

Promoting the Science of Water

THE ROOKERY CLAY COUNTY, FLORIDA

CONDITIONAL LETTER OF MAP REVISION

OCTOBER 12, 2023

Prepared for: DR Horton, Inc.



Project No. 21013

October 12, 2023



LOMC Clearinghouse ATTN: LOMR Manager 3601 Eisenhower Avenue, Suite 500 Alexandria, VA 22304-6426

Subject: Conditional Letter of Map Revision for The Rookery in Clay County, Florida

Dear LOMR Manager:

Enclosed are documents supporting a request for a Conditional Letter of Map Revision (CLOMR) for lands west of Highway 17 South and south Green Cove Avenue in Clay County, Florida. This CLOMR request revises the effective Zone A mapping based on a new hydrologic and hydraulic analysis and proposed certified site plans for The Rookery development. ICPR version 3.10 Service Pack 11 was used for this analysis. An effective hydrologic/hydraulic model does not exist for this current area of revision.

Detailed surveys and LiDAR data were obtained for the modeled drainage area. Although the area of mapping revision covers a limited area, the modeling extent was expanded to ensure effects of boundary conditions do not influence the results within our area of revised mapping coverage.

The source of the LiDAR data utilized for this analysis is the 2018 Clay County LiDAR data. The one-foot-interval topographic contours derived from the 2018 LiDAR coverage are included on the figures for presentation purposes. All vertical elevations reference NAVD88.

The ICPR model parameters were based on the following:

- 100-year 24-hour rainfall total of 10.9 inches based on NOAA Precipitation Frequency Data Server (PFDS).
- SCS Curve Number (CN) method utilizing CN and DCIA.
- SCS Lag Method for the Time of Concentration (TC) calculations for undeveloped lands.

To support our CLOMR request, among other items, we have included the following:

- Completed MT-2 forms
- · Certified site plans for The Rookery
- Certified surveys to support the pre-project conditions model
- Pre-project conditions ICPR model
- Post-project conditions ICPR model
- GIS data of the model set-up, terrain data, and proposed mapping
- Certified workmap showing the terrain, model set-up, effective flood zones, and proposed flood zones
- Certified annotated FIRM showing the mapping revisions
- Draft notification
- Compliance with the Endangered Species Act (ESA)
- CLOMR review fee of \$6,500

Sincerely,

Gemini Engineering & Sciences, Inc.

Ki Pak, FL PE #52052, CFM

Project Manager



DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency

OVERVIEW & CONCURRENCE FORM

OMB Control Number: 1660-0016 Expiration: 1/31/2024

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless it displays a valid OMB control number. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (1660-0016). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

PRIVACY ACT STATEMENT

AUTHORITY: The National Flood Insurance Act of 1968, Public Law 90-448, as amended by the Flood Disaster Protection Act of 1973, Public Law 93-234.

PRINCIPAL PURPOSE(S): This information is being collected for the purpose of determining an applicant's eligibility to request changes to National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM).

ROUTINE USE(S): The information on this form may be disclosed as generally permitted under 5 U.S.C § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA/NFIP/LOMA-1 National Flood Insurance Program (NFIP); Letter of Map Amendment (LOMA) February 15, 2006, 71 FR 7990.

DISCLOSURE: The disclosure of information on this form is voluntary; however, failure to provide the information requested may delay or prevent FEMA from processing a determination regarding a requested change to a (NFIP) Flood Insurance Rate Maps (FIRM).

	A. REQUESTED RESPONSE FROM DHS-FEMA								
This request is for a (d	check one):								
	CLOMR: A letter from DHS-FEMA commenting on whether a proposed project, if built as proposed, would justify a map proposed hydrology changes (See 44 CFR Ch. 1, Parts 60, 65 & 72). All CLOMRs require documentation of compliance with the Endangered Species Act. Refer to the Instructions for details.								
	LOMR: A letter from DHS-FEMA officially revising the current NFIP map to show the changes to floodplains, regulatory floodway or flood elevations. (See 44 CFR Ch. 1, Parts 60, 65 & 72).								
		B. OVERVIEW							
1. The NFIP map pa	anel(s) affected for all impacted cor	mmunities is (are):							
Community No.	Community Name			State Map No. Pa		Panel No.	Effective Date		
Example: 480301; 480287	City of Katy; Harris County			TX; TX	48473C; 48201C	0005D; 0220G	02/08/83; 09/28/90		
120065; 120064	City of Green Cove Springs; Clay County			FL; FL	12019C	0277E; 0280E; 0281E; 0283E	03/17/14		
2. a. Flooding Source	ce: Local flooding								
b. Types of Flood	ding: Riverine	Coastal	Shallo	w Floodir	ng (e.g., Zones	AO and AH)			
	Alluvial Fan	Lakes	Other	(Attach D	escription)				
3. Project Name/Identifier: The Rookery									
4. FEMA zone desiç	gnations (choices: A, AH, AO, A1-	-A30, A99, AE, AR, V, Y	V1-V30, \	VE, B, C,	D, X)				
a. Effective: A, >	(
b. Revised: A, A	AE, AH, X								

5. Basis for Request and Type of Revision:						
a. The basis for this revision request is (check all that apply)						
	Regulatory Fl	oodway Revision	Base Map Changes			
☐ Coastal Analysis ☐ Hydraulic Analysis		nalysis	Corrections			
── ── ── ── ── ── ── ── ── ── ── ── ──	Alluvial Fan A	nalysis	Natural Changes			
─────────────────────────────────────		•				
Note: A photograph and narrative description of the area of conc	ern is not required, bu	ıt is verv helpful durir	na review.			
b. The area of revision encompasses the following structures (ch	•	,				
Structures: Channelization Levee/Floodwall						
Dam Fill	Other (Attach					
Bann Documentation of ESA compliance is submitted (required to			the instructions for more			
6. information.	J IIIIIIale CLOWR Tevie	;w). Flease leiel to t	the instructions for more			
C. REVI	EW FEE					
Has the review fee for the appropriate request category been included'	? X Yes	Fee amount: \$ 6	,500			
	No, Attach Exp	olanation				
Please see the DHS-FEMA Web site at http://www.fema.gc	ov/forms-docum	nents-and-soft	ware/flood-			
map-related-fees for Fee Amounts and Exemption						
D. SIGNA	ATURES					
1. REQUESTOR'S SIGNATURE						
All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.						
Name: Justina Shamberger, El	Company: Gemini E	ngineering & Scienc	es, Inc			
Mailing Address:	Daytime Telephone:	(904) 217-7485	Fax No.: N/A			
12926 Gran Bay Parkway West, Suite 210 Jacksonville, Florida 32258	E-mail Address: jsh		ngineering.com			
Gadingonville, i londa 62266	Date: 10/12/202					
Signature of Requestor (required): Institute Mamberger	10/12/202	<u> </u>				
2. COMMUNITY CONCURRENCE						
As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision (LOMR) or conditional LOMR request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirements for when fill is placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a conditional LOMR, will be obtained. For Conditional LOMR requests, the applicant has documented Endangered Species Act (ESA) compliance to FEMA prior to FEMA's review of the Conditional LOMR application. For LOMR requests, I acknowledge that compliance with Sections 9 and 10 of the ESA has been achieved independently of FEMA's process. For actions authorized, funded, or being carried out by Federal or State agencies, documentation from the agency showing its compliance with Section 7(a)(2) of the ESA will be submitted. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by FEMA, all analyses and documentation used to make this determination.						
Community Official's Name and Title:						
Mailing Address:	Community Name:					
	Daytime Telephone: Fax No.:					
E-mail Address:						
Community Official's Signature (required):		Date:				

3. CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR							
This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information data, hydrologic and hydraulic analysis, and any other supporting information as per NFIP regulations paragraph 65.2(b) and as described in the MT-2 Forms Instructions. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.							
Certifier's Name: Ki Hong Pak, PE, CFM		License No.: 52052	Expiration Date: 2/28/2025				
Company Name: Gemini Engineering & Sciences, Inc		Mailing Address:	2.11.040				
Telephone No.: (904) 217-7485 Fax No.: N/A		12926 Gran Bay Parkway West, S Jacksonville, Florida 32258	Suite 210				
E-mail Address: kpak@geminiengineering.com							
Signature:			Date: 10/12/2023				
Ensure the forms that are appropriate to your revision	request are	e included in your submittal.					
Form Name and (Number)	Required i	<u>f</u>					
	New or rev surface ele	ised discharges or water- vations					
	bridge/culv	modified, addition/revision of erts, addition/revision of wall, addition/revision of dam					
Coastal Analysis Form (Form 4)	New or rev	ised coastal elevations					
Coastal Structures Form (Form 5)	Addition/re	revision of coastal structure					
Alluvial Fan Flooding Form (Form 6) Flood control mea		rol measures on alluvial fans	Seal (Optional)				

DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency

RIVERINE HYDROLOGY & HYDRAULICS FORM (FORM 2)

OMB Control Number: 1660-0016 Expiration: 1/31/2024

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 3.5 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless it displays a valid OMB control number. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (1660-0016). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. Please do not send your completed survey to the above address.

PRIVACY ACT STATEMENT

AUTHORITY: The National Flood Insurance Act of 1968, Public Law 90-448, as amended by the Flood Disaster Protection Act of 1973, Public Law 93-234.

PRINCIPAL PURPOSE(S): This information is being collected for the purpose of determining an applicant's eligibility to request changes to National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM).

ROUTINE USE(S): The information on this form may be disclosed as generally permitted under 5 U.S.C § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA/NFIP/LOMA-1 National Flood Insurance Program (NFIP): Letter of Map Amendment (LOMA) February 15, 2006, 71 FR 7990.

DISCLOSURE: The disclosure of information on this form is voluntary; however, failure to provide the information requested may delay or

prevent	prevent FEMA from processing a determination regarding a requested change to a (NFIP) Flood Insurance Rate Maps (FIRM).						
Flooding	Flooding Source: Local flooding						
Note: F	ill out one form for each flooding s	source studied					
		A. HYDROLOGY	<u>'</u>				
1. Re	eason for New Hydrologic Analysis	check all that apply):					
	Not revised (skip to section B)	No existing analysis	Improved data				
	Alternative methodology		R) Changed physical condi	tion of watershed			
2. Co	omparison of Representative 1%-A	nnual-Chance Discharges					
	Location	Drainage Area (Sq. Mi.)	Effective/FIS (cfs)	Revised (cfs)			
3. Me	ethodology for New Hydrologic An						
⊠ Pr	recipitation/Runoff Model → Spe	ecify Model: ICPR v3.10	Duration: Rain	nfall Amount:			
☐ St	tatistical Analysis of Gage Record	S					
☐ Re	egional Regression Equations	Other (please attach description	on)				
	Please enclose all relevant models in digital format, maps, computations (including computation of parameters), and documentation to support the new analysis.						
4. Re	eview/Approval of Analysis						
	your community requires a regiona oproval/review. 4. HEC-F	al, state, or federal agency to review th RAS File Description**:	e hydrologic analysis, please attac	ch evidence of			
5. lm	pacts of Sediment Transport on H	lydrology					
ls ¹	the hydrology for the revised flood	ding source(s) affected by sediment tra	nsport? Yes X No				
lf y	yes, then fill out Section F (Sedimo	ent Transport) of Form 3. If No, then a	ttach your explanation.				

		B. HYDR	RAULICS			
Reach to be Revised						
	Description	Cross	s Section	Water-Surface	Elevation (ft.)	
				Effective	Proposed/Revised	
Downstream Limit*	Approx. 4500-ft southeast of CR-15A/Green Cove Rd inters	section	N/A	N/A	N/A	
Upstream Limit*	Approx. 3500-ft south of CR-15A/Green Cove Rd inters	section	N/A	N/A	N/A	
*Proposed/Revised elevations	must tie-into the Effec	ctive elevations with	hin 0.5 foot at the	downstream and upstrear	m limits of revision.	
2. <u>Hydraulic Method/Model</u> l	Used: ICPR v3.10	0				
Steady State			nensional [Two-Dimentional		
3. Pre-Submittal Review of I	-					
DHS-FEMA has developed tw models, respectively. We reco						
HEC-RAS File Description	•	w your rico-2 and	THEO-INAC IIIOUC	on with officire and office	LON-IVAO.	
Models Submitted	Natura	d Dun		Floodway Run	Datum	
Duplicate Effective Model*	File Name:	Plan Name:	File Nam		Datum	
Duplicate Effective Model	Tile Name.	i iaii ivaille.	I lie Ivalii	e. Hall Name.		
Corrected Effective Model*	File Name:	Plan Name:	 File Nam	e: Plan Name:		
301100100 211001110 1110001	i iio rrainio.	Tian Name.	T illo Ttalli	o. Harriano.		
Existing or Pre-Project	File Name:	Plan Name:	l File Nam	e: Plan Name:		
Conditions Model	Ayrshire_Ex_NAVD_	Flatt Nattle.	File Maili	e. Flati Natile.		
Revised or Post-Project	2023-08-31				NAVD88	
Conditions Model	File Name:	Plan Name:	File Nam	e: Plan Name:		
	Ayrshire_Post_NAVD_ 2023-10-04				NAVD88	
Other - (attach description)	File Name:	Plan Name:	File Nam	e: Plan Name:		
* For details, refer to the corre **See instructions for informat			. 💢 Digital M	odels Submitted? (Require	ed)	
		C. MAPPING RE		(1	,	
A certified topographic work	r man must be submit			on (whore applicable): the	houndaries of the effective	
existing, and proposed conditi	ons 1%-annual-chanc	e floodplain (for ap	proximate Zone	A revisions) or the bound	laries of the 1%- and 0.2%-	
annual-chance floodplains and with stationing control indicated						
boundaries of the requester's	s property; certification	n of a registered	professional en			
description of reference marks		ertical datum (NGV Mapping (GIS/CAI		ted (preferred)		
<u>Topographic Information:</u>	Z. Digital	mapping (Gierer a	35) Bata Gabiiii	, , I		
Source: Clay County, FL				Date: 2018		
Vertical Datum: NAVD88			Spatial Projection	n: NAD_1983_HARN_StatePlan	ne_Florida_East_FIPS_0901_Feet	
Accuracy: Meets FEMA G&S	requirements					
Note that the boundaries of the						
FBFM must tie-in with the effect at the same scale as the original contents.						
floodway that tie-in with the boundaries of the effective 1%-and 0.2%-annual-chance floodplain and regulatory floodway at the upstream and						

downstream limits of the area on revision.

