



Agenda Report

2725 Judge Fran Jamieson
Way
Viera, FL 32940

Public Hearing

H.2.

2/6/2025

Subject:

RHR Construction & Development LCC requests a change of zoning classification from GU and RU-1-11 to RU-1-11. (24Z00042) (Tax Account 2320049) (District 1)

Fiscal Impact:

None

Dept/Office:

Planning and Development

Requested Action:

It is requested that the Board of County Commissioners conduct a public hearing to consider a change of zoning classification from GU (General Use) and RU-1-11 (Single-Family Residential) to RU-1-11 (Single-Family Residential).

Summary Explanation and Background:

The applicant is requesting to rezone the subject property from GU (General Use) and RU-1-11 to all RU-1-11 (Residential Single Family). This request would allow a unified zoning classification across the entire 1.1 acre parcel. The applicant's intent is to split the parcel into two separate lots and construct a single-family residence on each lot.

The current and proposed zoning classifications are not consistent under the current PI Future Land Use. The companion Small-Scale Comprehensive Plan Amendment (SSCPA) application, 24SS00012, is requesting to change the Future Land Use Element from Planned Industrial (PI) to Residential 4 (RES 4).

A majority of the subject parcel contains mapped National Wetlands Inventory (NWI) and St. Johns River Water Management District (SJRWMD) wetlands and hydric soils (Tomoka muck, undrained). The subject property is bifurcated by a 40 feet drainage easement as recorded in O.R. 3327, Page 4501. The open ditch traversing the property is classified as a riverine wetland. Per Section 62 3694(c)(1), residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. This density may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total residential acreage as set forth in Section 62-3694(c)(6). Any permitted wetland impacts must meet the requirements of Section 62-3694(e) including avoidance of impacts and will require mitigation in accordance with Section 62-3696. **In accordance with these code sections, the maximum allowable area of wetland impacts is approximately 0.02 acres (870 square feet). This may limit the development potential of the property.**

The developed character of the surrounding area is a mix of commercial, single-family residential, and industrial uses. To the north and east is a 48.25 acre vacant parcel with a PI (Planned Industrial) Land Use designation and a zoning classification of PIP (Planned Industrial Park) owned by FPL. To the south is Curtis Blvd. Across the street is a 0.24 acre vacant parcel with a RU-1-9 (Single-family Residential) zoning, and a RES 4 FLU designation. Immediately adjacent to the west of the subject parcel is a .28 acre developed residential lot. The property is zoned RU-1-11 (Single-family Residential) with a RES 4 FLU designation.

The Board may wish to consider if the request is consistent and compatible with the surrounding area. The Board may also consider if RU-1-11 is consistent and compatible with Administrative Policy #7.

On November 6, 2024, the Port Saint John Dependent Special District Board heard the request and 4:2 recommended approval.

On November 18, 2024, this item was continued at the Local Planning Agency meeting.

On December 12, 2024, this item was continued at the Board of County Commission meeting.

On January 13, 2025, the Local Planning Agency heard the request and unanimously recommended approval.

Clerk to the Board Instructions:

Once resolution is received, please execute and return a copy to Planning and Development.

ADMINISTRATIVE POLICIES OF THE FUTURE LAND USE ELEMENT

Administrative Policies in the Future Land Use Element establish the expertise of staff with regard to zoning land use issues and set forth criteria when considering a rezoning action or request for Conditional Use Permit, as follows:

Administrative Policy 1

The Brevard County zoning official, planners and the Director of the Planning and Development, however designated, are recognized as expert witnesses for the purposes of Comprehensive Plan amendments as well as zoning, conditional use, special exception, and variance applications.

Administrative Policy 2

Upon Board request, members of the Brevard County planning and zoning staff shall be required to present written analysis and a recommendation, which shall constitute an expert opinion, on all applications for zoning, conditional uses, comprehensive plan amendments, vested rights, or other applications for development approval that come before the Board of County Commissioners for quasi-judicial review and action. The Board may table an item if additional time is required to obtain the analysis requested or to hire an expert witness if the Board deems such action appropriate. Staff input may include the following:

Criteria:

- A. Staff shall analyze an application for consistency or compliance with comprehensive plan policies, zoning approval criteria and other applicable written standards.
- B. Staff shall conduct site visits of property which are the subject of analysis and recommendation. As part of the site visit, the staff shall take a videotape or photographs where helpful to the analysis and conduct an inventory of surrounding existing uses. Aerial photographs shall also be used where they would aid in an understanding of the issues of the case.
- C. In cases where staff analysis is required, both the applicant and the staff shall present proposed findings of fact for consideration by the Board.
- D. For development applications where a specific use has not been proposed, the worst case adverse impacts of potential uses available under the applicable land use classification shall be evaluated by the staff.

Administrative Policy 3

Compatibility with existing or proposed land uses shall be a factor in determining where a rezoning or any application involving a specific proposed use is being considered. Compatibility shall be evaluated by considering the following factors, at a minimum:

Criteria:

- A. Whether the proposed use(s) would have hours of operation, lighting, odor, noise levels, traffic, or site activity that would significantly diminish the enjoyment of, safety or quality of life in existing neighborhoods within the area which could foreseeably be affected by the proposed use.

- B. Whether the proposed use(s) would cause a material reduction (five percent or more) in the value of existing abutting lands or approved development.
- C. Whether the proposed use(s) is/are consistent with an emerging or existing pattern of surrounding development as determined through analysis of:
 - 1. historical land use patterns;
 - 2. actual development over the immediately preceding three years; and
 - 3. development approved within the past three years but not yet constructed.
- D. Whether the proposed use(s) would result in a material violation of relevant policies in any elements of the Comprehensive Plan.

Administrative Policy 4

Character of a neighborhood or area shall be a factor for consideration whenever a rezoning or any application involving a specific proposed use is reviewed. The character of the area must not be materially or adversely affected by the proposed rezoning or land use application. In evaluating the character of an area, the following factors shall be considered:

Criteria:

- A. The proposed use must not materially and adversely impact an established residential neighborhood by introducing types of intensity of traffic (including but not limited to volume, time of day of traffic activity, type of vehicles, et cetera), parking, trip generation, commercial activity or industrial activity that is not already present within the identified boundaries of the neighborhood.
- B. In determining whether an established residential neighborhood exists, the following factors must be present:
 - 1. The area must have clearly established boundaries, such as roads, open spaces, rivers, lakes, lagoons, or similar features.
 - 2. Sporadic or occasional neighborhood commercial uses shall not preclude the existence of an existing residential neighborhood, particularly if the commercial use is non-conforming or pre-dates the surrounding residential use.
 - 3. An area shall be presumed not to be primarily residential but shall be deemed transitional where multiple commercial, industrial or other non-residential uses have been applied for and approved during the previous five (5) years.

Administrative Policy 5

In addition to the factors specified in Administrative Policies 2, 3, and 4, in reviewing a rezoning, conditional use permit or other application for development approval, the impact of the proposed use or uses on transportation facilities either serving the site or impacted by the

use(s) shall be considered. In evaluating whether substantial and adverse transportation impacts are likely to result if an application is approved, the staff shall consider the following:

Criteria:

- A. Whether adopted levels of services will be compromised;
- B. Whether the physical quality of the existing road system that will serve the proposed use(s) is sufficient to support the use(s) without significant deterioration;
- C. Whether the surrounding existing road system is of sufficient width and construction quality to serve the proposed use(s) without the need for substantial public improvements;
- D. Whether the surrounding existing road system is of such width and construction quality that the proposed use(s) would realistically pose a potential for material danger to public safety in the surrounding area;
- E. Whether the proposed use(s) would be likely to result in such a material and adverse change in traffic capacity of a road or roads in the surrounding area such that either design capacities would be significantly exceeded or a de facto change in functional classification would result;
- F. Whether the proposed use(s) would cause such material and adverse changes in the types of traffic that would be generated on the surrounding road system, that physical deterioration of the surrounding road system would be likely;
- G. Whether projected traffic impacts of the proposed use(s) would materially and adversely impact the safety or welfare of residents in existing residential neighborhoods.

Administrative Policy 6

The use(s) proposed under the rezoning, conditional use or other application for development approval must be consistent with, (a), all written land development policies set forth in these administrative policies; and (b), the future land use element, coastal management element, conservation element, potable water element, sanitary sewer element, solid waste management element, capital improvements element, recreation and open space element, surface water element, and transportation elements of the comprehensive plan.

Administrative Policy 7

Proposed use(s) shall not cause or substantially aggravate any, (a), substantial drainage problem on surrounding properties; or (b), significant, adverse and unmitigatable impact on significant natural wetlands, water bodies or habitat for listed species.

Administrative Policy 8

These policies, the staff analysis based upon these policies, and the applicant's written analysis, if any, shall be incorporated into the record of every quasi-judicial review application for development approval presented to the Board including rezoning, conditional use permits, and vested rights determinations.

Section 62-1151(c) of the Code of Ordinances of Brevard County directs, "The planning and zoning board shall recommend to the board of county commissioners the denial or approval of each application for amendment to the official zoning maps based upon a consideration of the following factors:

- (1) The character of the land use of the property surrounding the property being considered.
- (2) The change in conditions of the land use of the property being considered and the surrounding property since the establishment of the current applicable zoning classification, special use or conditional use.
- (3) The impact of the proposed zoning classification or conditional use on available and projected traffic patterns, water and sewer systems, other public facilities and utilities and the established character of the surrounding property.
- (4) The compatibility of the proposed zoning classification or conditional use with existing land use plans for the affected area.
- (5) The appropriateness of the proposed zoning classification or conditional use based upon a consideration of the applicable provisions and conditions contained in this article and other applicable laws, ordinances and regulations relating to zoning and land use regulations and based upon a consideration of the public health, safety and welfare.

The minutes of the planning and zoning board shall specify the reasons for the recommendation of approval or denial of each application."

CONDITIONAL USE PERMITS (CUPs)

In addition to the specific requirements for each Conditional Use Permit (CUP), Section 62-1901 provides that the following approval procedure and general standards of review are to be applied to all CUP requests, as applicable.

- (b) Approval procedure. An application for a specific conditional use within the applicable zoning classification shall be submitted and considered in the same manner and according to the same procedure as an amendment to the official zoning map as specified in Section 62-1151. The approval of a conditional use shall authorize an additional use for the affected parcel of real property in addition to those permitted in the applicable zoning classification. The initial burden is on the applicant to demonstrate that all applicable standards and criteria are met. Applications which do not satisfy this burden cannot be approved. If the applicant meets its initial burden, then the Board has the burden to show, by substantial and competent evidence, that the applicant has failed to meet such standards and the request is adverse to the public interest. As part of the approval of the conditional use permit, the Board may prescribe appropriate and reasonable conditions and safeguards to reduce the impact of the proposed use on adjacent and nearby properties or the neighborhood. A nearby property, for the purpose of this section, is defined as any property which, because of the character of the proposed use, lies within the area which may be substantially and adversely impacted by such use. In stating grounds in

support of an application for a conditional use permit, it is necessary to show how the request fulfills both the general and specific standards for review. The applicant must show the effect the granting of the conditional use permit will have on adjacent and nearby properties, including, but not limited to traffic and pedestrian flow and safety, curb-cuts, off-street loading and parking, off-street pickup of passengers, odors, glare and noise, particulates, smoke, fumes, and other emissions, refuse and service areas, drainage, screening and buffering for protection of adjacent and nearby properties, and open space and economic impact on nearby properties. The applicant, at his discretion, may choose to present expert testimony where necessary to show the effect of granting the conditional use permit.

(c) General Standards of Review.

- (1) The planning and zoning board and the board of county commissioners shall base the denial or approval of each application for a conditional use based upon a consideration of the factors specified in Section 62-1151(c) plus a determination whether an application meets the intent of this section.
 - a. The proposed conditional use will not result in a substantial and adverse impact on adjacent and nearby properties due to: (1), the number of persons anticipated to be using, residing or working under the conditional use; (2), noise, odor, particulates, smoke, fumes and other emissions, or other nuisance activities generated by the conditional use; or (3), the increase of traffic within the vicinity caused by the proposed conditional use.
 - b. The proposed use will be compatible with the character of adjacent and nearby properties with regard to use, function, operation, hours of operation, type and amount of traffic generated, building size and setback, and parking availability.
 - c. The proposed use will not cause a substantial diminution in value of abutting residential property. A substantial diminution shall be irrebuttably presumed to have occurred if abutting property suffers a 15% reduction in value as a result of the proposed conditional use. A reduction of 10% of the value of abutting property shall create a rebuttable presumption that a substantial diminution has occurred. The Board of County Commissioners carries the burden to show, as evidenced by either testimony from or an appraisal conducted by an M A I certified appraiser, that a substantial diminution in value would occur. The applicant may rebut the findings with his own expert witnesses.
- (2) The following specific standards shall be considered, when applicable, in making a determination that the general standards specified in subsection (1) of this section are satisfied:

- a. Ingress and egress to the property and proposed structures thereon, with particular reference to automotive and pedestrian safety and convenience, traffic flow and control, and access in case of fire and catastrophe, shall be: (1), adequate to serve the proposed use without burdening adjacent and nearby uses, and (2), built to applicable county standards, if any. Burdening adjacent and nearby uses means increasing existing traffic on the closest collector or arterial road by more than 20%, or 10% if the new traffic is primarily comprised of heavy vehicles, except where the affected road is at Level of Service A or B. New traffic generated by the proposed use shall not cause the adopted level of service for transportation on applicable roadways, as determined by applicable Brevard County standards, to be exceeded. Where the design of a public road to be used by the proposed use is physically inadequate to handle the numbers, types or weights of vehicles expected to be generated by the proposed use without damage to the road, the conditional use permit cannot be approved without a commitment to improve the road to a standard adequate to handle the proposed traffic, or to maintain the road through a maintenance bond or other means as required by the Board of County Commissioners.
- b. The noise, glare, odor, particulates, smoke, fumes or other emissions from the conditional use shall not substantially interfere with the use or enjoyment of the adjacent and nearby property.
- c. Noise levels for a conditional use are governed by Section 62-2271.
- d. The proposed conditional use shall not cause the adopted level of service for solid waste disposal applicable to the property or area covered by such level of service, to be exceeded.
- e. The proposed conditional use shall not cause the adopted level of service for potable water or wastewater applicable to the property or the area covered by such level of service, to be exceeded by the proposed use.
- f. The proposed conditional use must have existing or proposed screening or buffering, with reference to type, dimensions and character to eliminate or reduce substantial, adverse nuisance, sight, or noise impacts on adjacent and nearby properties containing less intensive uses.
- g. Proposed signs and exterior lighting shall not cause unreasonable glare or hazard to traffic safety, or interference with the use or enjoyment of adjacent and nearby properties.
- h. Hours of operation of the proposed use shall be consistent with the use and enjoyment of the properties in the surrounding residential community, if any. For commercial and industrial uses adjacent to or near residential uses, the hours of operation shall not adversely affect the use and enjoyment of the residential character of the area.
- i. The height of the proposed use shall be compatible with the character of the area, and the maximum height of any habitable structure shall be not more than 35 feet higher than the highest residence within 1,000 feet of the property line.

- j. Off-street parking and loading areas, where required, shall not be created or maintained in a manner which adversely impacts or impairs the use and enjoyment of adjacent and nearby properties. For existing structures, the applicant shall provide competent, substantial evidence to demonstrate that actual or anticipated parking shall not be greater than that which is approved as part of the site plan under applicable county standards.

FACTORS TO CONSIDER FOR A REZONING REQUEST

Section 62-1151(c) sets forth factors to consider in connection with a rezoning request, as follows:

“The planning and zoning board shall recommend to the board of county commissioners the denial or approval of each application for amendment to the official zoning maps based upon a consideration of the following factors:

- (1) The character of the land use of the property surrounding the property being considered.
- (2) The change in conditions of the land use of the property being considered and the surrounding property since the establishment of the current applicable zoning classification, special use or conditional use.
- (3) The impact of the proposed zoning classification or conditional use on available and projected traffic patterns, water and sewer systems, other public facilities and utilities and the established character of the surrounding property.
- (4) The compatibility of the proposed zoning classification or conditional use with existing land use plans for the affected area.
- (5) The appropriateness of the proposed zoning classification or conditional use based upon a consideration of the applicable provisions and conditions contained in this article and other applicable laws, ordinances and regulations relating to zoning and land use regulations and based upon a consideration of the public health, safety and welfare.”

These staff comments contain references to zoning classifications found in the Brevard County Zoning Regulations, Chapter 62, Article VI, Code of Ordinances of Brevard County. These references include brief summaries of some of the characteristics of that zoning classification. Reference to each zoning classification shall be deemed to incorporate the full text of the section or sections defining and regulating that classification into the Zoning file and Public Record for that item.

