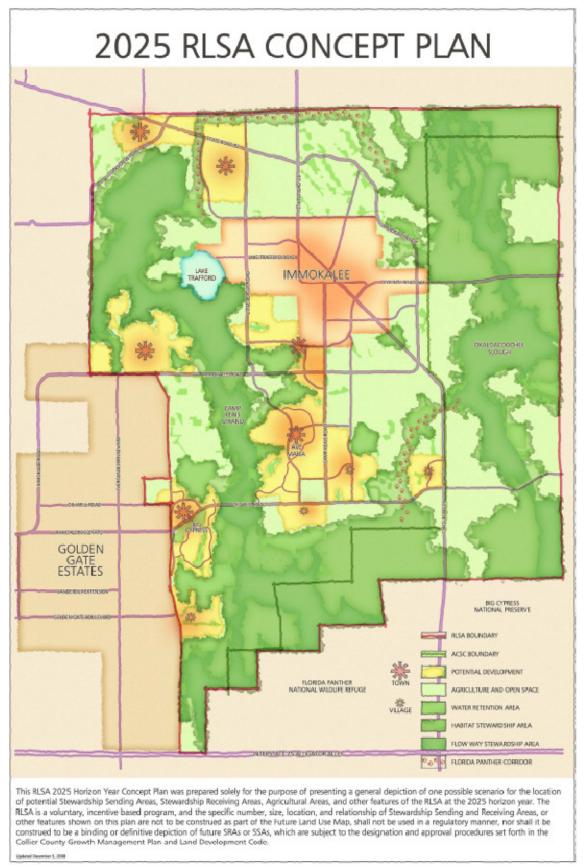
In 2050, the forecasted number of dwelling units within the RLSA ranges between 106,493 and 132,238 depending on the forecast source. The 2050 Concept Map depicts 16 possible SRAs of varying size that collectively would accommodate the forecasted 2050 population and, if fully developed at this time, represent the 45,000 acres of SRA that is proposed as the cap for the RLSA at buildout, with an average gross density between 2.5 and 3.0 units per acre. It should also be noted that, with the RLSA Review Committee's recommended changes to the RLSA Overlay Credit System, essentially all of the areas depicted as FSA, HSA, WRA, Agriculture and Open Space would be within approved SSAs in order to generate the necessary Credits to entitle the SRAs.

As noted on each Map, these Maps represent but one possible scenario, and should not be misconstrued as a binding or definitive depiction of the location or size of SRAs or SSAs, as these must be voluntarily and individually approved by the Collier County Board of County Commissioners in accordance with the adopted GMP and LDC procedures.

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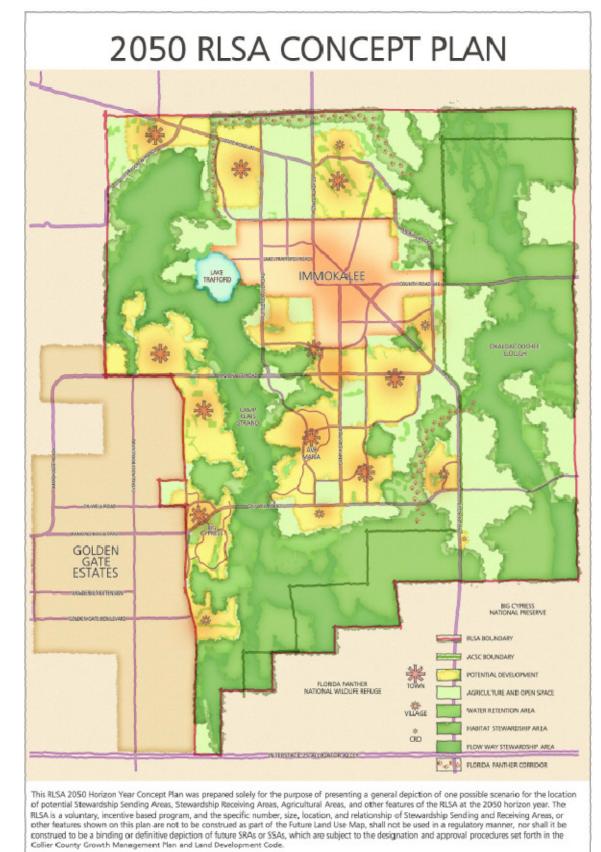


Figure C – 2050 Build-Out RLSA Concept Plan.

