



Trails and Greenways Committee

Monday, May 8, 2023 at 6:00 pm

1. CALL TO ORDER, PRAYER AND PLEDGE
2. ROLL CALL
3. ADDITIONS/DELETIONS/CHANGES
4. CONSENT AGENDA

a. Approve Minutes of 04/10/2023

Exhibit: Agenda Report Number 4a

Attachments:

- **Agenda Report Number 4a** (Agenda_Report_Number_4a.pdf)

5. PUBLIC COMMENTS
6. ACTION ITEMS
7. DISCUSSION ITEMS:

a. Trail, Kiosk and Firebreak Conditions

Exhibit: Agenda Report Number 7a

Attachments:

- **Agenda Report Number 7a** (Agenda_Report_Number_7a.pdf)

b. Cameron Preserve Update

Exhibit: Agenda Report Number 7b

Attachments:

- **Agenda Report Number 7b** (Agenda_Report_Number_7b.pdf)

c. Eagles Nest Trailhead

Exhibit: Agenda Report Number 7c

Attachments:

- **Agenda Report Number 7c** (Agenda_Report_Number_7c.pdf)

d. Joint Conflict Assessment Recap

Exhibit: Agenda Report Number 7d

Attachments:

- **Agenda Report Number 7d** (Agenda_Report_Number_7d.pdf)

e. Next Field Event - TBD

Exhibit: Agenda Report Number 7e

Attachments:

- **Agenda Report Number 7e** (Agenda_Report_Number_7e.pdf)

8. OLD/NEW BUSINESS

a. Board Member Comments

b. Staff Reports

c. Next Scheduled Meeting Date - 06/12/2023

9. ADJOURNMENT

Contact: Richard W. Kohler (rkohler@townofmalabar.org 321-727-7764) | Agenda published on 05/05/2023 at 10:09 AM

TOWN OF MALABAR

TRAILS AND GREENWAYS COMMITTEE MEETING

AGENDA ITEM NO: 4.a
Meeting Date: May 8th, 2023

Prepared By: Richard W. Kohler, Town Clerk

SUBJECT: Approve Minutes of 4/10/2023

BACKGROUND/HISTORY:

- a. Summary of Actions at the Trails and Greenways Committee Meeting of 4/10/2023

ATTACHMENTS:

- a. Draft Minutes of T&GC Meeting of 4/10/2023

ACTION OPTIONS:

- a. Request Approval

MALABAR TRAILS AND GREENWAYS COMMITTEE REGULAR MEETING MINUTES
April 10th, 2023, 6:00 PM

This meeting of the Malabar Trails and Greenways Committee was held at Town Hall at 2725 Malabar Road.

1. CALL TO ORDER, PRAYER AND PLEDGE:

Meeting called to order at 7:13 P.M. Prayer and Pledge led by Chair Thompson.

2. ROLL CALL:

CHAIR:	DREW THOMPSON
VICE-CHAIR:	MURRAY HANN
BOARD MEMBERS:	ANNELIE HARVEY
	BOB WILBUR - EXCUSED
	MARK BRITT
ALTERNATES:	MIKE SCHOOLFIELD - EXCUSED
	BARBARA CAMERON
GRANT/VALKARIA LIASON:	CRAIG SMITH
BOARD SECRETARY:	RICHARD KOHLER

3. Additions/Deletions/Changes- CM Cameron/CM Harvey to add Malabar Scrub Sanctuary Moving Forward as agenda item 8a.

4. CONSENT AGENDA

4.a. Regular Trails and Greenways Committee Mtg Minutes of 3/29/2023
Motion to accept 3/29/2023 as presented by HANN/HARVEY.

All Ayes: Carried 5-0.

6. PUBLIC COMMENTS: NONE

7. ACTION ITEMS: NONE

8. DISCUSSION

a. Trail, Kiosk and Firebreak Conditions

VC Hann states the trails are open and running well. Chair asks if there is any damage? VC Hann states there are 2 dead sand pines we may take care of this weekend. Liaison Smith states he has not heard any complaints. He also stated the BMBA has advertised the upcoming trail day, and we should expect assistance. VC Hann cautioned against sending inexperienced users to trim toe catchers.

b. Cameron Preserve Update

Clerk Kohler informed the Committee that he was able to contact ECOR and provide them with the map produced by VC Hann. ECOR will be spraying the Cogan Grass marked by VC Hann with pesticides tomorrow. Chair states we still have signs to be installed.

c. Eagles Nest Trailhead Update

Secretary Kohler informs the Committee that TM Stinnett and CM Vail indicated he would work with a contractor to install a temporary culvert in the northern exit of the ENT. Additional fill dirt is still being brought in when available.

d. Conflict Assessment Meeting Update

Chair Thompson gave a brief overview of the Conflict Assessment Meeting that took place today.

Chair Thompson states TOM Staff met with BCC staff about the MSS. It was a public meeting. County represented by County Manager Frank Abate, EELs Program Director Mike Knight, and County Attorney Morris Richardson, and the Town was represented by Town Manager Matthew Stinnett, Town Attorney Karl Bohne and Town Clerk Richard Kohler. Public Comments began the meeting, and all 7 spoke in favor of a compromise. Both Panels discussed past proposals, with many questions being asked. No resolution was accomplished, and a future meeting is necessary.

The end result is that there will be a meeting between the Town Council and County Commission.

e. **Next Field Event – TBD**

The next field event is scheduled for this Saturday April 15th, 9 AM at VC Hann's property. **Chair requests BCSO use Sandhill Trailhead as a staging ground to promote patrol.**

8. **OLD/NEW BUSINESS**

a. **Malabar Scrub Sanctuary Moving Forward**

VC Hann suggested creating a simplified list of talking points for Council to use at the upcoming meeting. The goal should be to create a list of 5-10 talking points for both east and west MSS.

#1 Beginning in the east, VC Hann suggests saving the pod of oak trees referenced in the north west corner of the property. Chair states that area is about 200 feet from the border, which would affect the County's proposal. **VC Hann states this may be an area for us to compromise.**

#4 VC Hann also suggests saving the live oaks right at the entrance from Malabar Park. Potential to negotiate some trees north of the firebreak, but the area is heavily used and should be protected. This was part of the original 2001 compromise.

#5 The area along the lake just north of the park should also be conserved as it. It will never be scrub habitat, as it is currently a wetland. Chair Thompson states the area currently referenced would also be ideal for the future planned education center. Should we use that to try and assist us? VC Hann suggests adding additional trail in the area east of the lake on the sand ridge. It is an ideal fishing lake and they should create a trail to go around it. CM Britt states he suggested including benches around the lake in several public comments to the County. Chair states leaving this area makes sense because it is a unique feature. VC Hann states it will also never be good scrub due to the wetness of the area. Liaison Smith notes that in the Management Plan, the area is identified as Myakka Sand or Myakka Sand Depression Area. The area is abundant with woodpeckers. Chair states the area, due to its unique characteristic, and proximity to the entrance. **Consensus is to either leave the area alone, or reduce to 40 per acres, as guidelines for woodpeckers require.**

#2 VC Hann states that the current proposal from Mr. Knight includes a few trees along the northern boundary of the trail. A key point here is that the trees outside the fence are in Palm Bay and can not be removed without Palm Bay approval. These trees make the stated goals difficult to ascertain. **Consensus is to leave selected occasional live oak trees along the northern boundary.**

Chair suggests the Committee and the Council meet for an executive session before the upcoming joint meeting between Council and Commission. Clerk Kohler cautioned against unnecessary meetings. Chair agrees, and requests if Council schedules an executive session, someone from this Committee be included to discuss the proposals.

#3 VC Hann suggests leaving the area along the south eastern end of the Al Tuttle Trail as is. It is next to the border and next to tall trees.

#6, area east of country cove should be left alone between Country Cove and the firebreak(VPB). It is marked as a basin marsh in the Eels Management plan.

Moving to Malabar West, VC Hann states he is unsure of how to proceed. **Area #1 should be left alone because it crosses channel d, next to Still Water, our ROW bisects it, and it has tall private property.** We could trim the area, but it is really the only area with trees left. Chair suggests narrowing the oval polygon into 2 rectangles.

Area #2 has recently been reduced and is growing nicely. The area will be surrounded by tall trees from the Turkey Creek Channel. Chair asks if this is an area we could live without? VC Hann suggests fading the habitat here, keeping a continuous edge. The area encompasses multiple habitats, with the trail descending towards Turkey Creek. However, if it comes to it, he would be willing to let the area go. **VC states he will trim the area, but still requests the area preserved.**

Area #3 was originally a TGC proposal, and the EELs program moved it. Chair suggests if the EELs program uses their plan here, it would be a hawk feeder. VC states the area would not add any additional habitat. **Keep as is.**

Area #4, VC Hann suggests we try to keep it. Liaison Smith states it is an excellent area for a trail break. Chair states it is a confluence of trails, and near the border, and a corner. Chair suggests we try to make the area a little smaller.

Area #5 VC Hann proposed this trail addition, and the EELs program made drastic changes to the proposal. **He suggests combining the two options to provide a new option.** Consensus agrees.

VC Hann/CM Cameron move to recommend Council review, with a member or staff of this committee, this proposal before their Conflict Assessment meeting with Brevard County. All Ayes (5-0)

- b. **Board Member Comments:** CM Harvey suggests using a high starting point for negotiating.
Liaison Smith suggests clearly marking the boundaries of the Cameron Preserve before the program begins work.
CM Britt states he has a drone he is willing to use for some photos of the suggested areas.
Chair Thompson thanked the Committee for their dedication. This is not an easy task, but we are vigilant.
- c. **Staff Reports:** None
- d. **New Business:**
- Next Regular Meeting- May 8th, 2023

9. ADJOURN

There being no further business to discuss;

MOTION: WILBUR/HANN to adjourn. Vote: All Ayes. The meeting adjourned 8:57 PM.

BY:

Drew Thompson Chair

Richard W. Kohler, Board Secretary

05/08/2023

Date Approved: as presented:

DRAFT

TOWN OF MALABAR

TRAILS AND GREENWAYS COMMITTEE MEETING

AGENDA ITEM NO: 7.a

Meeting Date: May 5, 2023

Prepared By: Richard W. Kohler, Town Clerk

SUBJECT: Trail, Kiosk and Firebreak Conditions

BACKGROUND/HISTORY:

- a. Traditionally, members of the Committee share their recent experiences from the trails and at the trailheads.

ATTACHMENTS:

- a. None

ACTION OPTIONS:

- a. Discussion

TOWN OF MALABAR

TRAILS AND GREENWAYS COMMITTEE MEETING

AGENDA ITEM NO: 7.b
Meeting Date: May 8th, 2023

Prepared By: Richard W. Kohler, Town Clerk

SUBJECT: Cameron Preserve Update

BACKGROUND/HISTORY:

- a. The Trails and Greenway's Committee has been actively working towards improving the Cameron Preserve with additional signage and potentially updating the Management Plan.
- b. On Friday January 13th, the T&GC were able to build all remaining directional signs and place the southernmost 7 signs on trial.
- c. The remaining signs were installed at the April 15th Trail Day.
- d. The Committee has also been discussing potential changes to the Management Plan, additional trails, and adding a new pavilion.
- e. Town Staff scheduled ECOR Pest Control to spray the Cogan Grass identified by VC Hann on the firebreak immediately north of the Country Cove Subdivision. They will spray the affected area on Tuesday April 11th.
 - a. The area will be safe to disc 14 days after application of the pesticide.
 - b. Town Hall staff is coordinating with the FD to contact Forestry to complete the firebreak discing.

ATTACHMENTS:

- a. Ecor Bill from Cameron Preserve work.

ACTION OPTIONS:

- a. Discussion

Service Slip/Invoice

ECOR Industries
 2840 Electronics Dr
 Melbourne, FL 32935-2102
 321-254-0930

INVOICE:	444751
DATE:	4/13/2023
ORDER:	444751

Bill To: [17215]
 Town of Malabar
 Attn: Accts Payable
 2725 Malabar Rd
 Malabar, FL 32950-4427

Work Location: [17215] 321-727-7764
 Town of Malabar
 2725 Malabar Rd
 Malabar, FL 32950-4427

Work Date	Time	Target Pest	Technician	Time In
4/13/2023	01:00 PM			01:00 PM
Purchase Order	Terms	Last Service	Map Code	Time Out
	NET 30	4/13/2023		01:27 PM

EEmail Invoices after service -
 Spray 2 areas of cogon grass in the Cameron Preserve at the end of Corey rd. See map for locations. Use a mule to access areas through the fire gate code 1435. Use glyphosate, aquaking, and breeze. Minimize disturbance to area but make sure to chase c

Service	Description	Price
NVM - SINGLE	Natural Vegetation Mgmt - Single Service	\$100.00
Treated cogon grass patches along fire line with aquaneat.		
SUBTOTAL		\$100.00
TAX		\$0.00
AMT. PAID		\$0.00
TOTAL		\$100.00
AMOUNT DUE		\$100.00

* Balances outstanding over 30 days from the date of service may be subject to a late fee of the lesser of 1.5% per month (18% per year) or the maximum allowed by law. Customer agrees to pay accrued expenses in the event of collection.

I hereby acknowledge the satisfactory completion of all services rendered, and agree to pay the cost of services as specified above.

PLEASE PAY FROM THIS INVOICE

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TOWN OF MALABAR

TRAILS AND GREENWAYS COMMITTEE MEETING

AGENDA ITEM NO: 7.C
Meeting Date: May 8th, 2023

Prepared By: Richard W. Kohler, Town Clerk

SUBJECT: Eagles Nest Trailhead

BACKGROUND/HISTORY:

- a. The Trails and Greenway's Committee has been actively working towards improving the Eagles Nest Trailhead.
- b. The Committee has indicated it wishes to install the fence line next.
- c. The Malabar Public Works Department has been tasked with bringing in additional fill dirt. A PO for 150 additional tons has been opened.
- d. The Malabar PW Department has successfully brought in several loads of fill dirt. TM Stinnett is coordinating with CM Vail to grade the dirt on site as more is brought in.
- e. The Committee has expressed interest in installing a temporary culvert at the northern exit. TM Stinnett has indicated he will coordinate with a contractor to complete this task.

ATTACHMENTS:

- a. None

ACTION OPTIONS:

- a. None

TOWN OF MALABAR

TRAILS AND GREENWAYS COMMITTEE MEETING

AGENDA ITEM NO: 7.d
Meeting Date: May 8th, 2023

Prepared By: Richard W. Kohler, Town Clerk

SUBJECT: Joint Conflict Assessment Recap

BACKGROUND/HISTORY:

- a. On May 1st, the Town of Malabar Town Council and the Brevard County Commission held a joint public meeting to discuss the Malabar Scrub Sanctuary restoration project.
- b. T&GC Chair Drew Thompson and EELs program manager Mike Knight were both given 10 minutes to provide presentations to the elected officials.
- c. A resolution was reached with the following agreements:
 - Brevard County to remove the gates blocking entry immediately (Completed)
 - Town of Malabar to waive the requirement for a tree survey and waive the per tree fee.
 - Relocate selected trails as proposed by Mr. Knight.
 - Leave trees as identified by Mr. Knight's presentation.

ATTACHMENTS:

- a. Town of Malabar Presentation from 5.1.23 Meeting
- b. Mr. Knight/EELs Program Presentation from 5.1.23 Meeting

ACTION OPTIONS:

- a. None

Conflict Assessment Meeting

Joint Public Meeting of Brevard County Board of County Commissioners & Town of Malabar Town Council

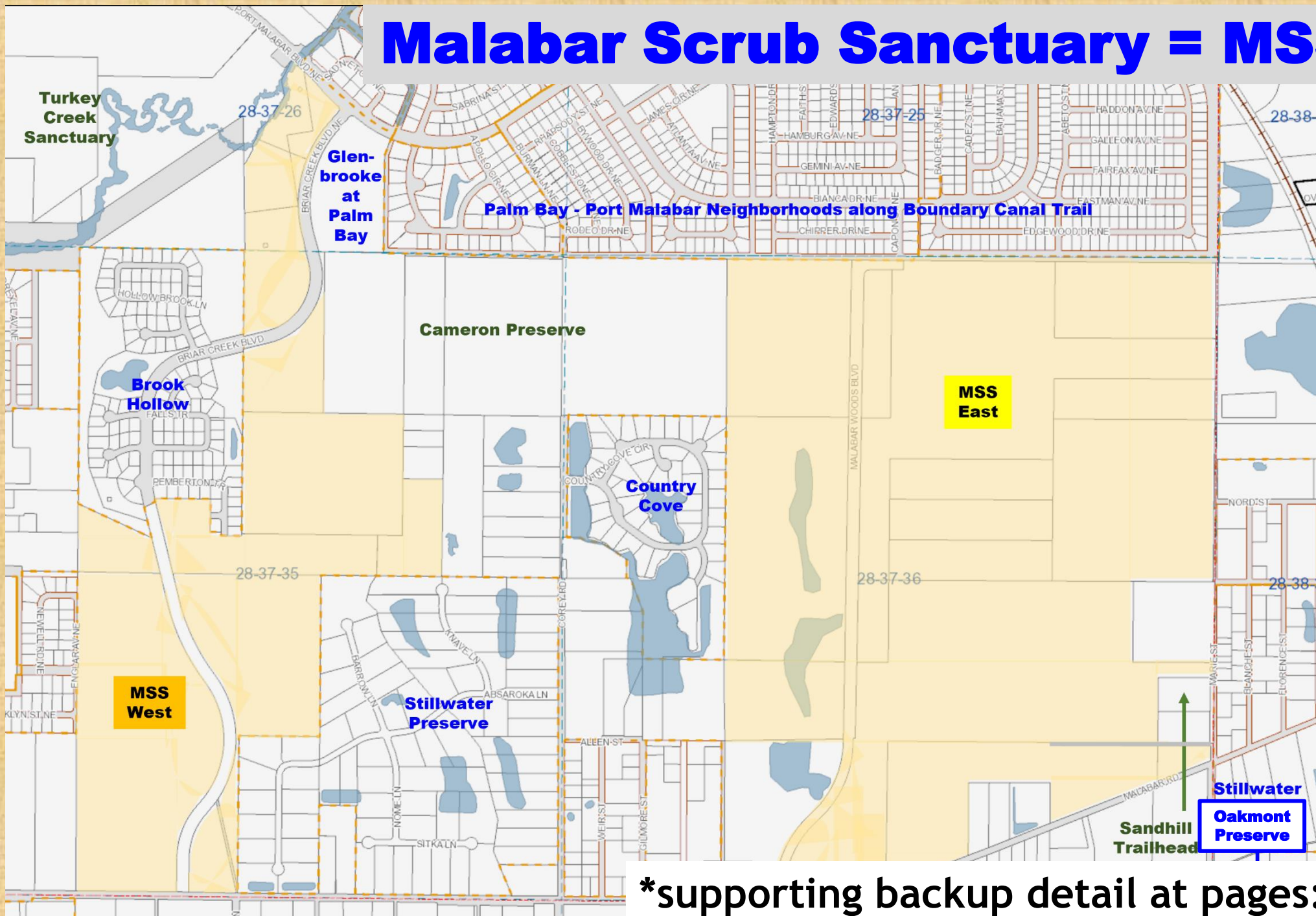
Monday, May 1, 2023, 10:00 AM – 12:00 PM

**First Baptist Church of Malabar
1665 Malabar Road, Malabar, FL 32950**

**Town of Malabar
Concerns & Requested Changes to
Malabar Scrub Sanctuary (MSS) Restoration Plan**

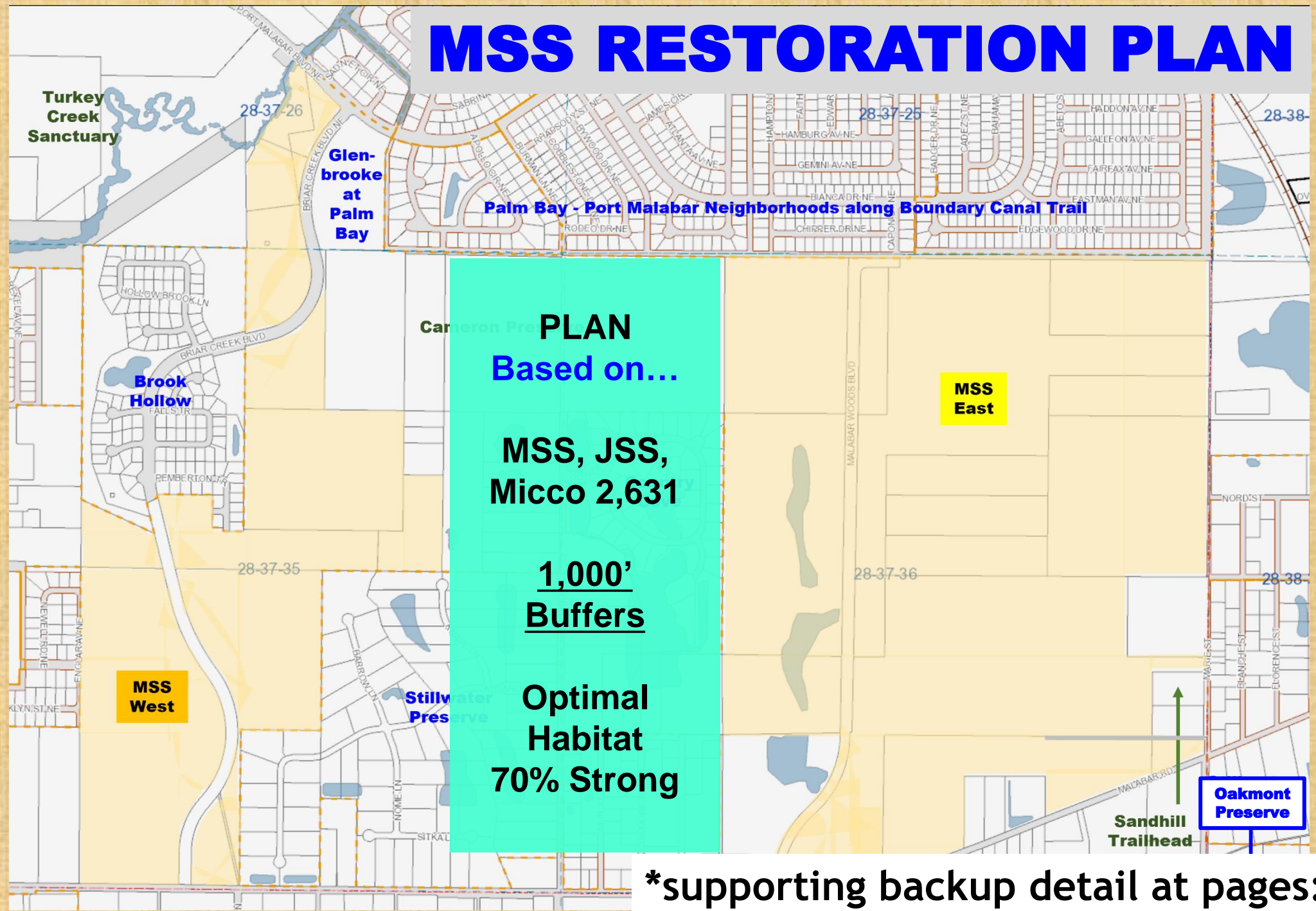
Scrub-jays, the Science
A Restoration Plan for MSS
MSS East
MSS West
Balanced Requests

Malabar Scrub Sanctuary = MSS



*supporting backup detail at pages: 12 - 17

MSS RESTORATION PLAN



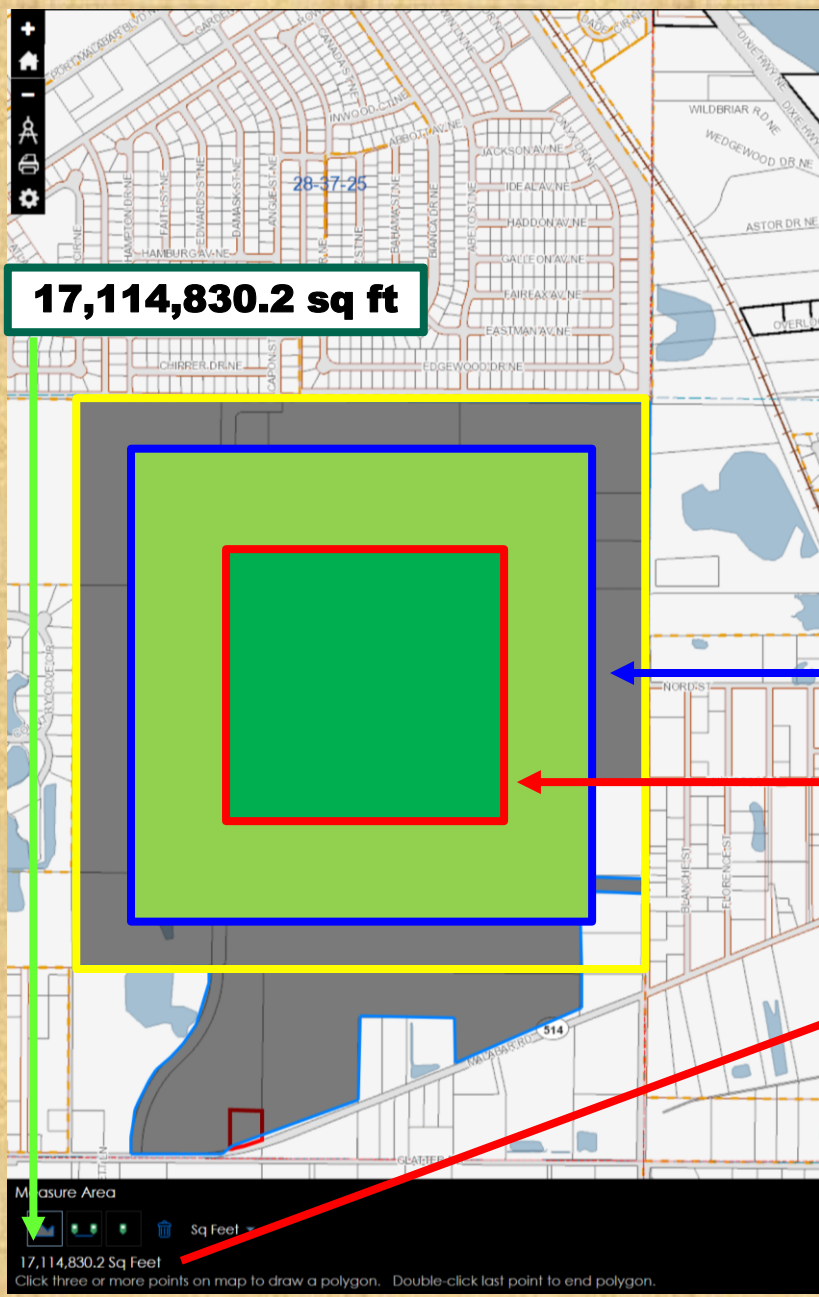
*supporting backup detail at pages: 12 - 17

MSS East Factors

MSS East and MSS West are completely different properties that must be treated differently...