These staff comments contain references to sections of the Code of Ordinances of Brevard County. Reference to each code section shall be deemed to incorporate this section into the Zoning file and Public Record for that item.

These staff comments contain references to Policies of the Brevard County Comprehensive Plan. Reference to each Policy shall be deemed to incorporate the entire Policy into the Zoning file and Public Record for that item.

These staff comments refer to previous zoning actions which are part of the Public Records of Brevard County, Florida. These records will be referred to by reference to the file number. Reference to zoning files are intended to make the entire contents of the cited file a part of the Zoning file and Public Record for that item.

DEFINITIONS OF CONCURRENCY TERMS

Maximum Acceptable Volume (MAV): Maximum acceptable daily volume that a roadway can carry at the adopted Level of Service (LOS).

Current Volume: Building permit related trips added to the latest TPO (Transportation Planning Organization) traffic counts.

Volume with Development (VOL W/DEV): Equals Current Volume plus trip generation projected for the proposed development.

Volume/Maximum Acceptable Volume (VOL/MAV): Equals the ratio of current traffic volume to the maximum acceptable roadway volume.

Volume/Maximum Acceptable Volume with Development (VOL/MAV W/DEV): Ratio of volume with development to the Maximum Acceptable Volume.

Acceptable Level of Service (CURRENT LOS): The Level of Service at which a roadway is currently operating.

Level of Service with Development (LOS W/DEV): The Level of Service that a proposed development may generate on a roadway.



BOARD OF COUNTY COMMISSIONERS

Planning and Development Department

2725 Judge Fran Jamieson Way
 Building A, Room 114
 Viera, Florida 32940
 (321)633-2070 Phone / (321)633-2074 Fax
<https://www.brevardfl.gov/PlanningDev>

**STAFF COMMENTS
 24Z00042**

RHR Construction & Development LLC (Robert Robinson)

GU (General Use) and RU-1-11(Single Family Residential) to RU-1-11 (Single Family Residential) for entire parcel.

Tax Account Number: 2320049
 Parcel I.D.: 23 3513-JZ-B-2
 Location: North side of Curtis Boulevard, 880 feet East of Belfast Avenue.
 (District 1)
 Acreage: 1.1 Acres
 PSJ Board 11/06/2024
 Planning & Zoning Board: 11/18/2024
 Board of County Commissioners: 12/12/2024

Consistency with Land Use Regulations

- Current zoning cannot be considered under the Future Land Use Designation, Section 62-1255.
- The proposal cannot be considered under the Future Land Use Designation, Section 62-1255.
- The request would maintain acceptable Levels of Service (LOS) (XIII 1.6.C)

	CURRENT	PROPOSED
Zoning	GU and RU-1-11	RU-1-11
Potential*	0 Single-family	2 Single-family
Can be Considered under the Future Land Use Map	NO PI	YES RES 4**

* Zoning potential for concurrency analysis purposes only, subject to applicable land development regulations including, but not limited to impacts and limitations to wetlands.

** Pending approval of companion request 24SS00012 which proposes to amend the Future Land Use designation from Planned Industrial (PI) to Residential 4 (RES 4).

Background and Purpose of Request

The applicant is requesting to rezone the subject property from GU (General Use) and RU-1-11 to all RU-1-11 (Residential Single Family), and to split the parcel into two separate lots; the requested zoning classification would allow two single-family residences. The subject parcel is located on the north side of Curtis Boulevard, a county-maintained roadway.

A portion of the subject property is currently zoned GU and is substandard to the minimum lot 5 acres. On May 20, 1975 GU zoning was changed, establishing a five (5) acre minimum lot size requirement in the GU zoning districts. Prior to that GU, required 1 acre. The current owner purchased the property in November 2023.

This request would allow a unified zoning classification across the entire parcel.

A majority of the subject parcel contains mapped National Wetlands Inventory (NWI) and St. Johns River Water Management District (SJRWMD) wetlands and hydric soils (Tomoka muck, undrained). The subject property is bifurcated by a 40 feet drainage easement as recorded in O.R. 3327, Page 4501. The open ditch traversing the property is classified as a riverine wetland. These are indicators that wetlands may be present on the property. A wetland delineation will be required prior to any land clearing activities, site plan design, or building permit submittal.

Per Section 62-3694(c)(1), residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. This density may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total residential acreage as set forth in Section 62-3694(c)(6). Any permitted wetland impacts must meet the requirements of Section 62-3694(e) including avoidance of impacts and will require mitigation in accordance with Section 62-3696.

This parcel measures 1.1 acres and was subdivided after September 9, 1988. **Therefore, the maximum allowable area of wetland impacts is 0.02 acres (870 square feet).** The applicant intent is to split the parcel into two separate lots to construct 2 single-family residences. The RU-1-11 requires a minimum 1,100 square feet of living area. The applicant has been advised of the current code limitations regarding impacts to wetlands.

Zoning action applicable to the GU portion of the subject property includes zoning action **Z-414** which changed zoning classification from GU (General Use) to RU-1 (Single Family Residential) October 6, 1960. Administrative Action **AZ-77** in July 1975 changed the zoning classification back to GU zoning.

Zoning action applicable to the RU-1-11 portion of the subject property includes zoning action **Z-414** which changed zoning classification from GU (General Use) to RU-1 (Single Family Residential) October 6, 1960. Administrative zoning action **Z-2980** from changed the zoning from RU-1 to RU-1-9 (Single Family Residential), June 1972. Administrative Action **AZ-77**, July 1975 changed the zoning classification back to GU zoning. And zoning action **Z-9188** changed the zoning from GU and RU-1-9 to RU-1-11 (Single Family Residential), August 23, 1993.

There is also a Small-Scale Comprehensive Plan Amendment (SSCPA) companion application, **24SS00012** requesting to change the Future Land Use Element from PI (Planned Industrial) to RES 4 (Single-family Residential).

Surrounding Area

	Existing Land Use	Zoning	Future Land Use
North	Vacant	PIP	PI
South	Vacant	RU-1-9	RES 4
East	Vacant	PIP	PI
West	Single-family residence	RU-1-11	RES 4

To the north and east is a 48.25 acre vacant parcel owned by FPL. The parcel has a PI (Planned Industrial) Land Use designation and a zoning classification of PIP (Planned Industrial Park).

To the south is Curtis Blvd., a county maintained road, and across the street is a 0.24 acre vacant parcel. The property has RU-1-9 (Single-family Residential) zoning, and a RES 4 FLU designation.

Adjacent to the west of the subject parcel is a .28 acre developed residential lot. The property is zoned RU-1-11 11 (Single-family Residential) with a RES 4 FLU designation.

RU-1-9 classification permits single family residential development on lots of 6,600 square feet (minimum). The minimum house size is 900 square feet.

RU-1-11 classification permits single family residences on minimum 7,500 square foot lots, with a minimum width and depth of 75 feet. The minimum house size is 1,100 square feet.

PIP is a light industrial zoning classification, allowing light manufacturing within enclosed buildings with strict buffering, storage and other requirements.

Future Land Use

The subject property's GU and RU-1-11 zoning classification is not consistent with the PI Future Land Use designation provided on the FLUM series contained within Chapter XI – Future Land Use Element of Brevard County's Comprehensive Plan. The proposed RU-1-11 is zoning classification is not consistent under the current FLUM designation. Companion application to amend the Future Land Use designation from Planned Industrial (PI) to Residential 4 (RES 4) is pending approval.

The Board should evaluate the compatibility of this application within the context of Administrative Policies 2 – 8 of the Future Land Use Element.

Administrative Policy #3 - Compatibility between this site and the existing or proposed land uses in the area:

Compatibility shall be evaluated by considering the following factors, at a minimum:

Criteria:

- A. Whether the proposed use(s) would have hours of operation, lighting, odor, noise levels, traffic, or site activity that would significantly diminish the enjoyment of, safety or quality of life in existing neighborhoods within the area which could foreseeably be affected by the proposed use:

The applicant intends to construct 2 single-family residences on this vacant property. This request is not anticipated to significantly diminish the enjoyment, safety or quality of life if the subject property is developed with a single-family residence.

- B. Whether the proposed use(s) would cause a material reduction (five per cent or more) in the value of existing abutting lands or approved development.

Only a certified MAI (Master Appraiser Institute) appraisal can determine if a material reduction has or will occur due to the proposed request.

- C. Whether the proposed use(s) is/are consistent with an emerging or existing pattern of surrounding development as determined through an analysis of:

- 1. historical land use patterns;

The historical land use patterns of the surrounding development to the west can be characterized as single-family residences built on properties between 0.23 acres to six (6) acres in size.

There are six (6) FLU designations (RES 4, PI, PUB, IND, CC and RES8_DIR) within a 0.5 mile radius of the subject property. RES 4 is the prominent FLU to the west and south of the subject property; and Industrial and Commercial are the prominent designations to the east. The RES8_DIR is located to the east across the FEC railway.

- 2. actual development over the immediately preceding three years; and

There has been no actual development within the last three (3) years.

- 3. development approved within the past three years but not yet constructed.

There has been no approved development within the last three (3) years that is yet to be constructed. However, approximately quarter-mile south of the subject property, one zoning action under 24Z00010 was approved for a self storage warehouse on October 3, 2024.

- D. Whether the proposed use(s) would result in a material violation of relevant policies in any elements of the Comprehensive Plan.

No material violation of relevant policies has been identified.

Administrative Policy #4 - Character of a neighborhood or area.

Character of a neighborhood or area shall be a factor for consideration whenever a rezoning or any application involving a specific proposed use is reviewed. The character of the area must not be materially or adversely affected by the proposed rezoning or land use application. In evaluating the character of an area, the following factors shall be considered:

Criteria:

- A. The proposed use must not materially and adversely impact an established residential neighborhood by introducing types or intensity of traffic (including but not limited to volume, time of day of traffic activity, type of vehicles, etc.), parking, trip generation, commercial activity or industrial activity that is not already present within the identified boundaries of the neighborhood.

There are multiple zoning classifications within a 0.5-mile radius of the subject. They include residential zones of GU, AU, RR-1, RRMH-1, EU-2, RU-1-7, RU-1-9, RU-1-11; government managed land (GML); PIP industrial zoning; and BU-2 commercial zoning classification.

The request would recognize existing development trends. Single-family residential is established to the west and south of the subject property. The requested RU-1-11 zoning is already established to the west. The intent to construct 2 single family residences is not anticipated to impact the surrounding established residential area materially or adversely.

- B. In determining whether an established residential neighborhood exists, the following factors must be present:
1. The area must have clearly established boundaries, such as roads, open spaces, rivers, lakes, lagoons, or similar features.

The property is not located in an existing residential neighborhood rather a residential area. The subject property is the last property before it transitions to industrial to the east.

2. Sporadic or occasional neighborhood commercial uses shall not preclude the existence of an existing residential neighborhood, particularly if the commercial use is non-conforming or pre-dates the surrounding residential use.

Not applicable

3. An area shall be presumed not to be primarily residential but shall be deemed transitional where multiple commercial, industrial or other non-residential uses have been applied for and approved during the previous five (5) years.

The area is primarily single-family residential to the west and south with commercial and industrial zoning is located exclusively to the east and north of the subject property.

Administrative Policy #7

Proposed use(s) shall not cause or substantially aggravate any (a) Substantial drainage problem on surrounding properties; or (b) significant, adverse and unmitigable impact on significant natural wetlands, water bodies or habitat for listed species.

A majority of the subject parcel contains mapped National Wetlands Inventory (NWI) and St. Johns River Water Management District (SJRWMD) wetlands and hydric soils (Tomoka muck, undrained). The open ditch traversing the property is classified as a riverine wetland. These are indicators that wetlands may be present on the property. A wetland delineation will be required prior to any land clearing activities, site plan design, or building permit submittal.

Per Section 62-3694(c)(1), residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. This density may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total residential acreage as set forth in Section 62-3694(c)(6). Any permitted wetland impacts must meet the requirements of Section 62-3694(e) including avoidance of impacts and will require mitigation in accordance with Section 62-3696.

This parcel measures 1.1 acres and was subdivided after September 9, 1988. Therefore, the maximum allowable area of wetland impacts is 0.02 acres (870 square feet).

Information available to NRM also indicates that federally and/or state protected species may be present on the property. There is a large area of mapped Florida Scrub Jay habitat / occupancy approximately 540 feet to the north of this property.

The provided Environmental Assessment, dated November 2023, indicates the site contains approximately 0.8 acres of upland, 0.2 acres of canal, and 0.1 acres of wetlands (along the banks of the canal).

The report also indicates the site is not suitable habitat for federally listed species, and no state-listed gopher tortoises were observed during the October 2023 site

visit. However, the report does indicate suitable gopher tortoise habitat exists on the eastern portion of the site, and a gopher tortoise survey is recommended prior to any clearing activities.

The development potential of the subject property may be limited due to environmental impacts.

Preliminary Concurrency

The closest concurrency management segment to the property is Fay Blvd. located between Carole Ave. and US Highway 1, which has a Maximum Acceptable Volume (MAV) of 33,800 trips per day, a Level of Service (LOS) of D, and currently operates at 48.11% of capacity daily. The maximum development potential from the proposed rezoning increases the percentage of MAV utilization by 0.06%. The corridor is anticipated to operate at 48.17% of capacity daily. The proposal is not anticipated to create a deficiency in LOS.

No school concurrency information has been provided as the development potential of this site falls below the minimum number of new residential lots that would require a formal review.

The subject parcel has access to City of Cocoa potable water and Brevard County sewer.

Environmental Constraints

Summary of Mapped Resources and Noteworthy Land Use Issues:

- Wetlands and Hydric Soils
- Floodplain Protection
- Land Clearing and Landscape Requirements
- Protected Species

For Board Consideration

The Board may wish to consider if the request is consistent and compatible with the surrounding area.

The Board may also consider if RU-1-11 is consistent and compatible with Administrative Policy 7.

**NATURAL RESOURCES MANAGEMENT DEPARTMENT
Zoning Review & Summary**

Item No. 24Z00042

Applicant: Robert Robinson (Owner: RHR Construction & Development LLC)

Zoning Request: RU-1-11 and GU to all RU-1-11

Note: to split lot and build 2 SFRs

Zoning Hearing: 10/14/2024; **BCC Hearing:** 11/07/2024

Tax ID No.: 2320049

- This is a preliminary review based on best available data maps reviewed by the Natural Resources Management Department (NRM) and does not include a site inspection to verify the accuracy of the mapped information.
- In that the rezoning process is not the appropriate venue for site plan review, specific site designs submitted with the rezoning request will be deemed conceptual. Board comments relative to specific site design do not provide vested rights or waivers from Federal, State or County regulations.
- **This review does not guarantee whether or not the proposed use, specific site design, or development of the property can be permitted under current Federal, State, or County Regulations.**

Summary of Mapped Resources and Noteworthy Land Use Issues:

- Wetlands and Hydric Soils
- Floodplain Protection
- Land Clearing and Landscape Requirements
- Protected Species

Land Use Comments:

Wetlands and Hydric Soils

A majority of the subject parcel contains mapped National Wetlands Inventory (NWI) and St. Johns River Water Management District (SJRWMD) wetlands and hydric soils (Tomoka muck,

undrained). The open ditch traversing the property is classified as a riverine wetland. These are indicators that wetlands may be present on the property. **A wetland delineation will be required prior to any land clearing activities, site plan design, or building permit submittal.**

Per Section 62-3694(c)(1), residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. **This density may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total residential acreage as set forth in Section 62-3694(c)(6).** Any permitted wetland impacts must meet the requirements of Section 62-3694(e) including avoidance of impacts and will require mitigation in accordance with Section 62-3696.

This parcel measures 1.1 acres and was subdivided after September 9, 1988. **Therefore, the maximum allowable area of wetland impacts is 0.02 acres (870 square feet). The applicant is encouraged to contact NRM at 321-633-2016 prior to any plan or permit submittal.**

Floodplain Protection

This property is located within an area mapped as FEMA Special Flood Hazard Area (SFHA) A, as identified by the Federal Emergency Management Agency, and as shown on the FEMA Flood Map. Additional research is required to determine if the property is in the St. Johns River riverine floodplain or isolated floodplain.

The property is subject to the development criteria in Conservation Element Objective 4, its subsequent policies, and Chapter 62, Article X, Division 5, entitled Floodplain Protection. **Per Section 62-3724(1) and (3), compensatory storage shall be required in either floodplain designation. The property may also be subject to the residential densities within riverine floodplains as established by Section 62-3724(1).** The Floodplain Protection ordinance also requires that development within floodplain areas shall not have adverse impacts upon adjoining properties. Chapter 62, Article X, Division 6, entitled Stormwater, states, "No site alteration shall adversely affect the existing surface water flow pattern."