	D. COMMON REGULATORY REQUIREMENTS*			
1.	For LOMR/CLOMR requests, do Base Flood Elevations (BFEs) or Special Flood Hazard Areas (SFHAs) increase compared to the effective BFEs?		☐ No	
	If Yes, please attach proof of property owner notification . Examples of property owner notifications can be for the MT-2 Form 2 Instructions. N/A	ound in		
2.	For CLOMR requests, if either of the following is true, please submit evidence of compliance with Section 65.12 of NFIP regulations :	of the		
	 The proposed project encroaches upon a regulatory floodway and would result in increases above 0.00 foot compared to pre-project conditions. 			
	 The proposed project encroaches upon a SFHA with or without BFEs established and would result in increasabove 1.00 foot compared to pre-project conditions. 	ses		
3.	Does the request involve the placement or proposed placement of fill?	× Yes	☐ No	
	If Yes, the community must be able to certify that the area to be removed from the special flood hazard area, structures or proposed structures, meets all of the standards of the local floodplain ordinances, and is reason flooding in accordance with the NFIP regulations set forth at 44 CFR 60.3(A)(3), 65.5(a)(4), and 65.6(a)(14). Pleas instructions for more information.	nably safe	from	
4.	Does the request involve the placement or proposed placement of fill?	Yes	× No	
	If Yes, attach evidence of regulatory floodway revision notification . As per Paragraph 65.7(b)(1) of the NF notification is required for requests involving revisions to the regulatory floodway Elements and examples of regulatory notification can be found in the MT-2 Form 2 Instructions.			
5.	For CLOMR requests, please submit documentation to FEMA and the community to show that you have complied w and 10 of the Endangered Species Act (ESA). For actions authorized, funded, or being carried out by Federal or Sta please submit documentation from the agency showing its compliance with Section 7(a)(2) of the ESA. Please see the instructions for more detail. Endangered Species Act Compliance included with submittal.	te agencies		

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

RIVERINE STRUCTURES FORM (FORM 3)

PAPERWORK BURDEN DISCLOSURE NOTICE

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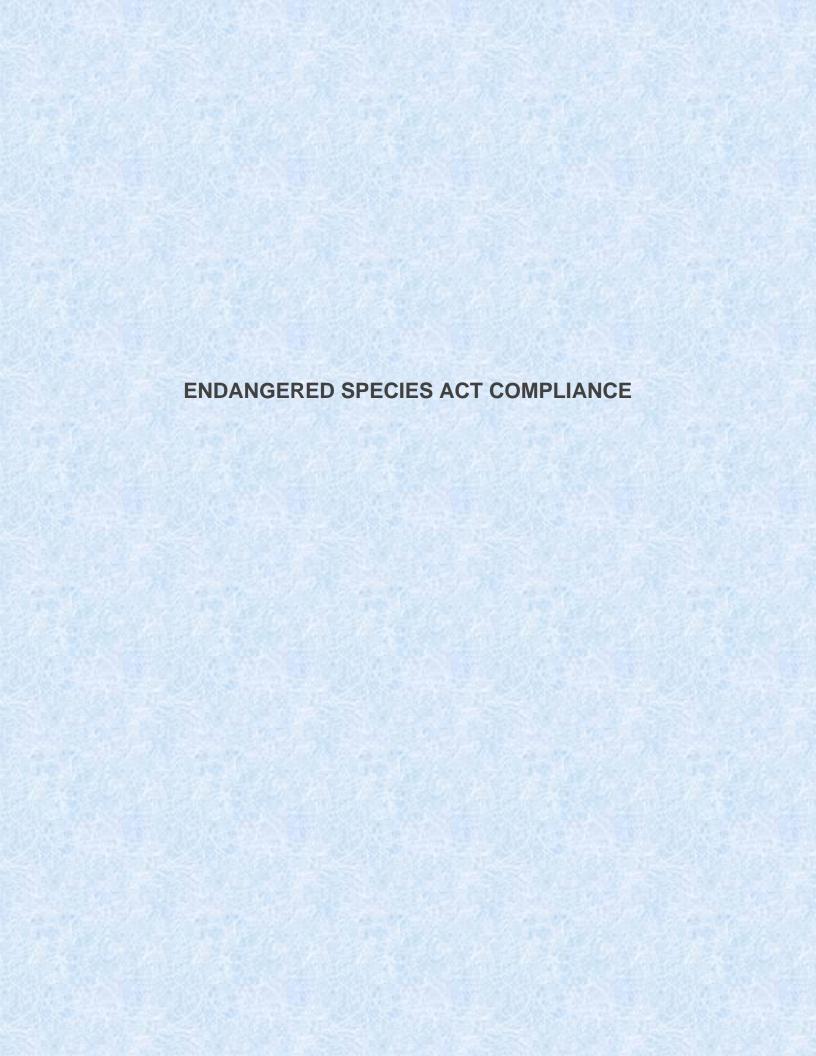
Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (1660-0016). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. Please do not send your completed survey to the above address. **PRIVACY ACT STATEMENT** AUTHORITY: The National Flood Insurance Act of 1968, Public Law 90-448, as amended by the Flood Disaster Protection Act of 1973, Public PRINCIPAL PURPOSE(S): This information is being collected for the purpose of determining an applicant's eligibility to request changes to National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM). ROUTINE USE(S): The information on this form may be disclosed as generally permitted under 5 U.S.C § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA/NFIP/LOMA-1 National Flood Insurance Program (NFIP); Letter of Map Amendment (LOMA) February 15, 2006, 71 FR 7990. DISCLOSURE: The disclosure of information on this form is voluntary; however, failure to provide the information requested may delay or prevent FEMA from processing a determination regarding a requested change to a (NFIP) Flood Insurance Rate Maps (FIRM). Flooding Source: Local flooding **Note:** Fill out one form for each flooding source studied A. GENERAL Complete the appropriate section(s) for each Structure listed below: Channelization: complete Section B Bridge/Culvert: complete Section C Dam: complete Section D Levee/Floodwall: complete Section E Sediment Transport: complete Section F (if required) **Description Of Modeled Structure** 1. Name of Structure: ICPR Pipe P067_POST Type (check one): Channelization X Bridge/Culvert Levee/Floodwall ☐ Dam Location of Structure: ICPR Pipe P067_POST Downstream Limit/Cross Section: Node N069A Upstream Limit/Cross Section: Node N067 2. Name of Structure: ICPR Pipe-S Type (check one): Channelization Dam Location of Structure: ICPR Pipe-S Downstream Limit/Cross Section: Node N072A-1 Upstream Limit/Cross Section: Node N072 3. Name of Structure: Type (check one): Channelization Bridge/Culvert Levee/Floodwall Dam Location of Structure: Downstream Limit/Cross Section: Upstream Limit/Cross Section: NOTE: FOR MORE STRUCTURES, ATTACH ADDITIONAL PAGES AS NEEDED.