MSS East is...

- larger than MSS West (x 2+)
- more suited for restoration to scrub habitat
- contiguous property... (not split by ROW)
- more proportional... with a main area length & width each about 4,000' as shown at left in yellow square
- 393 acres (all MSS East) (gray shaded area)



The Main Area of MSS East is approximately a 4000' X 4000' Square (shown in yellow).

4,000' x 4,000' = 16,000,000 sq ft



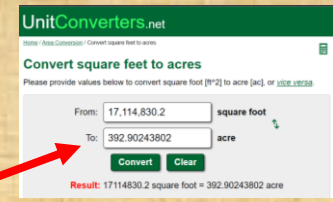
367.3

12 Families

Using the minimal 300' Tall Tree-Free Buffer = **265.4** acres suitable habitat

4 Families

(At 22 Acres / Family)



392.9

Using the 1,000' Tall Tree-Free Buffer = **91.8** acres optimal habitat

Rectangle Acreage calculations courtesy of [Page 17 https://www.unitconverters.net/area/square-feet-to-acres.htm](https://www.unitconverters.net/area/square-feet-to-acres.htm)

*supporting backup detail at pages: 18 - 20

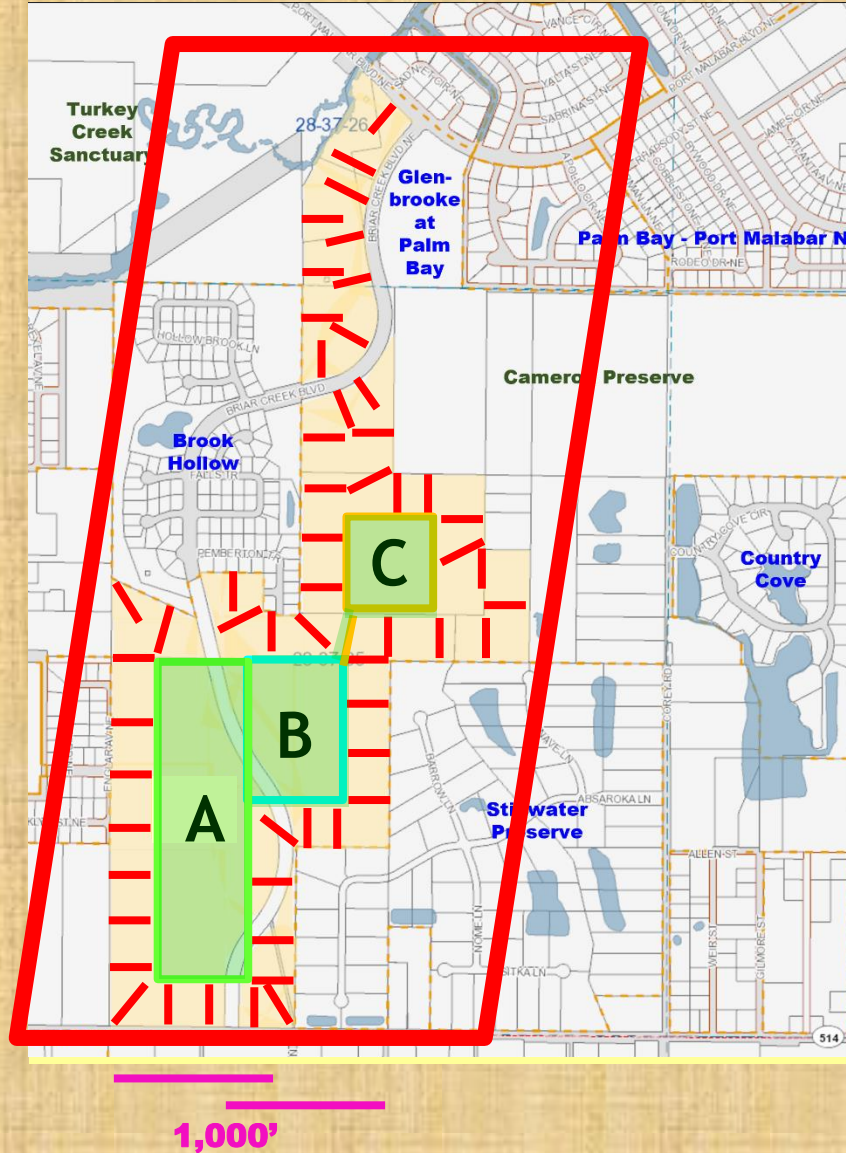
MSS West Factors

MSS East and MSS West are completely different properties that must be treated differently...

MSS West is...

- NOT a square nor circular
- a complex site that would be difficult to achieve optimal scrub-jay habitat
- smaller than MSS East (< half the acreage)
- far less suited for restoration to scrub habitat
- non-contiguous property... 3 areas split by ROW
- diagonal - yet asymmetrical variable widths and diagonal length 1 Mile+

MSS West area total = 181.5 acres
BCPAO site sourced



However, at the minimal 300' Tall Tree-Free Buffer and Not Counting Trees in ROW

MSS West Would Result in 68.8 Acres of Suitable Scrub-jay Habitat

$$A + B + C \\ 42.7 + 18.6 + 7.5$$

(At 22 Acres / Family)

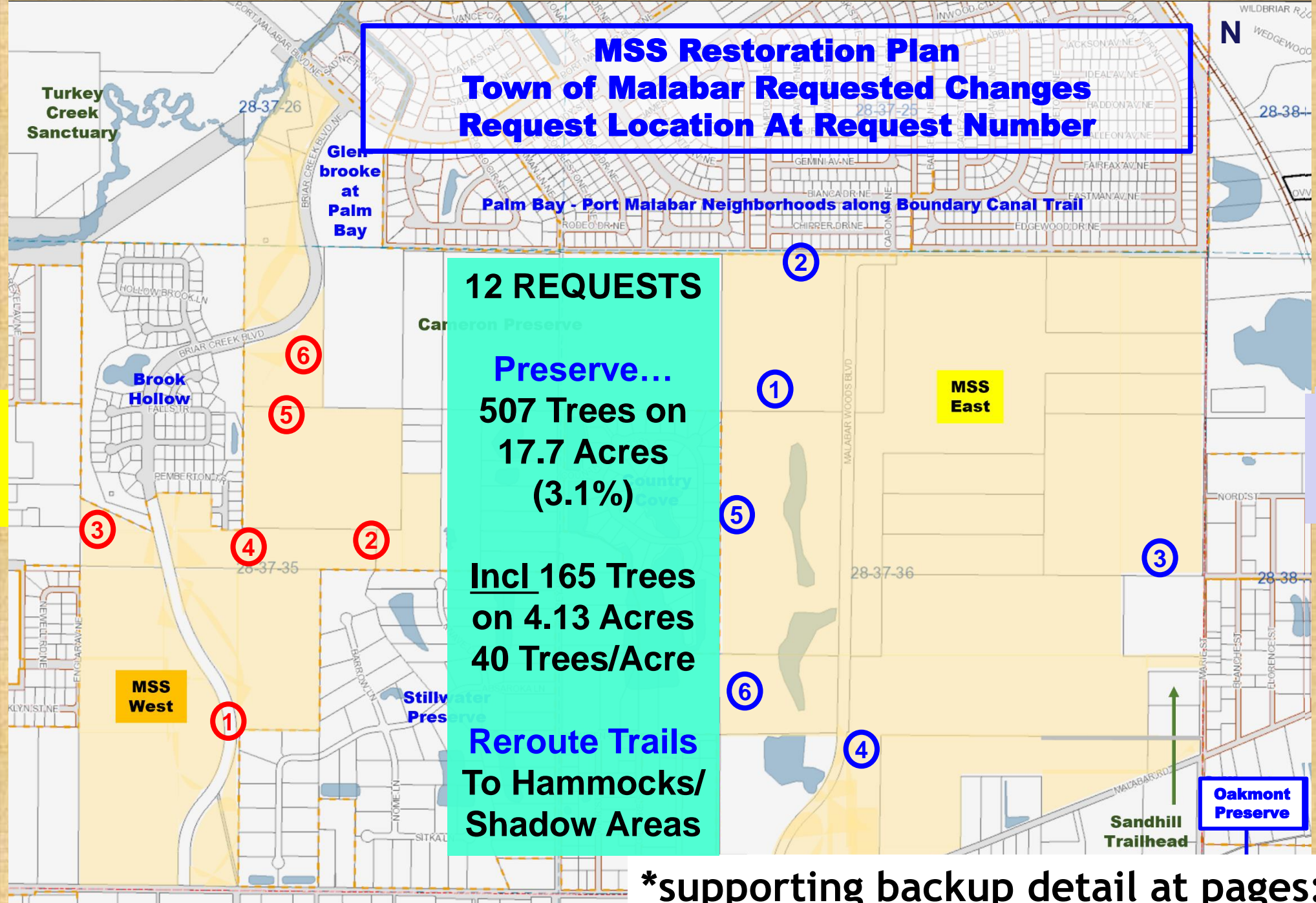
3 Families

*supporting backup detail at pages: 21 - 31

MSS Restoration Plan Town of Malabar Requested Changes Request Location At Request Number

**MALABAR
SCRUB
SANCTUARY
WEST**

**MALABAR
SCRUB
SANCTUARY
EAST**



12 REQUESTS

**Preserve...
507 Trees on
17.7 Acres
(3.1%)**

**Incl 165 Trees
on 4.13 Acres
40 Trees/Acre**

**Reroute Trails
To Hammocks/
Shadow Areas**

***supporting backup detail at pages: 32 - 52**

**Thank You.
Questions?**

As noted by Dr. Breininger, in the 2021 Scrub-jay PVA for Brevard County, FL, (pg. 92)



“All the local populations are projected to decline to **extinction**, although at varying rates due to different amounts of Strong habitat available for breeding groups.”



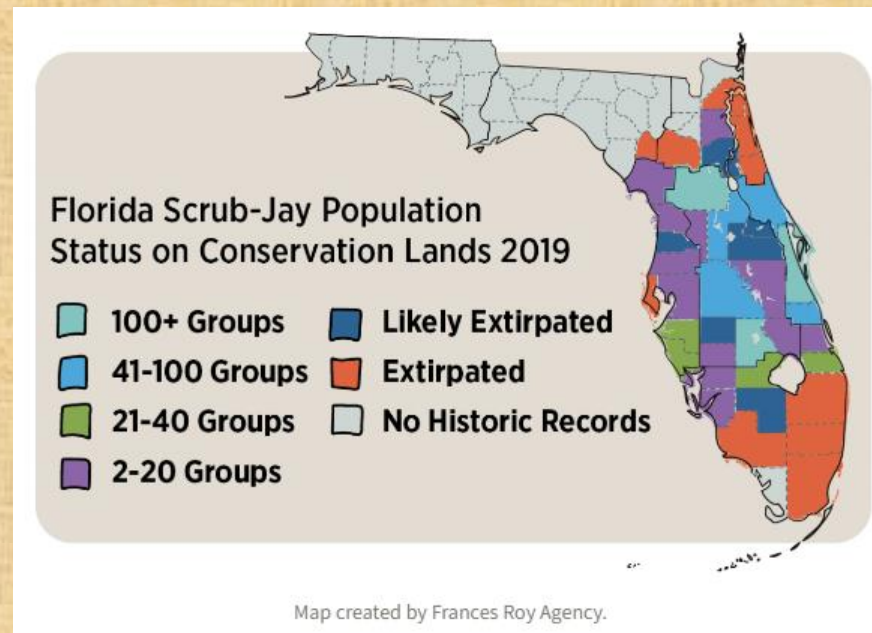
Town of Malabar Learned That Future Survival of the Florida Scrub-jay in Brevard County is Dependent on a Recognition that Scrub-jays...

- **Are** endemic to (only exist) in Florida - with largest populations in Ocala and at Kennedy Space Center (KSC)
- **Have** decreasing optimal scrub habitat due to development (22 - 24 acres needed per breeding pair family)
- **Utilize** a complex family structure - breeder pair and up to 5 helpers
- **Monitor** for hawk predation (hawks hunting from tall trees, power lines, buildings)
- **Take** turns functioning as a hawk sentinel for the family - signaling to all when a threat is detected
- **Need** increased genetic diversity - isolated scrub-jay populations need external area birds
- **Depend** on scrub oak acorns as a primary food source
- **Occupy** habitat that is considered varying percentages of “strong”, “weak”, or “sink” depending on scrub-jay breeding pair capacity, genetic diversity and most importantly habitat quality relative to potential of population increase
- **Require** tall tree-free (hawk) buffers between scrub-jay territory and forest lines
(1,000’ minimum for optimal habitat or 300’ minimum for suitable habitat - FL FWCC 2019)
- **Require** low vegetation habitat with empty areas to cache food
shrub height: (4’-5.5’ tall) for optimal habitat or (3.5’<8’ tall) for suitable habitat - FL FWCC 2019)

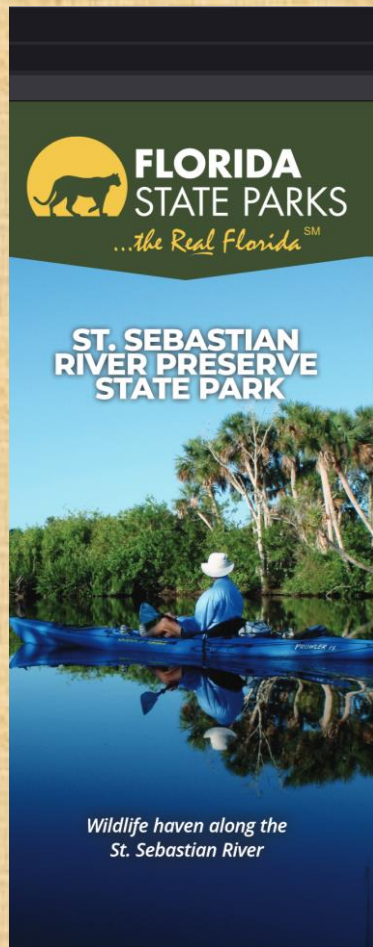
The three largest remaining populations of jays on conservation lands can be found at Ocala National Forest in Marion County, on federal and county lands in Brevard County, and across a broad patchwork of state, federal, and NGO-managed lands in Highlands County located close enough together that jays can fly from site to site to find mates and establish new territories.

(Audubon Florida - Florida Scrub-Jays: 2019 By The Numbers)

Town of Malabar Learned that Brevard County is an important location for scrub-jay survival but MSS is certainly not the best location in Brevard County for building stronger scrub-jay habitat



Town of Malabar Learned About Alternative Sites Such as St. Sebastian River Preserve State Park... A Much More Viable Place for Scrub-Jay Habitat



“Today, the preserve totals almost **22,000 acres.**” - pg 1 -
https://www.floridastateparks.org/sites/default/files/media/file/St.%20Sebastian%20River%20OSP_PROOF_2.07.19.pdf

“Major efforts have been put into restoring this community type for the benefit of the Florida scrub-jay since St. Sebastian River Preserve comprises the largest portion of the south Brevard-Indian River-St. Lucie metapopulation, which is the fourth largest metapopulation in the state.” This is per St. Sebastian River Preserve State Park - Advisory Group Draft Unit Management Plan - FL DEP June 2018 (pg 32).

“Using new data, the south Brevard-Indian River-St. Lucie metapopulation meets the criteria that once defined core populations; core status will be designated in the new draft recovery plan soon to be released. The Florida scrub-jay recovery plan is likely to recommend a population increase at the St. Sebastian River Preserve. The large amount of scrub and flatwoods at the park probably make it the most important area for Florida scrub-jay recovery along the mainland of Florida’s Atlantic Coast (Breininger 2004).” This is per St. Sebastian River Preserve State Park - Advisory Group Draft Unit Management Plan - FL DEP June 2018 (pg 51).

“... realistically it is estimated that St. Sebastian could support up to **75-85 (scrub-jay) territories.**” This is per St. Sebastian River Preserve State Park - Advisory Group Draft Unit Management Plan - FL DEP June 2018 (pg 52).

Town of Malabar Learned that the EEL Pgm Restoration Plan For MSS Was Based on Large Site Interpretations

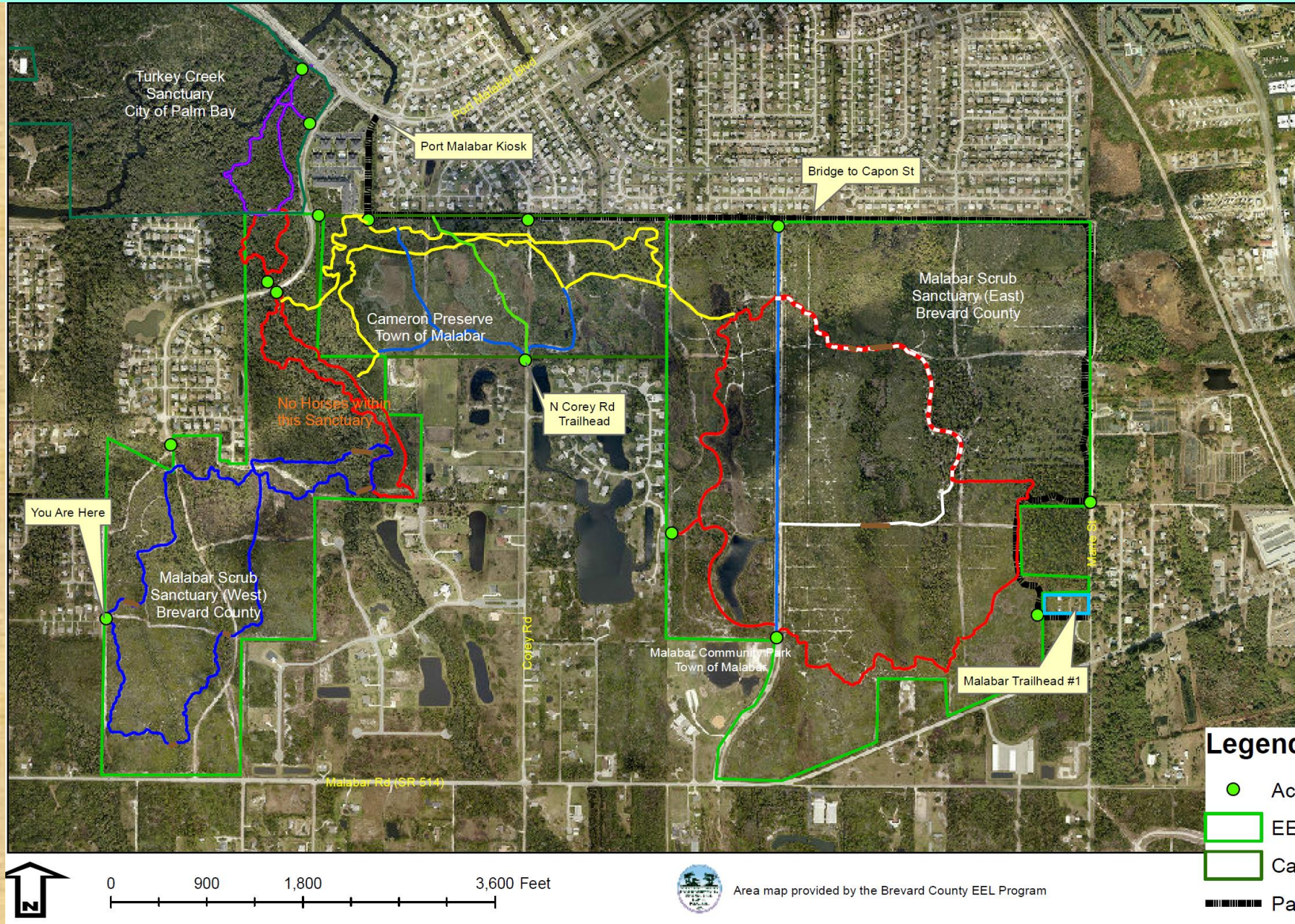
The Town Then Interpreted that When Large Scale Metrics Are Applied to Too Small a Sanctuary, Adjustments to The Plan May be Necessary

- **Project quality metrics were based on an aggregation of **2,631** acres, the acreage sum of 3 sanctuaries to be restored to scrub habitat:**
 - **MSS (577)**
 - **JSS (732)**
 - **Micco SS (1,322)**
- **Plan implied little recognition of Town of Malabar ROW (right-of-way)**
- **Plan distances of 1,000' tall tree-free buffers are too small to result in remaining territory for scrub-jay habitat in MSS West**
- **70% strong is directly associated with “Optimal Habitat” and is an objective of the plan – yet optimal habitat requires a 1,000' buffer**

Town of Malabar Learned that the Scrub-Jay Science Used by Brevard County to Base the Restoration Plan On a PVA (Population Viability Analysis) Was From Data On Numerous, Widely Located Scrub-jay Populations, with an Emphasis on the South and Central (SC) Mainland Brevard Metapopulations

The main populations comprising the South and Central Mainland Brevard metapopulation are Viera (including Viera mitigation area, Capron Ridge, and Cruickshank scrub sanctuaries) and Wickham Park (WICK) in Central Mainland; Malabar scrub sanctuary (MALA), Liberty Park (LIBE), Jordan Scrub Sanctuary (JORD), Valkaria scrub sanctuary and megaparcels (VALK), Babcock (BABC), Micco scrub (WMIC, including northern Sebastian Buffer Reserve), Palm Bay (PBAY), Corrigan Sebastian Buffer Reserve (CORR), Coracii Sebastian Buffer Reserve (CORA, including N Sebastian Conservation Area), North Fork Sebastian Buffer Reserve (NFOR), Carson Platt Sebastian Buffer Reserve (CP), Wabasso scrub (WABA, including Pelican Elementary School). The last 12 populations listed above are all within the South Mainland Brevard region. As noted in the 2021 Scrub-jay PVA for Brevard County, FL, (pg. 73)

Town of Malabar Learned More About MSS the Best Trail System in Brevard County

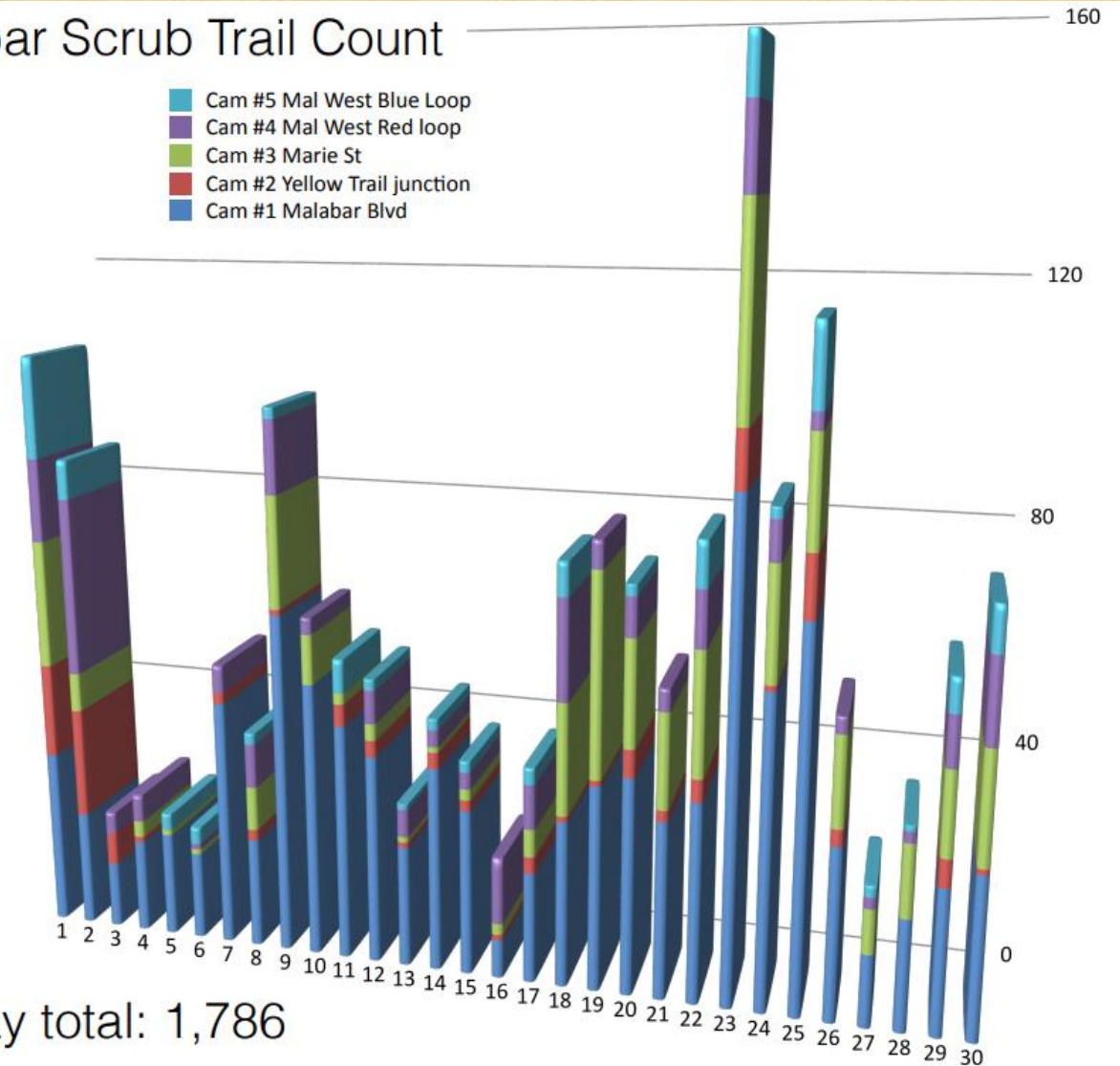


EEL Program Trail Count for Malabar Scrub Sanctuary from June 2016

- Recorded visitation over 30 days - 1,786
- Average daily visitation - 59.53
- Projected average annual visitation - 21,728
- (Dogs: 39 with many repeats)
- Assuming Malabar Scrub visitation followed the same pattern as South Beaches, Malabar Scrub could expect to see nearly 32,000 visitations annually.
- Conservative estimates suggest County-wide sanctuary trails may have 170,000 annual visitors.