Land Clearing and Landscape Requirements

The applicant is advised to refer to Article XIII, Division 2, entitled Land Clearing, Landscaping, and Tree Protection, for specific requirements for Protected (\geq 10 inches in

diameter) and Specimen (\geq 24 inches in diameter) tree preservation. Land clearing is not permitted without prior authorization by NRM. **Applicant should contact NRM at 321-633-2016 prior to performing any land clearing activities.**

Protected Species

Information available to NRM indicates that federally and/or state protected species may be present on the property. There is a large area of mapped Florida Scrub Jay habitat / occupancy approximately 540 feet to the north of this property. Prior to any plan, permit submittal, or development activity, including land clearing, the applicant should obtain any necessary permits or clearance letters from the Florida Fish and Wildlife Conservation Commission (FWC), and/or U.S. Fish and Wildlife Service, as applicable. The applicant is advised to call Valeria Guerrero at 561-882-5714 (O) or 561-365-5696 (C) with the FWC to obtain any necessary permits or clearance letters for Gopher Tortoises.

**3970 CURTIS BOULEVARD
ENVIRONMENTAL ASSESSMENT**

**Parcel No. 23-35-13-JZ-B-2
3970 CURTIS BOULEVARD
UNINCORPORATED BREVARD COUNTY, FLORIDA**

Prepared for:

**Robert Robinson
3robert.robinson@gmail.com**

Prepared by:



**Ecological Associates, Inc.
P.O. Box 405
Jensen Beach, Florida 34958
(772) 334-3729
erp@ecological-associates.com**

November 2023

TABLE OF CONTENTS

1.0 INTRODUCTION 3

2.0 SITE DESCRIPTION 3

2.1 Upland Habitat..... 3

2.2 Wetlands and Surface Waters 4

2.3 Soils and Hydrology..... 4

3.0 THREATENED, ENDANGERED AND PROTECTED SPECIES..... 5

4.0 ENVIRONMENTAL PERMITTING ASSESSMENT 5

APPENDICES

APPENDIX A

SITE LOCATION MAPFIGURE 1

LAND USE MAP.....FIGURE 2

WETLANDS & SURFACE WATERS MAPFIGURE 3

APPENDIX B

SITE PHOTOGRAPHS..... APPENDIX B

APPENDIX C

NRCS SOIL REPORT..... APPENDIX C

APPENDIX D

IPAC REPORTAPPENDIX D

1.0 INTRODUCTION

Ecological Associates, Inc. (EAI) conducted an environmental assessment (EA) on an approximate 1.1-acre property (Site) located at 3970 Curtis Blvd in unincorporated Brevard County, Florida (Parcel No. 23-35-13-JZ-B-2). Please refer to the Site Location Map (Figure 1) in **Appendix A**. The Site is located within a residential area and consists of undeveloped vegetated land and a drainage canal.

EAI evaluated the project area for environmental resources using available desktop data, including the National Wetlands Inventory (NWI), the Florida Cooperative Land Cover Map (CLC), the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, Florida Department of Environmental Protection (FDEP) Map Direct, U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), Florida Natural Areas Inventory (FNAI), and the Florida Fish and Wildlife Conservation Commission (FWC). Following the desktop review, a qualified biologist conducted a field survey for protected environmental resources within the project site on **October 25, 2023**. Representative site photographs are included as **Appendix B** and photo locations are illustrated in the Site Location Map (Figure 1) in **Appendix A**.

2.0 SITE DESCRIPTION

EAI evaluated the project area for land resources using the NWI, CLC, NRCS Web Soil Survey, and FDEP Map Direct prior to conducting the field survey. During the field survey, the Site was evaluated for the presence of wetlands and listed species along with their habitats. As the Site is overgrown with dense vegetation and certain areas were inaccessible by foot, EAI performed an *approximate* wetland delineation in general accordance with the State Unified Delineation Methodology (Chapter 62-340 Florida Administrative Code) and the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Atlantic and Gulf Coastal Plain Region Regional Supplement (Version 2.0).

The vegetative communities were mapped by FWC according to the CLC and Florida Land Cover Classification System and were verified by EAI in the field. The FWC mapped the on-site land use as 1822: High Intensity Urban, 1830: Rural, and 2200: Freshwater Forested Wetlands. The observed land use was not consistent with the mapped land use, as the land appears to have been altered by the installation of a large drainage canal ditch and fill dirt decades ago. Thus, EAI has reclassified the on-site land use as 1822: High Intensity Urban, 2200: Freshwater Forested Wetlands, and 4210: Canal. Please refer to the Land Use Map (Figure 2) in **Appendix A**.

2.1 Upland Habitat

The Site contains approximately 0.8 acre of upland habitat (1822: High Intensity Urban) located in the southwest and eastern portions of the property bisected by a drainage canal.

These areas are densely vegetated and dominant vegetation includes invasive exotic Brazilian pepper (*Schinus terebinthifolia*), muscadine grapevine (*Vitis rotundifolia*), invasive exotic Caesar's weed (*Urena lobata*), poorman's patch (*Mentzelia floridana*), beggarticks (*Bidens alba*), and dahoon holly (*Ilex cassine*).

2.2 Wetlands and Surface Waters

Due to the densely vegetated on-site conditions, EAI performed an *approximate* wetland delineation by assessing vegetation from field observations and aerial imagery review. The Site contains approximately 0.2 acre of surface waters (4210: Canal) with approximately 0.1 acre of freshwater wetlands (2200: Freshwater Forested Wetlands) along the banks of the drainage canal. Please refer to the Wetlands & Surface Waters Map (Figure 3) in **Appendix A**. The Site shows signs of previous disturbance and is densely vegetated, and the dominant vegetation includes exotic invasive Brazilian pepper, exotic invasive Peruvian primrose willow (*Ludwigia peruviana*), and native elderberry (*Sambucus nigra*), cattails (*Typha* spp.), and dollar weed (*Hydrocotyle umbellata*).

2.3 Soils and Hydrology

The NRCS Soil Survey of Brevard County mapped on-site soils as 15: Cocoa sand (non-hydric), 38: Myakka sand, depressional (hydric), and 67: Tomoka muck, frequently ponded, 0 to 1 percent slopes (hydric). Please refer to the complete NRCS Soil Report in **Appendix C**. The dominant mapped soil type is 67: Tomoka much (~96% of the Site area). NRCS describes the mapped soil units as follows: Cocoa sand is a well-drained soil type that is found on slopes (0 to 5%) and ridges of former marine terraces. The water table is more than 80 inches deep year-round and natural communities supported by these soil types include sand pine scrub. Myakka sand, depressional is a very poorly drained soil type found on slopes (0 to 2%) and depressions on former marine terraces. The water table is around 0 inches deep year-round and natural communities supported by these soil types include freshwater marshes and ponds. Tomoka muck, frequently ponded, is a very poorly drained soils type that is found on slopes (0 to 1%) and depressions on former marine terraces. The water table is around 0 inches deep year-round and natural communities supported by these soil types include freshwater marshes and ponds.

The observed soils did not match the mapped hydric soils, likely as a result of the construction of the drainage canal several decades ago resulting in altered hydrology and the potential placement of fill dirt from the canal excavation and surrounding residential developments. EAI examined a soil plug within the Site as illustrated in the Site Location Map (Figure 1) included in **Appendix A**. The soil plug was collected in an area that NWI showed was historically a freshwater wetland and consisted of 14 inches of 10 YR 3/1 sandy matrix and did not meet any hydric soil field indicators. Saturation was not observed, and no hydrologic indicators were documented in the area surrounding the soil plug.

The on-site wetlands have a direct surface connection to the on-site drainage canal, which connects to a larger canal system to throughout the adjacent residential area and appears to ultimately drain into a wetland to the south.

3.0 THREATENED, ENDANGERED AND PROTECTED SPECIES

Under the Endangered Species Act (ESA), species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments. EAI evaluated the potential presence of listed species by observations made the day of the site visit and by performing an online records review of the Florida Fish and Wildlife Conservation Commission (FWC) Geographic Information System (GIS) records, the Audubon Florida Eagle Watch Nest Map, FWC Imperiled Species Management Plan, Florida Natural Areas Inventories (FNAI), and U.S Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC). Please refer to **Appendix D** for the complete IPaC Report. Based on EAI's assessment, the current environmental conditions at the site do not provide suitable habitat for the federally listed species included in the IPaC Report.

The Site does offer suitable habitat for the state-listed gopher tortoise (*Gopherus polyphemus*). The gopher tortoise is listed as State Threatened by FWC and is a medium-sized tortoise that can be found throughout Florida. This species digs long and deep burrows in upland habitats with well drained, sandy soils, and is often found in sandhills, scrub, pine flatwoods, and dry prairies. No gopher tortoises were observed during the site visit conducted on October 25, 2023; however, suitable habitat exists on the far eastern side of the Site and a gopher tortoise survey in accordance with FWC's Gopher Tortoise Permitting Guidelines (Revised April 2023) of the eastern portion is recommended prior to any clearing activities.

4.0 ENVIRONMENTAL PERMITTING ASSESSMENT

Land Clearing

In preparation for construction, the National Pollutant Discharge Elimination System (NPDES) permit program addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. An FDEP NDPES permit will be required for any groundbreaking or land disturbance of one acre or more of land. A Brevard County Land Clearing permit will be required for clearing vegetation in upland areas. If dewatering is proposed, this will require authorization from the St. Johns River Water Management District (SJRWMD).

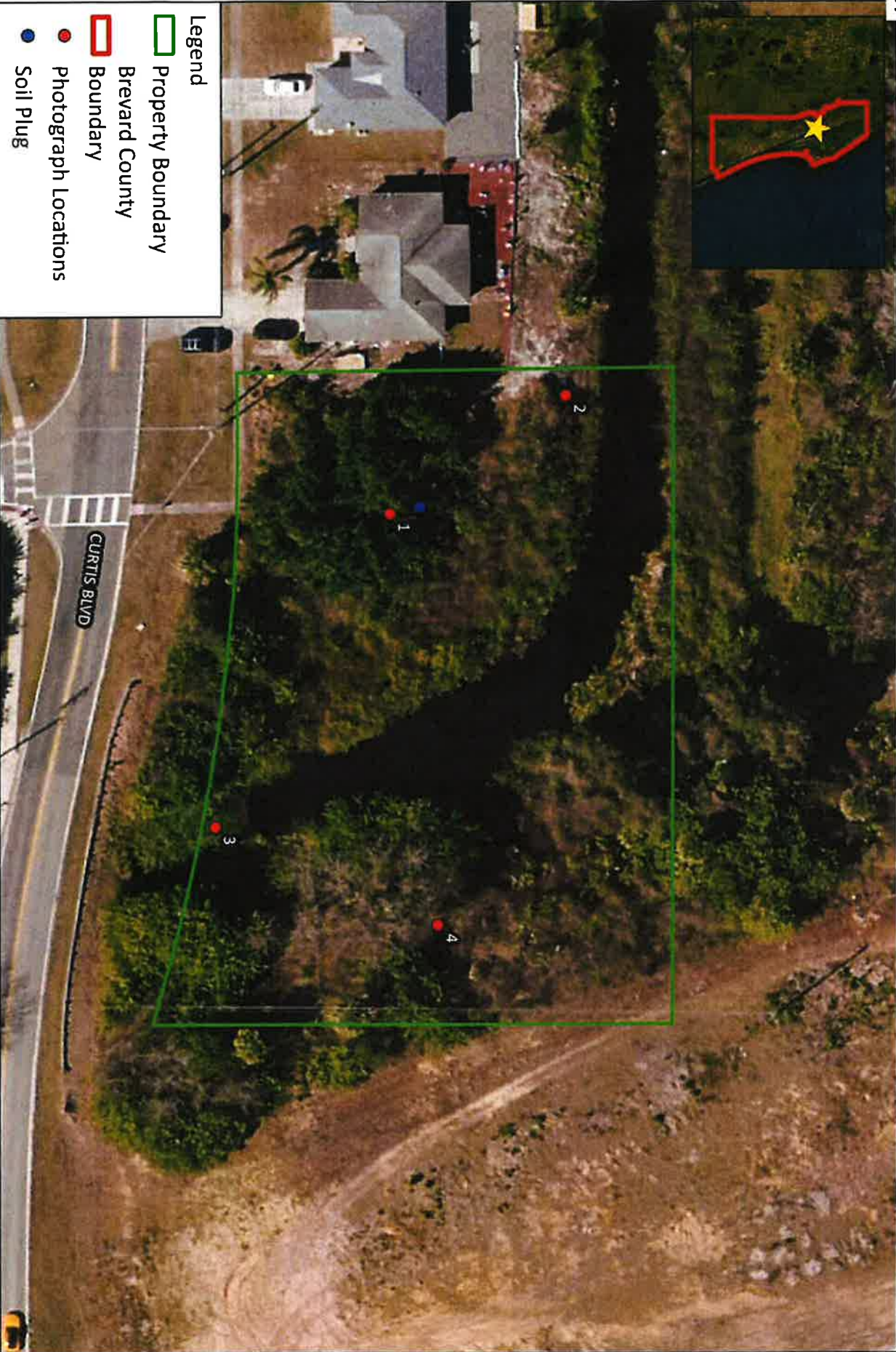
Wetlands

Based on EAI's review of available resources and field observations, the on-site wetlands and canal do not meet the definition of Waters of the U.S. per the latest Navigable Waters Protection Rule and are not anticipated to be federally jurisdictional under the State 404 Program. However, on-site wetlands and surface waters are jurisdictional to the State of Florida and Brevard County. Therefore, proposed impacts to on-site wetlands and surface waters will require authorization from FDEP under the State Environmental Resource Program (ERP) during which FDEP will determine federal jurisdiction under the State 404 Program, as well as determine wetland limits. In addition, a Brevard County wetland permit will be required for proposed impacts. Brevard County enforces a 25-foot surface water protection buffer around man-made canals and alteration of vegetation and the placement of fill within the buffer is not allowed without prior approval from the County. Impacts to wetlands and surface waters will require compensatory mitigation to offset losses. Mitigation can be provided on-site if feasible, or through the purchase of mitigation credits from a mitigation bank with a service area that includes the Site. The required amount of mitigation credits will be determined during the State and County permitting process.

Wildlife

State consultation for listed species may be initiated during the environmental resource permitting process. If it is determined that listed species will be affected by the proposed project, authorization of "incidental take" may be required. USFWS and/or FWC may require mitigation should they determine that the project may adversely affect listed species. Preconstruction surveys for the gopher tortoise are recommended prior to beginning any proposed work on the property. No groundbreaking, grading, backfilling, staging, or storing of equipment, or vehicular traffic shall occur within 25 feet of any identified burrows. According to FWC regulations, relocation of gopher tortoises is not necessary if construction activities can avoid impacts within a 25-foot radius around the burrow entrance. However, if impacts to any burrow cannot be avoided, then a gopher tortoise relocation permit is required from FWC which requires a fee to obtain the permit and a separate fee to relocate tortoises to an approved recipient site.

