



# COLLIER COUNTY 2020 STEWARDSHIP CREDIT ANALYSIS

March 2020

Collier County Growth Management Department

This is a staff working draft and is subject to modification.

# Rural Lands Stewardship Area Overlay 2020 Credit Analysis

## Staff Working Document, Subject to Modification

### I. Introduction

The Rural Land Stewardship Area Overlay (RLSA) was adopted in 2002. One of the primary objectives of the RLSA is to protect natural resources. An innovative planning tool was created through a “hallmark” public process guided by a Rural Lands Study Committee (Committee) appointed by the Board of County Commissioners. The development of the RLSA was based on underlying natural resource data, vetted through 32 Committee meetings between 1999 and 2001. The RLSA data was organized in the adopted Stewardship Natural Resource Index (NRI) model. This NRI model reflects Collier County’s first integrated GIS land use and environmental database. The data and associated natural resource values were agreed to through the RLSA Committee process and adoption by the Board. The NRI model values are illustrated in Map 1. The darker the blue, the higher the natural resource value. The NRI scores, along with the RLSA policies, reflect the value of protecting these lands. The RLSA provides a plan to incentivize the desired outcomes of natural resource protection, agriculture land retention, and sustainable development.

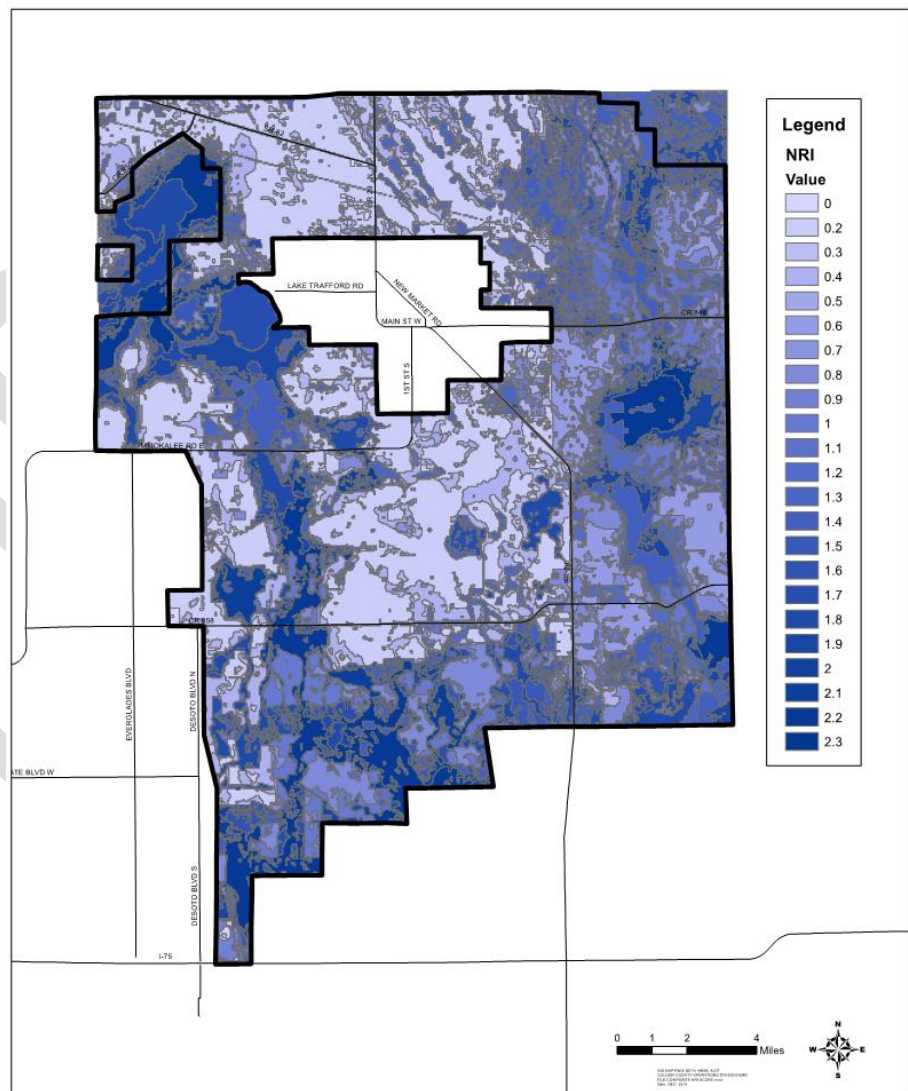
Map 1

**RLSA COMPOSITE NRI SCORE**

Natural resource protection and agriculture protection are incentivized through the Stewardship Credit system. Property owners who agree to protect lands by designation of Stewardship Sending Area easements are rewarded with Stewardship Credits that can be used for development.

This analysis evaluates how the RLSA Stewardship Credits have performed in the first twenty years under current policy and projects how they may perform through full implementation. The adopted plan is then compared to the proposed policy changes.