OMB Control Number: 1660-0016

Expiration: 1/31/2024

	B. CHANNELIZATION					
Floodir	ng Cource:					
Name	of Structure:					
1.	Hydraulic Considerations					
	The channel was designated to carry (cfs) and/or the year flood					
	The design elevation in the channel is based on (check one):					
	Subcritical flow Critical flow Supercritical flow Energy grade line					
	If there is the potential for a hydraulic jump at the following locations, check all that apply and attach an explanation of how the hydraulic jump is controlled without affecting the stability of the channel.					
	☐ Inlet to channel ☐ Outlet to channel ☐ At Drop Structures ☐ At Transitions					
	Other locations (specify):					
2.	Channel Design Plans					
	Attach the plans of the channelization certified by a registered professional engineer, as described in the instructions.					
3.	Accessory Structures					
	The channelization includes (check one):					
	☐ Levees [Attach Section E (Levee/Floodwall)] ☐ Drop structures ☐ Superelevated sections ☐ Energy dissipater					
	Transitions in cross sectional geometry Debris basin/detention basin [Attach Section D (Dam/Basin)] Weir					
	Other (Describe).					
4.	Sediment Transport Considerations					
	Are the hydraulics of the channel affected by sediment transport? Yes No					
	If yes, then fill out Section F (Sediment Transport) of Form 3. If No, then attach your explanation for why sediment transport was					
	not considered.					
	C. BRIDGE/CULVERT					
Floodir	ng Source: Local flooding					
Name	of Structure: ICPR Pipe P067 POST					
1.	This revision reflects (check one):					
	Bridge/Culvert not modeled in the FIS					
	Modified Bridge/Culvert previously modeled in the FIS					
	Revised analysis of Bridge/Culvert previously modeled in the FIS					
2.	Hydraulic model used to analyze the structure (e.g., HEC-2 with special bridge routine, WSPRO, HY8): ICPR v3.10					
	If different than hydraulic analysis for the flooding source, justify why the hydraulic analysis used for the flooding source could not analyze the structures. Attach justification.					
3.	Attach plans of the structures certified by a registered professional engineer. The plan detail and information should include the					
0.	following (check the information that has been provided):					
	∑ Dimensions (height, width, span, radius, length) ☐ Distance between Cross Sections					
	✓ Material					
	Beveling and Rounding Top of Road Elevations - Upstream and Downstream Structure Invert Floridations - Upstream and Downstream					
	Wink Wall Angle✓ Structure Invert Elevations - Upstream and Downstream✓ Stream Invert Elevations - Upstream and Downstream					
	Cross-Section Locations					
4.	Sediment Transport Considerations					
	Are the hydraulics of the channel affected by sediment transport? Yes No					
	If yes, then fill out Section F (Sediment Transport) of Form 3. If No, then attach your explanation for why					
	sediment transport was not considered.					

	B. CHANNELIZATION					
Floodir	ig Cource:					
Name	of Structure:					
1.	Hydraulic Considerations					
	The channel was designated to carry (cfs) and/or the year flood					
	The design elevation in the channel is based on (check one):					
	Subcritical flow Critical flow Supercritical flow Energy grade-line					
	If there is the potential for a hydraulic jump at the following locations, check all that apply and attach an explanation of how the hydraulic jump is controlled without affecting the stability of the channel.					
	☐ Inlet to channel ☐ Outlet to channel ☐ At Drop Structures ☐ At Transitions					
	Other locations (specify):					
2.	Channel Design Plans					
	Attach the plans of the channelization certified by a registered professional engineer, as described in the instructions.					
3.	Accessory Structures					
	The channelization includes (check one):					
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	Transitions in cross sectional geometry Debris basin/detention basin [Attach Section D (Dam/Basin)] Weir					
	Other (Describe).					
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	✓ Material					
	Beveling and Rounding Top of Road Elevations - Upstream and Downstream Wink Well Angle					
	Wink Wall Angle✓ Structure Invert Elevations - Upstream and Downstream✓ Stream Invert Elevations - Upstream and Downstream					
	Cross-Section Locations					
4.	Sediment Transport Considerations					
	Are the hydraulics of the channel affected by sediment transport? Yes No					
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	sediment transport was not considered.					





United States Department of the Interior

FISH AND WILDLIFE SERVICE North Florida Ecological Services Field Office 7915 Baymeadows Way, Suite 200 Jacksonville, FL 32256



June 20, 2018

To streamline the regulatory process for Federal Emergency Management Agency's (FEMA) Conditional Letter of Map Change (CLOMC), Conditional Letter of Map Revision (CLOMR) or Conditional Letter of Map Revision Based on Fill (CLOM-F) application, the United States Fish and Wildlife Service (Service) is providing a clearance checklist to document the compliance decision with the Endangered Species Act (ESA).

As of July 2018, the North Florida Ecological Services Field Office will no longer provide signed stickers, letters, or individual project reviews for FEMAs CLOMC, CLOMR, or CLOMR-F that meet one of the listed criteria. The checklist is based on the Service's ESA regulations and FEMA Guidance for Flood Risk Analysis and Mapping Documentation of Endangered Species Act Compliance for Conditional Letters of Map Change, May 2016.

Applicants should attach this checklist to the supporting species report, biological assessment, or federal ESA compliance documentation. Selecting the appropriate checkbox certifies compliance with ESA for CLOMC, CLOMR, or CLOMR-F applications and no further consultation is required from the Service.

ESA COMPLIANCE FOR NON-FEDERAL PROJECTS:

No potential for "Take" exists (meaning that the project has no potential to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) to threatened and endangered species. The supporting biological assessment or report may include minimization measures that the applicant proposes to implement to ensure that potential for "Take" has been reduced to insignificant or discountable.

ESA COMPLIANCE with a FEDERAL ACTION AGENCY:

A "No Effect" determination was made by the federal ag Section 7 consultation process. Please see attached determina exists (meaning that the project has no potential to harass, has collect, or to attempt to engage in any such conduct) to threat	tion report documenting that no potential for "Take" rm, pursue, hunt, shoot, wound, kill, trap, capture, or
☐ The project has received a permit from a federal agency, compliance was conducted through the action agency's Section documented through the issuance of the federal permit and if concurrence letter.	on 7 consultation process. ESA compliance can be

By selecting one of the above determinations and providing the supporting documentation to FEMA, the finding fulfills the requirements of the ESA. For projects that do not meet the checklist criteria, please coordinate with the Service and submit a technical assistance request.

Sincerely,

Field Supervisor



42 Masters Drive St. Augustine, FL 32084
Tel: 904.540.1786
www.carterenv.com

May 17, 2022

U.S. Fish and Wildlife Service, North Florida Field Office 7915 Baymeadows Way, Suite 200 Jacksonville, Florida 32256

Subject: Endangered Species Act Compliance Requirement FEMA Conditional Letter of Map Revision D.R. Horton – The Rookery, Clay County, Florida

To Whom It May Concern:

D.R. Horton (aka permit applicant) requested that Carter Environmental Services (CES) provide information on Endangered Species review for a project referred to as The Rookery (formerly known as Ayrshire). A No Permit Required letter has already been obtained from the Florida Department of Environmental Protection (DEP), with an environmental resource permit for the project currently pending from the St. Johns River Water Management District (SJRWMD).

The +/- 597.41-acre proposed development is located in Clay County (Figure 1). It is generally bound to the north by vacant, wooded municipal land and agricultural (dairy/cattle) property; to the west by County Road 15A, followed by timberland, residential single-family/mobile home properties, and vacant residential land; to the east by railroad tracks followed by pastureland, light manufacturing facilities, and a cement processing facility; and to the south by timberland and wooded wetlands.

The existing site conditions (Florida Land Use, Cover and Forms Classification System – FLUCFCS) map is shown on Figure 3. The pre-development project site contains +/- 212.31 acres of unimproved pasture (FLUCFCS 212), +/- 38.72 acres of dairy property (FLUCFCS 252), +/- 78.42 acres of hardwood-conifer mixed uplands (FLUCFCS 434), +/- 144.61 acres of pine plantation (FLUCFCS 441), +/- 26.16 acres of mixed-forest wetlands (FLUCFCS 630), and +/- 97.19 acres of manmade, semi-inundated borrow areas/ponds (FLUCFCS 742). The site contains FEMA Flood Zones A and X (Figure 5).

Currently, the applicant of The Rookery project is requesting an Endangered Species Act (ESA) Compliance Report addressing the project area. CES conducted more than a dozen site visits (for wetland delineation, agency verifications, tree inventories, rookery surveys, etc.) from July 2020 through March 2022, which included limited pedestrian surveys of the proposed project area to assess the presence of or potential utilization by any threatened, endangered, or species of special concern (SSC) as listed by the USFWS and the Florida Fish and Wildlife Conservation Commission (FWC). Prior to the site visits, CES compiled a list of potentially occurring species. The resources used to compile this list included a literature review of the soil units mapped on-site (Figure 2) and both recent and historic aerial photographs of the property (Figures 7, 8, 9, and 10).