MSS is one of the Most Visited Sanctuaries in Brevard County

Malabar Scrub Trail Count



Turkey Creek Sanctuary estimates trail use has doubled since 2016

Environmentally Endangered Lands (EEL) Program

Mission Statement

Protecting and Preserving Biological Diversity Through Responsible Stewardship of Brevard County's Natural Resources

Vision Statement

- The Environmentally Endangered Lands (EEL) Program acquires, protects and maintains environmentally endangered lands guided by scientific principles for conservation and the best available practices for resources, stewardship and ecosystem management.
- The EEL Program protects the rich biological diversity of Brevard County for future generations.
- The EEL Program provides passive recreation and environmental education opportunities to Brevard's citizens and visitors without detracting from the primary conservation goals of the program.
- The EEL Program encourages active citizen participation and community involvement.

Guiding Directives

- Conserving and managing natural resources
- Providing opportunities for environmental education
- Providing opportunities for passive recreation such as hiking and wildlife observation

While it is recognized that support of biological diversity is the primary purpose of this property – and Passive Recreation is secondary ...

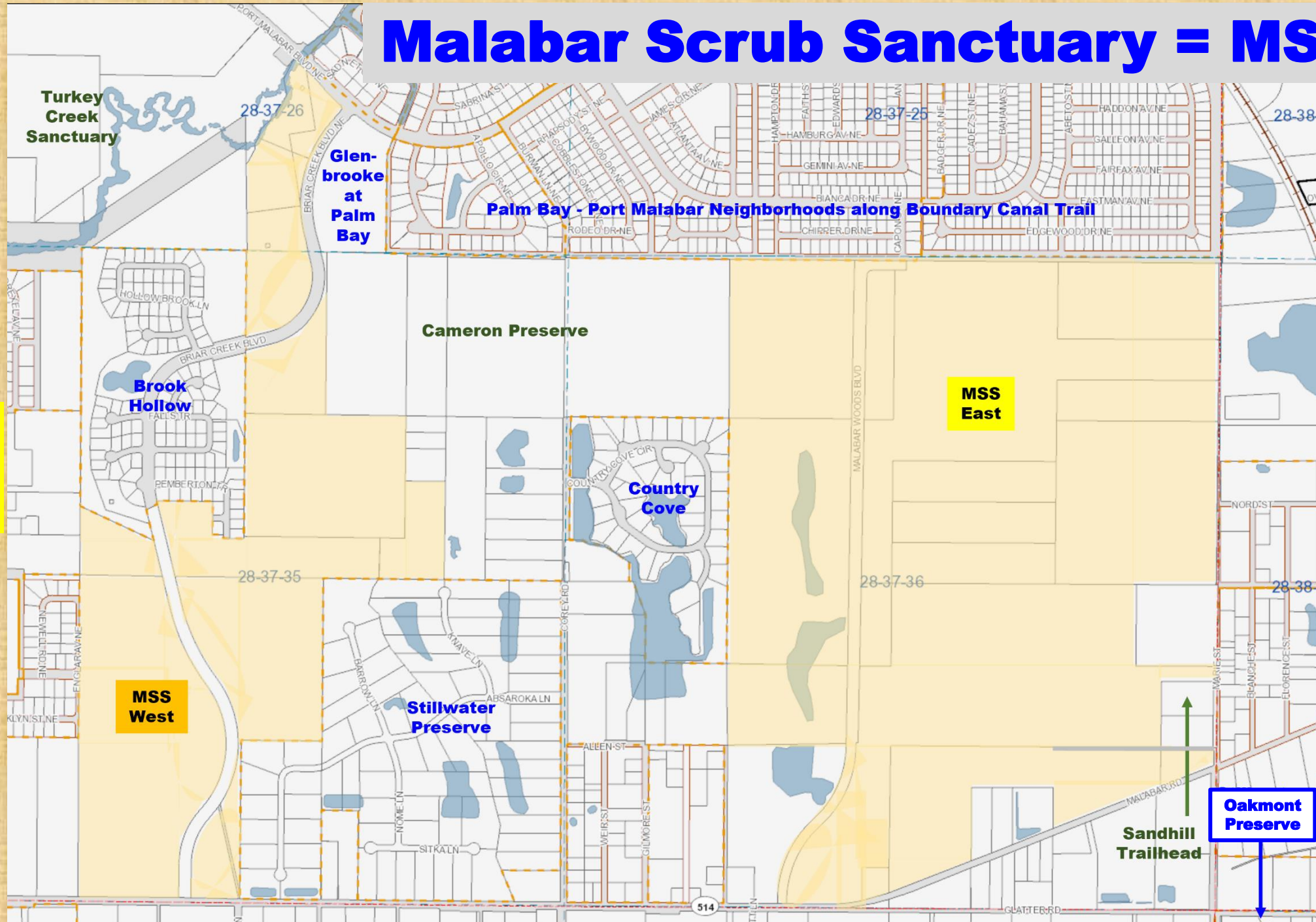
367.3

Secondary does not mean Zero

As Per Voter Mandate, Passive Recreation MUST be Supported

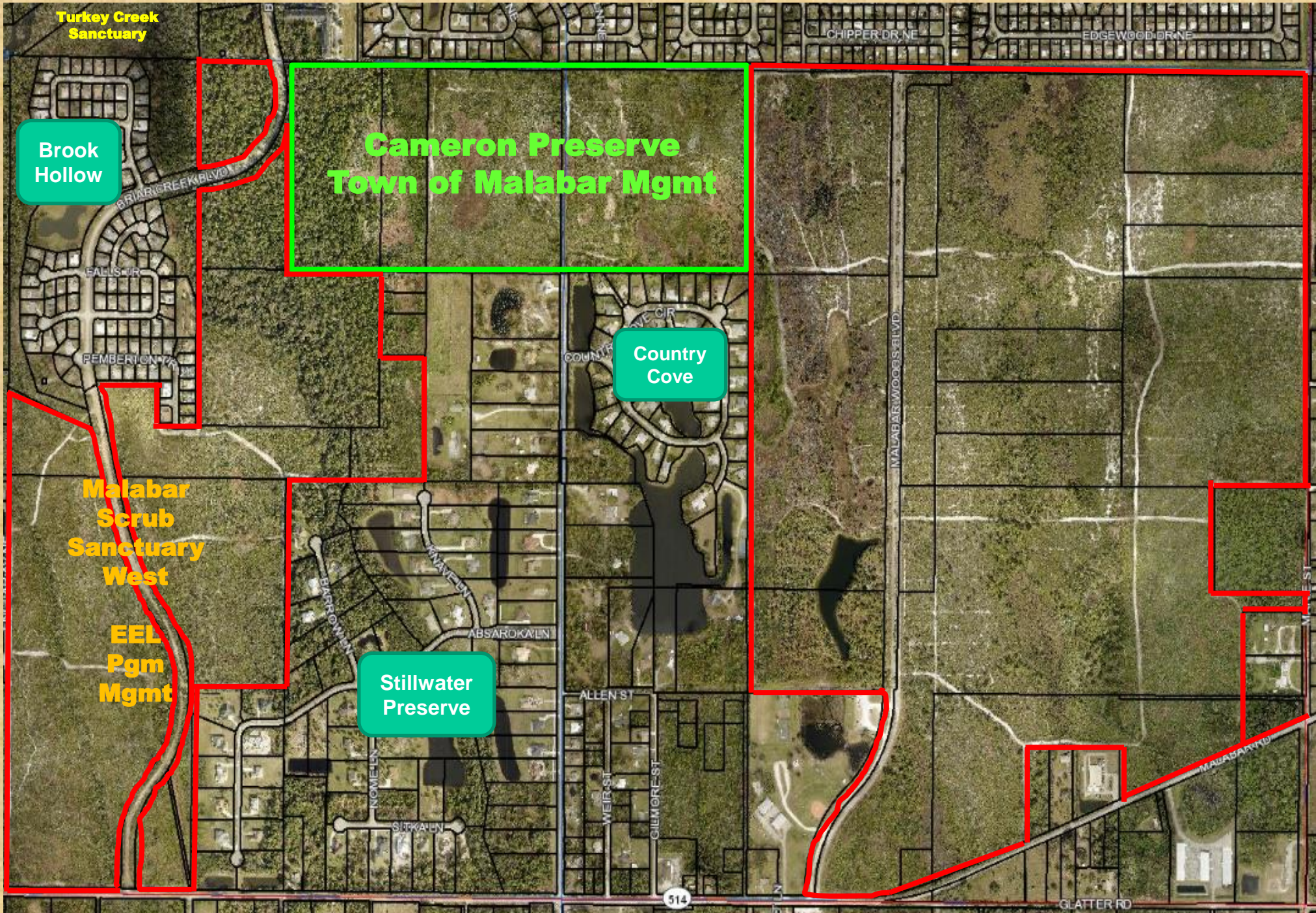
<https://www.brevardfl.gov/EELProgram/home>
As of January 3, 2022

Malabar Scrub Sanctuary = MSS



MALABAR SCRUB SANCTUARY WEST

MALABAR SCRUB SANCTUARY EAST



Brook Hollow

Cameron Preserve
Town of Malabar Mgmt

Country Cove

Stillwater Preserve

**MALABAR
SCRUB
SANCTUARY
EAST**

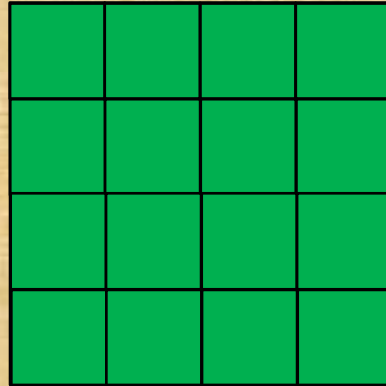
1000' Buffers to Forest Edge Reduce Area of Scrub-jay Habitat on Smaller Properties

Tall Tree-Free Buffer Distance in a Small Sanctuary

1,000' tree-free buffers, as associated with optimal scrub-jay habitat (per FL FWCC 2019), require large areas



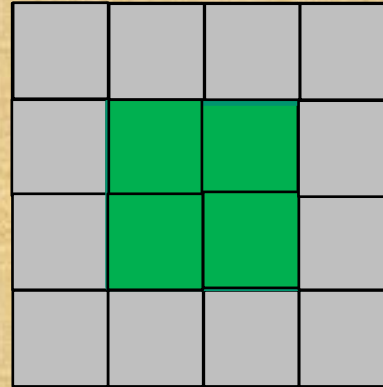
1,000' Tree-Free Buffer



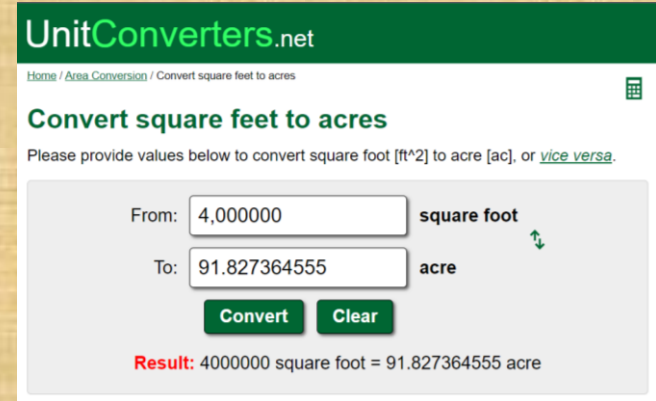
4,000' x 4,000' Square Sanctuary

16,000,000 sq ft (~ 367.3 acres)

=



2,000' x 2,000' = 4,000,000 sq ft Optimal Scrub-jay Habitat *After 1,000' Tree-Free Buffer



4,000,000 sq ft (~ 91.8 acres)
ONLY 25% can potentially be "strong" habitat
At 22 – 24 acres needed for each scrub-jay breeder pair, applying the planned 1,000' buffer to MSS East with 92 acres of optimal scrub-jay habitat, MSS East will only support 4 families of scrub-jays

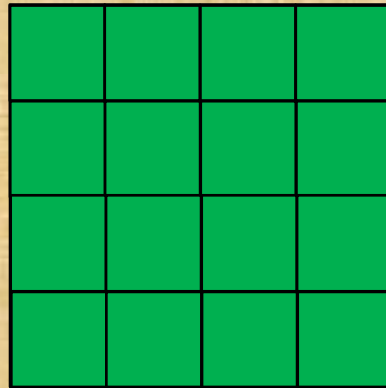
300' Buffers to Forest Edge Result in More Area of Scrub-jay Habitat on Smaller Properties

Tall Tree-Free Buffer Distance in a Small Sanctuary

300' tree-free buffers, as associated with suitable scrub-jay habitat (per FL FWCC 2019), require large areas



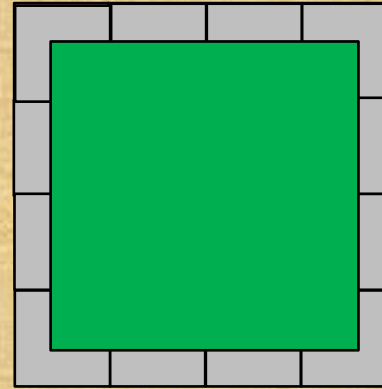
1,000' Tree-Free Buffer



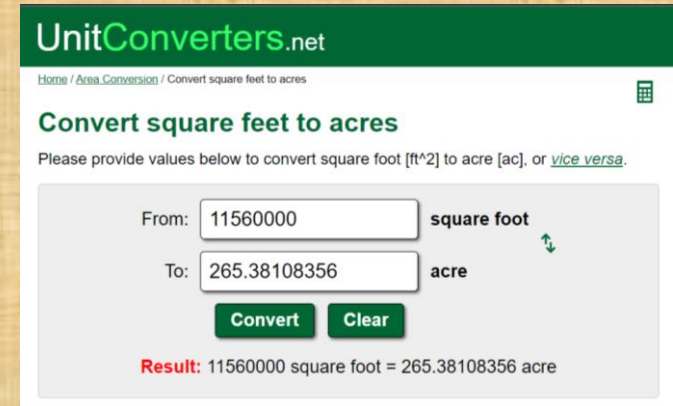
4,000' x 4,000' Square Sanctuary

16,000,000 sq ft (~ 367.3 acres)

=



3,400' x 3,400' = 11,560,000 sq ft Suitable Scrub-jay Habitat *After 300' Tree-Free Buffer



Rectangle Acreage calculations courtesy of <https://www.unitconverters.net/area/square-feet-to-acres.htm>

11,560,000 sq ft
(~ 265.4 acres)
OVER 72% can potentially be "suitable" habitat

At 22 – 24 (23 avg) acres needed for each scrub-jay breeder pair, applying the FL FWCC minimal 300' buffer to MSS East with 265 acres of optimal scrub-jay habitat, MSS East would be able to support 11.5 families of scrub-jays

**MALABAR
SCRUB
SANCTUARY
WEST**

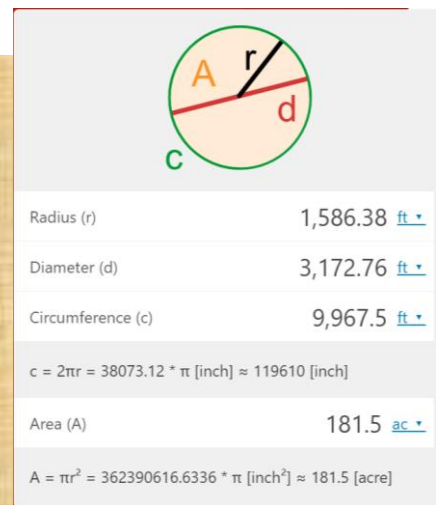


In a perfect case scenario for optimal scrub-jay habitat, applying the 1,000' tall tree-free buffer to an area of 181.5 acres, (the total of the three separate sections of MSS West), would probably be circular in shape and have nothing higher than 15' within 1,000' of the perimeter. In that case, the optimal scrub habitat would be immediate and would equal the full circle of 181.5 acres.

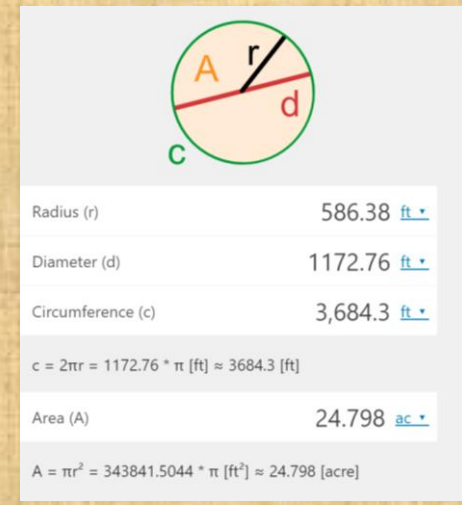
If the 1,000' tall tree-free buffer were applied to a circular area of 181.5 acres, that was bordered by tall trees, power lines, and/or buildings, for optimal scrub-jay habitat (per FL FWCC 2019), the habitat territory would start after the 1,000' point inward from the property edge.

If the 300' tall tree-free buffer were applied to a circular area of 181.5 acres, that was bordered by tall trees, power lines, and/or buildings, for suitable scrub-jay habitat (per FL FWCC 2019), the habitat territory would start after the 300' point inward from the property edge.

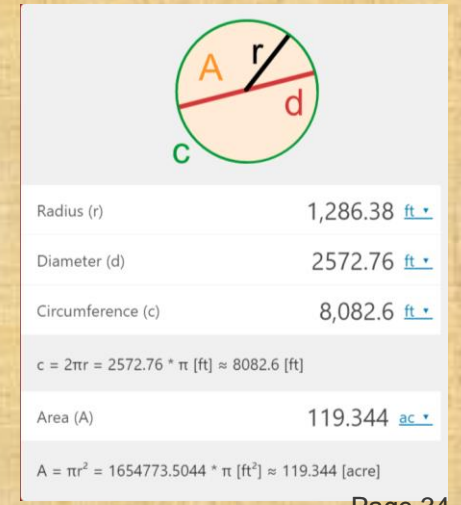
$$\begin{array}{r} 3172.76 \\ -0000.00 \\ \hline 3172.76 \end{array}$$



$$\begin{array}{r} 3172.76 \\ -2000.00 \\ \hline 1172.76 \end{array}$$



$$\begin{array}{r} 3172.76 \\ -600.00 \\ \hline 2572.76 \end{array}$$



181.5 acres of habitat

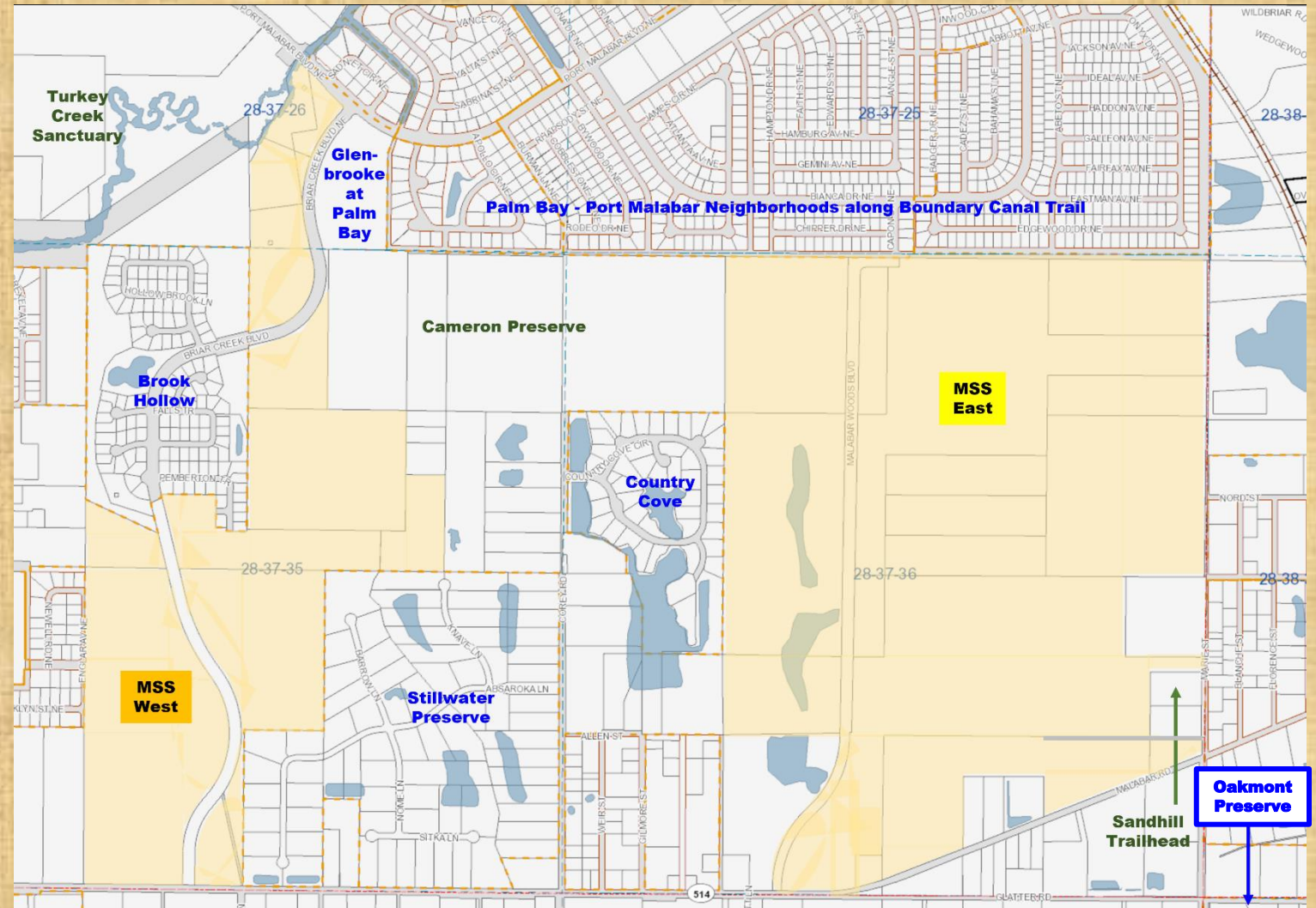
24.7 acres of habitat

119.3 acres of habitat

MSS East and MSS West are completely different properties that must be treated differently...

MSS West is...