The RLSA 5-Year Review Committee Report, 2007, and the RLSA White Paper, 2019 include substantive analysis of the RLSA program. The findings of these reports are utilized in this analysis for comparison.



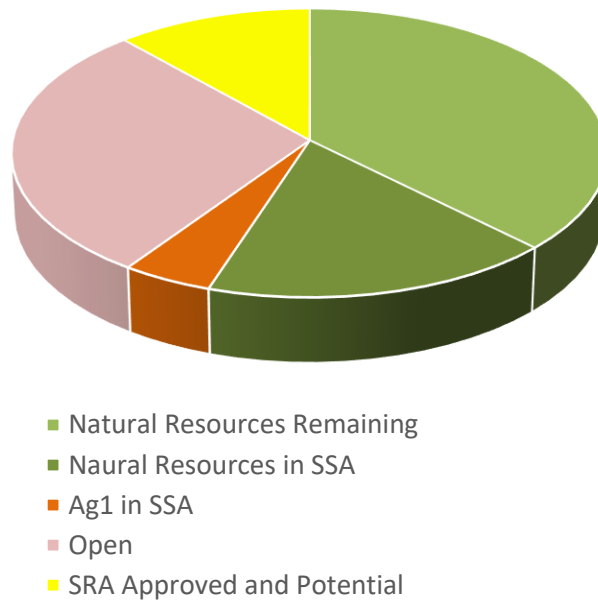
Consistent with the framework of the RLSA to incentivize what is valued using the Stewardship Credit system, the RLSA 5-Year Review Committee’s Report and the White Paper focused on recommended policy amendments to strengthen the incentives for:

- agriculture land retention,
- additional panther corridors, and
- a tiered restoration system.

The recommended amendments require a reanalysis of the Stewardship Credit system and rebalancing of the Stewardship Credits to align with the recommended maximum 45,000-acre development footprint.

Collier County’s staff analysis provides an updated analysis based on the RLSA implementation to date. **Figure 1** provides a simple illustration of the implementation of the RLSA. The majority of lands within the RLSA are valued natural resources. To date, the RLSA has protected approximately 56% of these lands. A smaller percentage of land shown in orange are SSAs that maintains active agriculture uses. The Stewardship Credits generated from these SSAs total 197,287. These Credits may entitle SRAs of up to 27,127 acres. The approved and potential SRA acreage shown in yellow includes over 6,000 acres attributed to the Town of Ave Maria, and Rivergrass Village. A large percentage of the RLSA remains in the “Open” designation. The Open designation is where the RLSA directs SRA development. Recommended policy amendments incentivize this “Open” land to be retained in Agriculture SSAs as an alternative to future development.