While onsite, CES observed or found evidence of the following species:

- white-tailed deer (*Odocoileus virginianus*)
- anhinga (*Anhinga anhinga*)
- white ibis (*Eudocimus albus*)
- cattle egret (Bubulcus ibis)
- snowy egret (*Egretta thula*)
- tricolored heron (*Egretta tricolor*)
- little blue heron (*Egretta caerulea*)
- great egret (*Ardea alba*)
- green heron (*Butorides virescens*)
- common raccoon (*Procyon lotor*)
- Virginia opossum (*Didelphis virginiana*)

On the following page is a table of Federally Listed Species as relates to the project area, followed by summary descriptions addressing each.



Federally Listed Species in Clay County, Florida

Category	Species Common Name	Species Scientific Name	Code
Mammals	West Indian (Florida) Manatee	Trichechus manatus latirostris	E/CH
	Eastern Black Rail	Laterallus jamaicensis ssp. jamaicensis	Т
	Wood Stork	Mycteria americana	T
Birds	Red-cockaded Woodpecker	Picoides borealis	Е
	Florida Scrub-jay	Aphelocoma coerulescens	Т
Fish	None	-	-
	Eastern Indigo Snake	Dymarchon corais couperi	Т
	Gopher Tortoise	Gopherus polyphemus	С
	Green Sea Turtle	<u>Chelonia mydas</u>	E
Reptiles	Hawksbill Sea Turtle	Eretmochelys imbricata	Е
	Leatherback Sea Turtle	Dermochelys coriacea	Е
	Suwanee Alligator Snapping Turtle	Macrochelys suwanniensis	T (Proposed)
	Loggerhead Sea Turtle	<u>Caretta caretta</u>	T
Amphibians	Frosted Salamander	Ambystoma cingulatum	T
Mollusks	None	-	-
Crustaceans	None	-	-
Plants	Chapman Rhododendron	Rhododendron chapmanii	Е
	Etonia Rosemary	Conradina etonia	Е

Source: https://ipac.ecosphere.fws.gov/location/Q4HASDSQNNCJRFEO6QLJEAW7KI/resources

Candidate species receive no statutory protection under the endangered species act. The FWS encourages cooperative conservation efforts for these species because they are, by definition, species that may warrant future protection under the endangered species act.

E = Endangered, T = Threatened, CH = Critical Habitat Designated, C = Candidate



Mammals

• West Indian (Florida) Manatee (*Trichechus manatus latirostris*) – There is no habitat to support manatees within the study area. Development of the project should have no effect on the manatee.

Birds

- Eastern Black Rail (*Laterallus jamaicensis* ssp. *Jamaicensis*) Eastern black rails nest in marshes and wet meadows, including coastal prairies, salt marshes, and impounded wetlands, always in areas with stable, very shallow water (usually one inch or less in depth). On the Atlantic coast, these birds nest in the higher portions of marshes where tidal activity is minimal. The site offers poor eastern black rail habitat, as these birds typically prefer brackish and salt marshes, with 90 percent of the population historically residing in coastal habitats. They can also sometimes be found in dense freshwater cattail stands, a small amount of which are present. However, a deep, historic cattle settling pond on the south-central portion of the site is the only marsh present in the project area, and very few cattails exist there growing only in a thin fringe around the pond. The remaining vegetation is too thick for movement of these birds due to being dominated by invasive Cuban bulrush (*Cyperus blepharoleptos*). Development of the project should have no effect on the eastern black rail.
- Wood Stork (*Mycteria Americana*) These birds nest in mixed hardwood swamps, sloughs, mangroves, and cypress domes/strands in Florida. They typically forage in both saltwater and freshwater environments that are shallow and ephemeral in nature. They are commonly seen foraging in road-side ditches, and could potentially utilize this property for foraging. However, CES did not note the presence of wood storks onsite. The site offers low-quality foraging habitat for the tactile feeding strategy utilized by the wood stork. Also, the rookery islands within the site settling pond are small, containing low vegetation consisting primarily of Carolina willow, elderberry, and buttonbush. The structure and rigidness of these plants are sufficient for use by smaller wading birds, but will not support the weight of heavier birds such as great blue herons, great egrets, or wood storks. Additionally, the nearest wood stork rookery identified by USFWS is on the D-Dot ranch near Ponte Vedra and the project area is outside the colony's core foraging area. Development of the project should have no effect on the wood stork.
- Red-cockaded Woodpecker (*Picoides borealis*) This species prefers mature, 90–100-year-old longleaf pine forests, but may also inhabit pond pine, pitch pine, and Virginia pine ecosystems from North Carolina south to Florida. In Florida, the woodpecker may be found living in longleaf, slash, and loblolly pines. The proposed project area does not contain habitat suitable for the red-cockaded woodpecker as it lacks old-growth, upland pine forests (see Figure 3 and Figures 7-9, which depict the lack of consistent, historical upland forest on the site, and heavy site disturbance over time). Development of the project should have no effect on the red-cockaded woodpecker.
- Florida Scrub Jay (*Aphelocoma coeruluscens*) Florida scrub jays are found in low-growing oak scrub and scrubby flatwoods with sandy soils in Florida. The study area does not contain suitable habitat. Development of the project should have no effect on the Florida scrub jay.



Reptiles

- Eastern Indigo Snake (*Dymarchon corais couperi*) This species inhabits pine flatwoods, hardwood forests, moist hammocks, and areas that surround cypress swamps. It often occupies gopher tortoise burrows for refugia and thermoregulation. CES did not locate gopher tortoises onsite, however. Development of the project should have no effect on the eastern indigo snake.
- Gopher Tortoise (*Gopherus polyphemus*) These tortoises, which are not federally listed but are statelisted in Florida and candidate species for federal listing, typically occupy well-drained upland forests, pastures, and yards. They dig burrows for shelter and forage on low-growing plants. Soils mapped on portions of the site offer suitable gopher tortoise habitat, but no tortoises or burrows were observed within the subject parcel during any site visits. Development of the project should have no effect on the gopher tortoise.
- Green Sea Turtle (*Chelonia mydas*) This is a marine-dwelling species. There is no suitable habitat located within the study area. The proposed project should have no effect on the green sea turtle.
- Hawksbill Sea Turtle (*Eretmochelys imbricate*) This is a marine-dwelling species. There is no suitable habitat located within the study area. The proposed project should have no effect on the hawksbill sea turtle.
- Leatherback Sea Turtle (*Dermochelys coriacea*) This is a marine-dwelling species. There is no suitable habitat located within the study area. The proposed project should have no effect on the leatherback sea turtle.
- Loggerhead Sea Turtle (*Caretta caretta*) This is a marine-dwelling species. There is no suitable habitat located within the study area. The proposed project should have no effect on the loggerhead sea turtle.

Amphibians

• Frosted Salamander (*Ambystoma cingulatum*) – The frosted flatwoods salamander inhabits slash pine and longleaf pine flatwoods possessing a wiregrass floor and scattered wetlands (Florida Natural Areas Inventory, 2001). The current distribution of this species does not include Clay County, nor the project area, based on current data provided by the Florida Fish and Wildlife Conservation Commission (https://myfwc.com/wildlifehabitats/profiles/amphibians/frosted-flatwoods-salamander/). Development of the project should have no effect on the frosted salamander.

Mollusks

There are no federally listed mollusks within Clay County.



Crustaceans

• There are no federally listed crustaceans within Clay County.