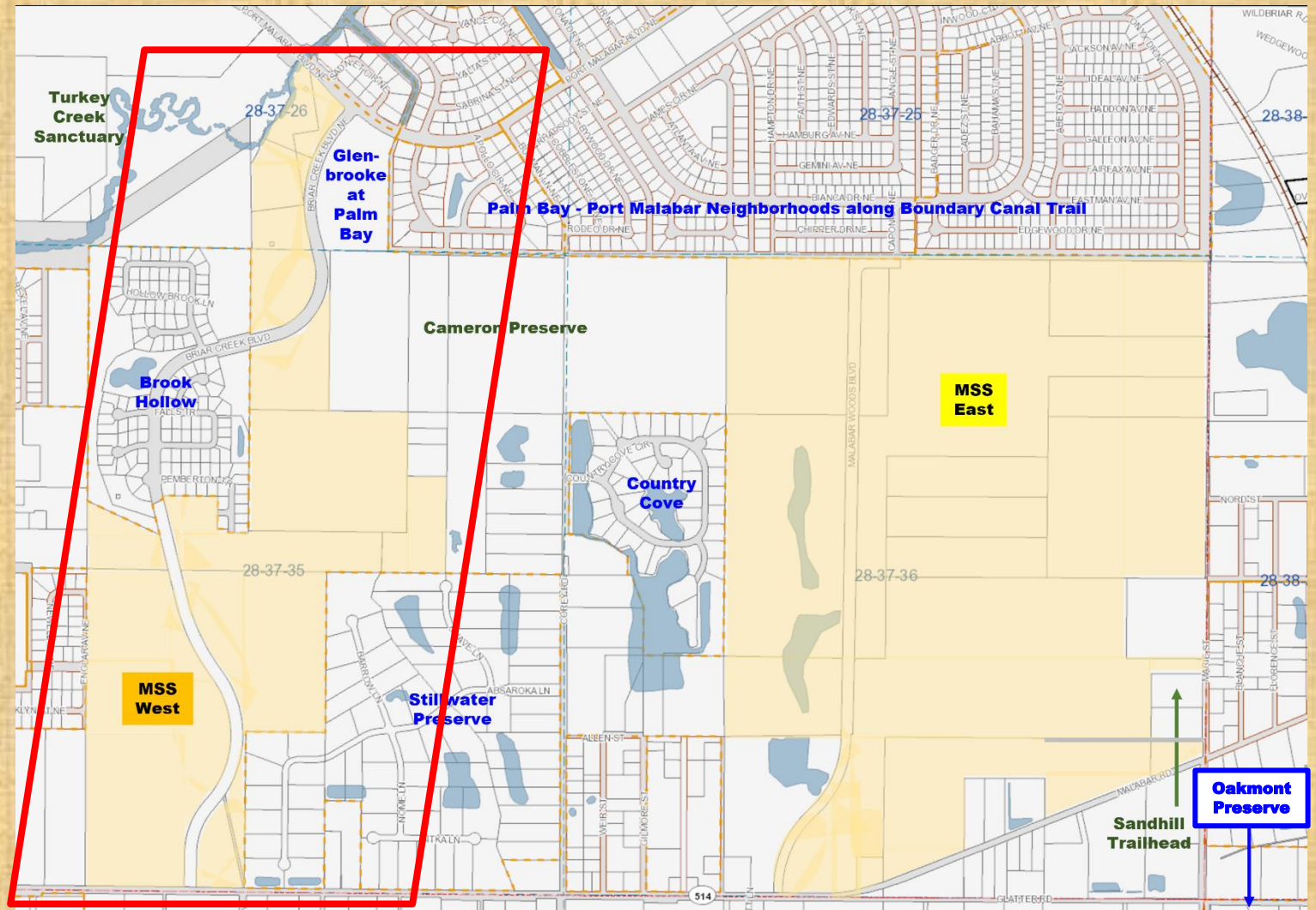
- **NOT** square nor circular
- a complex site that would be difficult to achieve optimal scrub-jay habitat
- smaller than MSS East (< half the acreage)
- far less suited for restoration to scrub habitat
- non-contiguous property...
3 areas split by ROW
- diagonal - yet asymmetrical
variable widths and
diagonal length 1 Mile+



MSS East and MSS West are completely different properties that must be treated differently...

MSS **West** is...

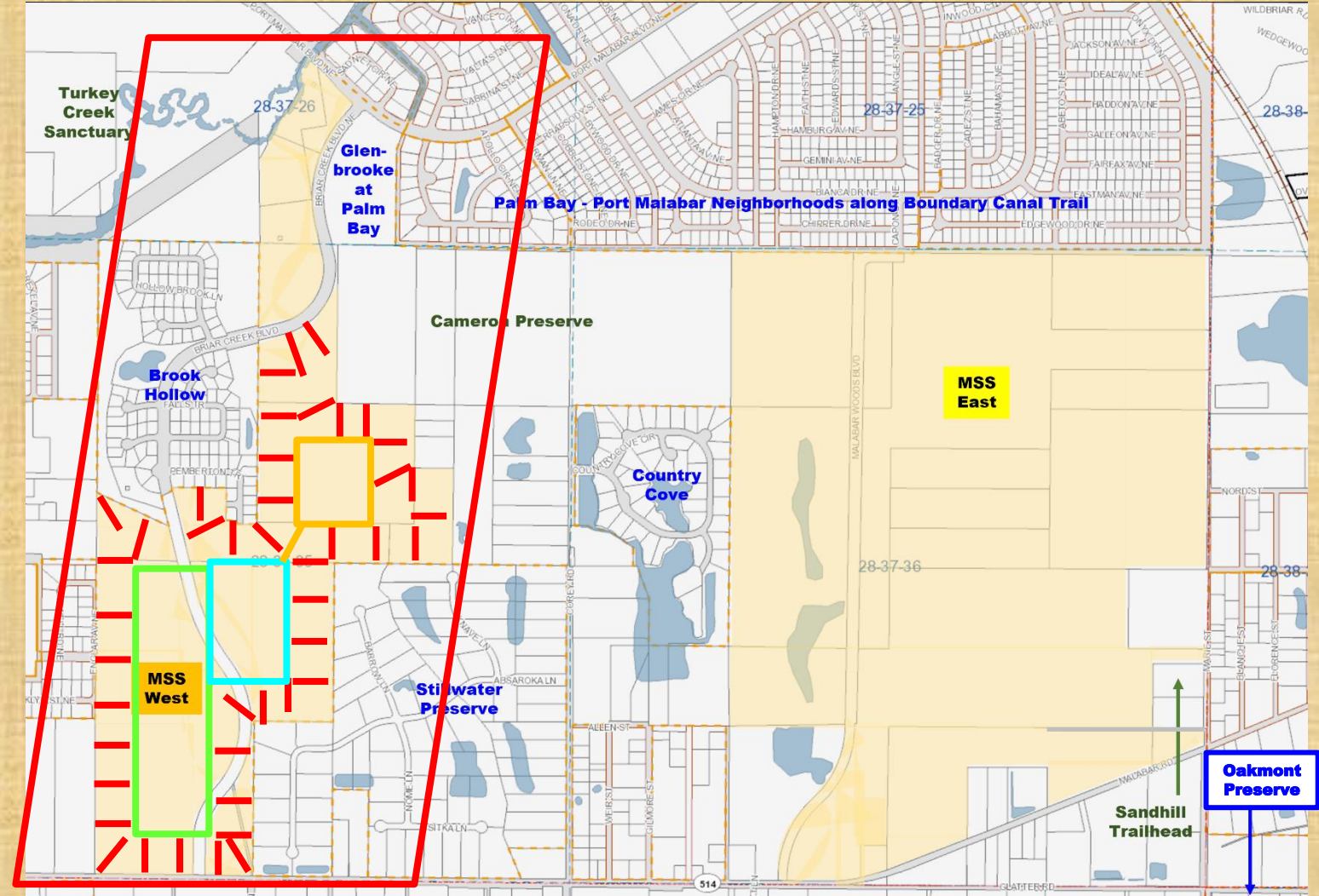
- **NOT** square nor circular
- a complex site that would be difficult to achieve optimal scrub-jay habitat
- smaller than MSS East (< half the acreage)
- far less suited for restoration to scrub habitat
- non-contiguous property...
3 areas split by ROW
- diagonal - yet asymmetrical
variable widths and
diagonal length 1 Mile+



MSS East and MSS West are completely different properties that must be treated differently...

MSS **West** is...

- **NOT** square nor circular
- a complex site that would be difficult to achieve optimal scrub-jay habitat
- smaller than MSS East (< half the acreage)
- far less suited for restoration to scrub habitat
- non-contiguous property...
3 areas split by ROW
- diagonal - yet asymmetrical
variable widths and
diagonal length 1 Mile+



When recognizing that vegetation removal is not an option for EEL Pgm in ROW of Town of Malabar, total acreage of MSS **West** without ROW, adds up to 3 separated areas of **181.5 acres**

UnitConverters.net

Convert square feet to acres

From: 975,883.3 square foot

To: 22.403197888 acre

22.4

Result: 975883.3 square foot = 22.403197888 acre

UnitConverters.net

Convert square feet to acres

From: 4,218,215.8 square foot

To: 96.836910009 acre

96.8

Result: 4218215.8 square foot = 96.836910009 acre

UnitConverters.net

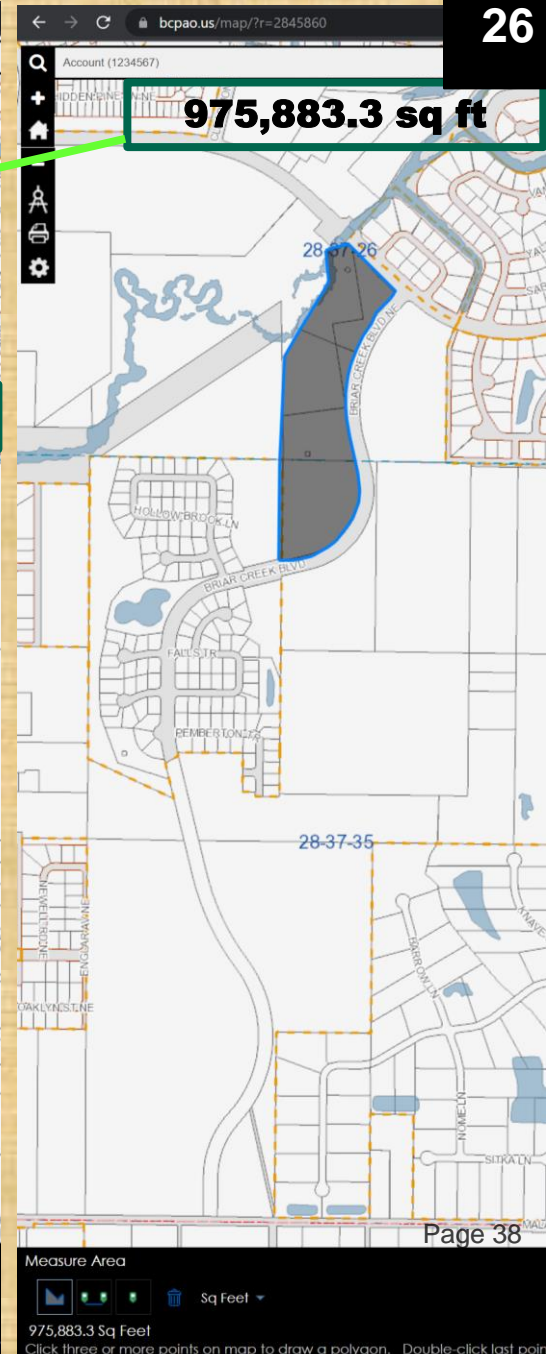
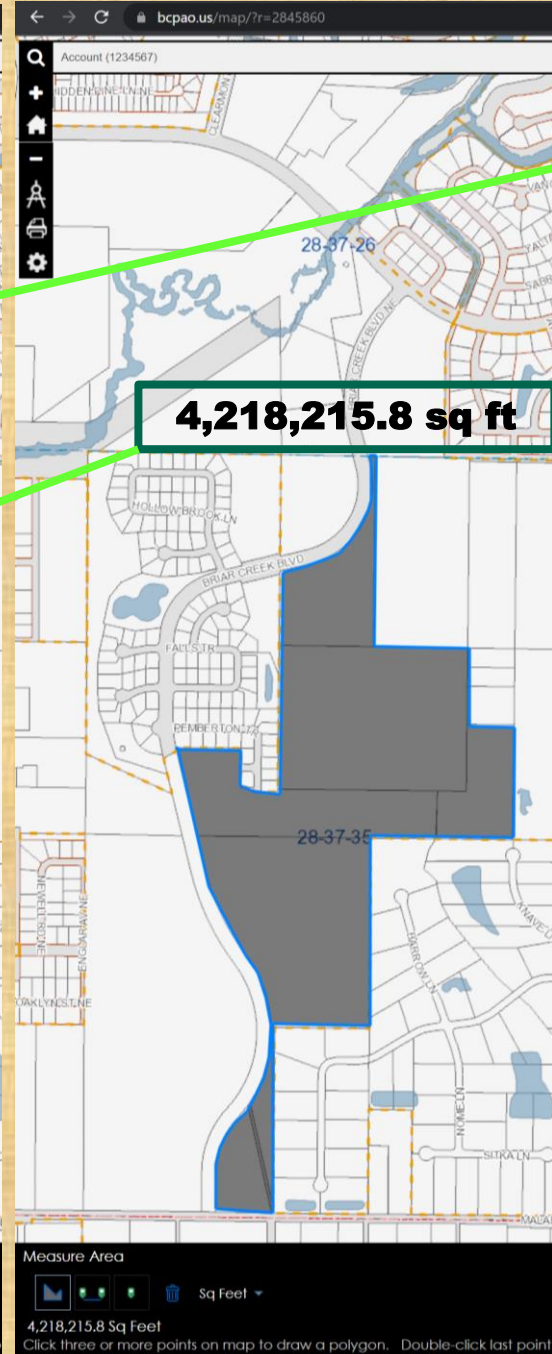
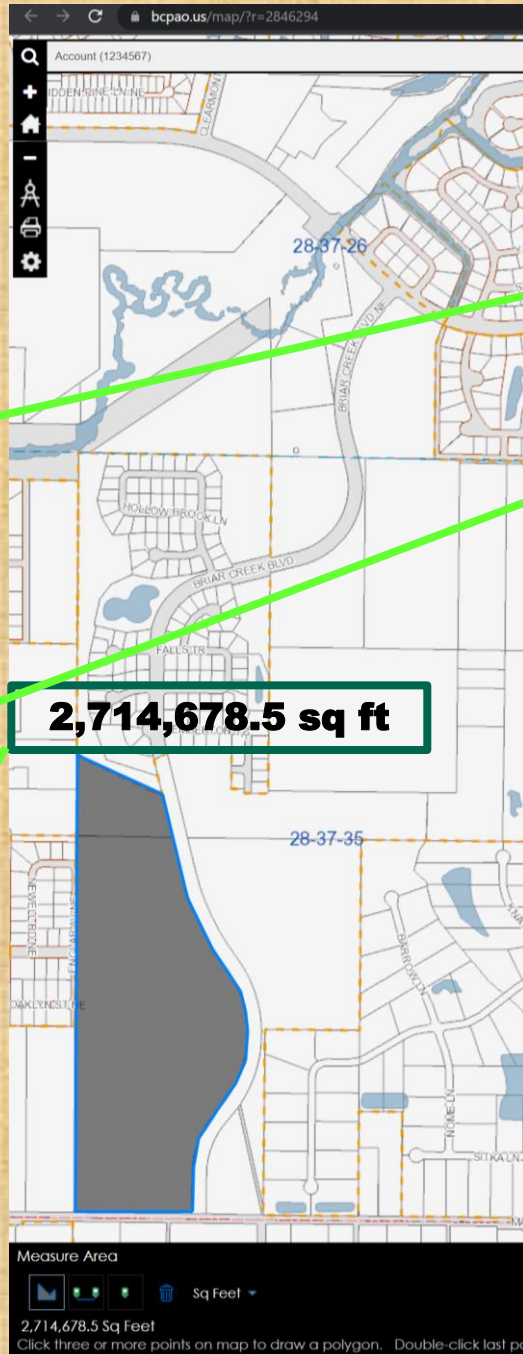
Convert square feet to acres

From: 2,714,678.5 square foot

To: 62.320443067 acre

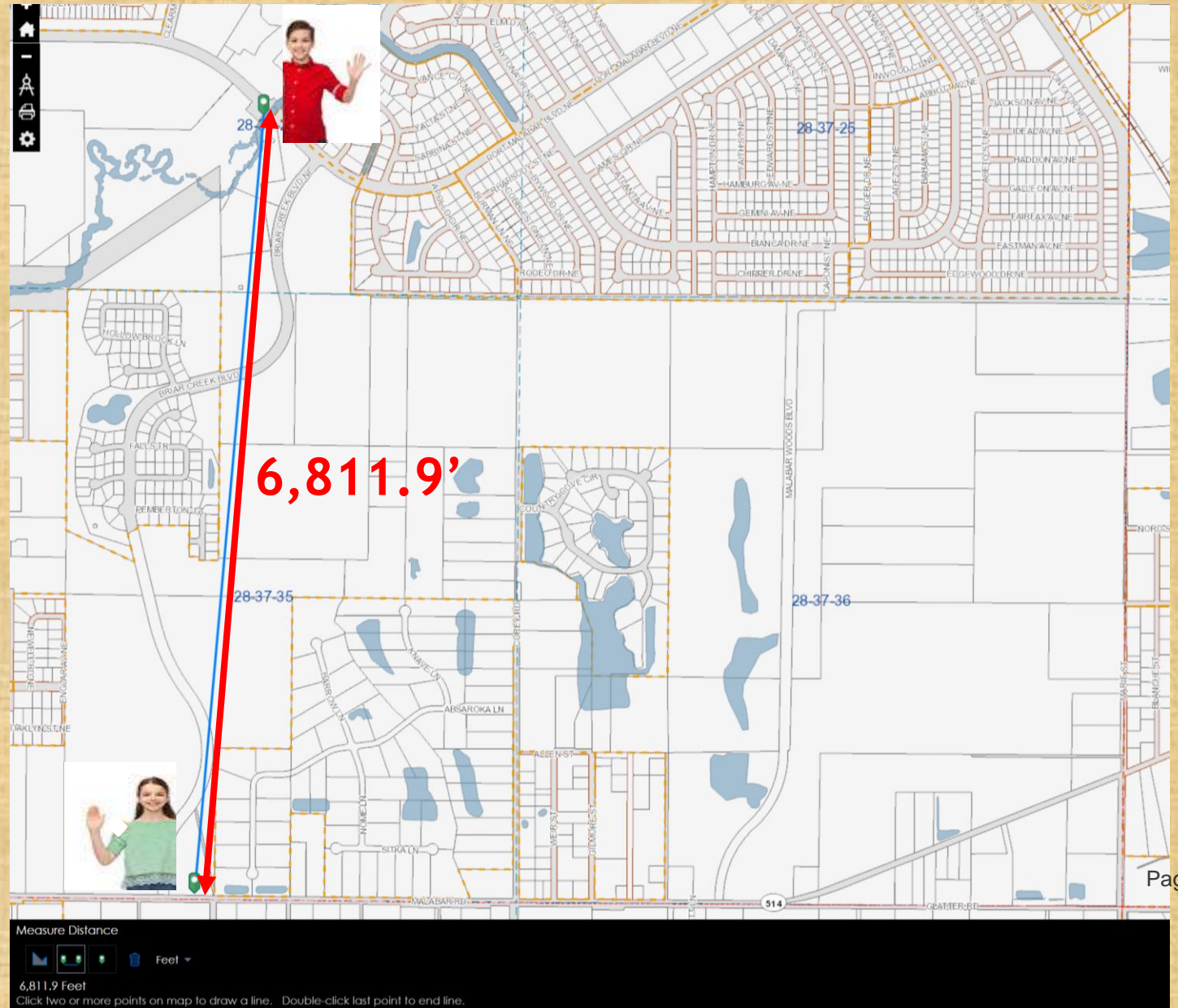
62.3

Result: 2714678.5 square foot = 62.320443067 acre

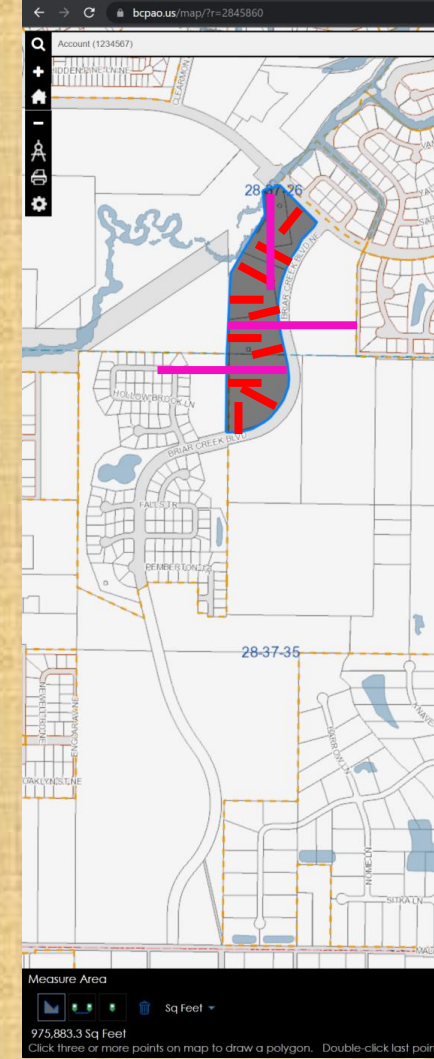
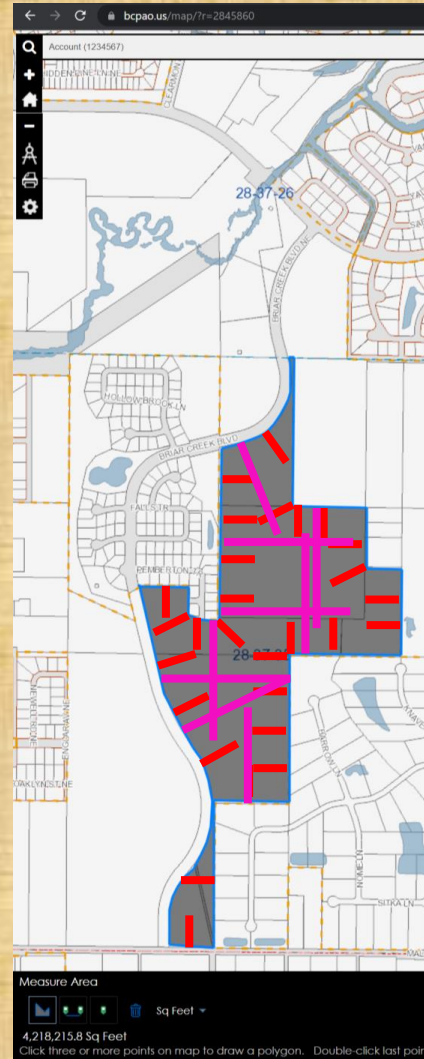
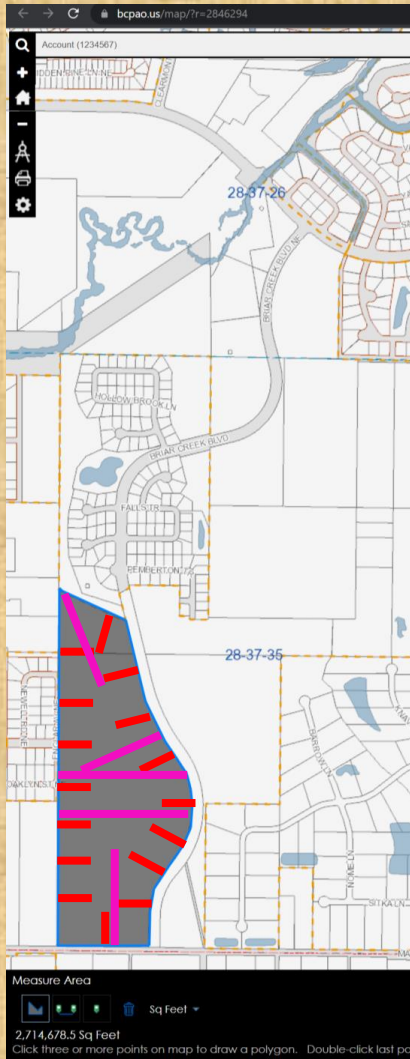


The EEL Pgm Restoration Plan Would Change The Local Perspective...