APPENDIX A



Legend

- Property Boundary
- Brevard County Boundary
- Photograph Locations
- Soil Plug

EAI
 ECOLOGICAL ASSOCIATES, INC.
 www.ecological-associates.com

Site Location Map

3970 Curtis Blvd
 Brevard County, Florida

Earthstar Geographics, State of Florida, Maxar, Microsoft



N

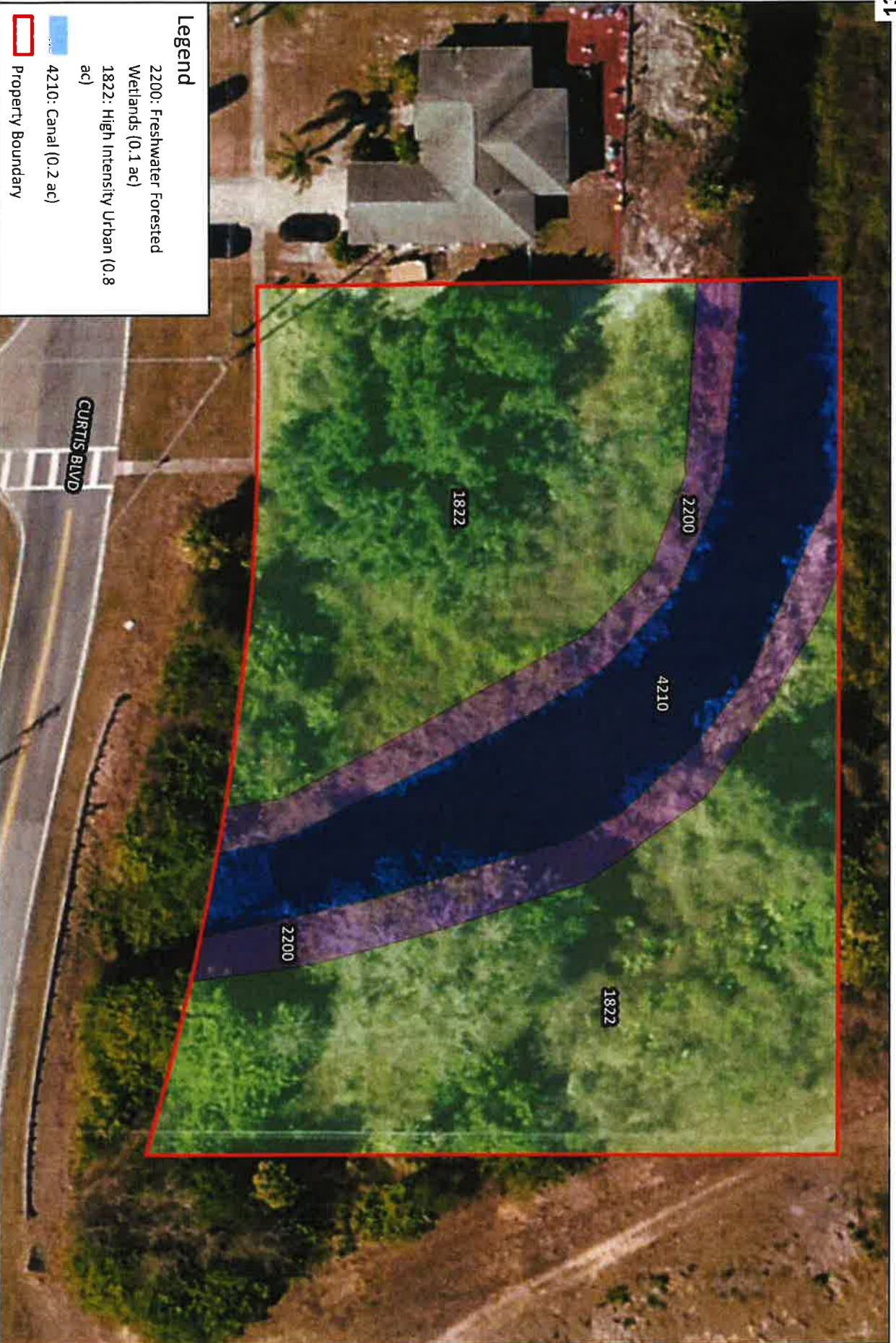
Aerial Date: 2021

Project No. 23-5427 Figure No. 1

Drawn By: R. King Date: 11/6/23

Layer Source: ESRI

Scale: 1" = 80 US Ft



Legend

- 2200: Freshwater Forested Wetlands (0.1 ac)
- 1822: High Intensity Urban (0.8 ac)
- 4210: Canal (0.2 ac)
- Property Boundary

EAI
 ECOLOGICAL ASSOCIATES, INC.
 www.ecological-associates.com

Land Use Map

3970 Curtis Blvd
 Brevard County, Florida

State of Florida, Maxar, Microsoft

N

Aerial Date: 2021

Project No. 23-5427 Figure No. 2

Drawn By: R. King Date: 11/6/23

Layer Source: EAI 2023

Scale: 0 25 50 US Ft

State of Florida, Maxar, Microsoft



Legend

- Property Boundary
- 4210: Canal (0.2 ac)
- 2200: Freshwater Forested Wetlands (0.1 ac)

ECOLOGICAL ASSOCIATES, INC.
www.ecological-associates.com

Wetlands & Surface Waters Map

3970 Curtis Blvd
Brevard County, Florida

State of Florida, Maxar, Microsoft
Aerial Date: 2021



Project No. 23-5427 Figure No. 3
 Drawn By: R. King Date: 11/6/23
 Layer Source: EAI 2023

Scale: 0 65 130 US Ft

APPENDIX B

Appendix B

Curtis Blvd EA

Site Photographs



Photograph 1 – View of the southwestern portion of the site facing south.



Photograph 2 – View of the canal bank facing east.

October 2023

1

Appendix B

Curtis Blvd EA

Site Photographs



Photograph 3 – View of the drainage canal facing north.



Photograph 4 – View of eastern portion of the site facing west.

October 2023

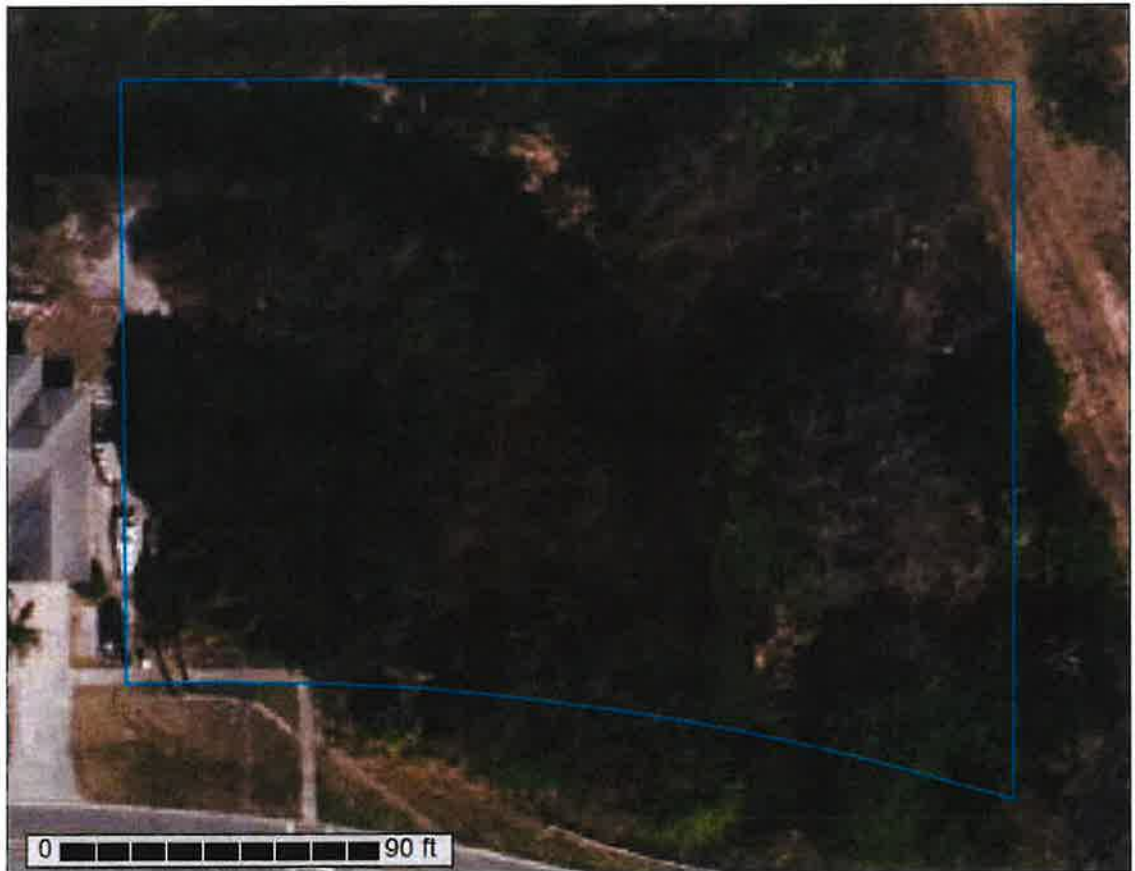
2

APPENDIX C



A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Brevard County, Florida



October 26, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface..... 2
How Soil Surveys Are Made..... 5
Soil Map..... 8
 Soil Map..... 9
 Legend..... 10
 Map Unit Legend..... 11
 Map Unit Descriptions..... 11
 Brevard County, Florida..... 13
 15—Cocoa sand..... 13
 38—Myakka sand, depressional..... 14
 67—Tomoka muck, frequently ponded, 0 to 1 percent slopes..... 16
References..... 19

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

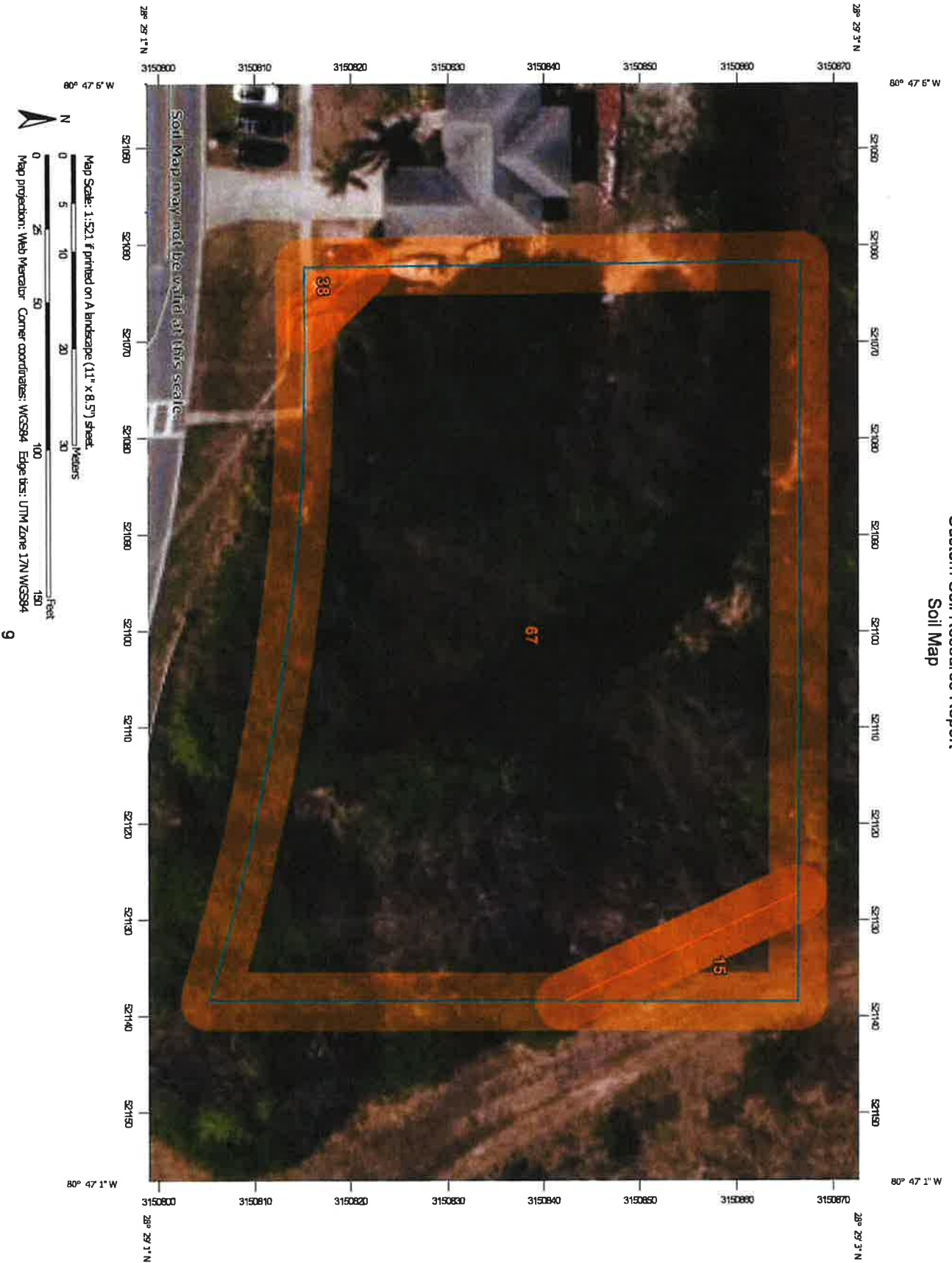
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map




































The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Custom Soil Resource Report

MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Area of Interest (AOI)	 Stony Spot
Soils	 Very Stony Spot
 Soil Map Unit Polygons	 Wet Spot
 Soil Map Unit Lines	 Other
 Soil Map Unit Points	 Special Line Features
Special Point Features	Water Features
 Blowout	 Streams and Canals
 Borrow Pit	Transportation
 Clay Spot	 Interstate Highways
 Closed Depression	 Rails
 Gravel Pit	 US Routes
 Gravelly Spot	 Major Roads
 Landfill	 Local Roads
 Lava Flow	 Background
 Marsh or swamp	 Aerial Photography
 Mine or Quarry	
 Miscellaneous Water	
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodic Spot	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Brevard County, Florida
 Survey Area Data: Version 23, Aug 28, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 19, 2022—Mar 2, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
15	Cocoa sand	0.0	3.3%
38	Myakka sand, depressional	0.0	0.4%
67	Tomoka muck, frequently ponded, 0 to 1 percent slopes	1.0	96.3%
Totals for Area of Interest		1.0	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

Custom Soil Resource Report

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Brevard County, Florida

15—Cocoa sand

Map Unit Setting

National map unit symbol: 1lg2v
Elevation: 0 to 50 feet
Mean annual precipitation: 49 to 57 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Cocoa and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cocoa

Setting

Landform: Ridges on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Eolian or sandy marine deposits

Typical profile

A - 0 to 6 inches: sand
E - 6 to 32 inches: sand
Bt - 32 to 38 inches: loamy sand
2R - 38 to 42 inches: unweathered bedrock

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very low (about 1.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F155XY200FL - Moderately Deep Sandy over Loamy Maritime Forests
Forage suitability group: Shallow or moderately deep, sandy or loamy soils on rises and ridges of mesic uplands (G156BC521FL)

Custom Soil Resource Report

Other vegetative classification: Sand Pine Scrub (R155XY001FL), Shallow or moderately deep, sandy or loamy soils on rises and ridges of mesic uplands (G156BC521FL)
Hydric soil rating: No

Minor Components

Boca

Percent of map unit: 5 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F155XY130FL - Sandy over Loamy Flatwoods and Hammocks
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G156BC241FL)
Hydric soil rating: No

38—Myakka sand, depressional

Map Unit Setting

National map unit symbol: 1lg3l
Elevation: 0 to 100 feet
Mean annual precipitation: 49 to 57 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Myakka, depressional, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Myakka, Depressional

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy marine deposits

Typical profile

A - 0 to 8 inches: sand
E - 8 to 22 inches: sand
Bh1 - 22 to 35 inches: sand
Bh2 - 35 to 46 inches: sand
C - 46 to 63 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Custom Soil Resource Report

Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: B/D
Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps
Forage suitability group: Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)
Hydric soil rating: Yes

Minor Components

Holopaw

Percent of map unit: 5 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)
Hydric soil rating: Yes

Basinger

Percent of map unit: 5 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)
Hydric soil rating: Yes

Eaugallie

Percent of map unit: 5 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave

Custom Soil Resource Report

Across-slope shape: Concave
Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL),
Sandy soils on stream terraces, flood plains, or in depressions
(G156BC145FL)
Hydric soil rating: Yes

67—Tomoka muck, frequently ponded, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2ttlp
Elevation: 0 to 110 feet
Mean annual precipitation: 46 to 61 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 335 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Tomoka and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tomoka

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip, talf
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Herbaceous organic material over sandy and loamy marine deposits

Typical profile

Oa - 0 to 34 inches: muck
C1 - 34 to 39 inches: sand
C2 - 39 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very high (about 17.7 inches)

Custom Soil Resource Report

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Ecological site: R155XY100FL - Organic Freshwater Isolated Marshes and Swamps
Forage suitability group: Organic soils in depressions and on flood plains (G155XB645FL)
Other vegetative classification: Organic soils in depressions and on flood plains (G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL)
Hydric soil rating: Yes

Minor Components

Hontoon

Percent of map unit: 4 percent
Landform: Depressions on marine terraces, swamps on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Ecological site: R155XY100FL - Organic Freshwater Isolated Marshes and Swamps
Other vegetative classification: Organic soils in depressions and on flood plains (G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL)
Hydric soil rating: Yes

Floridana

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Ecological site: R155XY080FL - Sandy over Loamy Freshwater Isolated Marshes and Swamps
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

Canova

Percent of map unit: 2 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip, talf
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Ecological site: R155XY100FL - Organic Freshwater Isolated Marshes and Swamps
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G155XB645FL)
Hydric soil rating: Yes

Samsula

Percent of map unit: 2 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave

Custom Soil Resource Report

Across-slope shape: Concave

Ecological site: R155XY100FL - Organic Freshwater Isolated Marshes and Swamps

Other vegetative classification: Organic soils in depressions and on flood plains (G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL)

Hydric soil rating: Yes

Terra ceia

Percent of map unit: 2 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave, convex

Across-slope shape: Concave, linear

Ecological site: R155XY100FL - Organic Freshwater Isolated Marshes and Swamps

Other vegetative classification: Organic soils in depressions and on flood plains (G155XB645FL), Freshwater Marshes and Ponds (R155XY010FL)

Hydric soil rating: Yes

St. Johns

Percent of map unit: 1 percent

Landform: Flats on marine terraces, depressions on marine terraces

Landform position (three-dimensional): Tread, tal, dip

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)