Figure 1: RLSA Acres in 2020

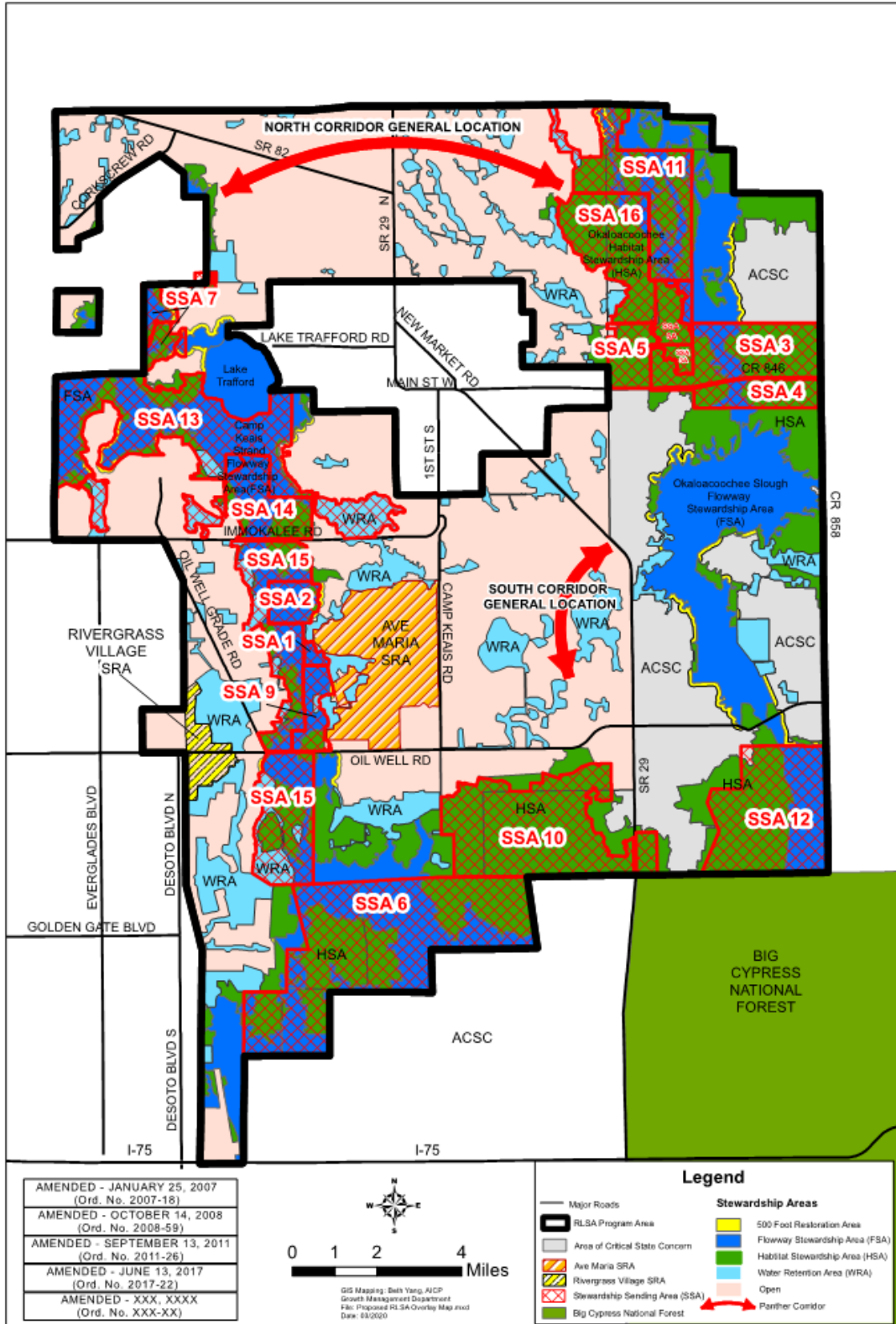


## II. Stewardship Credit System Analysis

To date, the RLSA has been implemented with the approval of SSAs 1-16, Ave Maria SRA and Rivergrass Village SRA. Others SSAs and SRAs are under review and pending. Map 2: Proposed RLSA Overlay Map shows the location of SSAs 1-16. These SSAs total approximately 50,425 acres and have generated 197,287 Stewardship Credits which can be used for approved and potential development of 27,127 SRA acres, including 10% public benefit uses that do not require consumption of Credits. This SRA potential equals 60% of the proposed 45,000-acre SRA cap.

Map 2:

PROPOSED RLSA OVERLAY MAP



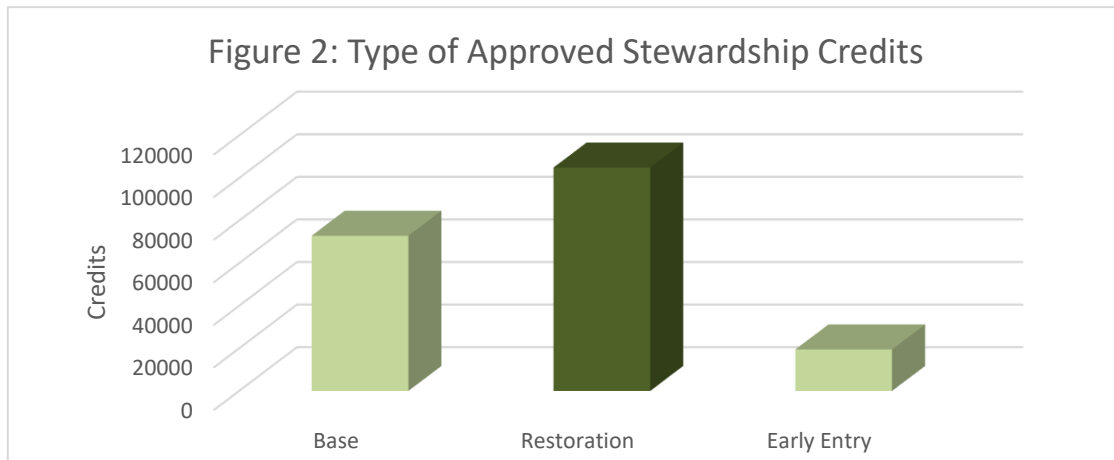
Note: The official designated titles of SSAs can be found within SSA Credit Agreements.

## 1. Credits Generated Under the Adopted RLSA Credit System

The Stewardship Credit System analysis considers the generation of Credits under the currently adopted RLSA Overlay. The adopted RLSA policies allow SSA Credit generation through three types of Credits:

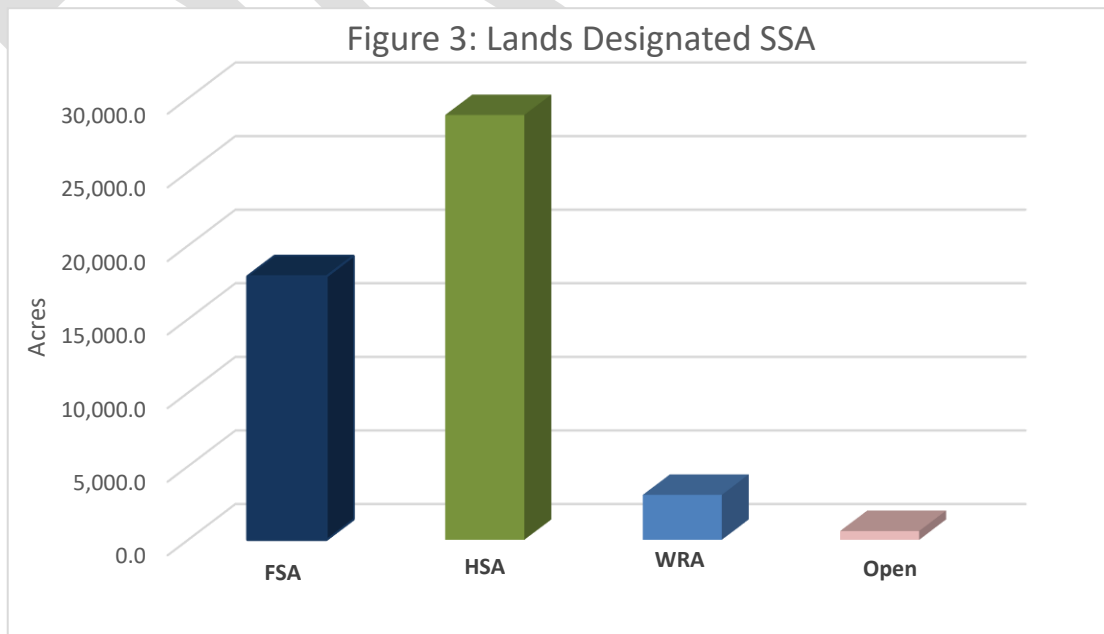
- A. Base Credits
- B. Restoration Credits
- C. Early Entry Bonus Credits

Stewardship Credits have been generated through all three available types. As shown in **Figure 2**, the greatest number have been generated by Restoration Credits.



### A. Adopted Base Credits

Base Credits are the Credits generated by use of Policy 1.8. They are created from lands designated on the Overlay Map as Flowway Stewardship Areas (FSA), Habitat Stewardship Areas (HSA), Water Retention Areas (WRA) and Open. Base Credits are determined through the NRI model values and the land use layers property owners voluntarily remove. The NRI model data is updated at the time an SSA is submitted for review and approval. SSAs 1-16 generated approximately 72,902 Base Credits, mostly from lands designated HSAs and FSAs as shown on **Figure 3**.





To estimate the future potential Base Credits, the data within the Stewardship NRI model is analyzed.

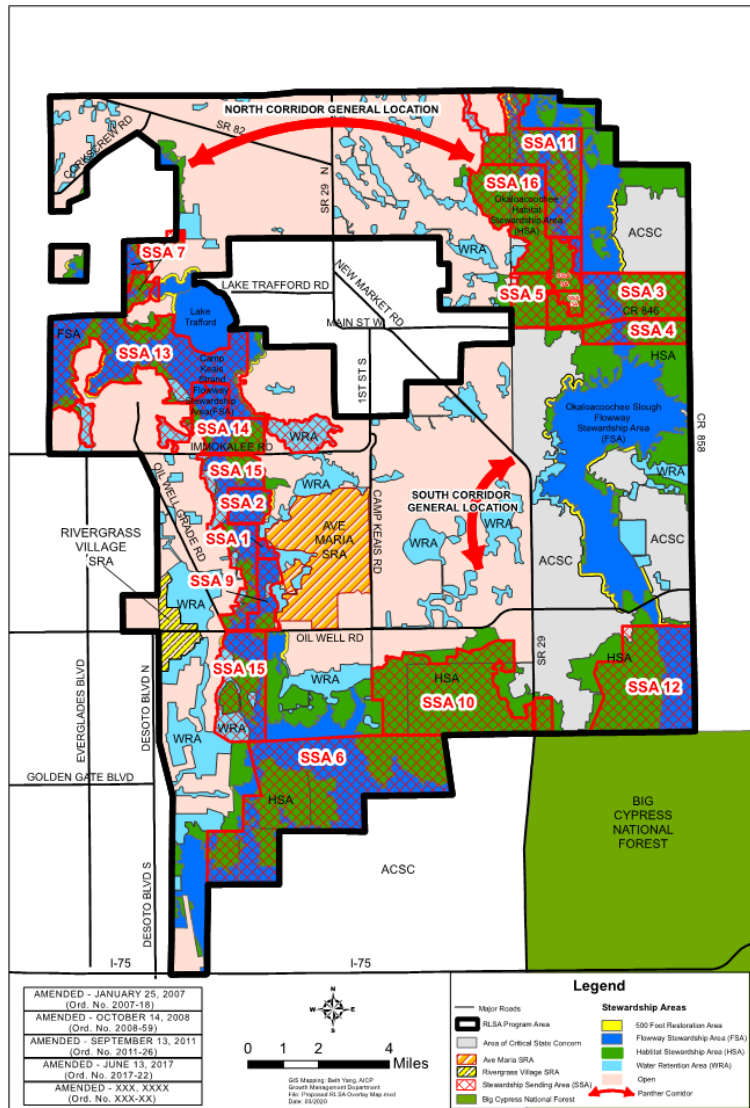
Map 3:

The analysis evaluates the potential remaining Base Credits for HSA, FSA and WRA lands. These remaining lands are illustrated on Map 3, shown in blue or green without the red hatch, and total approximately 40,080 acres. All Credit analysis must involve assumptions of what land use layers a property owner is willing to remove. The 5-Year Review Committee's Report, and this staff analysis share the assumption that all FSAs, HSAs and WRAs become designated SSAs with land use layers removed down to Agriculture uses, such as the more intensive row crops or citrus (Ag 1 layer), or more passive agriculture uses such as pastures (Ag 2 layer).

The 5-Year Committee Report found the actual SSA Base Credits generated from SSAs 1-13, were approximately 15% greater than the Stewardship NRI model projections 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. The Committee Report estimated a total of 128,000 Base Credits.

Staff evaluated the Stewardship NRI model data, removing all approved SSA and SRA lands, along with public lands and found approximately 40,080 acres remain designated HSA, FSA and WRA. These lands have potential to be designated SSAs and generate Base Credits. With the assumption the land use layers are removed down to the agriculture use, it was estimated that there is potential for 144,803 future Base Credits. Table 1 shows a comparison between the two analysis.

PROPOSED RLSA OVERLAY MAP



Note: The official designated titles of SSAs can be found within SSA Credit Agreements.

**Table 1: Adopted RLSA Base Credit Estimates**

<b>Base Credits</b>	<b>5-Year Review Report Estimates</b>	<b>2020 Analysis Estimates</b>
Approved in SSAs 1-13	60,319	
Approved in SSAs 1-16		72,903
Estimated Future Base Credits	67,681	71,900
<b>Total</b>	<b>128,000</b>	<b>144,803</b>

Based on the findings of both the 5-Year Committee Report and staff analysis, a reasonable average estimate to use for the purpose is this analysis is **136,000** future Base Credits.

There are no recommended policy amendments that affect the Base Credits. The Base Credit analysis is important in considering the potential total Stewardship Credits.

**B. Adopted Restoration Credits**

Restoration Credits are generated by application of Policy 3.11. Restoration Credits are dependent on site specific conditions, detailed evaluations and restoration planning and permitting by each property owner, as well as successful implementation. For these reasons many different assumptions can be made to estimate the total number of Restorations Credits. This analysis utilizes restoration data within SSAs to date, and a reasonable assumption for potential future Restoration Credits.

The 5-Year Committee Report assumed for SSAs 1-13, approximately 29% of the total SSA acreage was proposed for restoration. The Report assumed the same percentage applies to the 40,000 acres that may initiate future restoration, and found that 11,600 additional acres may be restored. The projected additional restoration credits generated under the current system would be approximately 78,000 credits

Staff's review of the restoration approved for SSAs 1-16 found consistency with the 5-Year Review Committee. Approximately 29% of the total SSA acreage is proposed for restoration. Restoration Credits per Policy 3.11 prioritize the restoration of Camp Keais Strand providing for a total of 8 potential Restoration Credits per acre. Areas outside of Camp Keais Strand are eligible for a total of 6 potential Restoration Credits.

For the purpose of this analysis, it is assumed that 29% of the remaining HSA and FSA may utilize restoration activities. To date, WRAs have not been proposed for restoration activities and are assumed to continue the use of water management for agriculture activities. With this assumption, staff rounds the estimate of future restoration to 13,570 acres. Under the current program these restoration acres could generate a rounded estimate of 48,700 future Restoration Credits. **Table 2** provides a comparison of the 5-Year Review Report analysis and staff's 2020 analysis.

**Table 2: Adopted RLSA Restoration Credit Estimates**

	<b>5-Year Review Restoration Acres</b>	<b>5-Year Review Restoration Credits</b>	<b>2020 Analysis Restoration Acres</b>	<b>2020 Analysis Restoration Credits</b>
Restoration in SSAs 1-13	12,000	82,000		
Restoration in SSAs 1-16			14,439	104,510
Future restoration	40,000	78,000	13,570	48,700
<b>Total</b>	<b>62,000</b>	<b>160,000</b>	<b>27,400</b>	<b>153,210</b>

Based on the findings of both the 5-Year Committee Report and staff analysis **156,600** future Restoration Credits is a reasonable average estimate.

**C. Adopted Early Entry Bonus Credits**

RLSA Policy 1.21 provides for a maximum of 27,000 Early Entry Bonus Credits. These Credits were available until January 31, 2009. Prior to the expiration of these Credits, the RLSA produced a total of 19,472 Early Entry Bonus Credits.