Under an EEL Pgm plan to eventually remove vegetation from MSS West property, except perhaps for trees located within the Briar Creek ROW, a person standing on the edge of Malabar Rd, just N of Briar Creek Blvd, could see another person who was standing on the bridge over Turkey Creek, on Port Malabar Blvd. over a mile away. (1.3 miles)



MSS West Tall Tree-Free Buffers at 300' & 1,000'

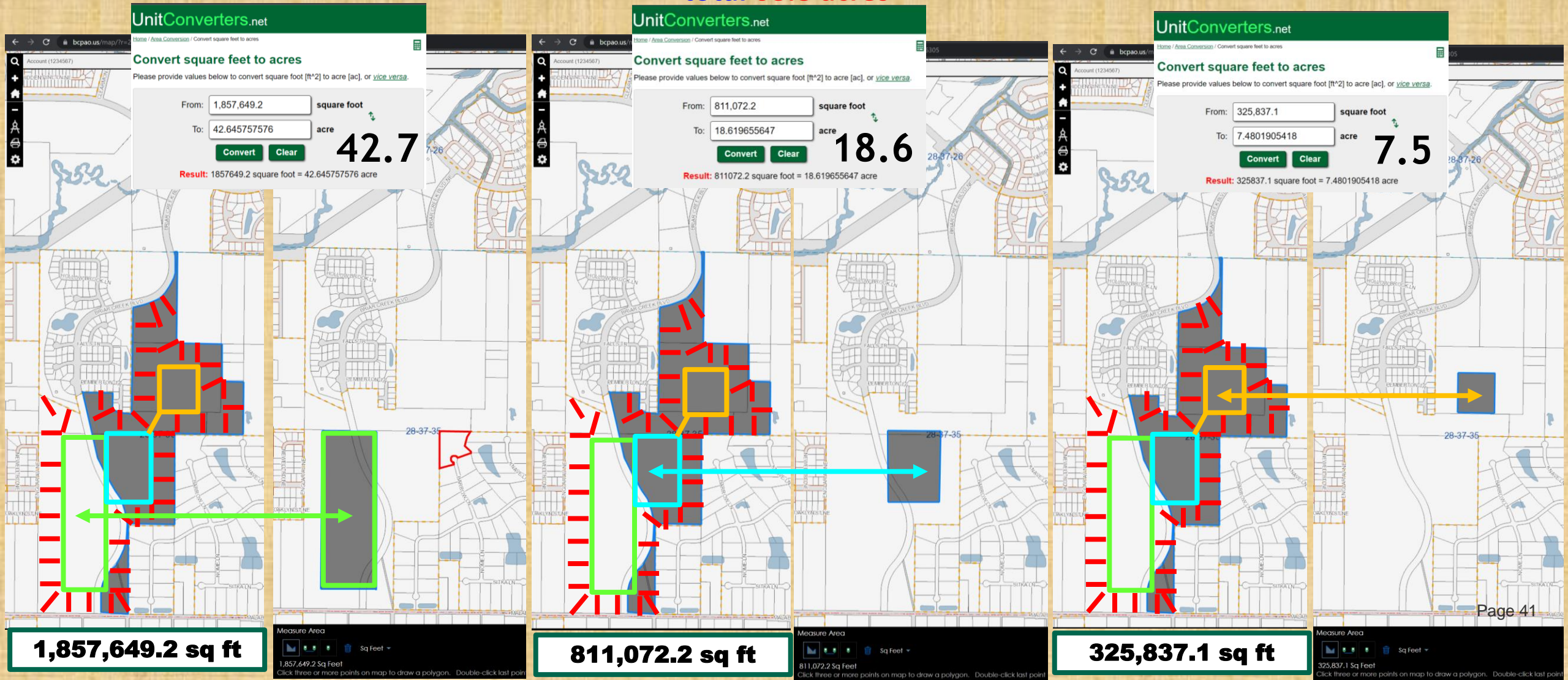


- **Red Bars Indicate 300' Tall Tree-Free Buffer from Property Borders and Briar Creek Blvd (Town of Malabar ROW)**
- **Magenta Bars Indicate 1,000' Tall Tree-Free Buffer from Property Borders and Briar Creek Blvd (Town of Malabar ROW)**

In MSS West, site size limitations prohibit application of the 1,000' Buffer or any optimal habitat

Only if both sides of unpaved Briar Creek Blvd ROW were to be considered as one area, and the minimum 300' Tall Tree Free Buffer were applied, the three connected rectangles of suitable scrub-jay habitat would

total 68.8 acres



1,857,649.2 sq ft

811,072.2 sq ft

325,837.1 sq ft

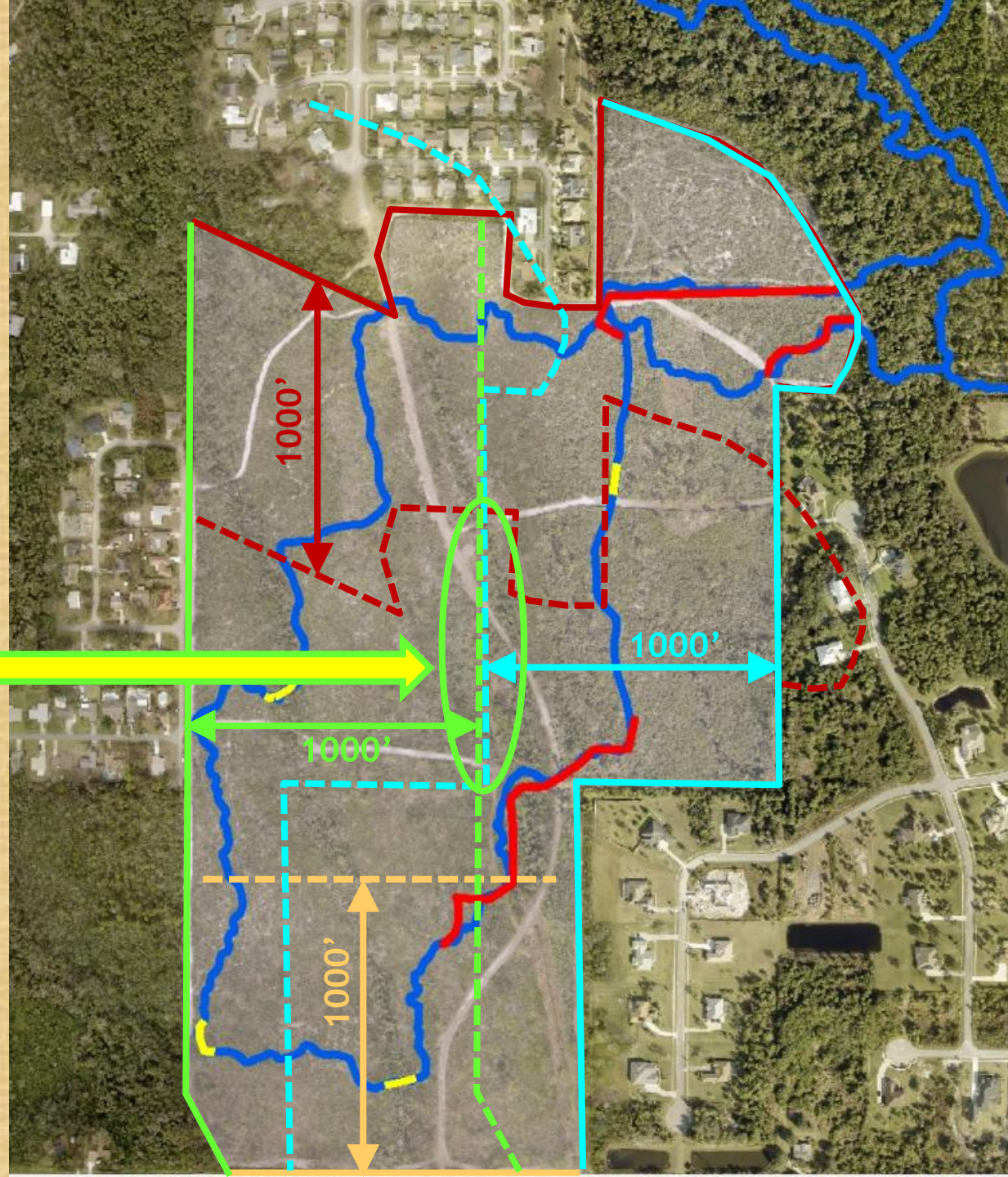
— Red Bars Indicate 300' Tall Tree-Free Buffer from Property Borders

Rectangle Acreage calculations courtesy of <https://www.unitconverters.net/area/square-feet-to-acres.htm>

Malabar West “1000’ to Screening Trees” Analysis With Current Trails Shown

Arrow on Map offsets
“forest edge” at property
edge 1000’ into property
to show resulting,
potential “strong” habitat

This property has 0 area
that meets the “optimal”
condition. Property is too
small, and its shape is too
complex, to ever be
optimal scrub property.

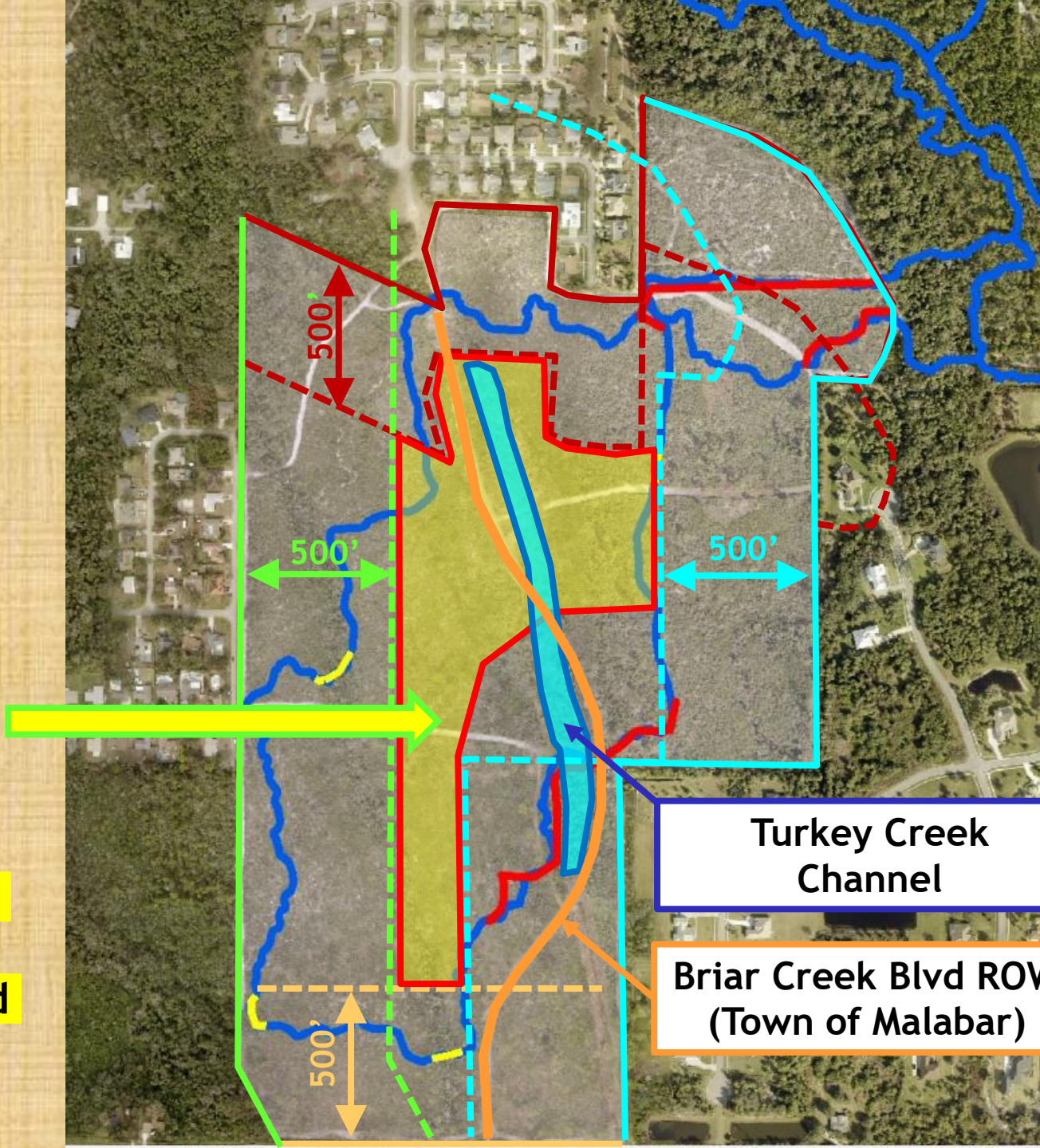


Malabar West "500' to Screening Trees" Analysis With Current Trails Shown

Green arrow on map represents 500' to property boundaries and/or tall trees & power lines



Projection from each property boundary by 500' shows a small area in the property center remaining (18.6 acres). However, it is dominated by a drainage creek that feeds Turkey Creek Channel D, and the Malabar ROW for Briar Creek Blvd (100' wide, property of Town of Malabar).



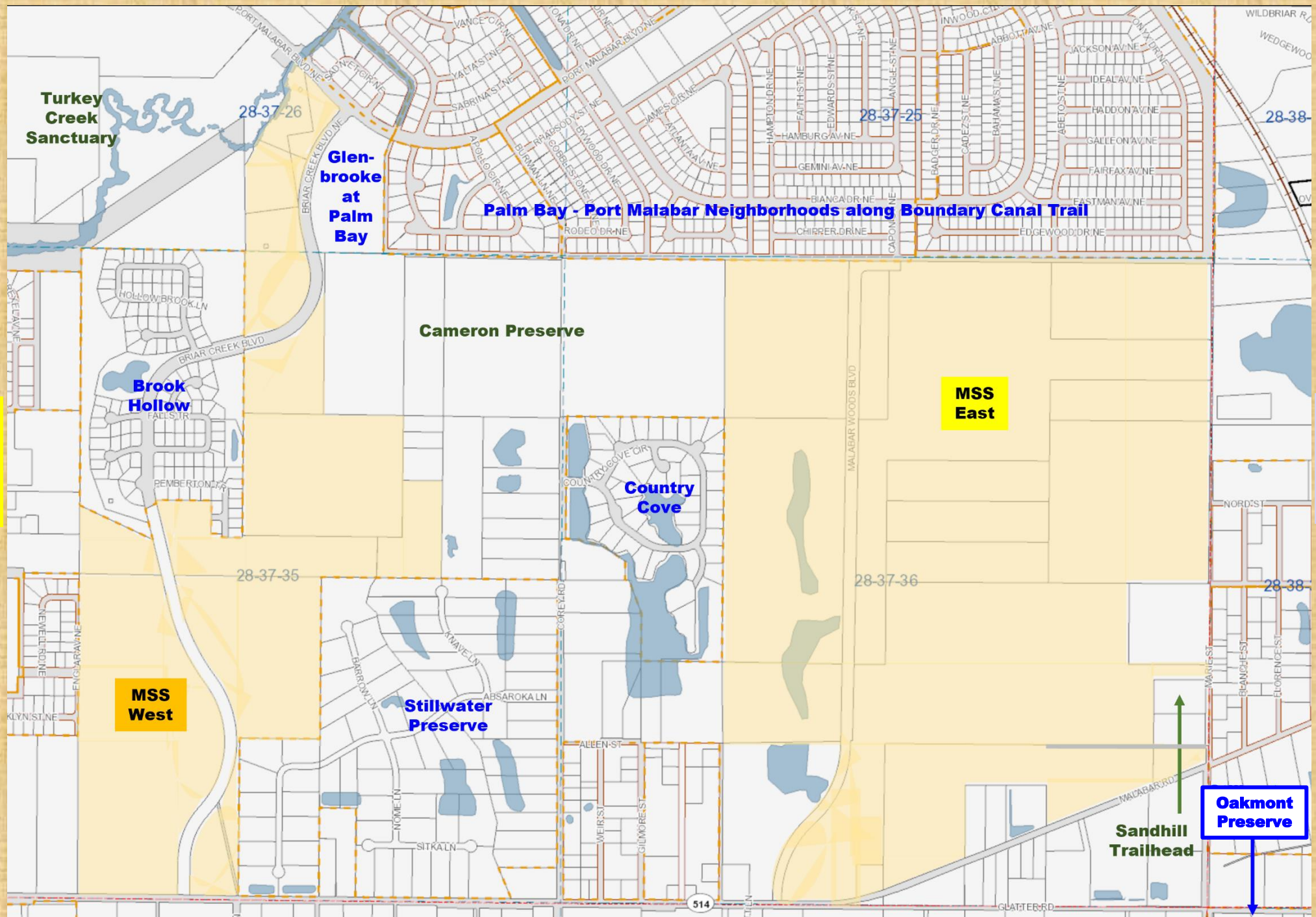
Turkey Creek Channel

Briar Creek Blvd ROW (Town of Malabar)

Summary of Town of Malabar Requests

12 itemized requests all pertain to the MSS. Most pertain to its periphery. All fit into one of three categories:

- 1. Preserve vegetation in a specified location of a specified number of acres with a specified number of trees protected from scrub restoration work. Of the total 577-acre MSS, these requests impact a total of 17.7 acres with preservation of 507 trees, impacting about 3% of MSS.**
- 2. Restore vegetation in a specified location, not to scrub habitat but to optimal specifications for woodpecker habitat, at about 40 trees per acre – to recognize other current avian species now residing in the specified area of MSS. This tree density change will impact less than 1% of the MSS.**
- 3. Relocate or maintain existing trails as identified in specified locations so that trail users are routed more through forest shadow (corner areas) along sanctuary – resulting in more inhabitable scrub-jay habitat.**



**MALABAR
SCRUB
SANCTUARY
WEST**

**MALABAR
SCRUB
SANCTUARY
EAST**

The EEL Pgm Restoration Plan primarily involves the destruction of vegetation within the MSS.

Unless otherwise specified, all Town of Malabar requests to “Preserve” are to be interpreted as to comply with the criteria identified for a “VPB” – here redefined as: “Vegetative Preservation Buffer” and with the following characteristics.

A Vegetative Preservation Buffer (VPB) is defined as being a located and maintained area within the sanctuary and unless otherwise specified, is situated along property borders, at a minimum 25’ width. Within the VPB, all oak trees and all native palm trees **may not be killed, cut, grinded, damaged, treated with herbicides, removed, exposed to excessive heat, or reduced in height.** Any Sand Pines (regardless of DBH), and any other Pine trees less than 5” DBH, and any invasive species, may be removed. Any other reduction of vegetation within the VPB is limited to a height no lower than 15’. There will be no roller chopping or prescribed burning within the VPB.

Defined TOM T&GC_20220324 Adopted TOM RTCM_20220404

Town of Malabar Summary of Requests			Requested to be Preserved	
MSS Side	Area	Request	Trees	Acres
MSS EAST & WEST All Areas			507	17.67
MSS EAST All Areas			347	13.891
MSS WEST All Areas			160	3.783

**MSS Restoration Issue
Town of Malabar Requested Changes - Summary Pages 3**

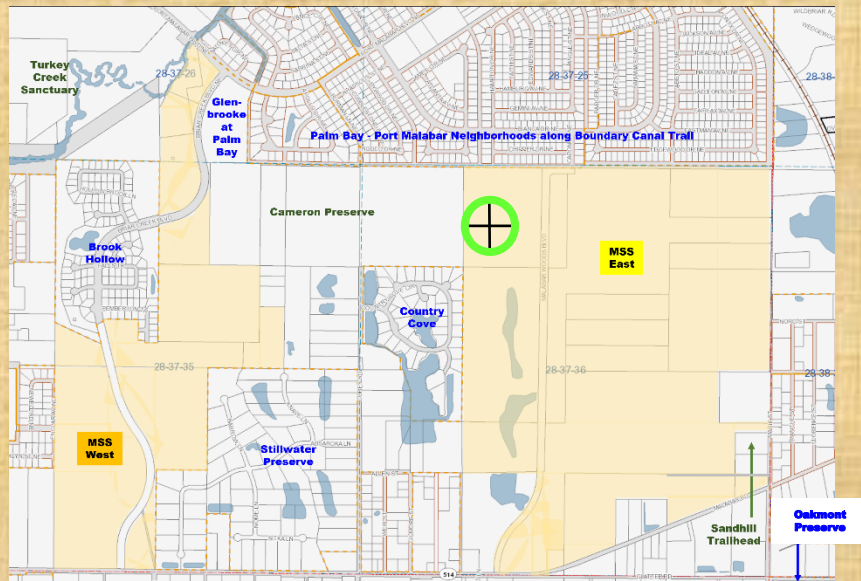
Town of Malabar Summary of Requests			Requested to be Preserved	
MSS Side	Area	Request	Trees	Acres
MSS EAST & WEST All Areas			507	17.67
EAST	MSS East- Area 1 - Located in NW - Small oak hammock "historic woods", part of 2001 restoration compromise - scrub-jays frequently observed in understory	Preserve this small oak hammock. Although it is near optimal habitat shown (dashed aqua lines, per EEL Pgm Mgmt plan), scrub-jays have been seen frequenting this area. (EEL Pgm inset, right, Fig. 5).	30	0.517
	MSS East- Area 2 - Located in N - Live oaks on far north property border	Preserve these oak trees along the north border since: North edge of MSS East already has a forest edge - back property power lines and trees are 30' to the N. Consistent with how it has been managed for 30 years. Many trees in this area are outside EEL Pgm fence - on City of Palm Bay property. Boundary Canal Trail is considered a Brevard County Signature project.	12	0.2
	MSS East- Area 3 - Located in NE - Palm and Live Oak Hammock along Al Tuttle Trail corner, very near edge of sanctuary	Preserve this diverse and wet hammock with only removal of sand pines and preservation of trees around which Al Tuttle Trail was routed. It is acknowledged that this area may be appropriate for restoration efforts if the private property immediately to the south is acquired by EEL Pgm.	50	1.225
	MSS East- Area 4 - Located in S - Mature scrub oak hammock, part of 2001 restoration compromise - sanctuary entrance focal point 1	Preserve this hammock with only removal of sand pines and any tall pines. As being at the entrance to MSS East, preservation would enhance the appearance of the sanctuary. This area is known to be a great area to view various species of woodpeckers, and cardinals.	30	2.411
	MSS East- Area 5 - Located in W - Basin marsh tree clusters (3) along east of Country Cove development	Preserve this area "as is." Because it is dominated by wetlands, EEL Pgm likely choose to move the fire break away from the property boundary. The area has never been burned, due to wetland status, and functions as an effective buffer to Country Cove.	60	5.405
	MSS East- Area 6 - Located in SW - Pond and wet area, woodpeckers frequently observed in tree surrounding pond - sanctuary focal point 2	Restore this area to 40 trees per acre as done in other similar EEL Pgm sanctuaries (such as Micco Scrub Sanctuary), to best support above tree-dependent species. A trail added to top of spoil ridge on E bank as shown would further enhance Malabar Community Park and further EEL Pgm goals for Passive Recreation - a win win scenario.	165	4.133
MSS EAST All Areas			347	13.891

MSS Restoration Issue Town of Malabar Requested Changes - Summary Pages

3

Town of Malabar Summary of Requests			Requested to be Preserved	
MSS Side	Area	Request	Trees	Acres
MSS EAST & WEST All Areas			507	17.67
MSS EAST All Areas			347	13.891
WEST	MSS West- Area 1 - Located in SE - Mature scrub oak overstory with Briar Creek Blvd. ROW crossing area center - very close to tall tree border of Stillwater Preserve development	Minimize tree overstory removal in this area. Remove sand pines and/or particularly tall pines, but there should be no removal of scrub oak and palm tree overstory as about half of this area is wetland and not appropriate for restoration to scrub habitat.	60	1.658
	MSS West- Area 2 - Located in E - Habitat transition zone, very close to tall tree oak hammock of Turkey Creek channel D - very near sanctuary property border	Preserve area via minimal tree overstory removal. Remove only sand pines, because the area transitions to live oaks and palms, and then descends to the channel and wetland habitat. An additional reason to preserve this area is that the adjacent creek channel oak hammock would likely result in a "tree shadow" zone avoided by scrub-jays.	40	0.689
	MSS West- Area 3 - Located in NW - Habitat transition zone, very near property border, located at deep concave corner of sanctuary - forms potential "tree shadow" condition subjecting scrub-jays to greater threat of predation.	Preserve this forested corner as forest with relocation of the trail that is currently in scrub area to new location deeper into forested corner. Only perform minimal restoration of tree overstory. Only remove sand pines as necessary, taper edge down to fire break, remove tall pines on fire break, and relocate trail via a more flowing trail leading into the remaining woods. The result of this would be a larger area of scrub habitat and improved trail conditions - a win win scenario.	50	1.378
	MSS West- Area 4 - Located in N - Mature oaks at border corner of Brook Hollow development - point of numerous trail connections	Preserve this area with minimal tree overstory removal. Only remove sand pines as this is the only part of MSS West where users have reported seeing scrub-jays frequenting this area.	10	0.058
	MSS West- Area 5 - Located in NE - Opportunity area for trail relocation to deeper woods along Turkey Creek channel D along transition to oak hammock	Locate new bridge and new trail segment in the deep woods south of the creek, connecting to the existing system. This would have minimal, if any, negative impact on restoration goals. Further, the new bridge would demonstrate EEL Pgm support for voter desired passive recreation.	0	0
	MSS West- Area 6 - Located in - Oak hammock over / near Turkey Creek Channel D	Exclude this area from restoration and preserve it to be dedicated for trail use. Build the trail S of the creek to show EEL Pgm recognition that the mission continues to include support of passive recreation.	0	0
MSS WEST All Areas			160	3.783

MSS East Area 1



This area with a small oak hammock is known as “historic woods.” Past preservation was by agreement with Zack Prusak, EEL Pgm Manager, Circa 2001. A trail was rerouted to this location to take advantage of this rare oak hammock.

Part 1: length 150' x width 150' = 0.51 acres w/30 trees

Request: Preserve this small oak hammock. Although it is near optimal habitat shown (dashed aqua lines, per EEL Pgm Mgmt plan), scrub-jays have been seen frequenting this area. (EEL Pgm inset, right, Fig. 5).

Note: Any restoration of the 660 foot buffer around the eagle nest area will require a letter / permit from Florida FWCC to be attached to the Malabar permit.