Hydric soil rating: Yes

Placid

Percent of map unit: 1 percent

Landform: Drainageways on marine terraces, depressions on marine terraces

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: R155XY070FL - Sandy Freshwater Isolated Marshes and Swamps

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL), Freshwater Marshes and Ponds (R155XY010FL)

Hydric soil rating: Yes

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

APPENDIX D

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Brevard County, Florida



Local office

Florida Ecological Services Field Office

☎ (772) 562-3909

📠 (772) 562-4288

✉ fw4filesregs@fws.gov

1339 20th Street

Vero Beach, FL 32960-3559

<https://www.fws.gov/office/florida-ecological-services>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act requires Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT:
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not shown** on this list. Please contact [NOAA Fisheries for species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Crested Caracara (audubon"s) [fl Dps] Polyborus plancus audubonii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8250	Threatened
Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10477	Threatened
Everglade Snail Kite Rostrhamus sociabilis plumbeus Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7713	Endangered
Florida Scrub-jay Aphelocoma coerulescens Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6174	Threatened
Rufa Red Knot Calidris canutus rufa Wherever found There is proposed critical habitat for this species. https://ecos.fws.gov/ecp/species/1864	Threatened

Whooping Crane <i>Grus americana</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/758	EXPN
Wood Stork <i>Mycteria americana</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8477	Threatened

Reptiles

NAME	STATUS
Eastern Indigo Snake <i>Drymarchon couperi</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/646	Threatened
Green Sea Turtle <i>Chelonia mydas</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6199	Threatened
Hawksbill Sea Turtle <i>Eretmochelys imbricata</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3656	Endangered
Leatherback Sea Turtle <i>Dermochelys coriacea</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle <i>Caretta caretta</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1110	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Carter's Mustard <i>Warea carteri</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5583	Endangered
Lewton's Polygala <i>Polygala lewtonii</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6688	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

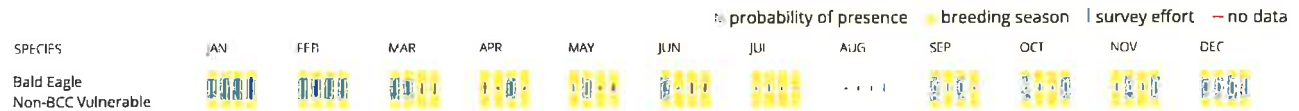
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31
Black Skimmer <i>Rynchops niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Great Blue Heron <i>Ardea herodias occidentalis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Jan 1 to Dec 31
Gull-billed Tern <i>Gelochelidon nilotica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9501	Breeds May 1 to Jul 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Painted Bunting <i>Passerina ciris</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 25 to Aug 15
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Reddish Egret <i>Egretta rufescens</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/7617	Breeds Mar 1 to Sep 15
Ruddy Turnstone <i>Arenaria interpres morinella</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (☺)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (☺)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

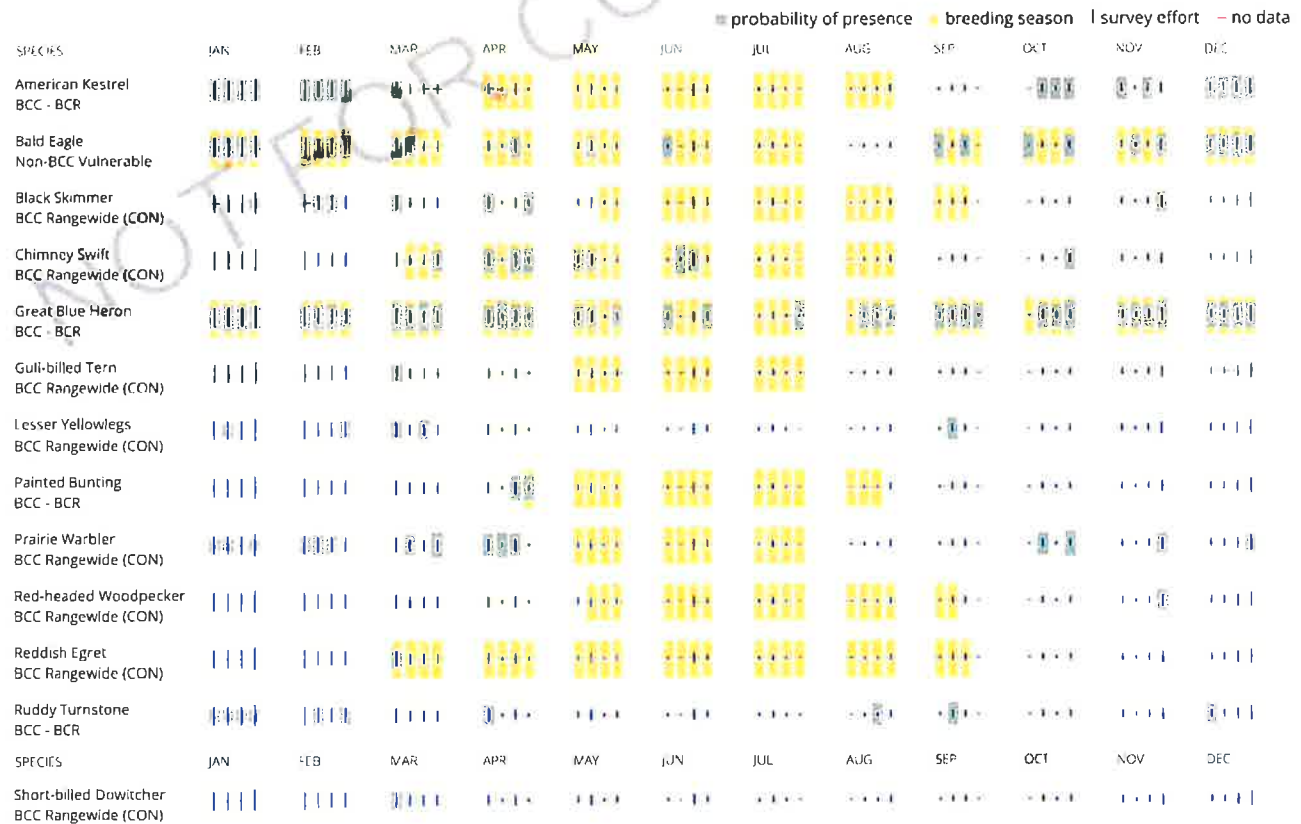
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

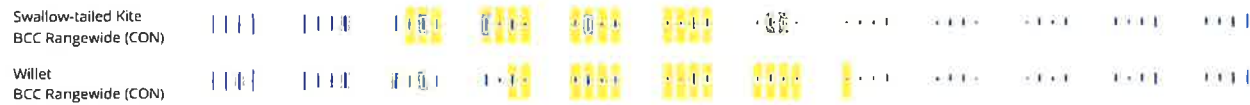
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the

existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Port Saint John Dependent Special District Board

The Port Saint John Dependent Special District Board met in regular session on **Tuesday, November 6, 2024**, at **6:00 p.m.**, in the Port St. John Library 6500 Carole Ave., Port St. John, Florida.

The meeting was called to order at 6:00 p.m.

Board members present were: Kevin Shropshire, Wendy Porter-Hyde, Carmella Chinaris, Vaughan Kimberling, Randy Rodriguez, Maureen Rupe, and Frank Robb.

Staff members present were: Jeffrey Ball, Zoning Manager; Derrick Hughey, Planner; Alice Webber, Operations Support Specialist; and Desirée Jackson, Planner.

Approval of the January 03, 2024 and June 05, 2024, PSJ Minutes

Motion to approve the January 03, 2024 PSJ Minutes by Randy Rodriguez, seconded by Carmella Chinaris. The motion passed unanimously.

Motion to approve the June 05, 2024 PSJ Minutes by Frank Robb, seconded by Kevin Shropshire. The motion passed unanimously.

H.1. RHR Construction & Development LCC requests a change of zoning classification from GU and RU-1-11 to RU-1-11. (24Z00042) (Tax Account 2320049) (District 1)

H.2. RHR Construction & Development LLC requests a Small-Scale Comprehensive Plan Amendment (24.012), to change the Future Land Use designation from PI to RES 4. (24SS00012) (Tax Account 2320049) (District 1)

Jeffrey Ball read both companion items into the record. He recommended the board to make a motion on item H.2. before item H.1.

Trey Robison, presenting on behalf of the applicant, explained the purpose of the request. He distributed for the record copies of documents for the meeting. He referred to the first exhibit on page 3 and noted that this is one lot with a tract divider line. This lot has multiple zoning classifications and future land use designations. He clarified that they are seeking to put two units on this property to allow for half acre lots for each unit. He referred to exhibit A2 and stated there is a 40 ft. wide drainage easement that is not be altered during the construction of residential homes. Mr. Robison referred to an environmental study that was performed on the property to determine if any wetlands or endangered fauna existed. "The report came back and said of this 1.1 acre property, 0.1 acres of it is actually wetlands. But 100% of these wetlands are confined to this ditch" he said. He believed the ditch was man-made. He further noted that there were no Scrub Jays or Gopher Tortoises discovered.

Maureen Rupe had an understanding of the construction of the property.

Randy Rodriguez noted there are not yards after you.

Frank Robb asked if they will need to build it up.

Mr. Robison answered yes because they are 2 ft. below the streets. He also added that all water compensatory storage will have to remain on the property.

Mr. Rob had concerns even with swales being installed on the property.

Mr. Robinson stated that once plans are submitted to the county for the application process, they will need to prove that they are holding the water capacity.

Kevin Shropshire asked about the discrepancies regarding the wetlands. He noted from the FEMA maps that the western parcel looked to be entirely wetlands.

Mr. Robinson referred to the environmental study done on the property which noted where the wetlands were on the property.

Mr. Robb asked how all the construction will affect the box culvert. His was concerned about the water flow for that area as well.

Mr. Robinson said that if required they would extend the gap from that culvert to Fay an additional 25 ft and provide a minor culvert that would be up to today's standards.

Wendy Porter-Hyde asked what happens under special circumstances such as hurricanes with regards to the compensatory storage.

Mr. Robinson stated they have to account for the 100-year compensatory water storage.

Mr. Ball had clarified the land use on the property to be PI and the zoning is RU-1-11 and GU. He pointed to the admin policies, in particular to policy 7, for the environmental considerations to take into account for the property. He does not believe that the study has been vetted by the Natural Resources Department. There is a 40' wide drainage ditch on the property that runs through the property to the north. Based on the staff report, the maximum allowed wetland impact is 0.2 acres or 877 sq.ft.

Mr. Robinson restated that no impacts will be done to the wetlands which are just focused around the ditch. Therefore, they will make zero wetland impacts on the property.

Mr. Shropshire believes in the wetland documents that he has in front of him.

Mr. Robinson says the study has been vetted and approved by the natural resources management department.

Vaughan Kimberling explained that the Board has to base their decision on the documents they have in front of them.

Mr. Ball at this point we are only going by what the wetlands impact.

Carmella Chinaris pointed out to the map with already impacted wetlands in the surrounding areas and asked if this rezoning would allow for multi-family.

Mr. Ball clarified that it allows for 4 units to the acre.

Ms. Hyde asked about the environmental assessments.

Mr. Ball stated what the county has been provided.

Mr. Robinson stated he had submitted the environmental study to the County.

Ms. Hyde read from page 48 and asked if the wetland delineation has been done.

Mr. Robinson stated that a preliminary wetland delineation has been done. But that a new wetland delineation will need to be done.

Mr. Shropshire asked about the updated wetland delineation being reviewed by the PSJ Board and whether they will have a chance to re-review the item with the wetland delineation.

Mr. Ball confirmed to have it and said "if it was not included with the packet then I assume so."

Public Comment

Stephanie Comet noted their concerns. She has had many issues with the ditch being full and the county not maintaining it. She noted after Hurricane Irma the level of the ditch was extraordinarily high with the current flowing west. She stated that the applicant can build but there are already high flooding issues going on in the surrounding areas. She noted the low point on Curtis is all the way by the churches. After Irma the ditch had filled up and the property behind her flooded. Now if the property is to be sold and developed, her concerns were where the water runoff will then go. She has flood insurance. She was also concerned as to whether the culvert would be required or not. If not then she wished to know what would happen.

Ms. Chinaris asked if the ditch had been cleaned out.

Ms. Comet stated the County had come out last week to clear out the ditch. She said they had to do a lot to clean out the culvert.

Ms. Chinaris stated that maybe that the ditch would be better maintained with the property being developed.

Ms. Comet stated she is not sure and can only go with what has happened in the past. She said every 7 years the ditch should be cleaned out and maintained.

Mr. Kimberling asked how close she was to this development.

Ms. Comet replied two doors down.

Frank Robb further explained to which areas the ditch connects to and what other areas it impacts.

Mr. Kimberling asked if the drainage canal is suitable enough to accommodate the additional two houses.

Jeffrey Ball stated adding two more houses to an area with already existing flooding will not make it better. The building permitting process would have to account for drainage. He also noted the Public Works is responsible for the maintenance of the drainage canal.

Jesse Guess considers the area "right beside me is a wetland". He lives right next to the development.

End Public Comment

Mr. Robb stated where the highest point in Port Saint John is.

Ms. Chinaris asked if the same drainage standards for building on FLU PI match the standards for building on a Residential FLU.

Jeffrey Ball stated no industrial uses would fit on this property. From a residential standpoint there are rules and regulations about impacting Riverine Floodplains. The potential issues that Natural Resources noted will need to be addressed prior to the building permit being issued. The applicant's environmental study will also need to be vetted properly.

Motion by Randy Rodriguez on item H.2. to approve, seconded by Carmella Chinaris. The motion passed 4 to 2. Kevin Shropshire abstained from voting.

Motion by Randy Rodriguez on item H.1. to approve, seconded by Carmella Chinaris. The motion passed 4 to 2. Kevin Shropshire abstained from voting.

The meeting was called to adjourn at 6:45 p.m.

DRAFT

PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY MINUTES

The Brevard County Planning & Zoning Board met in regular session on **Monday, January 13, at 3:00 p.m.**, in the Florida Room, Building C, Brevard County Government Center, 2725 Judge Fran Jamieson Way, Viera, Florida.

The meeting was called to order at 3:00 p.m.

Board members present were Mark Wadsworth, Chair (D4); Henry Minneboo, Vice-Chair (D1); Ana Saunders (D5); Erika Orriss (D3); Debbie Thomas (D4); Logan Luse (D4); Ron Bartcher (D1); Melissa Jackson (D5); and Robert Brothers (D5).

Staff members present were Tad Calkins, Director (Planning and Development); Billy Prasad, Deputy Director (Planning and Development); Alex Esseesse, Deputy County Attorney; Trina Gilliam, Interim Zoning Manager; and Alice Randall, Operations Support Specialist.

Excerpt of complete agenda.

Item H.1. RHR Construction & Development LLC requests a Small-Scale Comprehensive Plan Amendment (24.012), to change the Future Land Use designation from PI to RES 4. (24SS00012) (Tax Account 2320049) (District 1)

Item H.2. RHR Construction & Development LLC requests a change of zoning classification from GU and RU-1-11 to RU-1-11. (24Z00042) (Tax Account 2320049) (District 1)

Trina Gilliam introduced herself as the acting interim Planning and Zoning manager. She then read companion items H.1. and H.2. into the record.

Trey Robinson spoke to the application. I have some documents and exhibits I'd like to pass out for the comprehensive plan amendment.

Mark Wadsworth asked if he had entered the exhibits into the record.

Trey Robinson commented if not he would read through it.

Trina Gilliam stated we can take it in, but I haven't seen it, so I'm not sure if it was entered previously.

Alex Esseesse added that when you do give us that document, we will have to keep it, so if it's useful for your presentation you'll want to hold on to it.

Mr. Robinson stated he had a couple of them, but wanted to give them to the members so they could follow along.

Alex Esseesse thanked him.

Mr. Robinson continued with introducing himself as representing RHR Construction. This is a 1.1-acre lot and it's very peculiar in the fact that it is a single lot yet is divided by a tract divider line. Each of the separate tracts have a different future land use and zoning classification. Tract one is on the left side of the tract divider line. It is listed as zoning classification RU-1-11 and future land use is Planned Industrial. Tract 2 is on the right, the east side of the lot and has a future land use as Planned Industrial, with a zoning classification of General Use. The tracts are also divided by a 40-foot-wide drainage ditch easement that runs down the middle and then along the back side of tract 1. What we're planning to do is the future land use is being planned to be changed from Planned Industrial to RES-4 for both tracts. In addition to the FLU change request, I'm also requesting that the zoning be slightly altered. The current zoning of Tract 1 is RU-1-11 and I'm desiring to keep that the same. But I

want to change the zoning of the other tract to RU-1-11 as well. The requested FLU change to RES-4 will match the surrounding neighborhood along Curtis Blvd., which has the same future land use as being requested. In addition to Tract 1, Tract 2 will be changed from GU to RU-1-11, again matching Tract 1 and the existing neighborhood.