**Adopted RLSA Total Potential Credits**

The RLSA Stewardship Credits generated from Base Credits, Restoration Credits and Early Entry Bonus Credits were estimated by both the 5-Year Review Committee Report and through staff analysis of the proposed policy amendments. Each analysis found very slightly different totals based on the data that was provided within the implementation of the program. **Table 3** shows the total Credits estimated from both analyses.

**Table 3: Adopted RLSA Potential Total Credits**

	<b>5-Year Review Estimates</b>	<b>2020 Analysis Estimates</b>
Base Credits	128,000	136,000
Restoration Credits	160,000	156,000
Early Entry Bonus Credits	27,000	19,472
<b>Total</b>	<b>315,000</b>	<b>311,472</b>

Based on the adopted RLSA Stewardship Credit system, the 5-Year Committee Report, and staff analysis, an average estimate of **313,000 total potential Stewardship Credits** is used for the purposes of this analysis.

**2. Recommended Policy Amendments to the Credit System**

The Committee's recommended amendments include three significant changes to the Stewardship Credit system. These changes are viewed as adjustments to further balance the goal of the RLSA. The application and calculation methodology of the Base Credits described in the adopted program do not change. The Early Entry Bonus Credits have expired and no longer apply. The proposed amendments to the Stewardship Credit System incentivize the outcomes with the following types of Credits:

- A. Base Credits
- B. Agriculture Credits
- C. Panther Corridor Credits
- D. Tiered Restoration Credits

**A. Base Credits** There are no recommended policy amendments that affect the Base Credits. Table 3 above shows the total estimated Base Credits.



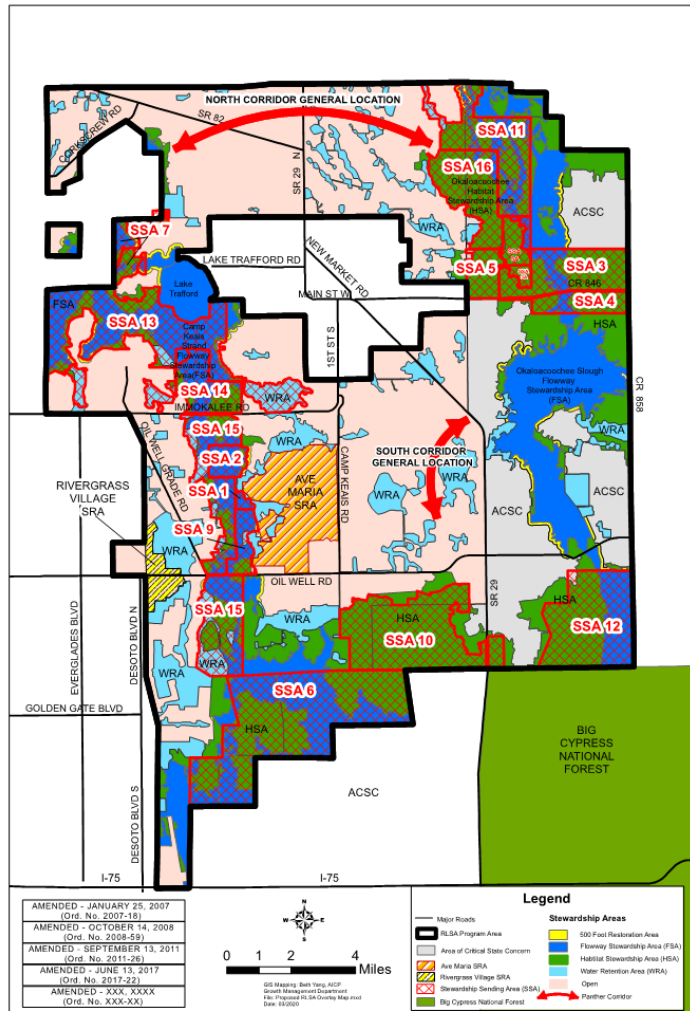
**B. Agriculture Credits  
(Recommended Policy 2.2)**

Agriculture Credits are proposed to incentivize the retention of agriculture lands within the RLSA “Open” designation shown on the Proposed RLSA Overlay Map. The Open designation is generally in agriculture uses and where future development may occur.

With the Policy 2.2 recommended amendment, property owners agreeing to eliminate non-agricultural land uses from Open lands would be eligible for 2.6 Stewardship Credits per acre within the Area of Critical State Concern (ACSC), and 2.0 Credits per acre on Open lands outside of the ACSC. This Agriculture Credit offers an incentive for property owners to consider an alternative to developing Open lands. The 5-Year Committee Report estimates 15,000 acres designated within the ACSC at 2.6 Credits per acre, and 25,000 acres of Agriculture outside of the ACSC at 2.0 credits per acre. Therefore, the 5-Year Committee Report estimates the change to Policy 2.2 may result in 89,000 total Agriculture Credits.