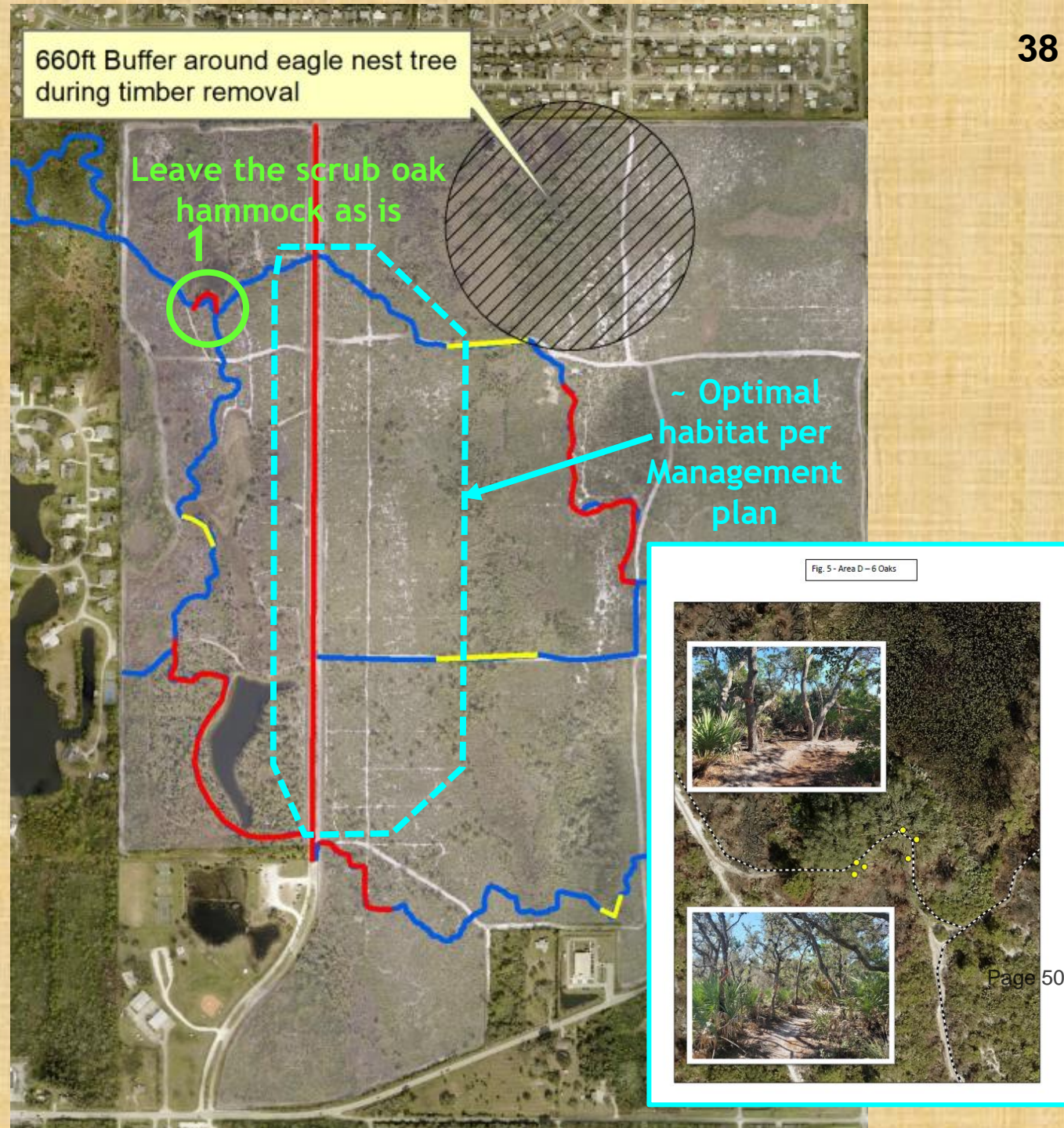
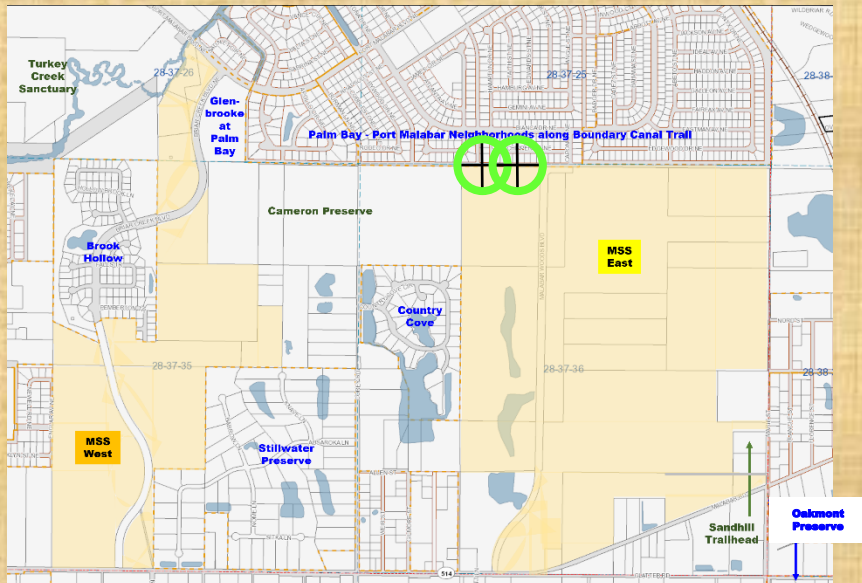


Fig. 5 - Area D - 6 Oaks



MSS East Area 2

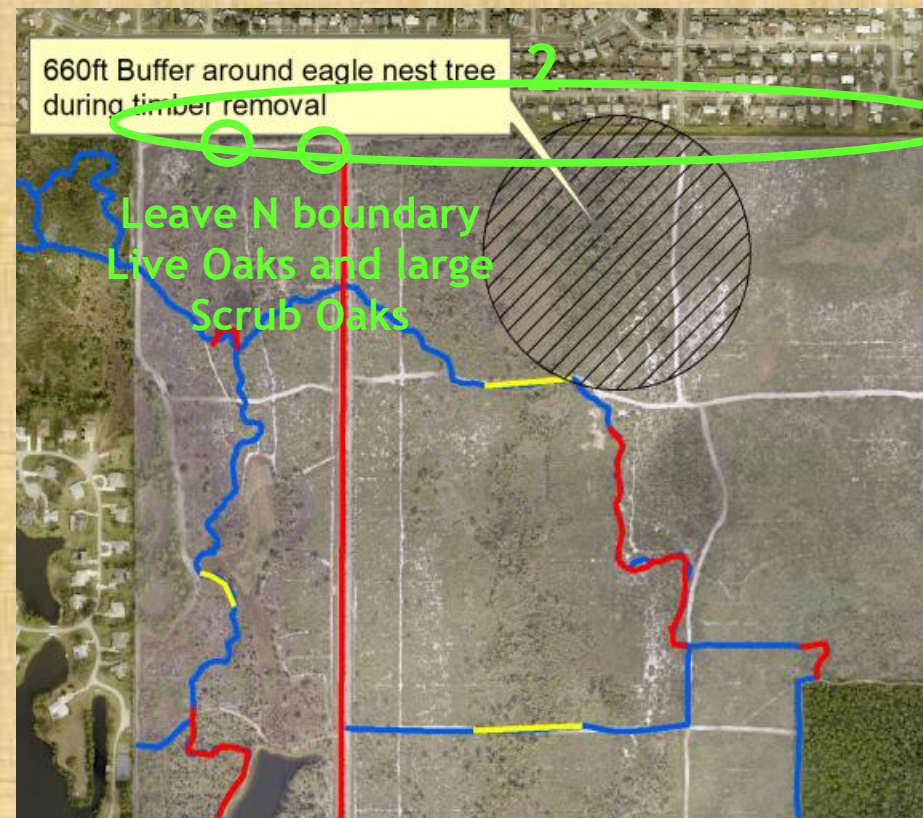


This area has several very large, mature oak trees located along the far north property boundary. Most are N of the current fire break and would have minimal, if any, negative impact on restoration goals.

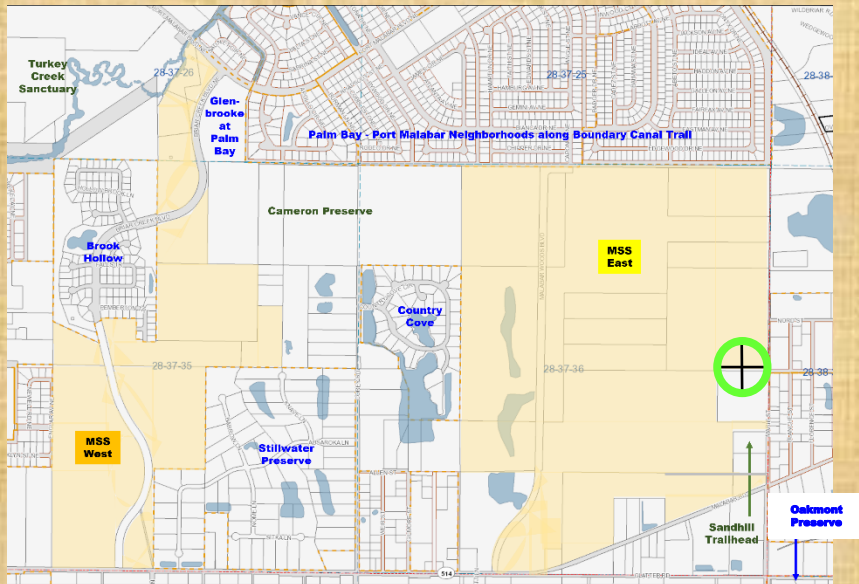
Part 1: length 580' x width 15' = 0.2 acres w/12 trees

Request: Preserve these oak trees along the north border since:

- North edge of MSS East already has a forest edge - back property power lines and trees are 30' to the N
- Consistent with how it has been managed for 30 years
- Many trees in this area are outside EEL Pgm fence - on City of Palm Bay property
- Boundary Canal Trail is considered a Brevard County Signature project



MSS East Area 3



This area could be described as a palm, Turkey Oak, and Live Oak hammock. It was probably left over from an old farm. It is a very wet area that will never be scrub habitat. The area has a close proximity to a private parcel forest tree line. It is near an abrupt turn in the Al Tuttle Trail (A Brevard County Showcase Trail). As it is a location where the trail runs along the forest tree line of private bordering properties, preservation of this hammock would have minimal, if any, negative impact on restoration goals.

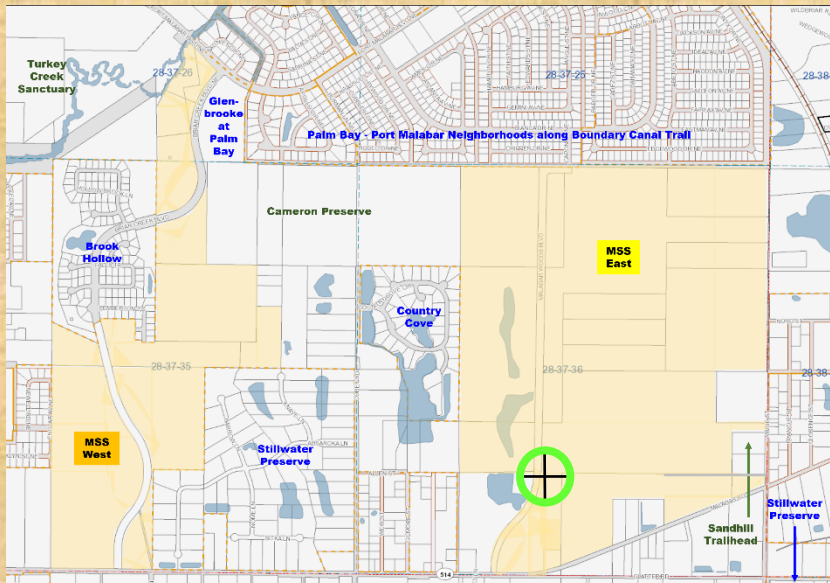
Part 1: length 180' x width 150' = 0.62 acres w/20 trees

Part 2: length 85' x width 310' = 0.61 acres w/30 trees

Request: Preserve this diverse and wet hammock with only removal of sand pines and preservation of trees around which Al Tuttle Trail was routed. It is acknowledged that this area may be appropriate for restoration efforts if the private property immediately to the south is acquired by EEL Pgm.



MSS East Area 4



This area is a very large Scrub Oak hammock that was preserved during the original 2001 restoration. It was specifically left not just for trail users, but as a focal point of the main entrance to MSS East. The area is popular as a photography backdrop and provides a rare sample of mature scrub oaks. As this area is located near a property boundary, hammock preservation would have minimal, if any, negative impact on restoration goals.

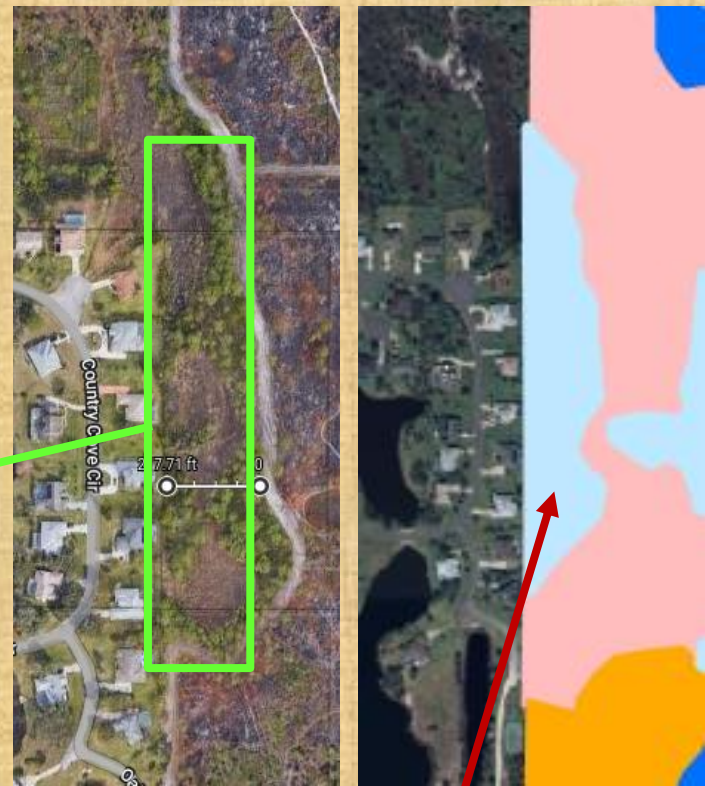
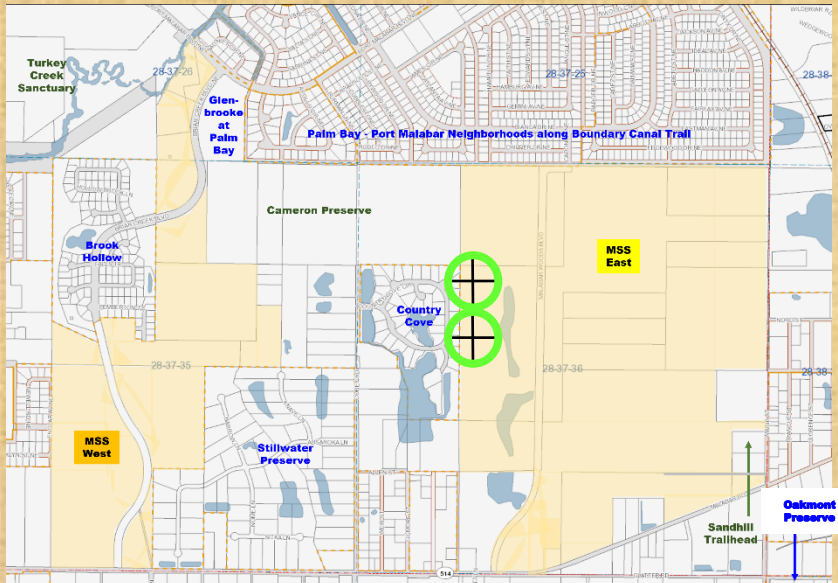
Part 1: length 350' x width 300' = 2.41 acres w/30 trees

Request: Preserve this hammock with only removal of sand pines and any tall pines. As being at the entrance to MSS East, preservation would enhance the appearance of the sanctuary. This area is known to be a great area to view various species of woodpeckers, and cardinals.



Keep this small Oak hammock as simply a beautiful spot used by many

MSS East Area 5



Basin marsh

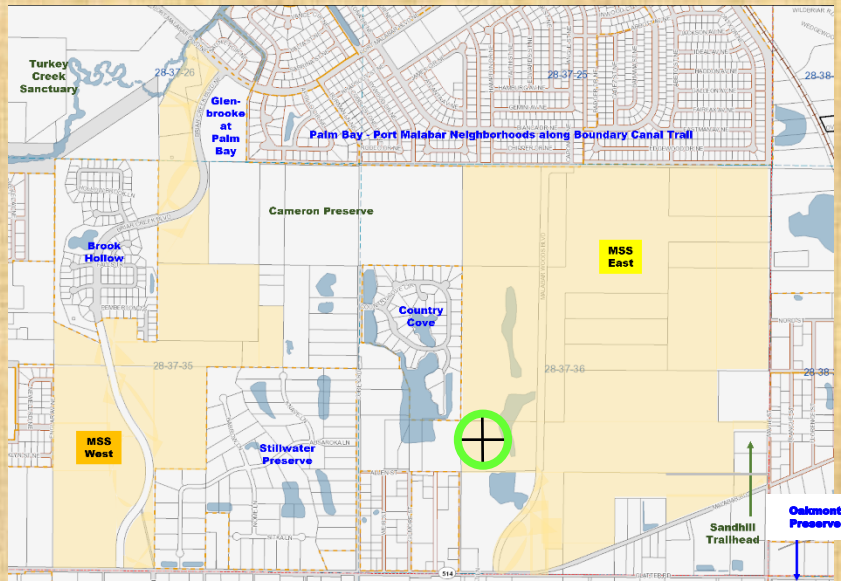
This area is between an MSS East fire break that parallels most of Country Cove, to the east. It is inside the property boundary due to this area being dominated by 3 different basin marshes. This area is a narrow edge of a property boundary and would have minimal, if any, negative impact on restoration goals.

Part 1: length 1080' x width 218' = 5.4 acres w/60 trees

Request: Preserve this area "as is." Because it is dominated by wetlands, EEL Pgm likely choose to move the fire break away from the property boundary. The area has never been burned, due to wetland status, and functions as an effective buffer to Country Cove.

Per EEL Pgm Natural Communities map Page 54

MSS East Area 6



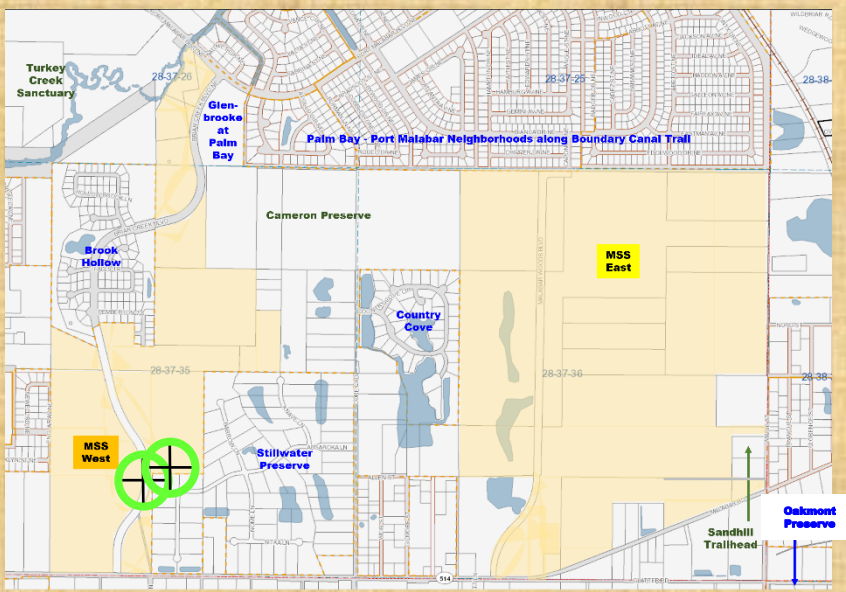
This is an unusual area which EEL Pgm Mgmt Plan identifies as a “Disturbed Area.” It is very wet, with many small pines and sparse palmetto, it will never be scrub habitat. This area supports many tree-dependent avian species (Red-Cockaded and other woodpeckers, cardinals, owls, etc.) This picturesque area, a buffer to Country Cove and near MSS East entrance, is stranded from rest of sanctuary by high disturbed ridge on E.

Part 1: length 900’ x width 200’ = 4.13 acres w/165 trees

Request: Restore this area to 40 trees per acre as done in other similar EEL Pgm sanctuaries (such as Micco Scrub Sanctuary), to best support above tree-dependent species. A trail added to top of spoil ridge on E bank as shown would further enhance Malabar Community Park and further EEL Pgm goals for Passive Recreation - a win win scenario.



MSS West Area 1

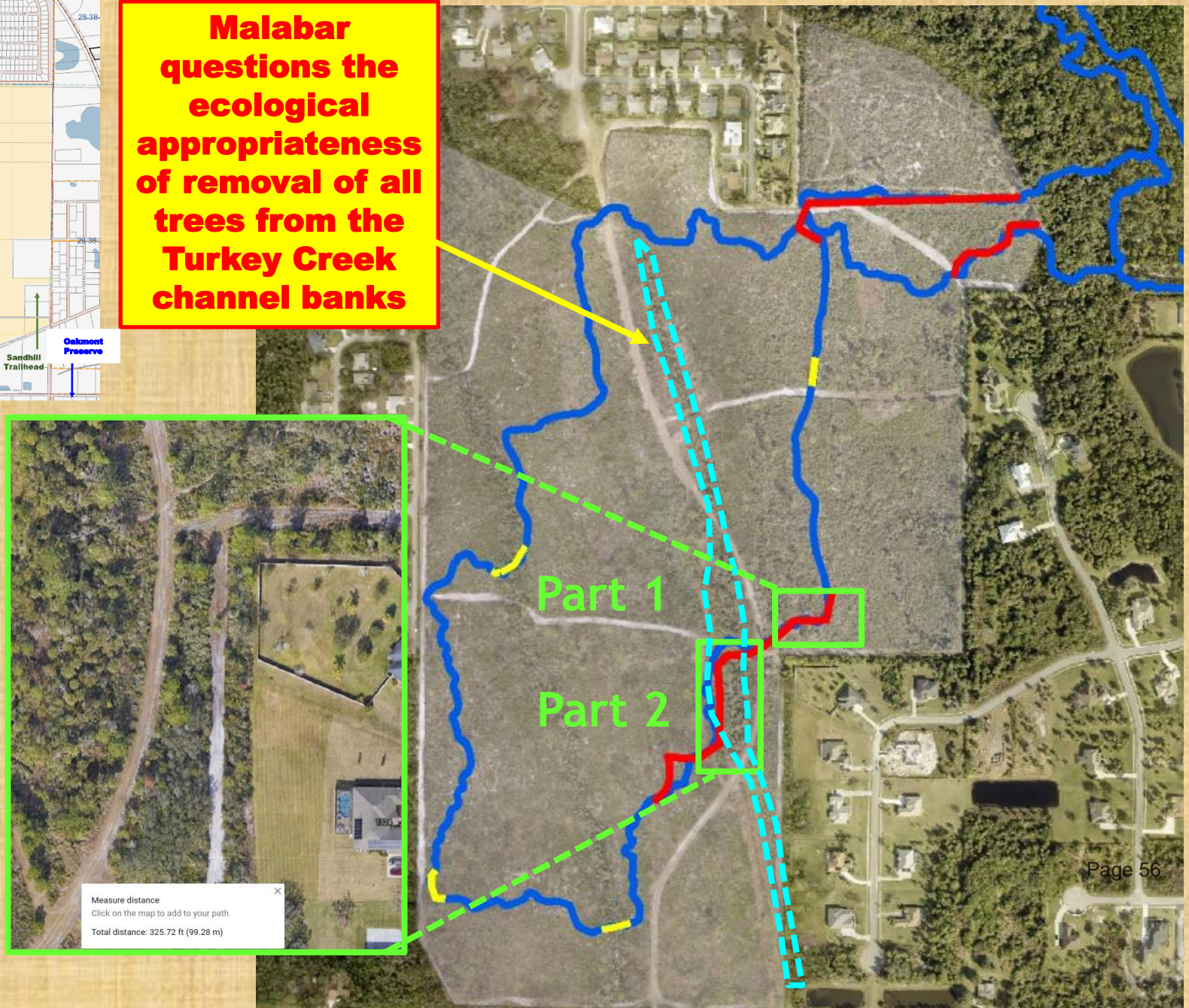


Malabar questions the ecological appropriateness of removal of all trees from the Turkey Creek channel banks

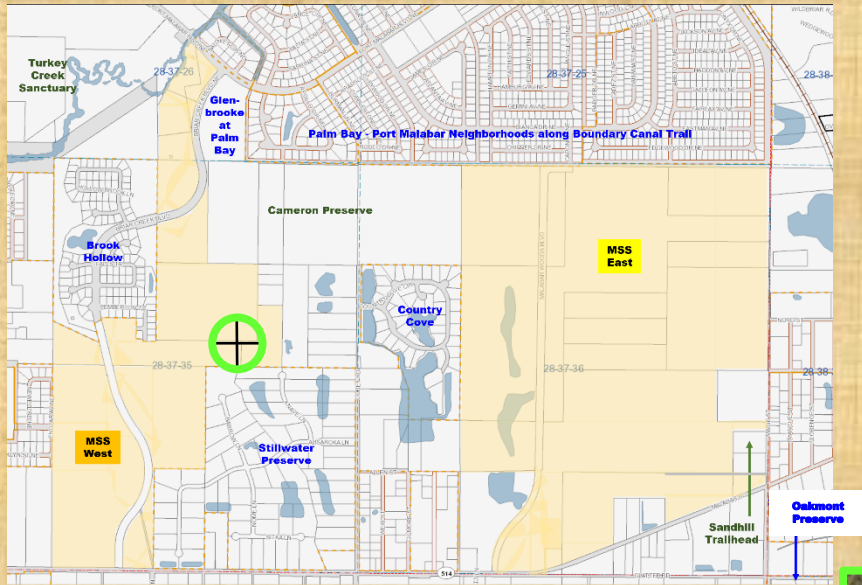
This area is located immediately N and W of Stillwater Preserve's SW-most section. A tall tree forest line on private property borders this "corner" area which is crossed by both Briar Creek Blvd ROW and Turkey Creek Channel C .