There was no public comment.

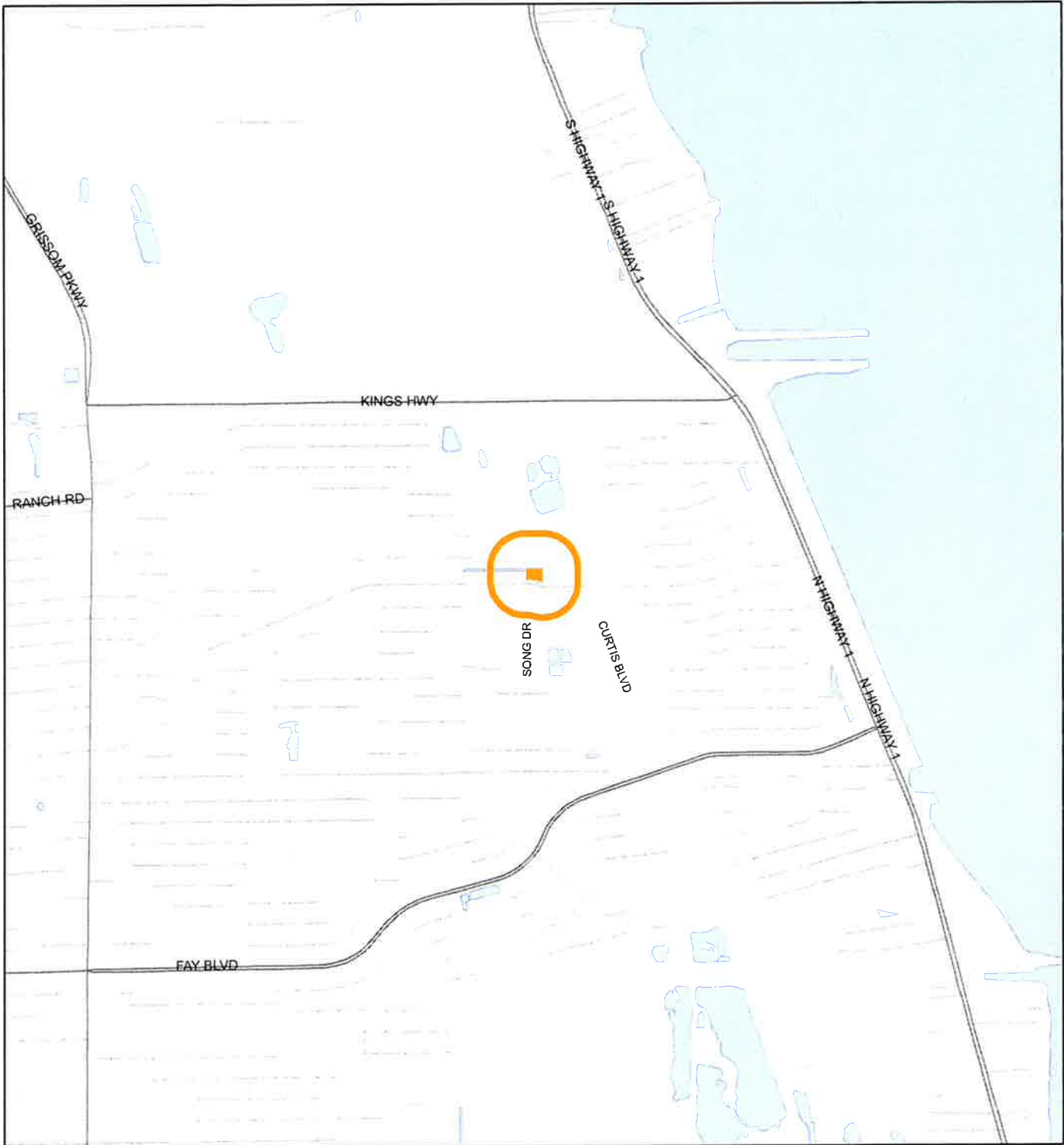
Motion to recommend approval of Item H.1. by Ron Bartcher, seconded by Henry Minneboo. The motion passed unanimously.

Motion to recommend approval of Item H.2. by Ron Bartcher, seconded by Henry Minneboo. The motion passed unanimously.

DRAFT

LOCATION MAP

RHR CONSTRUCTION & DEVELOPMENT LLC
24Z00042





1:24,000 or 1 inch = 2,000 feet

Buffer Distance: 500 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

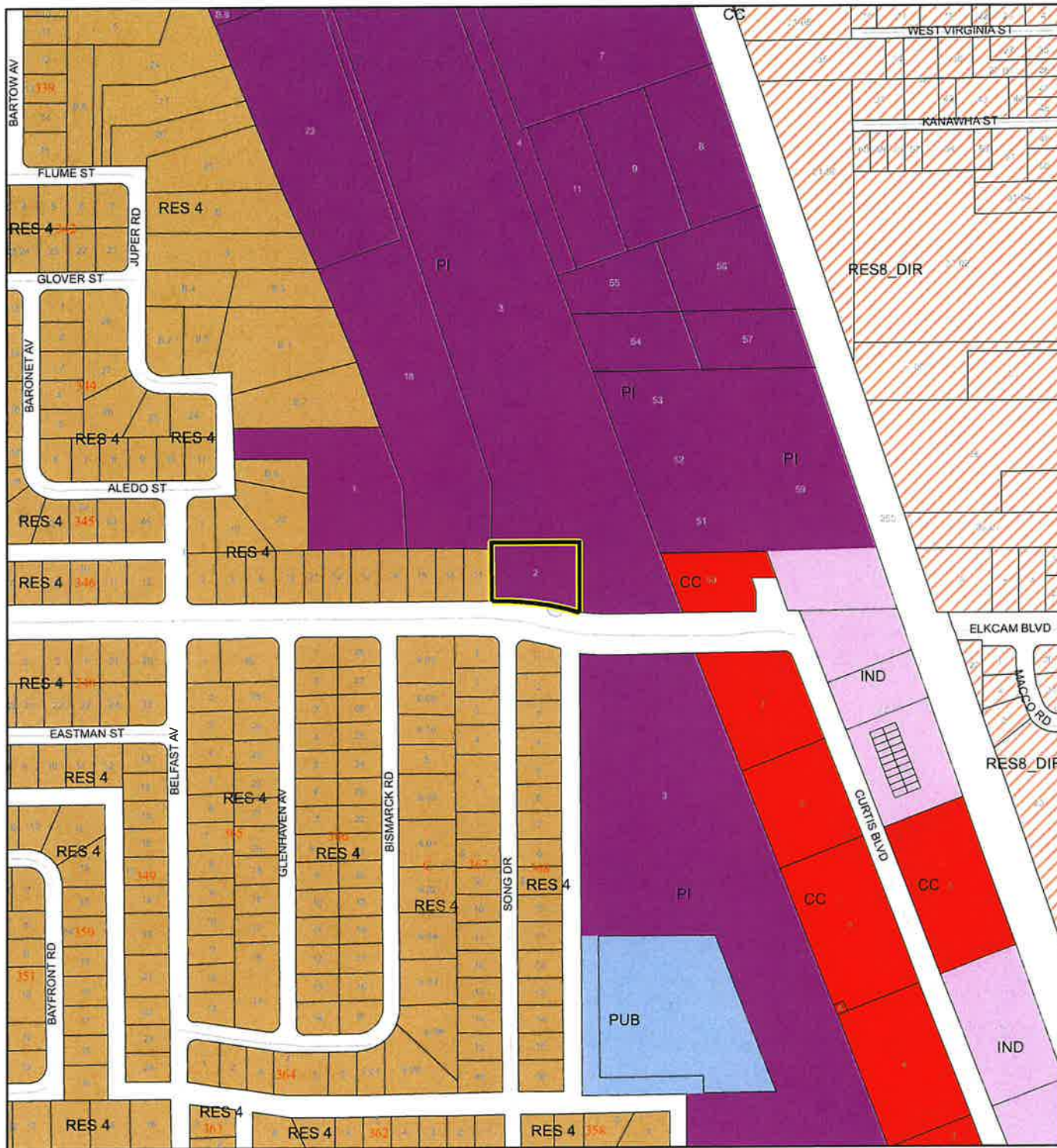
Produced by BoCC - GIS Date: 8/8/2024

-  Buffer
-  Subject Property

FUTURE LAND USE MAP

RHR CONSTRUCTION & DEVELOPMENT LLC

24Z00042



1:4,800 or 1 inch = 400 feet

— Subject Property

□ Parcels

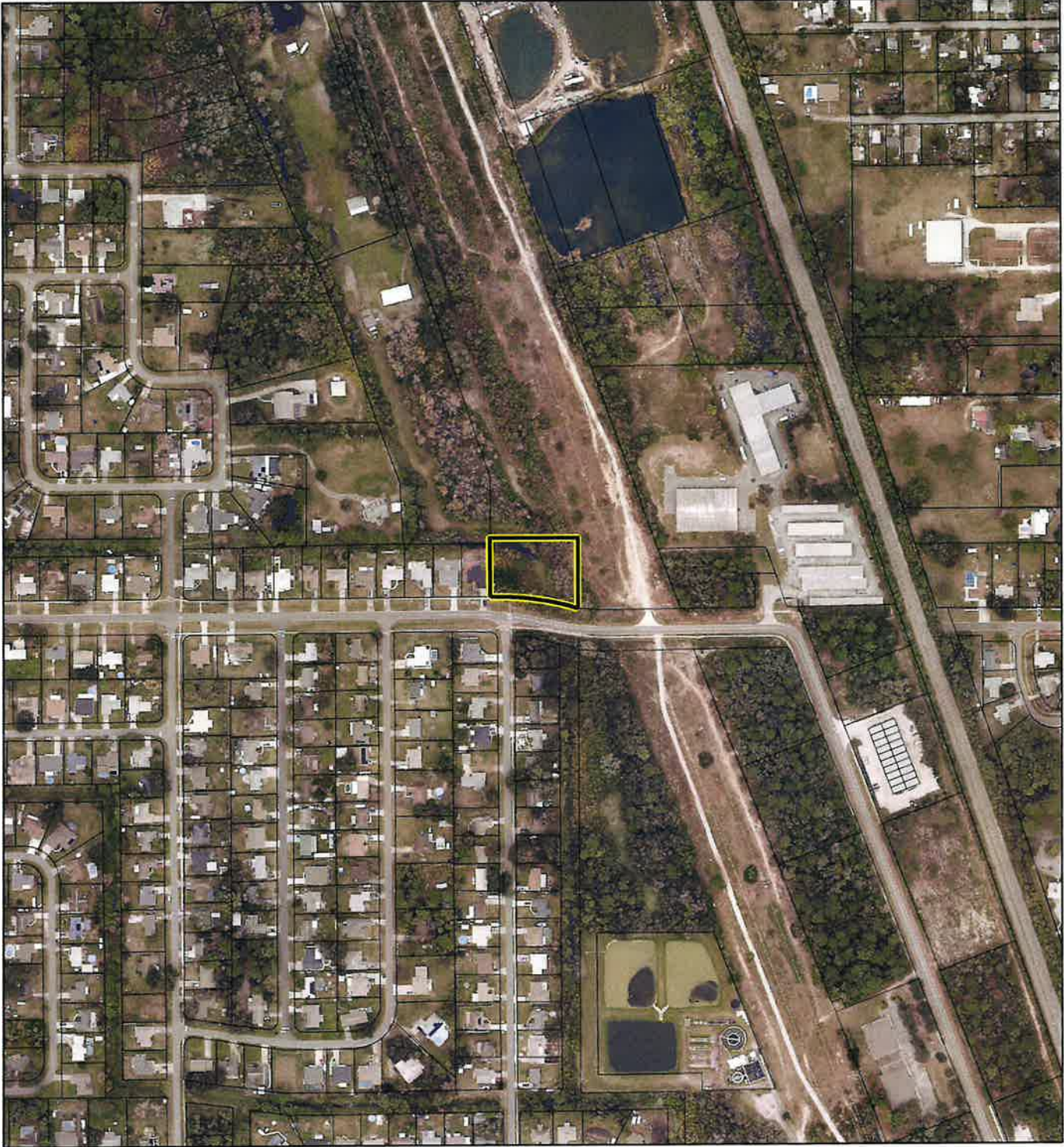
This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 8/8/2024

AERIAL MAP

RHR CONSTRUCTION & DEVELOPMENT LLC

24Z00042



1:4,800 or 1 inch = 400 feet

PHOTO YEAR: 2024

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

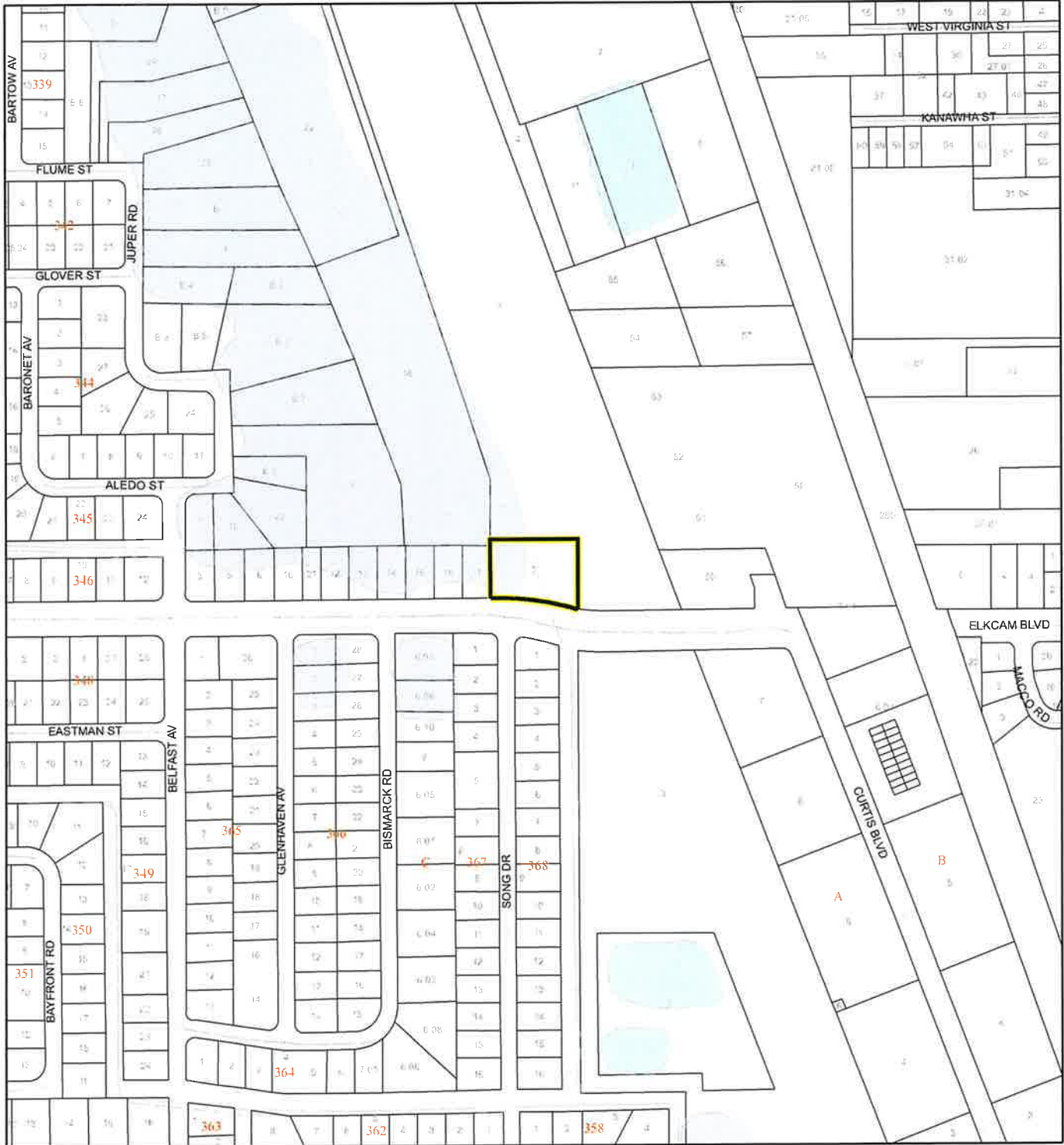
Produced by BoCC - GIS Date: 8/8/2024

 Subject Property

 Parcels

NWI WETLANDS MAP

RHR CONSTRUCTION & DEVELOPMENT LLC
24Z00042








1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions herein.