Siplated December 1, 2008

## **IV. Transportation**

A long-range transportation analysis was performed for two separate timeframes; 2025, the established Horizon Year in the Collier County Growth Management Plan, and a theoretical RLSA "Build-Out" in 2050, in order to evaluate the long-range transportation implications of development within the RLSA Overlay. The first analysis performed was for 100% build-out of Collier County with specific emphasis placed on the roadway network needs with the RLSA Overlay "study area". It should be emphasized that these are conceptual in nature and depict one theoretical scenario for potential development in the RLSA at the horizon year and at build-out. Both analyses were conducted using the FDOT District One District-wide 2030 Model as a base. Since the Study Area has a significant amount of potential to interact with both Lee and Hendry County in addition to western Collier County, the District-wide model was seen as a better tool for this exercise than the MPO's Lee/Collier Bi-County model that does not interact with Hendry County.

#### **Build-Out Analysis**

Starting with the District-wide 2030 Financially Feasible Model, the Collier County traffic analysis zones (TAZs) were "populated" with land use socioeconomic (SE) data developed by Collier County as part of the Collier County Build-Out Study. For the TAZs outside of Collier County, a growth rate derived from an estimate of the build-out year for Collier County was developed, and land use data in surrounding counties was extrapolated at that resulting growth rate in order to "grow" adjacent counties for the same period as Collier County.

With the exception of the TAZs wholly or partially within the RLSA Overlay boundary, all of the TAZ SE data used was provided by Collier County. For TAZs split by the RLSA Overlay boundary, an estimate for RLSA and non-RLSA lands was made, and the TAZ contents distributed accordingly.

For the RLSA Overlay TAZs the SE data was developed to illustrate one possible scenario of SRAs. Land use variable were developed to establish the amounts of dwelling units and non-residential floor area, as well as hotel units and school enrollment, all variables used by the travel models. Lastly, the RLSA Overlay totals were divided into TAZs that generally represent one possible scenario of how development may occur. It should be understood, that the RLSA program allows for certain level of flexibility to develop with Open lands, and until such time as agricultural and environmental lands are placed into SSAs and like wise Open lands are designated as SRAs, there will be a lack of specificity as to where development will actually occur. The land areas (TAZs) identified in the analyses, are one of a number of potential scenarios. Further, it should be noted that the number of TAZs does not necessarily equate to the number of potential future SRAs, since in the travel model structure a single SRA may be comprised of more than one TAZ and thus have multiple centroids in the model.

The potential development for the Build-Out Scenario examined for purposes of this amendment is shown in **Table III.** The potential development areas were generally located as illustrated in **Figure D**.

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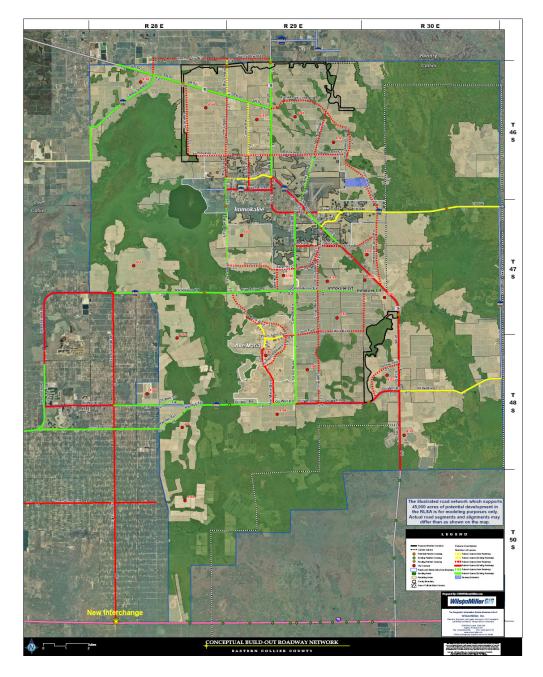
## Table III – Traffic Analysis Zones with the RLSA at Build-Out

	Single Family Detached	Multi-Family Condo Townhouse	Retail Shopping (K Sq. Ft.)	Office (K Sq. Ft.)	Student Population	Hotel (Room)
4140	5,886	5,114	1,885	628	3,311	500
4141	6,650	2,850	1,604	535	3,126	430
4142	6,650	2,850	1,425	475	3,126	380
4143	3,500	1,500	750	250	1,645	200
4144	5,190	3,460	1,021	340	2,699	270
4145	1,225	525	263	88	576	-
4146	6,650	2,850	1,425	475	3,126	380
4147	2,538	1,088	544	181	1,193	150
4148	4,988	2,138	1,069	356	2,344	290
4149	1,663	713	356	119	781	-
4150	3,500	1,500	750	250	1,645	200
4151	2,407	6,561	987	664	2,292	280
4152	2,450	1,050	525	175	1,152	140
4153	2,450	1,050	525	175	1,152	140
4154	3,213	1,377	689	230	1,510	180
4155	5,775	2,475	1,238	413	2,714	330
4156	788	338	169	56	370	-
4157	422	-	-	-	-	-
4158	5,250	2,250	1,125	375	2,468	300
4159	-	-	38	13	-	200
Various	1,929	827	413	138	906	110
	73,122	40,514	16,799	5,935	36,134	4,480