Staff’s analysis considers the Open area remaining after discounting the areas of approved SSAs, the proposed panther corridors, and public lands within Open, and assumes a 45,000 SRA cap. The results of staff’s analysis are consistent with the 5-Year Review Report and found approximately 15,000 acres of Open within the ACSC and approximately 25,000 acres of Open outside of the ACSC may be utilized as Ag SSA. With these assumptions a total is found of approximately **89,000 Agriculture Credits**.

**PROPOSED RLSA OVERLAY MAP**



**Table 4: Recommended Future Agriculture Estimated Credits**

	<b>5-Year Review Credit Estimates</b>	<b>2020 Analysis Credit Estimates</b>
Ag SSA in ACSC	39,000	39,000
Ag SSA not in ACSC	50,000	50,000
<b>Total</b>	<b>89,000</b>	<b>89,000</b>

**C. Panther Corridor Credits (Policy 3.10)**

Panther Corridor Credits are intended to further incentivize the protection of lands for panther. These Credits could be achieved by property owners agreeing to designate land and construct improvements to implement a north and south Panther Corridor as shown with red arrows on the Proposed Overlay Map. These corridors are assumed to require the use of both Open Lands and WRAs. The Committee Report estimated approximately 1,300 acres of Open land and 1,000 acres of WRA land in the north and south

corridors for a total of 2,300 acres. These proposed Credit System offers 10 Credits per acre, or a total of 23,000 Panther Corridor Credits.

Staff notes that proposed Policy 3.10, paragraph 2, as drafted in the Committee Report, includes a requirement for these Corridors to be federally approved and issuance of Credits would coincide with a phased implementation in accordance with a federal permit. For these reasons, for the purpose of estimating Credits, staff is using the assumptions found in the Committee’s report and estimates a total of **23,000 Panther Corridor Credits**.

**D. Tiered Restoration Credit Estimates (Recommended Amendment Policy 3.10)**

The proposed tiered restoration system is a substantial modification to the adopted restoration credit system. The purpose of the amendment is to better define the type and relative value of restoration. For this estimate, the Committee Report assumed that 11,600 acres within future SSAs would be 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). The Committee Report estimates 11,600 acres for potential restoration activities resulting in 72,000 Stewardship Credits.

The staff analysis included a reviewed the restoration activities within the first twenty years of the program presented in SSAs 1-16. As described under the adopted RLSA analysis, approximately 29% of the total SSA lands have been found suitable for restoration. The restoration plans show 41% were for flow way restoration, while others were nearly equally represented between the other restoration activities, from 14%-18%. The staff analysis used the total acreages of approved restoration and assumed the same percentages for the remaining HSA and FSA acres organized under the new tiered restoration activities. **Table 5** shows the comparison of the 5-Year Report Estimates and the 2020.

**Table 5: Recommended RLSA Tiered Restoration Estimated Credits**

Restoration Type	Credits per Acre	5-Year Report Estimated Acres	5-Year Tiered Restoration Credits	2020 Analysis Estimated Acres	2020 Analysis Tiered Restoration Credits
Panther Habitat	10	600	6,000	600	6,000
Caracara	4	2,750	11,000	1,900	7,599
Exotic Control/Burning	6	2,750	16,500	1,765	10,585
Flow Way	6	2,750	16,500	5,565	33,392
Native Habitat Rest.	8	2,750	22,000	2,440	19,541
Seasonal wetland				1,900	15,198
<b>Total</b>		<b>11,600</b>	<b>72,000</b>	<b>13,570</b>	<b>77,132</b>

The White Paper included an additional change to the restoration credit system by recommending 1 Restoration Credit (rather than the adopted 4 Credits or the 5-Year Report proposed 2 Credits) be given at the time of restoration dedication. All remaining credits would be awarded following successful restoration implementation. This recommendation affects the RLSA process, but not the total estimated Restoration Credits.

The total estimated Restoration Credits with implementation of the proposed tiered system for future SSAs are shown in **Table 6**.

**Table 6: Recommended RLSA Estimated Restoration Credits**

<b>Restoration</b>	<b>5-Year Restoration Credits</b>	<b>2020 Analysis Restoration Credits</b>
Awarded Restoration Credits (R1)	28,000	53,333
Restoration Credits Pending Implementation (R2)	54,000	53,476
Estimated Future Restoration Credits	72,000	77,143
<b>Total</b>	<b>154,000</b>	<b>181,653</b>

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. For the purpose of this analysis, a rounded total estimate is **170,000 Restoration Credits**

**Potential Total Credits**

Upon evaluation and analysis of the three recommended policy amendments affecting the Stewardship Credit system staff found a reasonable comparison to the 5-Year Committee Report. **Table 7** shows the estimated total potential Stewardship Credits under the recommended policy amendments.

**Table 7: Recommended RLSA Estimated Potential Stewardship Credits**

<b>Credit Type</b>	<b>5-Year Report Credit Estimate</b>	<b>2020 Analysis Rounded Credit Estimate</b>
Base Credits	128,000	136,000
Restoration Credits	154,000	170,000
Early Entry Bonus Credits	27,000	19,472
Agriculture Credits	89,000	89,000
Panther Corridor Credits	23,000	23,000
<b>Total</b>	<b>421,000</b>	<b>437,472</b>

If the three recommended policy amendments are adopted without further substantive changes, the RLSA Overlay, with 100% landowner participation with similar assumptions, a reasonable average estimate is **430,000 Stewardship Credits**.