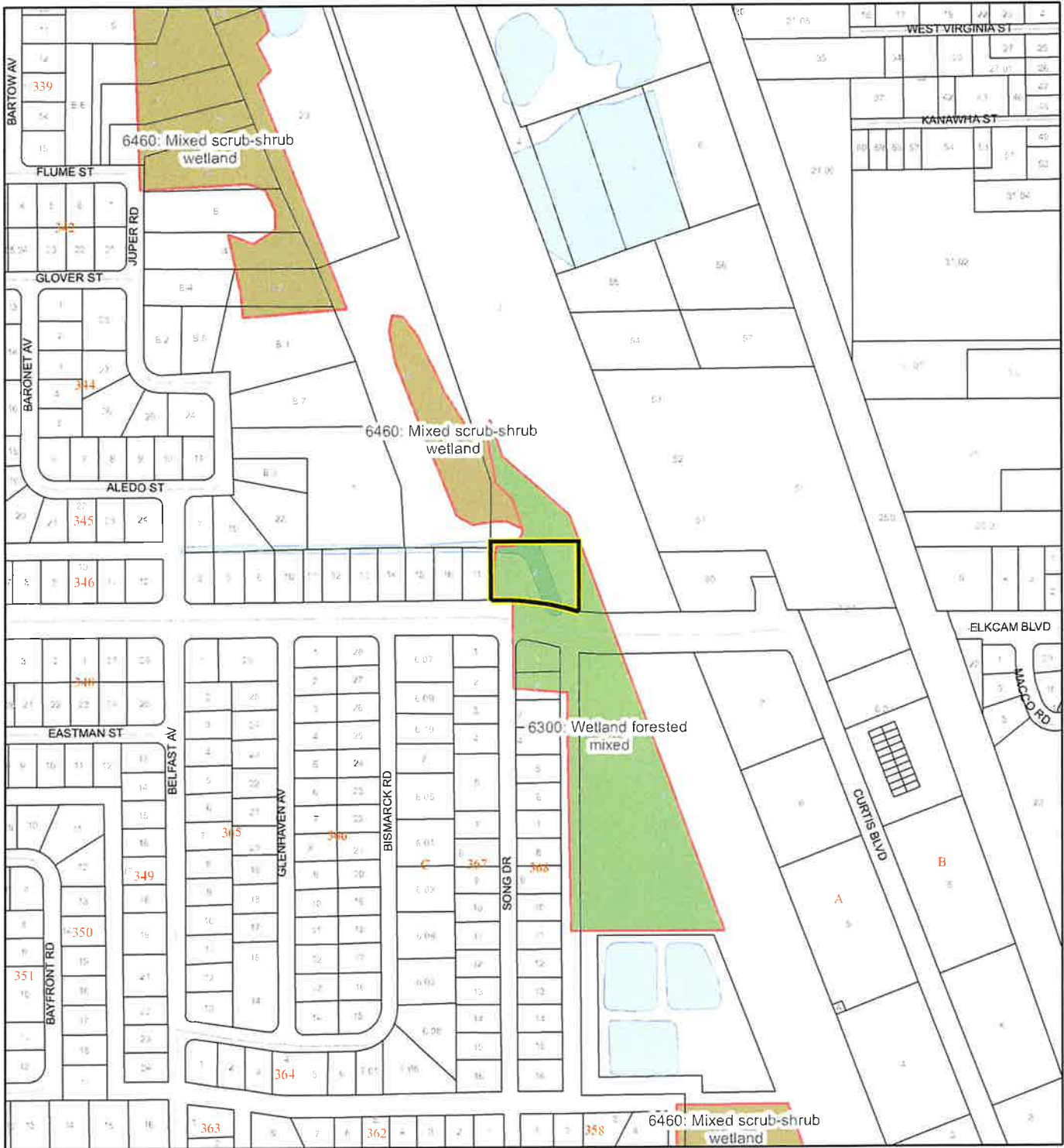
Produced by BoCC - GIS Date: 8/8/2024

National Wetlands Inventory (NWI)

- | | |
|---|---|
|  Estuarine and Marine Deepwater |  Freshwater Pond |
|  Estuarine and Marine Wetland |  Lake |
|  Freshwater Emergent Wetland |  Other |
|  Freshwater Forested/Shrub Wetland |  Riverine |
|  Subject Property |  Parcels |

SJRWMD FLUCCS WETLANDS - 6000 Series MAP

RHR CONSTRUCTION & DEVELOPMENT LLC
24Z00042



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 8/8/2024

SJRWMD FLUCCS WETLANDS

- Wetland Hardwood Forests - Series 6100
- Wetland Coniferous Forest - Series 6200
- Wetland Forested Mixed - Series 6300
- Vegetated Non-Forested Wetlands - Series 6400
- Non-Vegetated Wetland - Series 6500

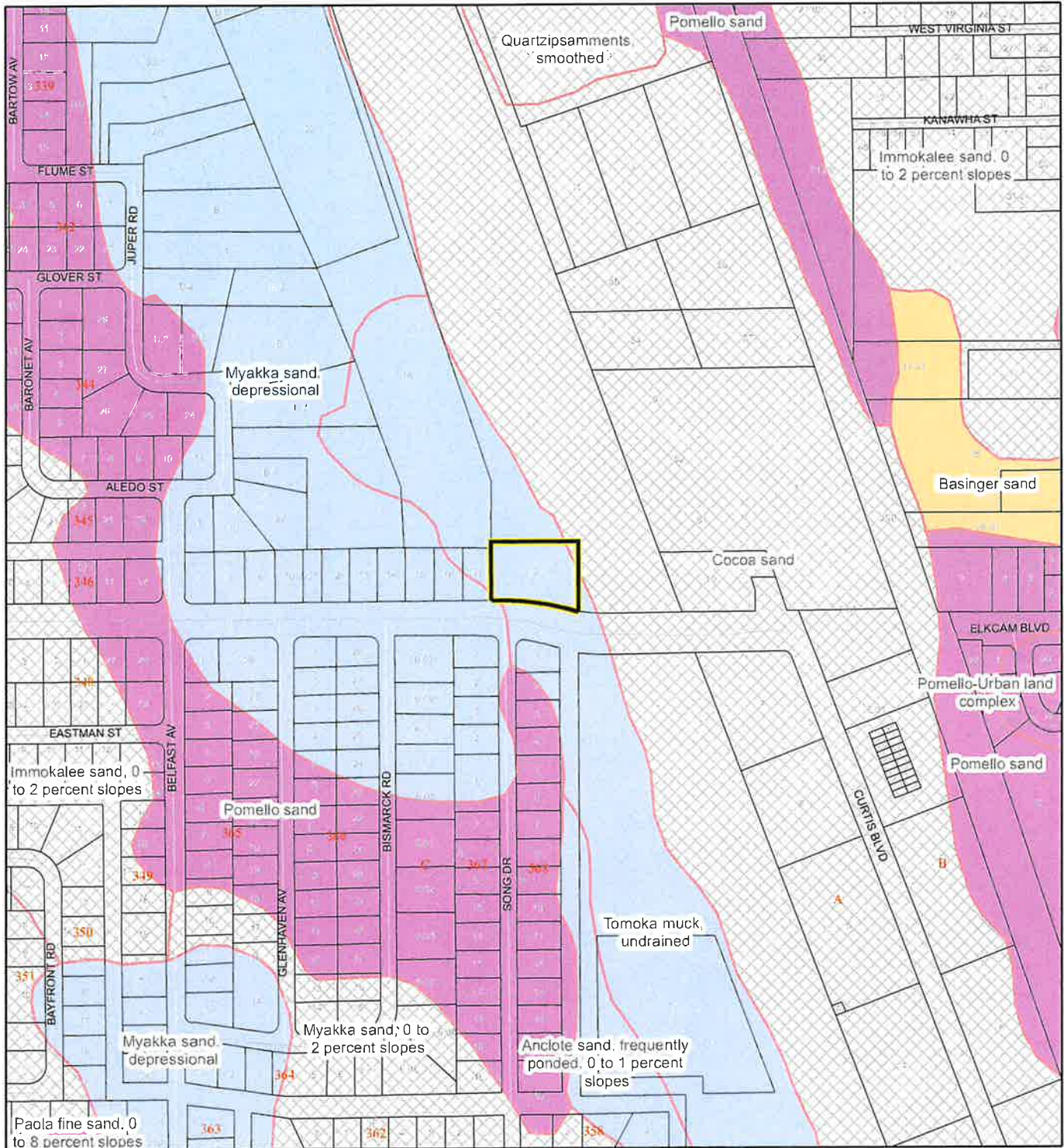
Subject Property

Parcels

USDA SCSSS SOILS MAP

RHR CONSTRUCTION & DEVELOPMENT LLC

24Z00042



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 8/8/2024

USDA SCSSS Soils

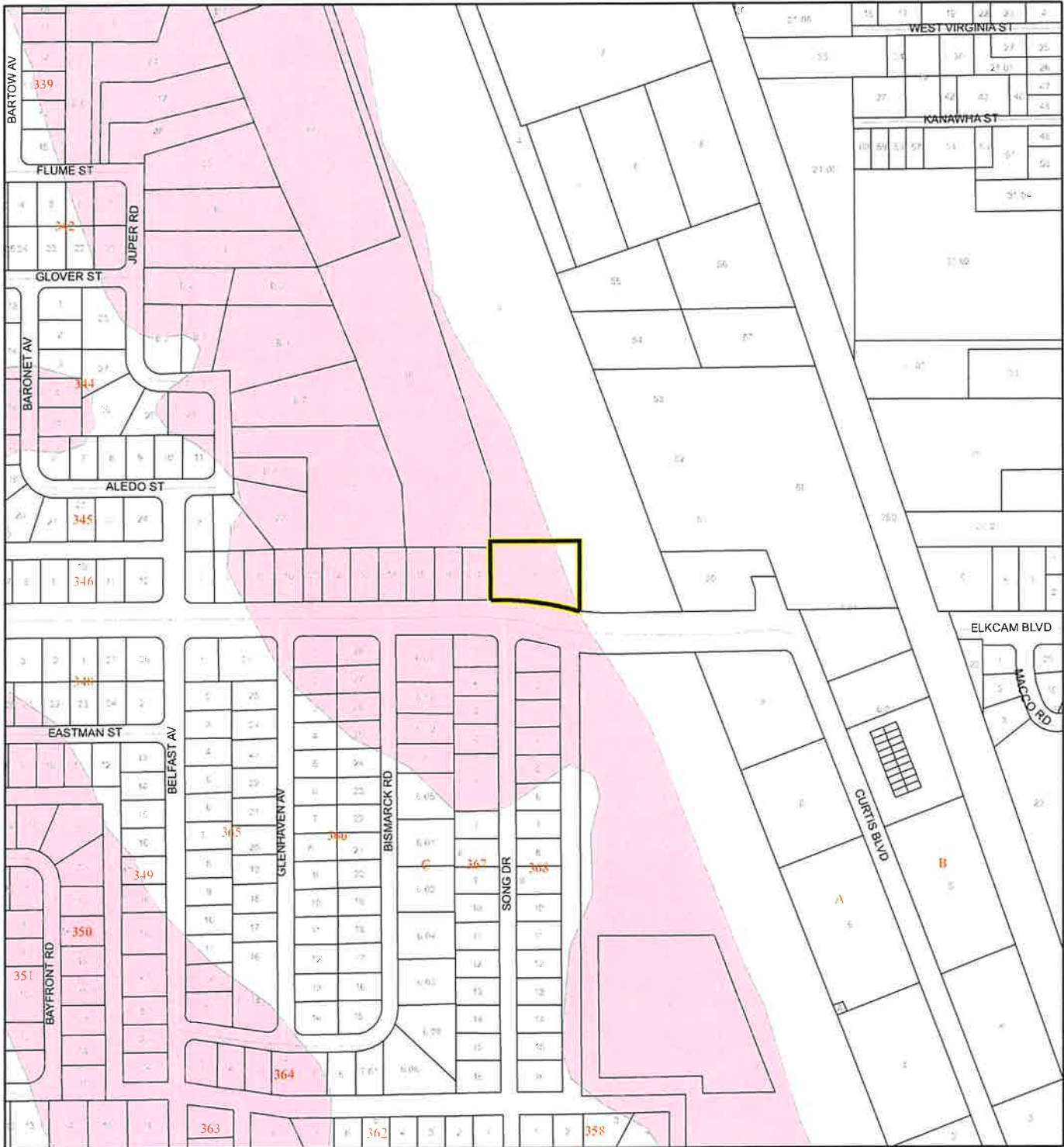
- Aquifer and Hydric
- Aquifer
- Hydric
- None