- Part 1: length 100' x width 200' = 0.46 acres w/20 trees
- Part 2: length 326' x width 160' = 1.2 acres w/40 trees

Request: Minimize tree overstory removal in this area. Remove sand pines and/or particularly tall pines, but there should be no removal of scrub oak and palm tree overstory as about half of this area is wetland and not appropriate for restoration to scrub habitat.



MSS West Area 2



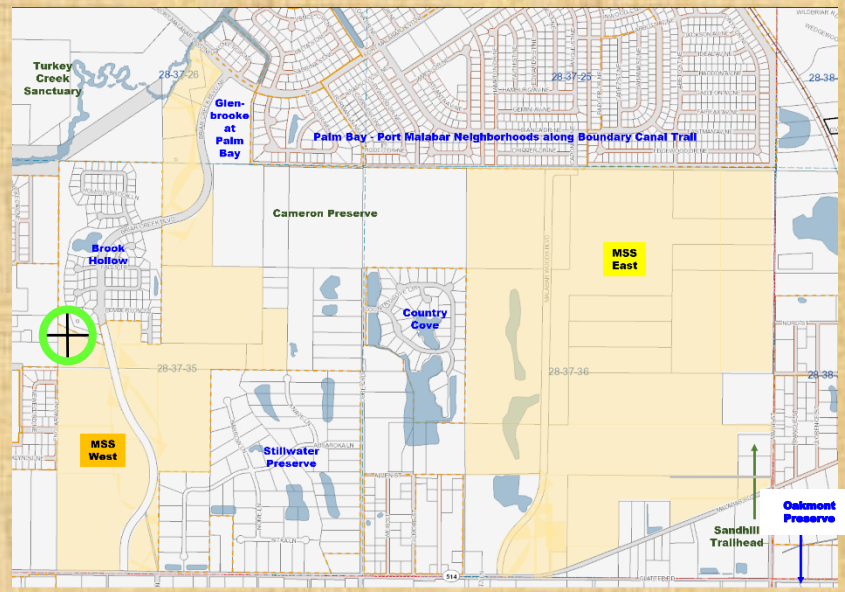
This area is a habitat transitioning point to the Turkey Creek Channel D area (see Zoom in below) “deep woods” with a very broad floodplain. It is not very tall scrub (15’ or lower), and there are tall screening trees on all sides. Already restored scrub stops just prior to descending into Turkey Creek Channel D habitat. Further restoration into the wetland habitat would be destructive.

Part 1: length 300’ x width 100’ = 0.69 acres w/40 trees

Request: Preserve area via minimal tree overstory removal. Remove only sand pines, because the area transitions to live oaks and palms, and then descends to the channel and wetland habitat. An additional reason to preserve this area is that the adjacent creek channel oak hammock would likely result in a “tree shadow” zone avoided by scrub-jays.



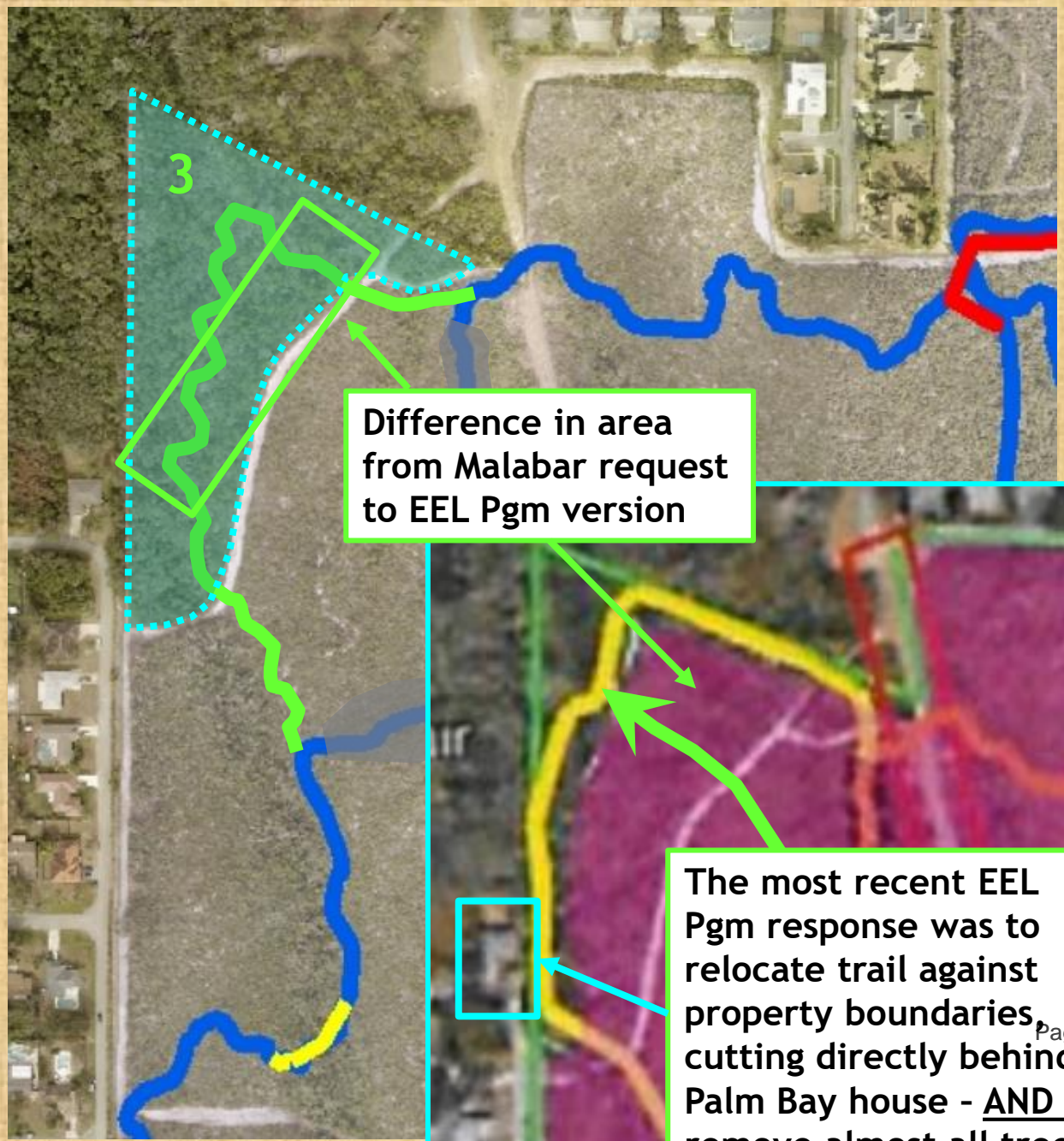
MSS West Area 3



This area is at the NW-most corner of MSS West and is an acute corner with a tall tree forest line all along the corner property boundary. The area functions as a wildlife corridor to the Turkey Creek Sanctuary. An additional reason to preserve this area is that the adjacent forest would likely result in a "tree shadow" zone avoided by scrub-jays.

Part 1: length 400' x width 150' = 1.38 acres w/50 trees

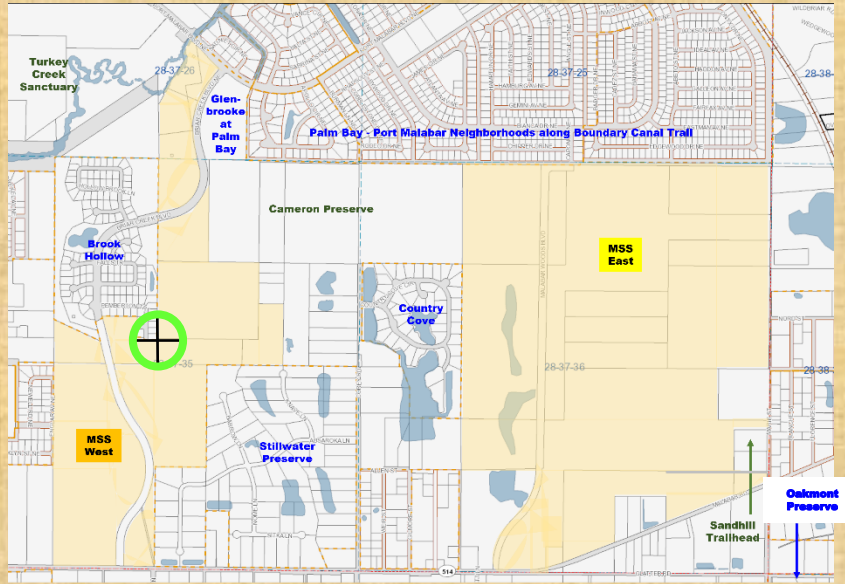
Request: Preserve this forested corner as forest with relocation of the trail that is currently in scrub area to new location deeper into forested corner. Only perform minimal restoration of tree overstory. Only remove sand pines as necessary, taper edge down to fire break, remove tall pines on fire break, and relocate trail via a more flowing trail leading into the remaining woods. The result of this would be a larger area of scrub habitat and improved trail conditions - a *win win scenario*.



Difference in area from Malabar request to EEL Pgm version

The most recent EEL Pgm response was to relocate trail against property boundaries, cutting directly behind a Palm Bay house - AND to remove almost all trees

MSS West Area 4



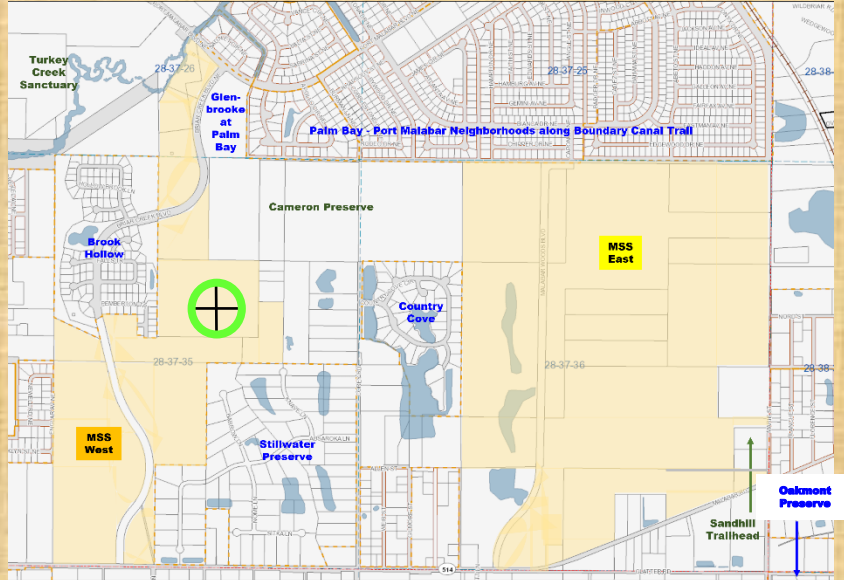
This very small area has a few beautiful mature scrub oaks that serve as a shade break for trail users in largely shade-free sections of trail traversing the area from S. Though very close to the property boundary with Brook Hollow, this area provides a small tree buffer (via some of the only remaining scrub oaks which once dominated the area but were preserved in the 2016 restoration effort). This is the only location where trail users have shade for a long distance.

Part 1: length 50' x width 50' = 0.06 acres w/10 trees

Request: Preserve this area with minimal tree overstory removal. Only remove sand pines as this is the only part of MSS West where users have reported seeing scrub-jays frequenting this area.



MSS West Area 5



This area involves the dramatic trail relocation proposed N on Turkey Creek Channel D, affecting the historic trails that largely pre-date mgmt by EEL Pgm. This trail existed up until the 2004 hurricanes, and trail users were told by EEL Pgm that it would be reopened, but it remained closed.

Part 1: length 0' x width 0' = 0.0 acres w/0 trees

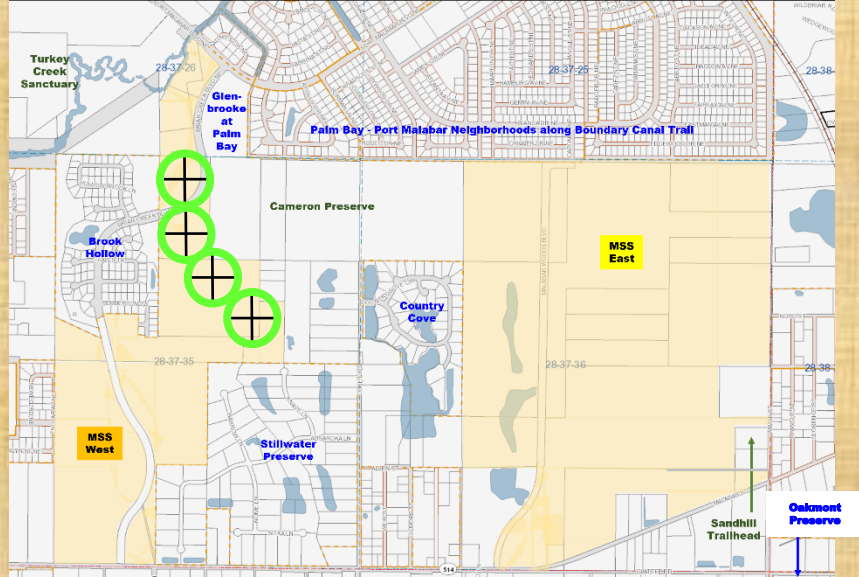
Request: Locate new bridge and new trail segment in the deep woods south of the creek, connecting to the existing system. This would have minimal, if any, negative impact on restoration goals. Further, the new bridge would demonstrate EEL Pgm support for voter desired passive recreation.



Add trail on S bank to expand trail resources in a way that has no effect on EEL Pgm environmental goals

EEL Pgm Proposed Closure and/or Relocation of the Majority of Trails North & East of Turkey Creek Channel D

MSS West Area 6



This area starts on the NW side of Briar Creek Blvd, just prior to a Turkey Creek Channel D roadway bridge, located just before entering Brook Hollow. The area runs SE, along the oak hammock surrounding the channel.

This area is the location for an EEL Pgm proposed dramatic trail relocation leading to Turkey Creek, which would affect the historic trails that largely pre-date mgmt by EEL Pgm. Recognized as some of the best cross-country trails in eastern Florida, the existing trails are well designed, environmentally stable, and are representative of how beautiful Florida nature can be.

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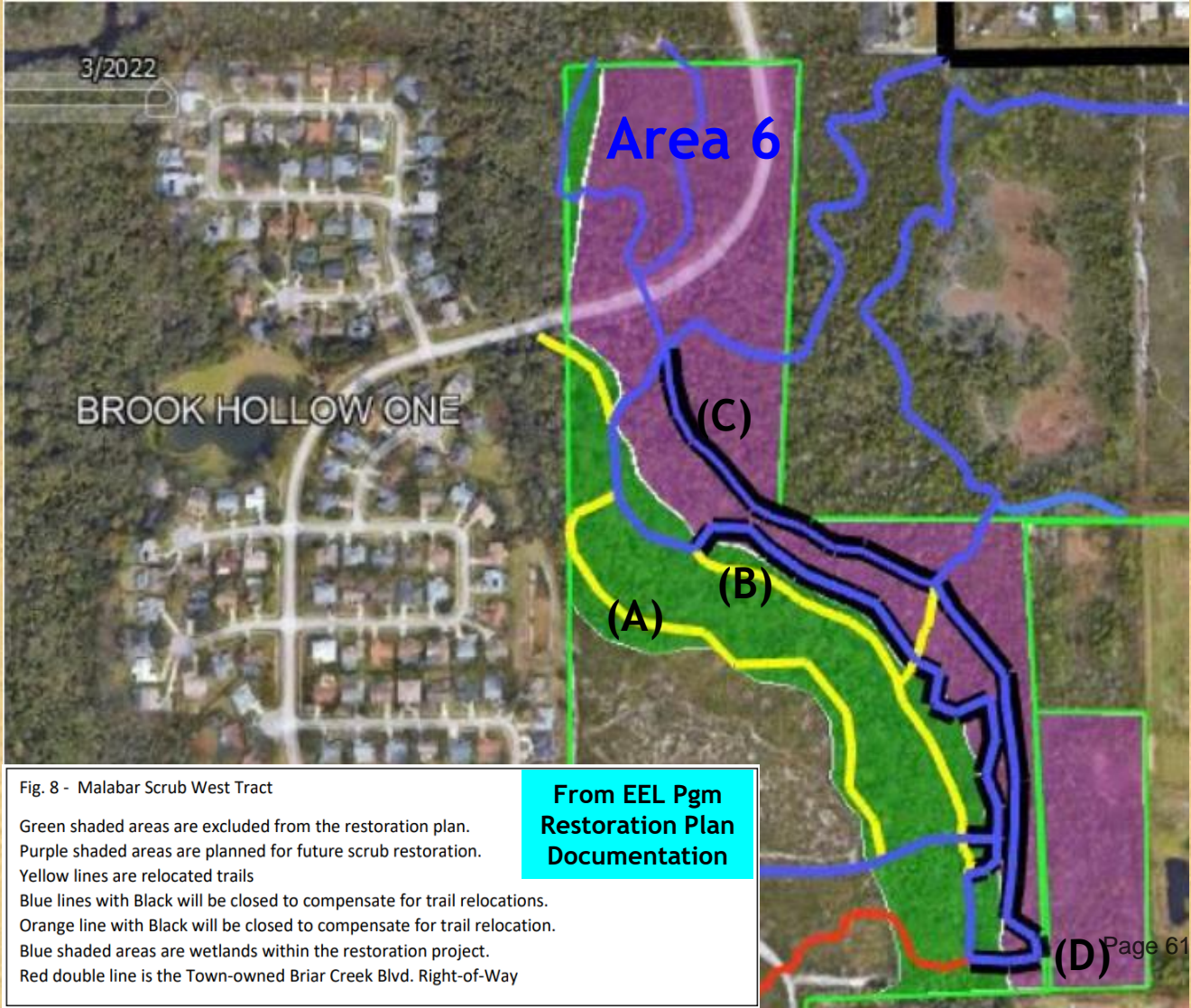
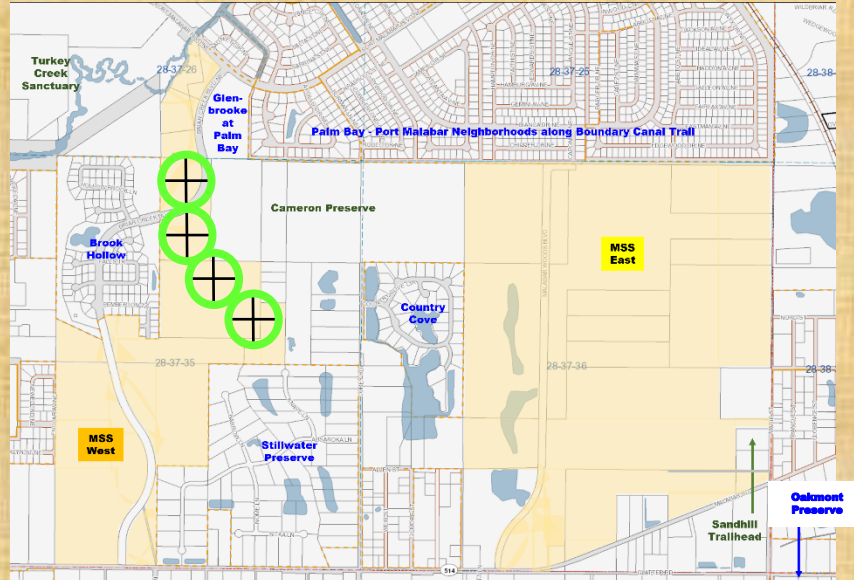


Fig. 8 - Malabar Scrub West Tract

From EEL Pgm Restoration Plan Documentation

- Green shaded areas are excluded from the restoration plan.
- Purple shaded areas are planned for future scrub restoration.
- Yellow lines are relocated trails
- Blue lines with Black will be closed to compensate for trail relocations.
- Orange line with Black will be closed to compensate for trail relocation.
- Blue shaded areas are wetlands within the restoration project.
- Red double line is the Town-owned Briar Creek Blvd. Right-of-Way

**MSS
West
Area
6**



Concerns With Closure and/or Relocation (Continued)

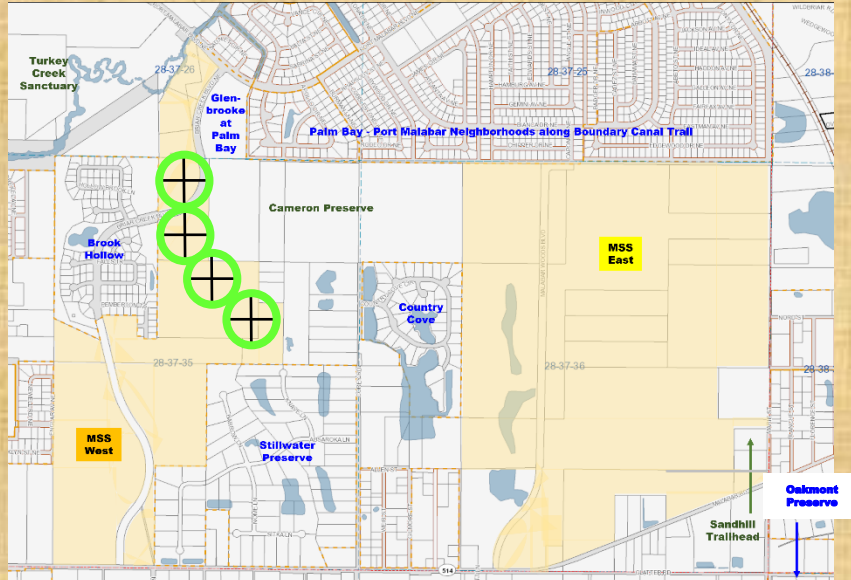
1. The trail on the S side of the creek (A) is desirable and has merit.
2. Inclusion now in the restoration plan for closure and/or relocation of trails N & E of Turkey Creek Channel D, after the original permit submission (since expired) with a reference of “work at TBD time in the future,” is outside of the specified time frame of a permit.
3. EEL Pgm provided information on closure and/or relocation of trails N & E of Turkey Creek Channel D. It is inadequate in detail and definition.

4. Proposed relocation of the creekside trail (aka “Dead Bike,” or B) by 30 to 100 feet to the S appears to be an unrealistic objective. The channel is often very close - not where it is shown on most maps.
5. Closure of the central red trail (aka “3 pole” or “jeep trail,” C). This is the only easy trail in the system and is used extensively by walkers. Closure also cuts off the south end of the trail system entirely (D).
6. The proposed changes are likely to cause massive erosion very near Turkey Creek, flowing directly into the Indian River Lagoon (IRL), an estuary of national significance. In the past, Town of Malabar has observed instances where EEL Pgm has not complied with the normally required silt fencing, and in some cases, the SJRWMD required vegetative setback requirements. Significant erosion mitigation efforts would be necessary to invoke proposed changes.
7. Due to the proximity of tall tree forest edges of EEL Pgm managed property, this area cannot accommodate the minimum of 300’ tall tree-free buffer specified by FL FWCC as necessary for suitable scrub-jay habitat.