**General Assumptions:** 

<b>Residential Density:</b>	2.525 DUs per Gross Acre
<b>Retail Shopping:</b>	.38 K Sq. Ft. per Gross Acre
<b>Office/Service:</b>	.13 K Sq. Ft. per Gross Acre
<b>Student Population:</b>	.38 per SF DU and .21 per MF DU
Hotel:	.10 rooms per Gross Acre

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## Figure D – New District-Wide Model TAZs within the RLSA

During the course of the Build-Out Analysis, various roadway network options were examined, including options to expand along existing alignments as well as new roads that would help to form a grid network. The iterative process of developing a build-out network involved running the computer models, examining the results, updating the network with improvements (adding/deleting), re-running the model, etc. This exercise was repeated several times in order to achieve a long-range transportation network that can sustain the travel demand of the RLSA Overlay at build-out. The resulting network from the Build-Out Analysis is attached as **Exhibit A**.

Note: This map is preliminary and has not been approved by Collier County, will be updated and refined as part of the process involved with the implementation of proposed 3.7 of the Transportation Element of the GMP [see Section 5], and the Committee endorses the provision of necessary lands for other forms of transportation, including rail and transit.

#### 2025 Analysis

Following completion of the Build-Out Analysis, attention was turned to the interim horizon year of 2025 which corresponds to the adopted Transportation Element of the County's Growth Management Plan. A Naples MPO 2025 Lee/Collier land use TAZ dataset was used to populate the Lee and Collier County TAZs within the 2030 Districtwide model. 2025 SE data for all other TAZs in the District-wide Model counties were developed by interpolating between the District-wide validation year (2000) dataset and the 2030 dataset, and when combined with the Lee/Collier 2025 TAZ contents, effectively created a 2025 District-wide model.

With the exception of the TAZs wholly or partially within the RLSA Overlay boundary, all of the TAZ SE data was used as provided by Collier County. For TAZs split by the RLSA Overlay boundary, a proportional estimate for RLSA and non-RLSA lands was made, and the TAZ contents distributed accordingly.

Within the RLSA Overlay TAZs, an assessment of what amount of the build-out total for each TAZ would be actually constructed by 2025 was made. Additionally, for purposes of context, the amount of SRA acreage that would need to be entitled in order to accommodate a lesser degree of actual developed acreage was estimated (see previous discussion regarding the Concept Maps). This calculation, although not relevant to the analysis, places the developed acreage into proper perspective, as a part of the estimated entitled SRA acreage in the year 2025. This assessment recognizes the reality that there will always be some level of un-built inventory of SRA acreage available at any given time.

The estimates shown below in **Table IV** for the 2025 horizon year have been translated into land use variables that essentially match the totals that were attributed to the RLSA TAZs in the 2025 MPO model. While the dwelling unit totals match to the original estimates, no attempt was made to match the single family/multi-family mix shown in the original estimates. Additionally, because the nature of the proposed development patterns and the associated mix of unit types is expected to be different than that proposed in the original County dataset, the net result is a slightly lower overall persons per household rate within the RLSA Overlay, resulting in a slightly lower total population.

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TAZ	Single Family Detached	Multi-Family Condo Townhouse	Retail Shopping (K Sq. Ft.)	Office (K Sq. Ft.)	Student Population	Hotel (Room)
4140	5,297	4,603	1,697	566	2,980	450
4141	1,629	698	393	131	766	110
4142	-	-	-	-	-	-
4143	-	-	-	-	-	-
4144	753	502	148	49	391	-
4145	-	-	-	-	-	-
4146	1,466	628	314	105	689	-
4147	-	-	-	-	-	-
4148	263	113	56	19	123	-
4149	158	68	34	11	74	-
4150	-	-	-	-	-	-
4151	2,164	5,898	887	597	2,061	250
4152	-	-	-	-	-	-
4153	-	-	-	-	-	-
4154	-	-	-	-	-	-
4155	-	-	-	-	-	-
4156	236	101	51	17	111	-
4157	-	-	-	-	-	-
4158	788	338	169	56	370	-
4159	-	-	-	-	-	-
Various	-	-	-	-	-	-
	12,752	12,948	3,748	1,551	7,565	810

Table IV – Traffic Analysis Zones with the RLSA at 2025

24,600 Estimated SRA Acreage Entitled

10,200 Estimated Acreage Developed

41% Percentage of Entitled Actual Developed

- 22% Percentage of Build-out Acreage Actual Developed
- 25,700 Revised RLSA DU Distribution
- 25,700 Original DU Control Total in Collier County Model

0 Difference

During the modeling analysis of 2025, the build-out network developed previously was used as a starting point, realizing that a substantially lower development program in 2025 would require less roadway capacity than the build-out scenario. As in the Build-Out Analysis, multiple iterations were needed to "prune" the build-out network of excess capacity that would not be necessary by 2025, resulting in the roadway network depicted in attached **Exhibit B**. As in the case of the build-out scenario, the 2025 represents one of many scenarios of where development may exist by the year 2025.