- Subject Property
- Parcels

FEMA FLOOD ZONES MAP

RHR CONSTRUCTION & DEVELOPMENT LLC

24Z00042



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 8/8/2024

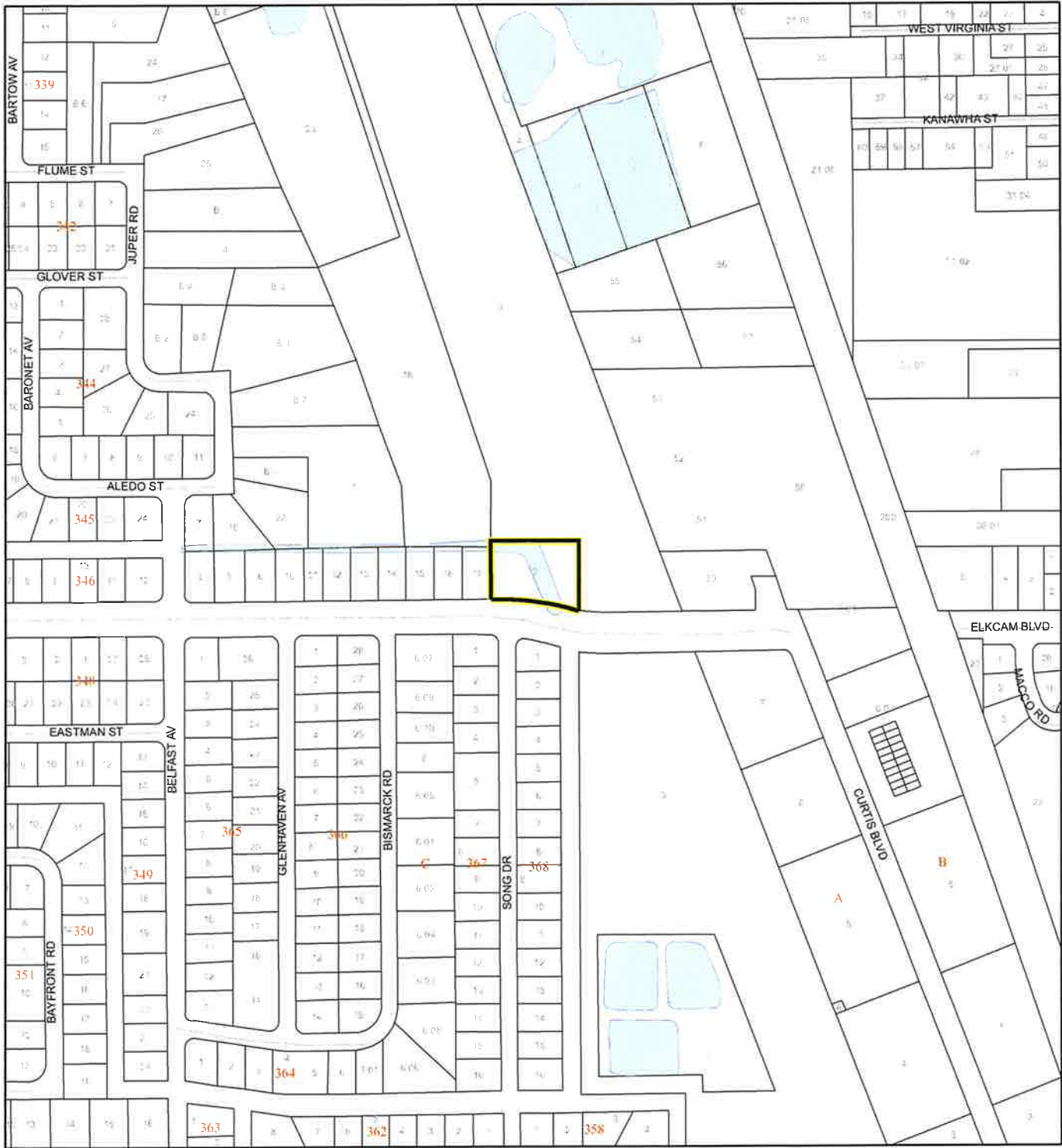
FEMA Flood Zones

- A
- AO
- AE
- Open Water
- AH
- VE
- Subject Property
- Parcels
- X

COASTAL HIGH HAZARD AREA MAP

RHR CONSTRUCTION & DEVELOPMENT LLC

24Z00042



1:4,800 or 1 inch = 400 feet


This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 8/8/2024

 Subject Property

 Parcels

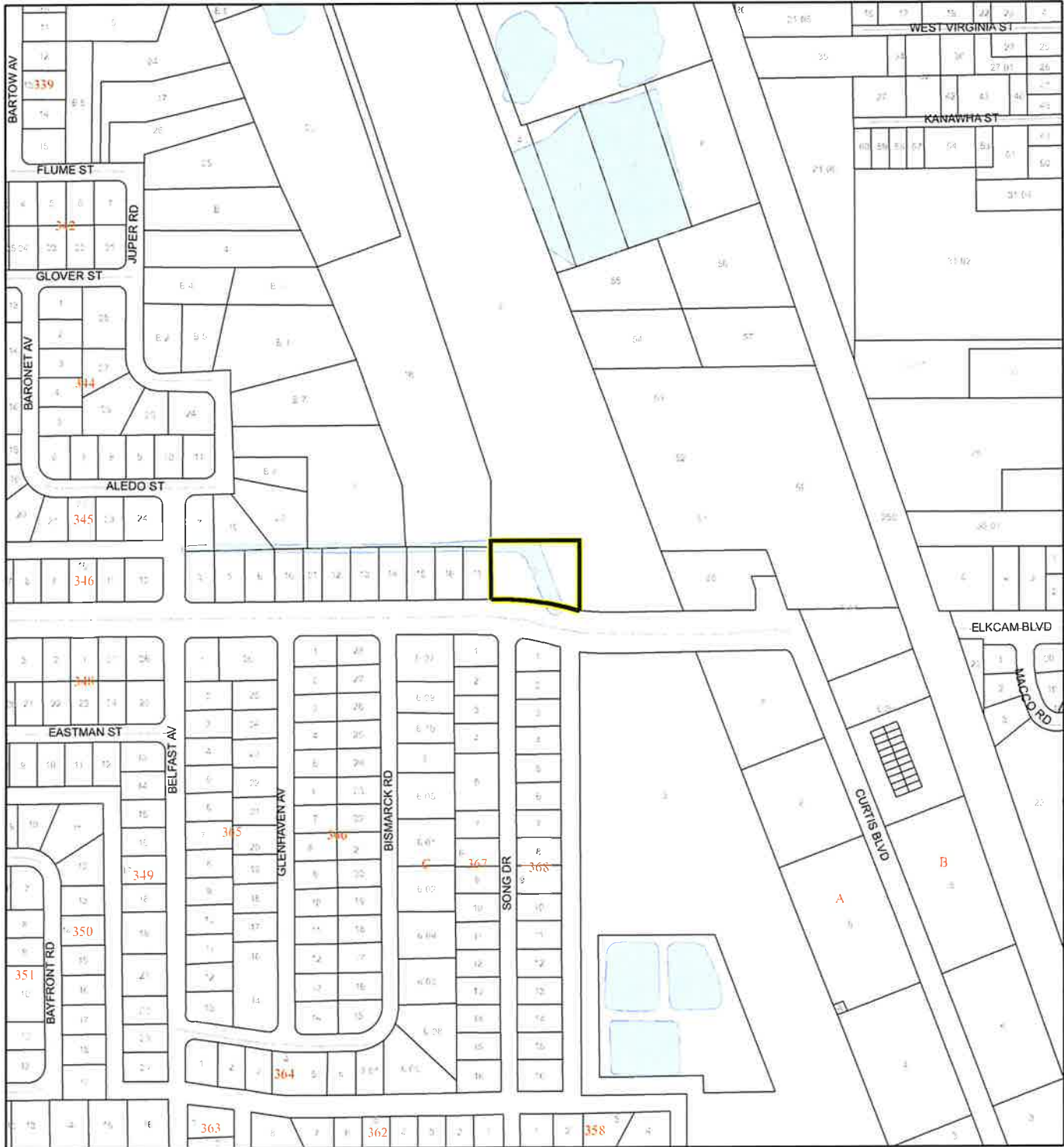
Coastal High Hazard Area

 SurgeZoneCat1

INDIAN RIVER LAGOON SEPTIC OVERLAY MAP

RHR CONSTRUCTION & DEVELOPMENT LLC

24Z00042



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 8/8/2024

 Subject Property

 Parcels

Septic Overlay

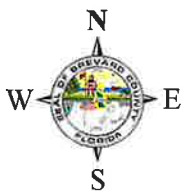
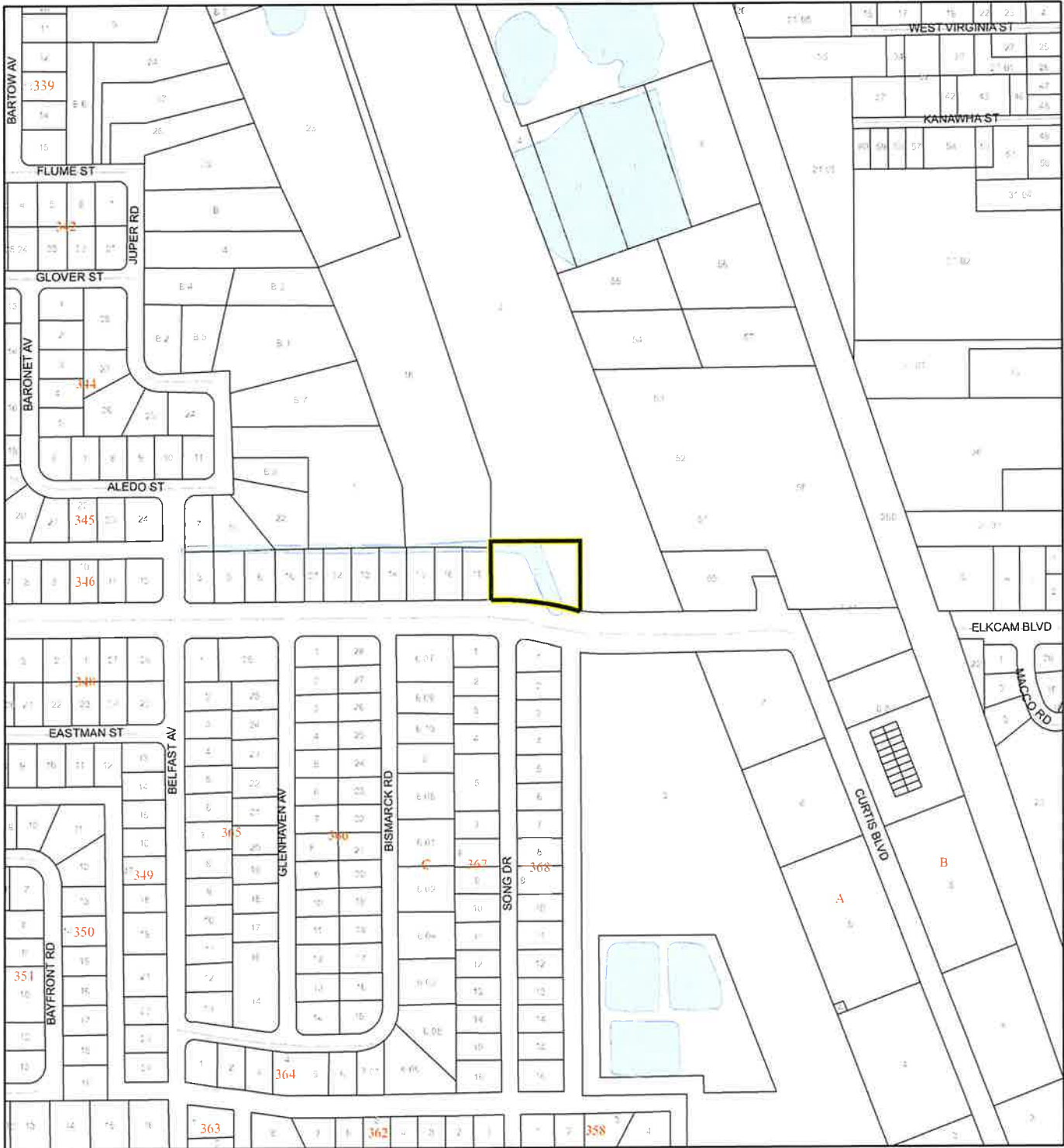
 40 Meters

 60 Meters

 All Distances

EAGLE NESTS MAP

RHR CONSTRUCTION & DEVELOPMENT LLC
24Z00042



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

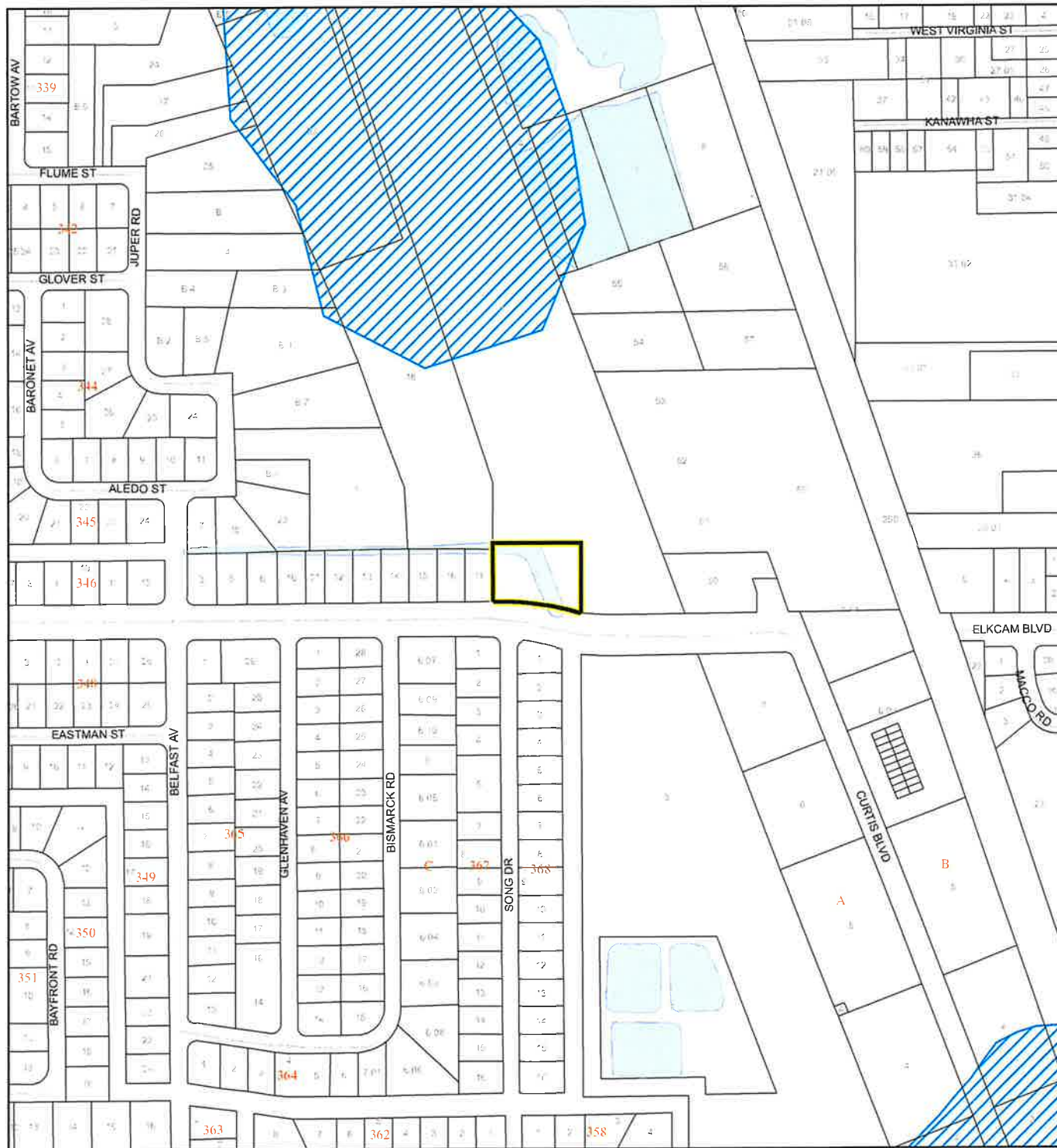
Produced by BoCC - GIS Date: 8/8/2024

-  Subject Property
-  Parcels
-  Eagle Nests FWS

SCRUB JAY OCCUPANCY MAP

RHR CONSTRUCTION & DEVELOPMENT LLC




24Z00042



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

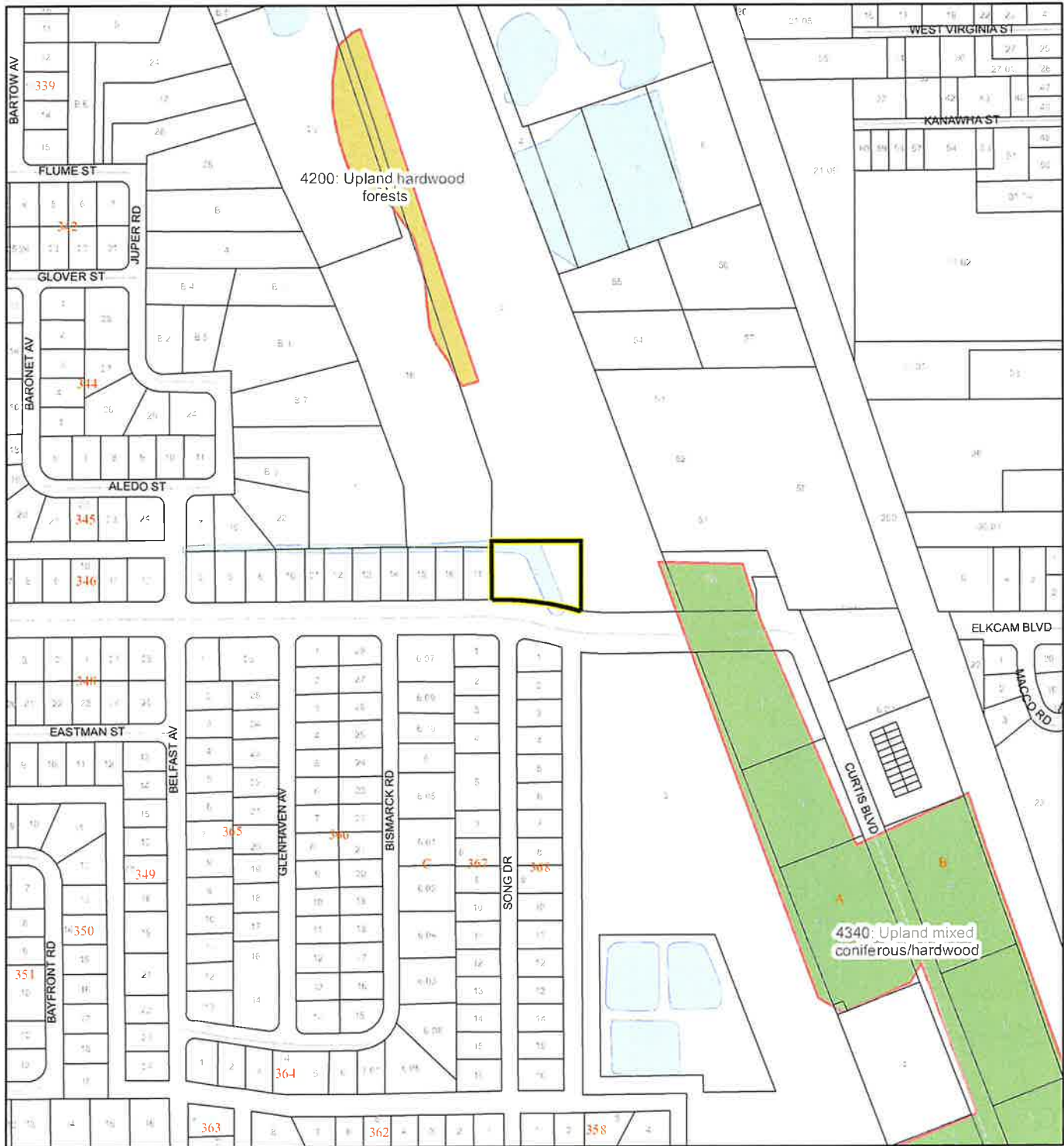
Produced by BoCC - GIS Date: 8/8/2024

-  Subject Property
-  Parcels
-  Scrub Jay Occupancy

SJRWMD FLUCCS UPLAND FORESTS - 4000 Series MAP

RHR CONSTRUCTION & DEVELOPMENT LLC

24Z00042



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 8/8/2024

SJRWMD FLUCCS Upland Forests

- Upland Coniferous Forest - 4100 Series
- Upland Hardwood Forest - 4200 Series
- Upland Mixed Forest - 4300 Series
- Tree Plantations - 4400 Series

Subject Property

Parcels

Meeting

Item: H.2

Motion By: Delaney

2nd By: Adkinson

Commissioner	District	Yes	No
Delaney	1	✓	
Vice Chair Goodson	2	✓	
Adkinson	3	✓	
Altman	5		
Chair Feltner	4	✓	

Absent