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NEXT PAGE...**



**MSS
West
Area
6**



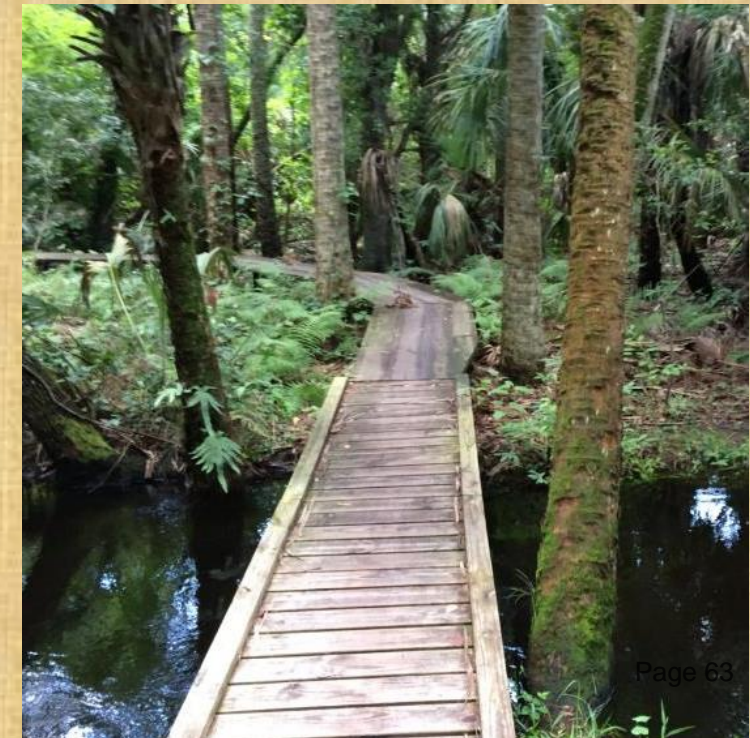
- There have been comments during MSS Restoration Plan Meetings presented by EEL Pgm, that “there are too many trails on the property now.” However, the reality of the **Cross Florida Greenway** property suggests that trail frequency does not harm scrub-jay habitat. That location has a thriving scrub-jay population and is only 0.5 miles in width for most of its length. It incorporates 5 to 7 trails throughout the length of the Greenway. It reports **NO** detrimental impact from those trails.

Concerns With Closure and/or Relocation (Continued)

- Additionally, due to the proximity of tall tree forest edges and power lines on the ROW of Briar Creek Blvd, this area cannot accommodate the minimum of 300’ tall tree-free buffer specified by FL FWCC as necessary for suitable scrub-jay habitat. The existing tall trees on Briar Creek Blvd ROW (paved or unpaved sections) are not within the scope of any permit for work outside of said ROW and therefore cannot be removed.
- Further, due to the proximity of tall tree forest edges along the bordering property of the 100-acre Cameron Preserve (managed by Town of Malabar), at times as close as 50’, this area cannot accommodate the minimum of 300’ tall tree-free buffer specified by FL FWCC as necessary for Suitable scrub-jay habitat.

Part 1: length 0’ x width 0’ = 0.0 acres w/0 trees

Request: Exclude this area from restoration and preserve it to be dedicated for trail use. Build the trail S of the creek to show EEL Pgm recognition that the mission continues to include support of passive recreation.



The intent of this package is to convey to Brevard County (BC), Town of Malabar (TOM) itemized requests for BC adoption of respective changes to the proposed Environmentally Endangered Lands Program (EEL Pgm) Malabar Scrub Sanctuary (MSS) Restoration Plan.

It is the desire of Town of Malabar that a balance will be achieved which adds scrub-jay habitat while preserving key tree areas in MSS, a much treasured urban forest.



Overgrown Scrub Habitat



Restored Scrub Habitat

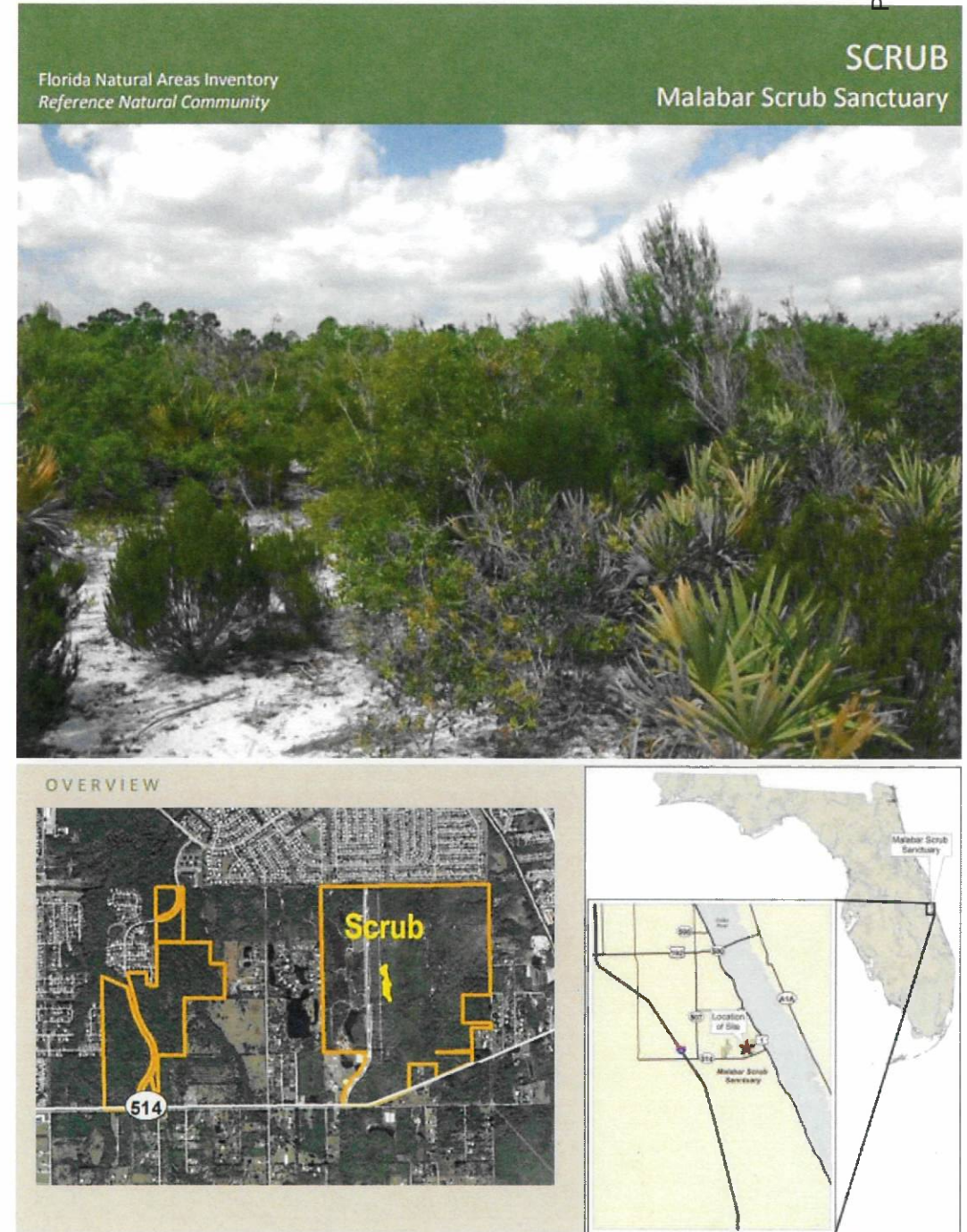
Malabar Scrub Restoration

- Purchased under the EEL referendum for the specific purpose of protecting the Florida Scrub-Jay and other scrub species.
- EEL Policy Manual was approved by BOCC in July 1990 (prior to vote).
 - *“The primary objective of the land acquisition plan is the acquisition of environmentally endangered lands for preservation / conservation. A secondary objective of the plan is to allow some environmentally endangered lands to be used for non-consumptive resource based outdoor enjoyment.”*



What is Optimal Scrub Habitat

- Conditions that promote more jays reaching adulthood than dying.
- Mostly treeless expanses of low shrubs with bare sand openings.
 - 4 - 5.5 feet tall
 - 1000 foot forest edge buffer from scrub jay territories.



- 30-years of fire exclusion at the time of acquisition.
- Trees become too large to be managed with fire alone.
- EEL restoration efforts have included:
 - Prescribed Fire
 - Roller chopping
 - Private development mitigation

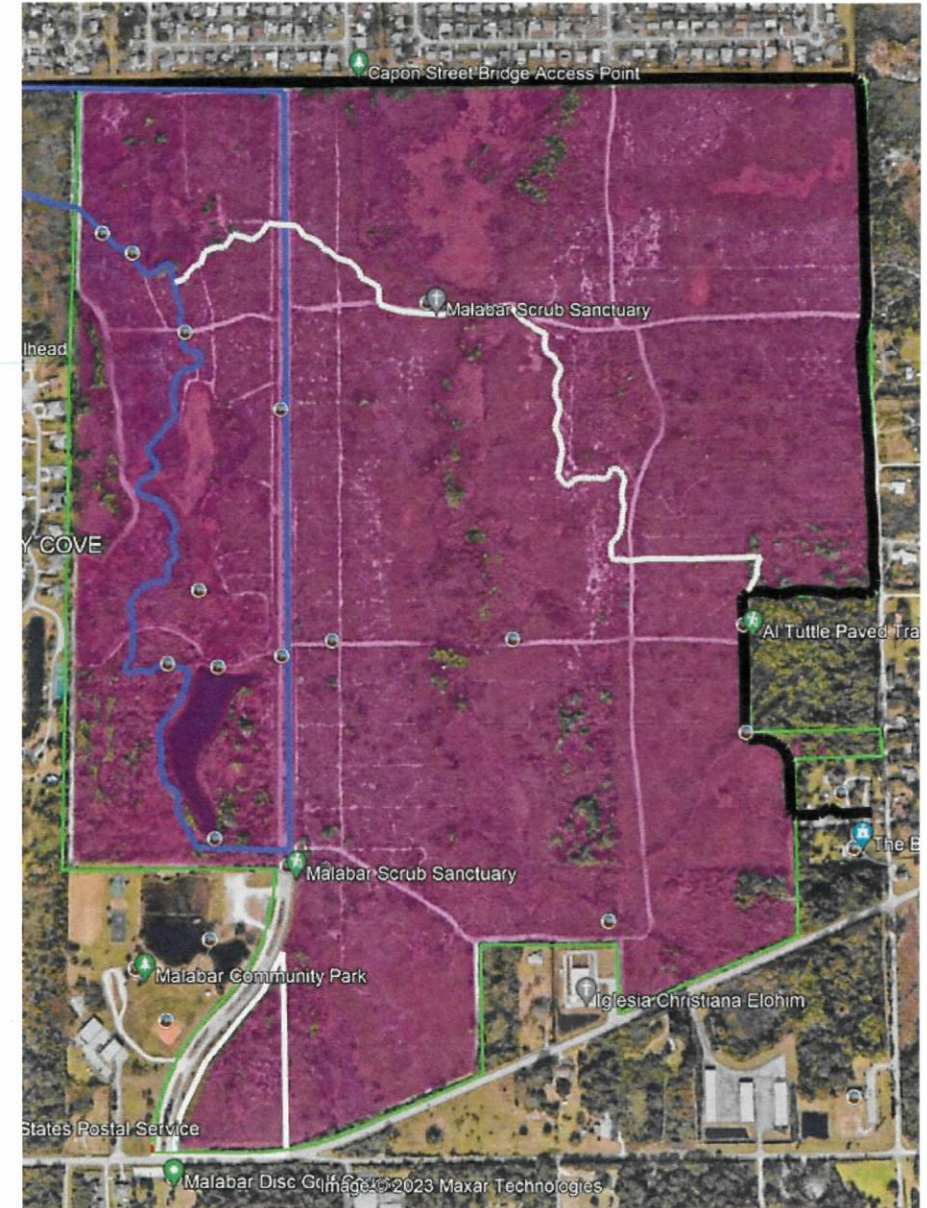
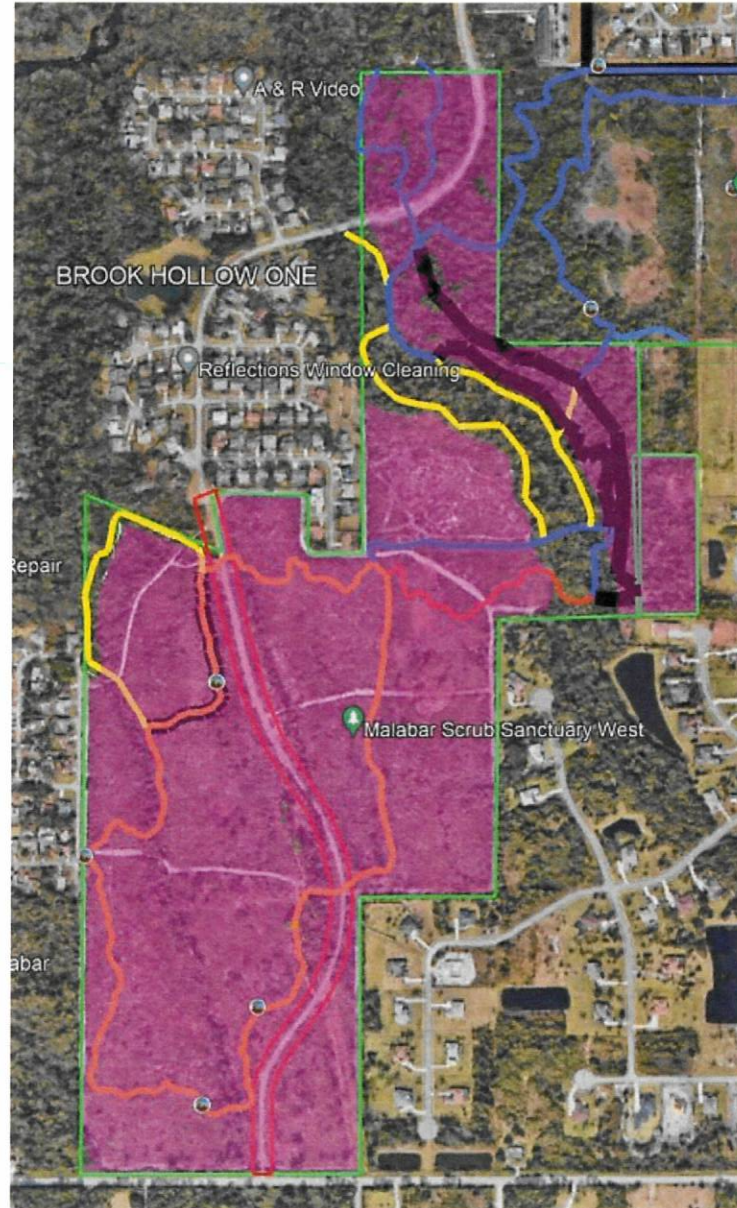


Private Mitigation (Blue)

- Projects are limited in acres due to development permits.
- Permit required removal of all tree curtains. Staff left additional oaks along trails for later removal IF the jay population resumed use of the area (this was clearly stated to users at the time).



- Overall restoration plan will include area north of the creek bottom.
- Creek bottom and NW corner of west tract remain excluded.
- Level of tree thinning will vary depending on location.
- All work will be consistent with FNAI habitat descriptions.



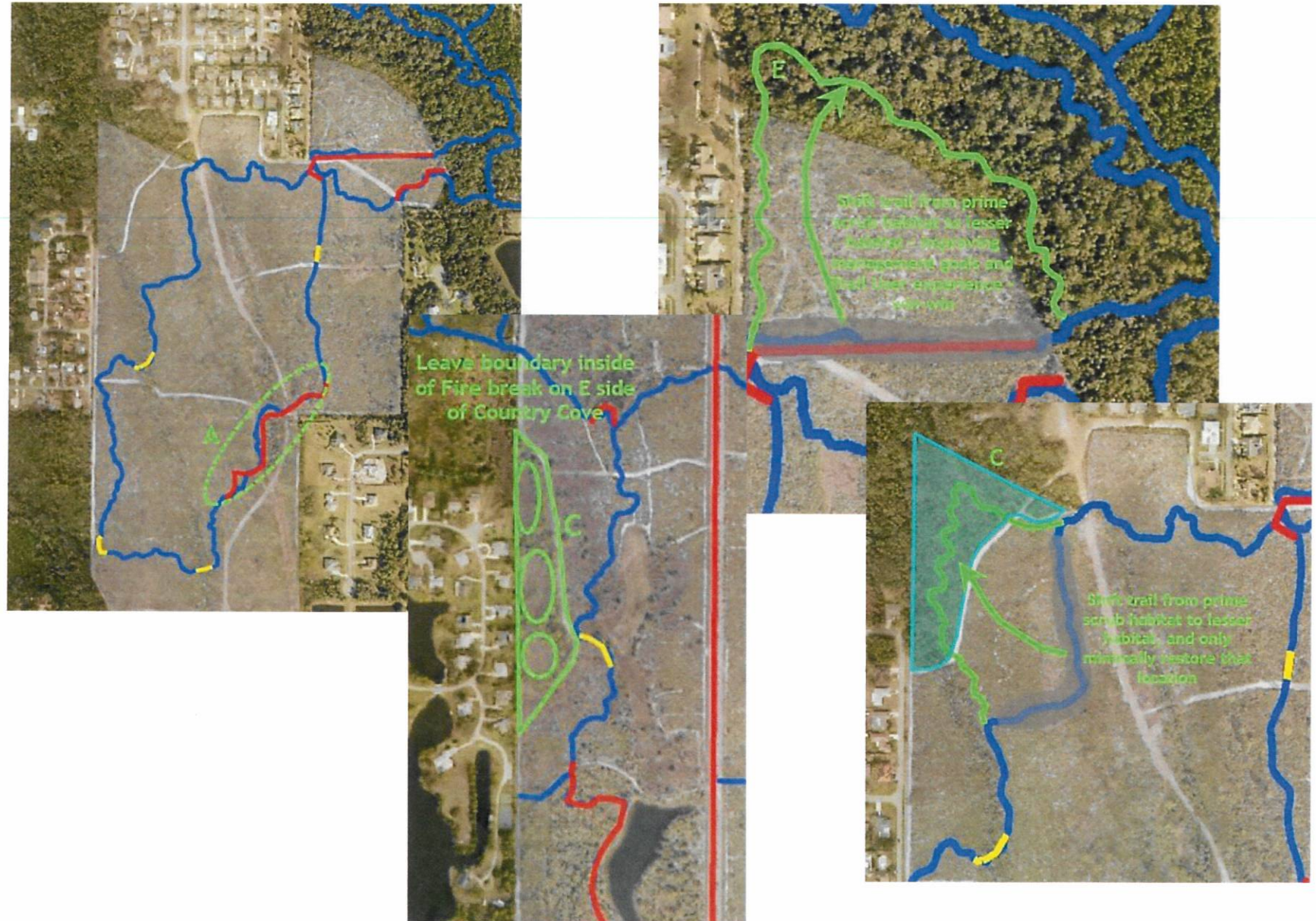
Why Now?

- The Scrub-Jay population is responding to the mitigation work areas.
- Recent research data indicates timeline for species stabilization is shorter than previously expected and that Malabar Scrub plays a key role in contributing to the stabilization of the Scrub-Jay population in southern Brevard County.
- A recent jay relocation to Grant / Valkaria has contributed to some birds already relocating to recently restored habitat at Jordan Scrub.

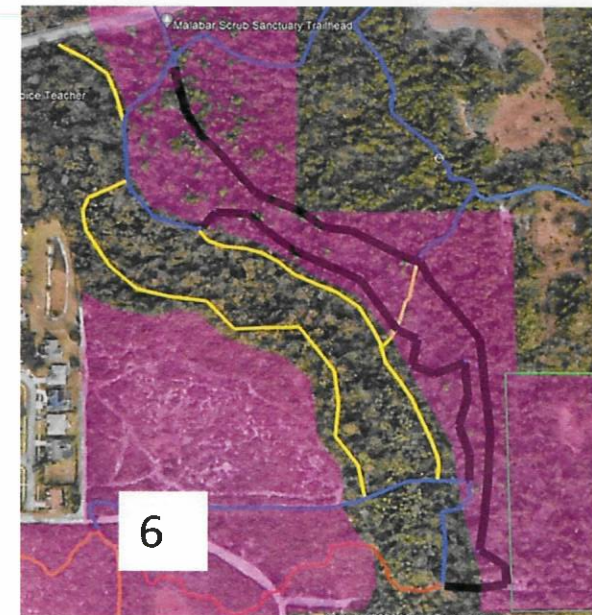
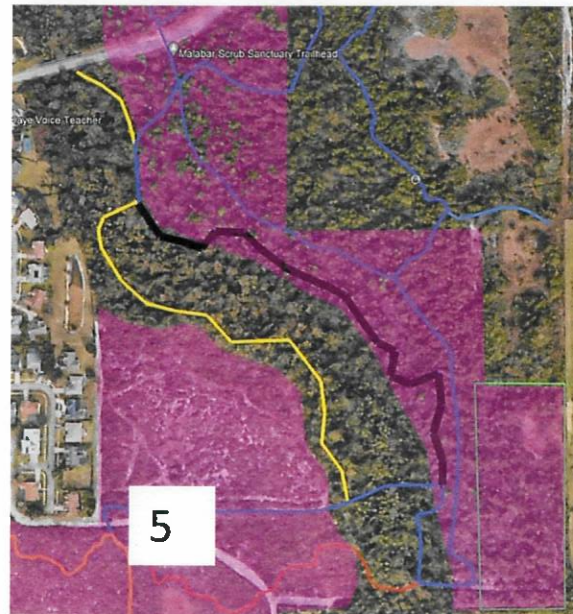
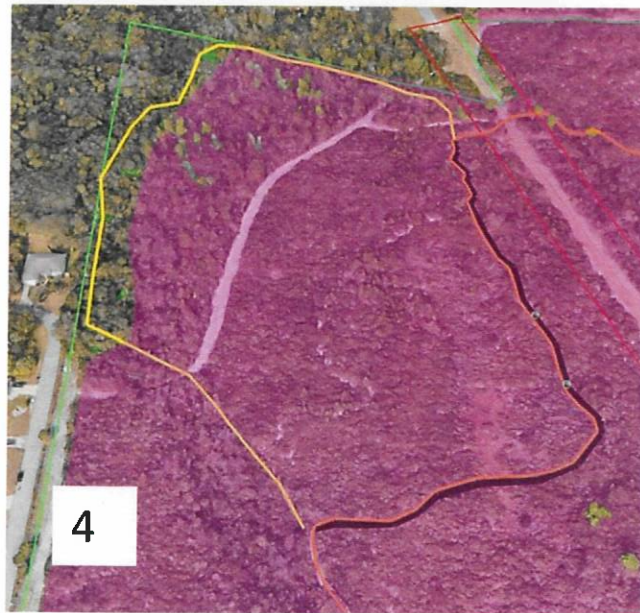


Malabar Trails & Greenway Committee Recommendation

- Malabar Trails and Greenway Committee recommended no removal of overgrown oaks and minimal pine and palm overstory removal along trails, no tree removal by Country Cove, and relocation of two trails into shaded areas.



- The County (EEL) has offered six compromise options that do not conflict with maximizing optimal scrub habitat:



- Trees and vegetation between the perimeter fire control line and the boundary fence are not planned for removal.
- Trees interior of and adjacent to the perimeter fire control line have been identified.



Perimeter buffer examples



Current Status

- Malabar Trails and Greenway Committee was not supportive of trail modification / compromise plan provided by EEL.
- Malabar Trails and Greenway Committee has requested a 25' wide preserved tree buffer around entire perimeter of property and the lake along with continued recommendation to not remove oak curtains along the trails. Also advocating for 300' forest edge buffer.
EEL cannot support these requests because it is inconsistent with the requirements we are mandated to follow to maximize optimal scrub habitat conditions.

FWCC Scrub Management Guidelines

Habitat variable	Optimal habitat for scrub-jays (i.e., recruitment exceeds mortality)	Suitable scrub-jay habitat (i.e., scrub-jays can persist, at least for the short-term)
Vegetation height	<p>Sufficient amount of medium-height (4 - 5.5 ft tall) shrubs are present to provide cover and produce acorns for scrub-jays. Optimal arrangement of shrub heights within each potential territory includes conditions where:</p> <ul style="list-style-type: none"> • at least 10% of the territory is medium height • most of the vegetation is medium height or shorter • no more than 1 acre of vegetation taller than 5.5 ft per 25 acres is present 	Shrub height averages greater than 3.5 ft but less than 8 ft tall
Open ground	10 - 50% bare sand or sparse herbaceous vegetation.	<p>Minimum: At least some bare sand or sparse herbaceous vegetation.</p> <p>Maximum: No more than 75% bare ground. At least 25% of the territory contains shrubs that provide escape cover, nest sites, and acorns.</p>
Overstory (>15 ft tall) density	0 - 1 tree per acre.	0 - 2 trees per acre (D. R. Breininger, InoMedic Health Applications, pers. comm.).
Distance to forest edge	1,000 ft non-forested buffer (0 - 2 trees/acre) between a scrub-jay territory and forest.	At least a 300 ft non-forested buffer (0 - 4 trees/acre) between a scrub-jay territory and forest.

TOWN OF MALABAR

TRAILS AND GREENWAYS COMMITTEE MEETING

AGENDA ITEM NO: 7.e
Meeting Date: May 8th, 2023

Prepared By: Richard W. Kohler, Town Clerk

SUBJECT: Next Field Event – TBD

BACKGROUND/HISTORY:

- a. On April 15th, the T&GC hosted a trail workday at the Cameron Preserve. The BMBA was also participating.
- b. The goals of the workday were:
 - Install remaining directional signs.
 - General Trail Maintenance.
 - New Trail Scouting.
- c. The Committee also has the following projects available for potential future workdays:
 - Eschenberg Park Exploration.
 - Eagles Next Trail Head Fence Line
 - Sandhill Trailhead Cleanup

ATTACHMENTS:

- a. None

ACTION OPTIONS:

- a. Discussion