With respect to both the build-out and 2025 scenarios, because they represent one of many possible outcomes, it will be important for the County to monitor in-coming SRA applications, and their associated transportation impact assessments for consistency with the analyzed scenarios, and where necessary, update the build-out and 2025 networks as needed to reflect changed conditions. This is consistent with the current practice of periodically re-analyzing the growth patterns for changes in trends and conditions, and making any necessary modifications to adopted roadway plans.

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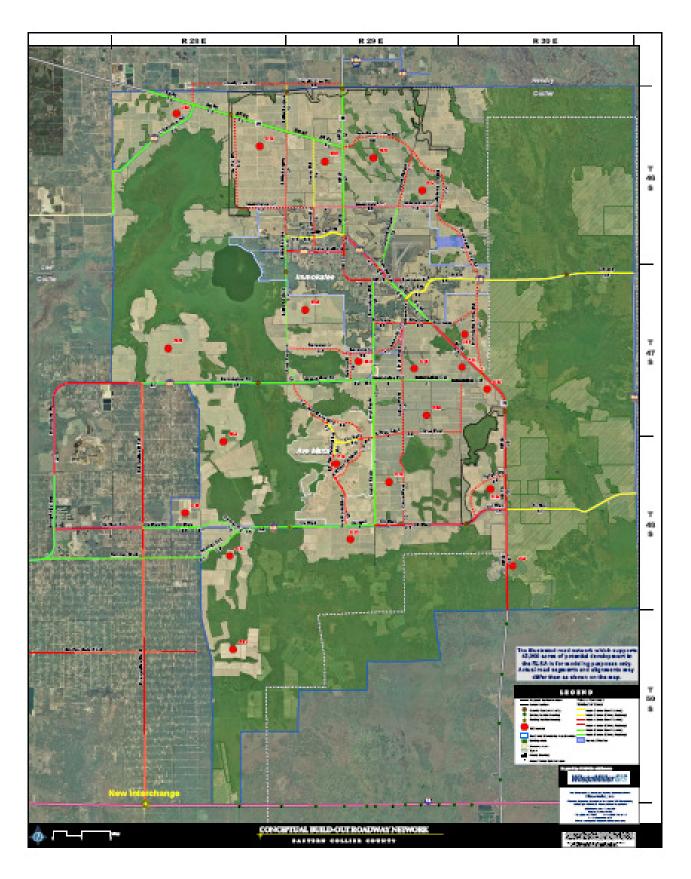
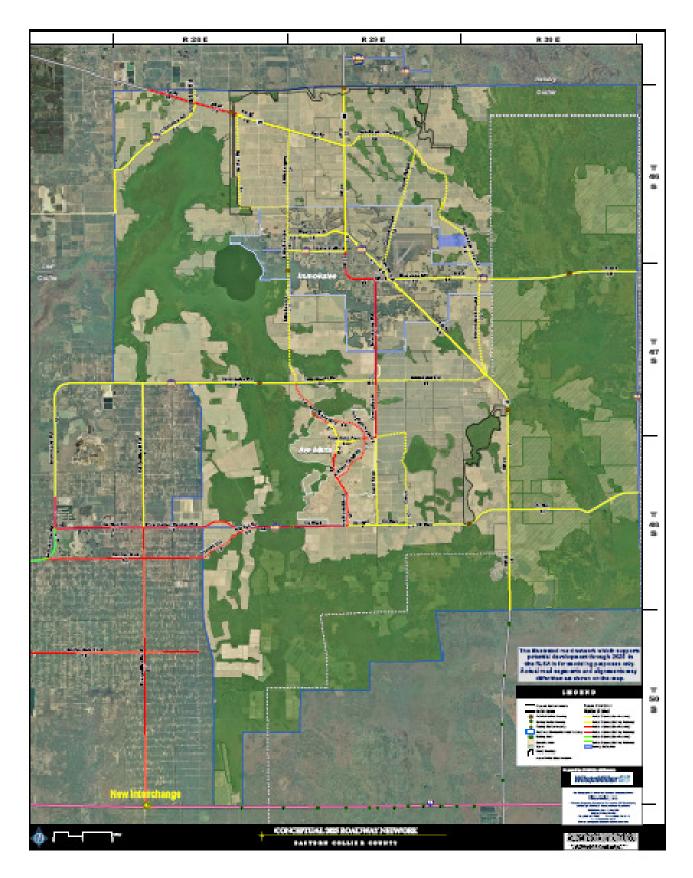


Exhibit A – Conceptual Build-Out Roadway Network.



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