Plants

- Chapman Rhododendron (*Rhododendron chapmanii*) This shrub/small tree is the only native evergreen rhododendron in the state of Florida. It occurs in mesic flatwoods, scrubby flatwoods, seep slopes, and ecotones between flatwoods and the edges of titi swamps. No suitable habitat exists on the site, and the natural range of the species only exists in the Florida panhandle, more than one hundred miles west of the project area. The proposed project should have no effect on Chapman rhododendron.
- Etonia Rosemary (*Conradina etonia*) Etonia rosemary is found in deep, white-sand scrub dominated by sand pine and shrubby oaks. According to DEP, the only occurrences of this endangered shrub are currently found in Putnam County, Florida, and no suitable habitat exists on the site. The proposed project should have no effect on etonia rosemary.

ADDITIONAL PROTECTED ANIMAL SPECIES

• **Bald Eagle** (*Haliaeetus leucocephalus*)

Using the FWC Eagle Nest Locator Database (2022), CES found eleven (11) bald eagle nests on record within a 5.0-mile radius of the property boundaries (Figure 6). The closest eagle nest (CL009) is located approximately 0.39 miles (2,059 feet) south of the project boundary, and it was last known active in 1990. No nests were located in the project area by CES biologists. While the bald eagle is not listed as threatened, endangered or a species of special concern, it is protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Based on these acts, certain activities are regulated by FWS when they occur near an active nest during nesting season (1 October to 15 May). Due to the distance of known potentially active nests, development of the project should have no effect on the bald eagle.

• Florida Sandhill Crane (Grus canadensis pratensis)

These state-listed birds prefer to nest on the ground in open freshwater marshes, usually within prairies – habitat that does not exist at the site. The only marsh onsite is within a historical cattle settling pond that has a deep, mucky bottom and is dominated by invasive Cuban bulrush. No Florida sandhill cranes were observed at the site, and development of the project should have no effect on the species.



Other State-Listed Birds

Two state-listed wading birds – tricolored heron (*Egretta tricolor*) and little blue heron (*Egretta caerulea*) – were observed on small islands within the site's large borrow/cattle settling pond, along with several unlisted wading bird species. Although no direct dredge/fill impacts are proposed to this pond (Figure 4), CES is obtaining an incidental take permit for affects to these species.

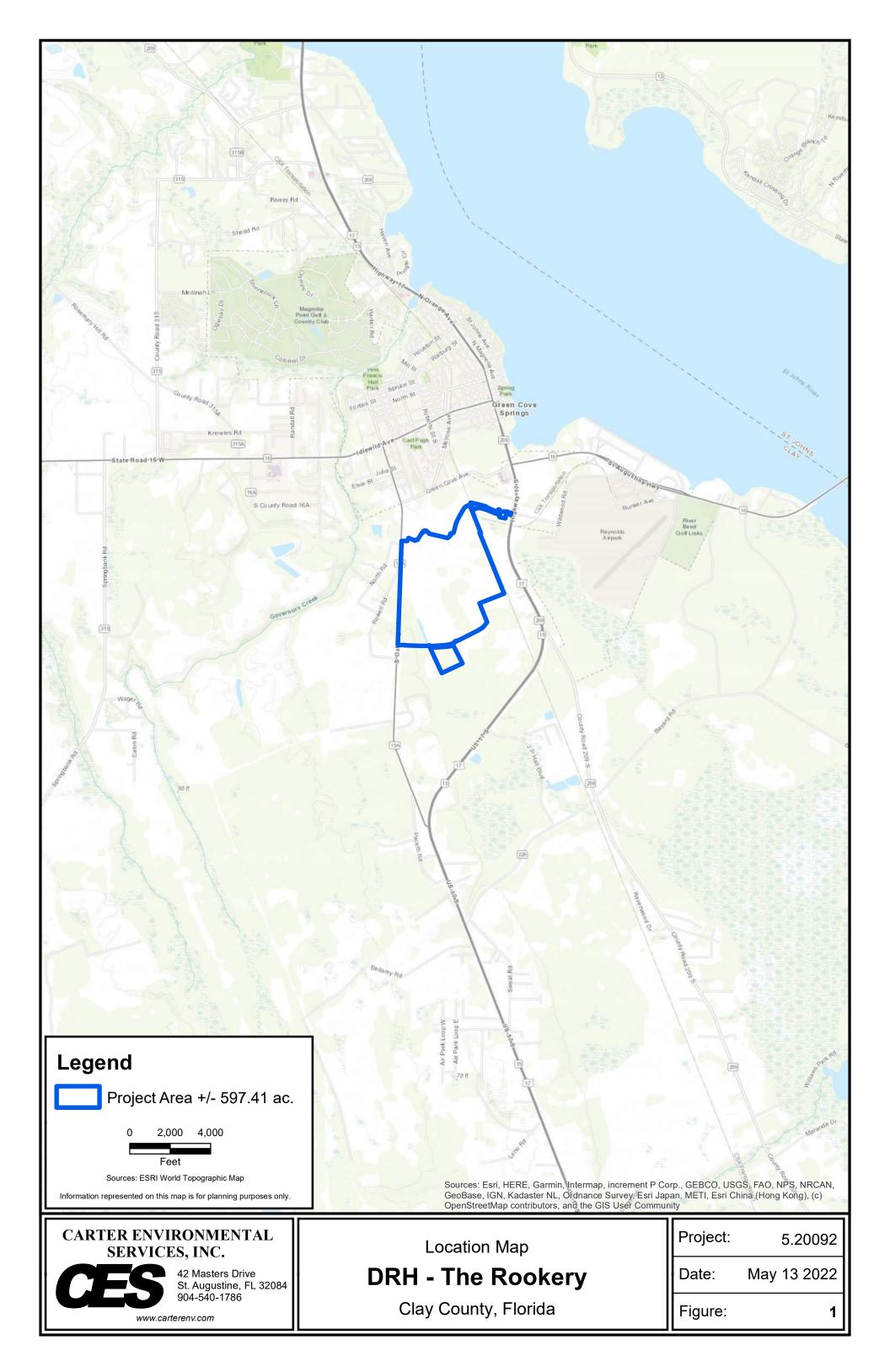
In summary, CES found no evidence of any Federally listed species onsite during our initial site visits and subsequent site visits with the SJRWMD and DEP. Two state-listed species – tricolored heron and little blue heron – were observed on the site, but CES is obtaining an incidental take permit for potential affects to these species. CES believes that the proposed project should have no effects on any onsite or offsite Federally listed species.