**3. Adjustments to Meet the 45,000-Acre SRA Cap**

The 5-Year Review Committee Report recommended a cap of 45,000 SRA acres in the RLSA. When the Report was presented the Board, the Board concurred with the cap and directed staff to bring back GMP amendments with the 45,000-acre SRA cap, and a cap on Stewardship Credits of 404,000, providing backup data is developed to determine actual cap values. To achieve this objective, adjustments are necessary so that the RLSA Overlay Credit System will produce sufficient Credits to achieve the objectives of natural resource protection, agriculture land retention and 45,000 SRA acres. The Board directed staff to balance the RLSA without leaving a substantial number of excess Credits. This can be achieved by changing the SRA Credit Ratio found in Policy 4.19. The current SRA Credit Ratio requires 8 Stewardship Credits for each acre of SRA development, with exception for public benefit and excess open space acres which are not required to consume Credits under the adopted RLSA.

The adopted RLSA Overlay is estimated to produce approximately 316,000 Stewardship Credits. With the adopted SRA Credit Ratio of 8 Credits per acre and assuming 10% of development as public benefit use

and not consuming Credits, it is estimated that approximately 43,450 SRA acres may be developed and the remaining 46,931 acres would be subject to potential development at 1 unit per 5 acres.

**Table 8. Adopted RLSA Estimated SRA Acres**

	<b>Acres</b>
Stewardship Credit Total SSA approved and in escrow	197,288
SRA Acre potential @ 8 Credits per acre	24,661
Public Benefit Acres or Excess Open Space at 10%:	2,466
Projected Remaining Future Credits	118,712
Potential Future SRA @ 8 Credits per acre	14,839
Public Benefit Acres or Excess Open Space at 10%:	1,484
<b>Total Potential SRA</b>	<b>43,450</b>
Remaining Baseline development potential (1 unit per 5 ac)	<b>46,931</b>

With the recommended amendments, Stewardship Credits were added to incentivize the objectives of the RLSA program. Adjustments were made to further incentivize agriculture land retention and panther corridors. These Credit adjustments increase the potential total Stewardship Credits from approximately 316,000 to approximately 430,000.

As previously discussed, 197,288 Stewardship Credits have been approved and may entitle up to 27,127 acres of SRA including 10% public benefit uses. To balance the projected additional Stewardship Credits (232,712) and remaining 17,873 SRA acres to achieve a total of 45,000 SRA acres, without excess Credits, a policy recommendation changes the SRA Credit Ratio from 8 Credits per acre to 14 Credits per acre. At the time of the 5-Year Report, it was proposed to change the Credit Ratio from 8 Credits to 10 Credits. **Table 9** shows the potential Stewardship Credits and SRA acreage based on the recommended policy amendments.

**Table 9. Recommended Policy Estimated SRA Adjustment**

	<b>Acres</b>
Stewardship Credit Total SSA approved and in escrow	197,288
SRA Acre potential @ 8 Credits per acre including 10% public benefit acres	27,127
Recommended Policy Amendments Future Credits	232,712
Remaining SRA to equal 45,000 acres includes 10% public benefit acres	17,873
New SRA Credit Ratio (Remaining Credits/Remaining SRA, less 10% public benefit acres)	14
<b>Total Potential SRA</b>	<b>45,000</b>
Remaining Baseline development potential (1 unit per 5 ac)	<b>0</b>

### **Conclusions**

The RLSA program is successfully meeting the objective to protect natural resources. In the first twenty years of the program, 50,425 acres have been protected within SSA agreements. That is 56% of the overall goal of protecting HSA, FSA and WRA lands. These SSAs have generated Stewardship Credits to entitle approximately 27,127 acres, including public benefit uses.

The Board directed staff to evaluate the Stewardship Credit system with the recommended policy amendments and to balance the potential Credits with a total of 45,000 SRA acres. Staff's analysis finds that the additional Agriculture Stewardship Credits and the Panther Corridor Stewardship Credits further the overall goal of the RLSA. The Agriculture Stewardship Credits will address the need to incentivize the retention of agriculture in the Open designation and provides an alternative to development at 1 unit per 5 acres.

The recommended policy amendments result in larger total projected Stewardship Credits, from approximately 316,000 projected under the adopted RLSA, to approximately 430,000 projected in the recommended RLSA. Therefore, to maintain the balance of 45,000 SRA acres without substantial excess Credits, the Stewardship Credit Ratio is recommended to change from 8 Credits per SRA acre to 14 Credits per SRA acre. These changes and the assumptions herein, result in a balance program that incentivizes the protection of natural resources and agriculture land and limits the future development to 45,000 SRA acres.

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