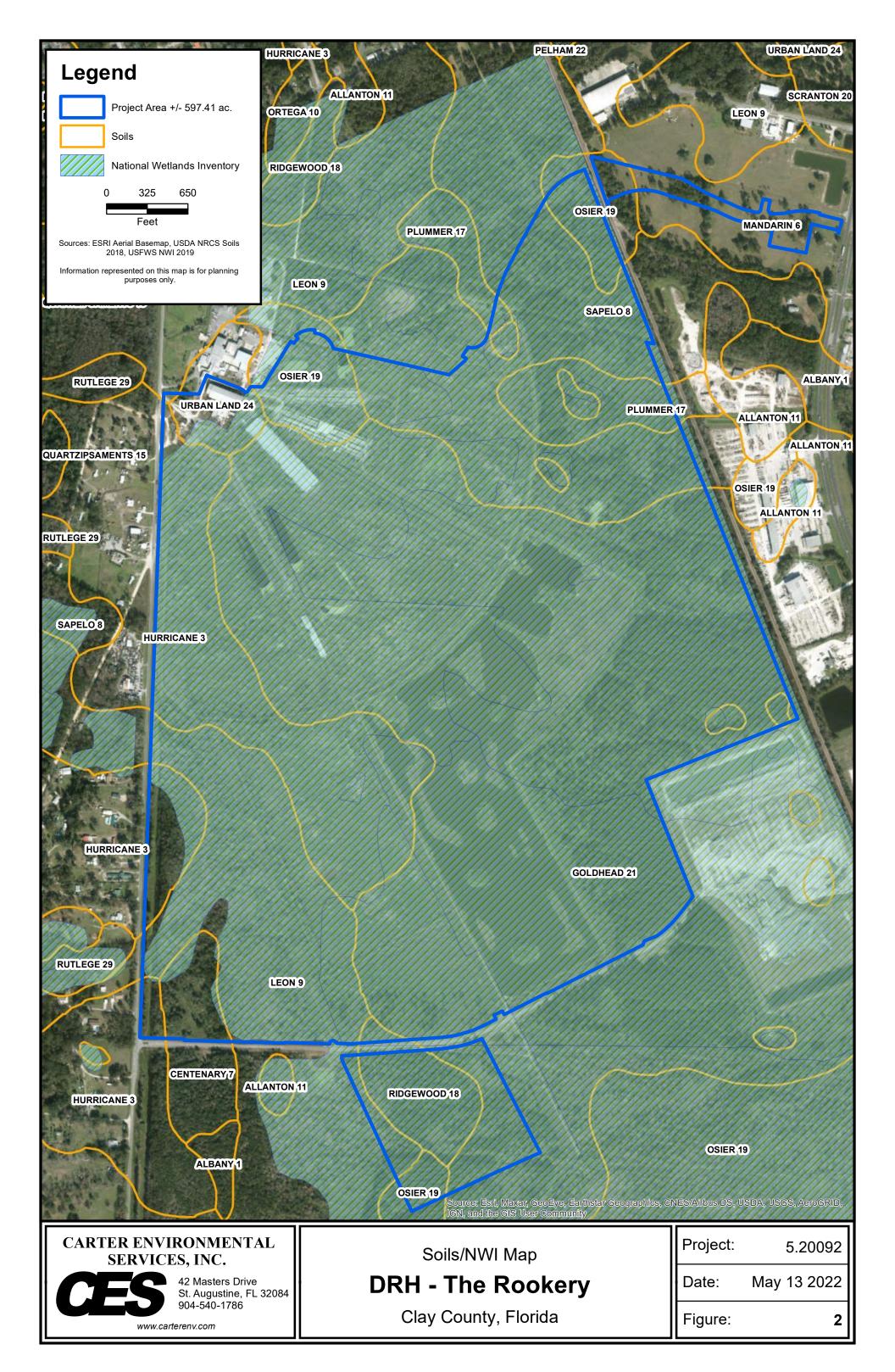
Sincerely,

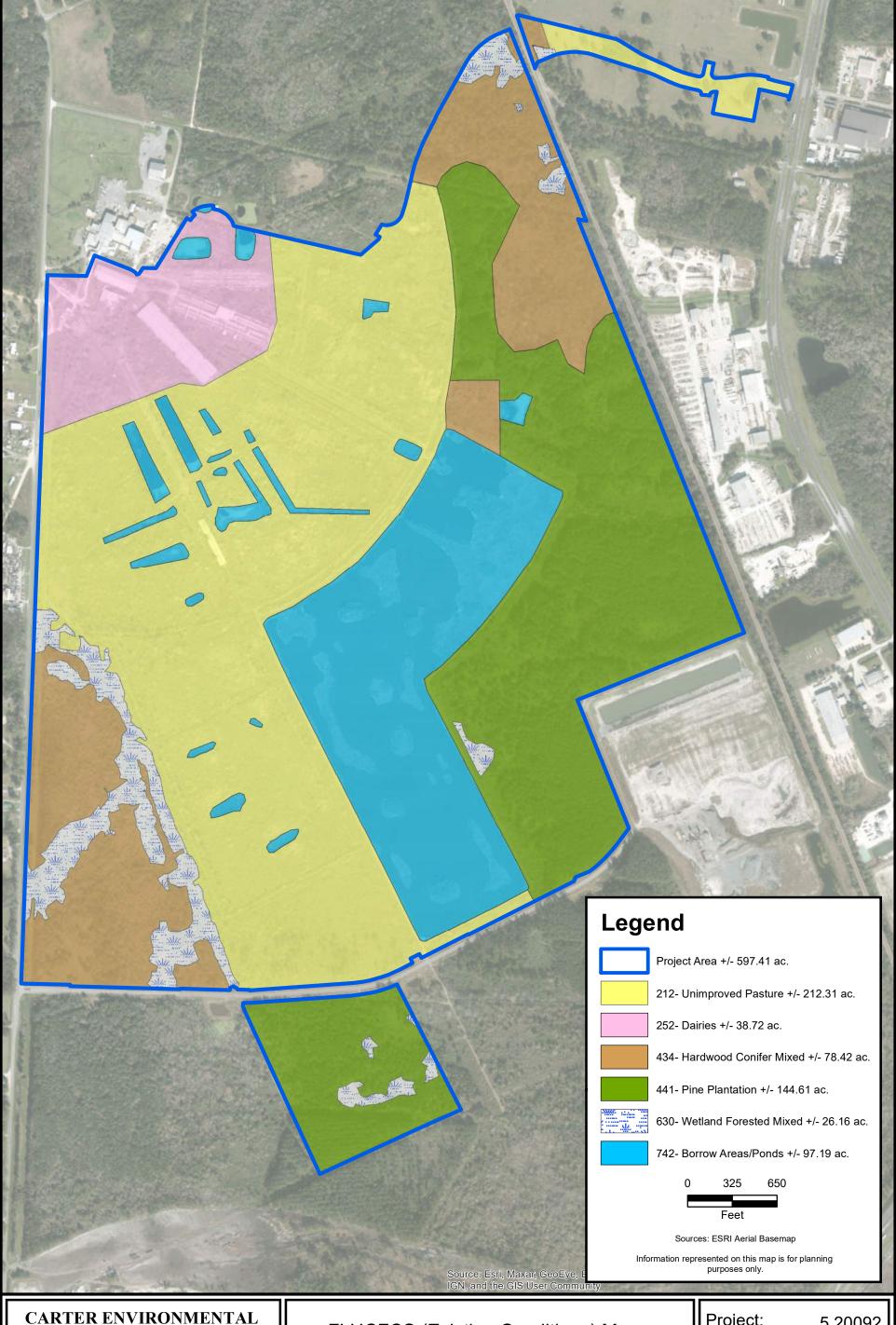
Ryan A. Carter, PWS

Vice President

Attachment #	Attachment Type	
1	Location Map	
2	Soils/NWI Map	
3	3 Existing Site Conditions (FLUCFCS) Map	
4	Proposed Site Conditions Map	
5	FEMA Flood Zone Map	
6	Protected Species Map	
7	1953 Black & White Aerial	
8	1970 Black & White Aerial	
9	1984 Infrared Aerial	
10	Current Color Aerial	
11	FNAI Biodiversity Matrix	







CARTER ENVIRONMENTAL SERVICES, INC.



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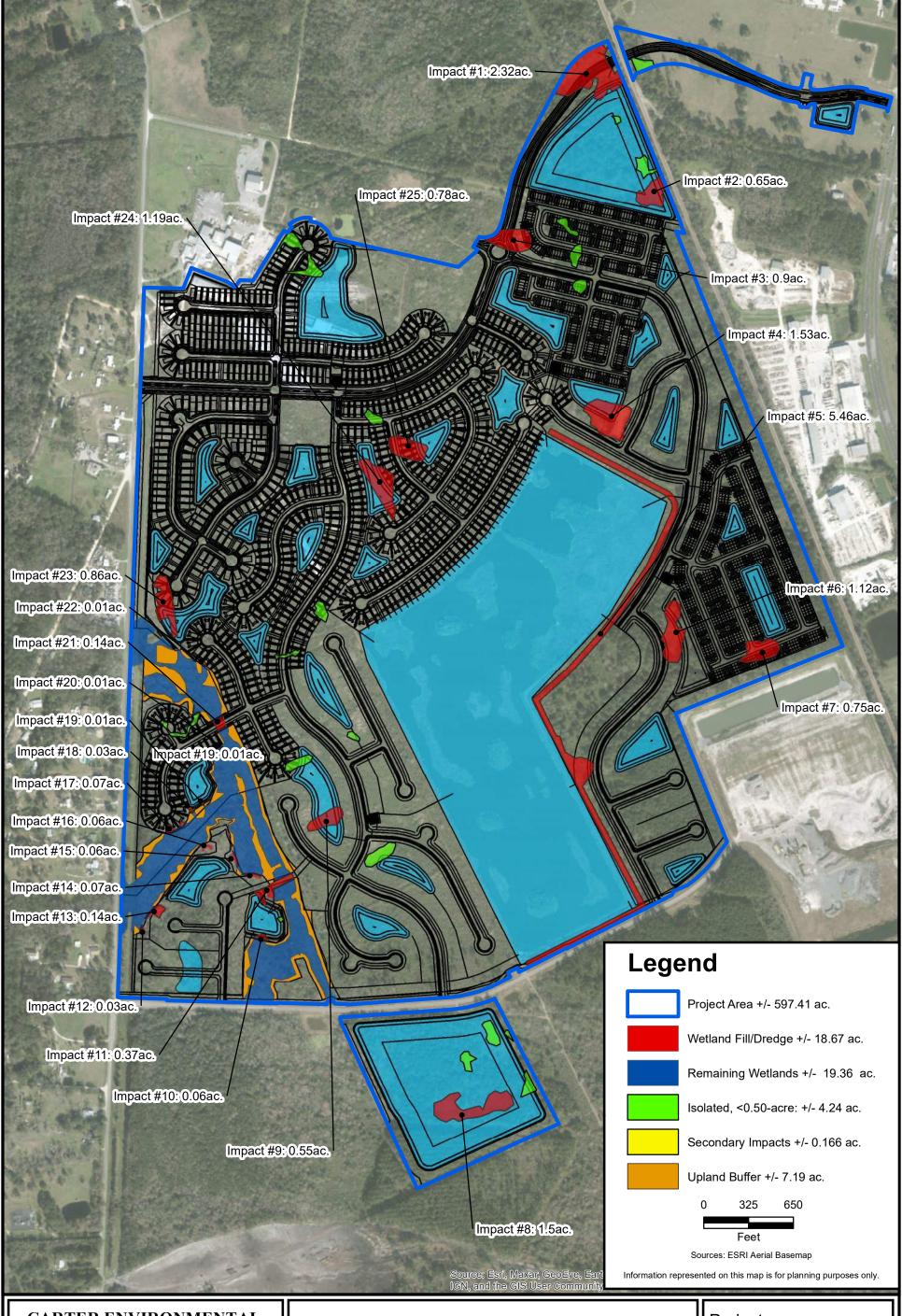
FLUCFCS (Existing Conditions) Map

DRH - The Rookery

Clay County, Florida

Project: 5.20092

Date: May 13 2022



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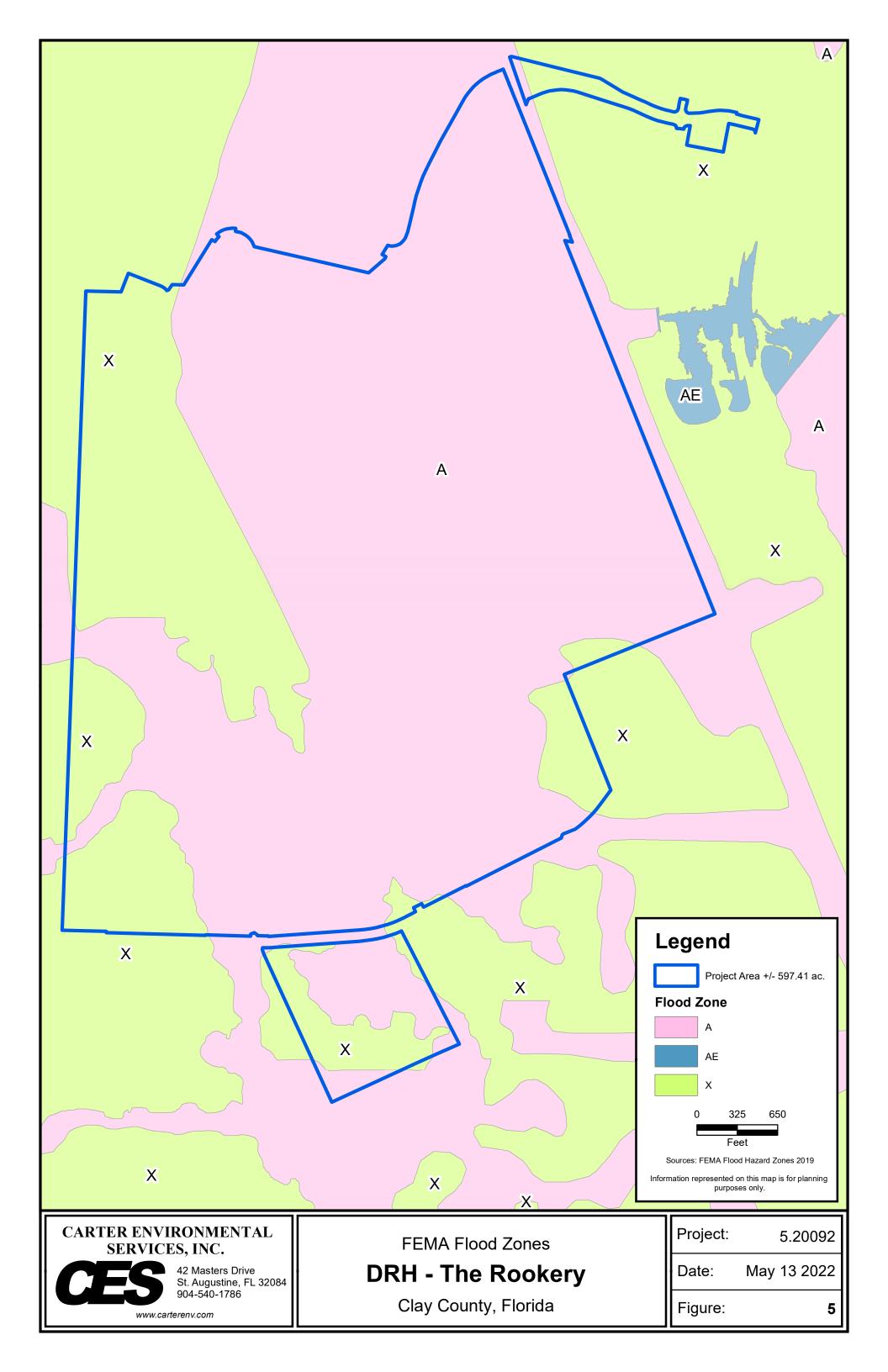
Proposed Site Plan

DRH - The Rookery

Clay County, Florida

Project: 5.20092

Date: May 03 2022







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DRH - The Rookery

Clay County, Florida

Date: May 17 2022



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1953 Aerial

DRH - The Rookery

Clay County, Florida

Project: 5.20092

Date: May 13 2022



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DRH - The Rookery

Clay County, Florida

May 13 2022 Date:



SERVICES, INC.



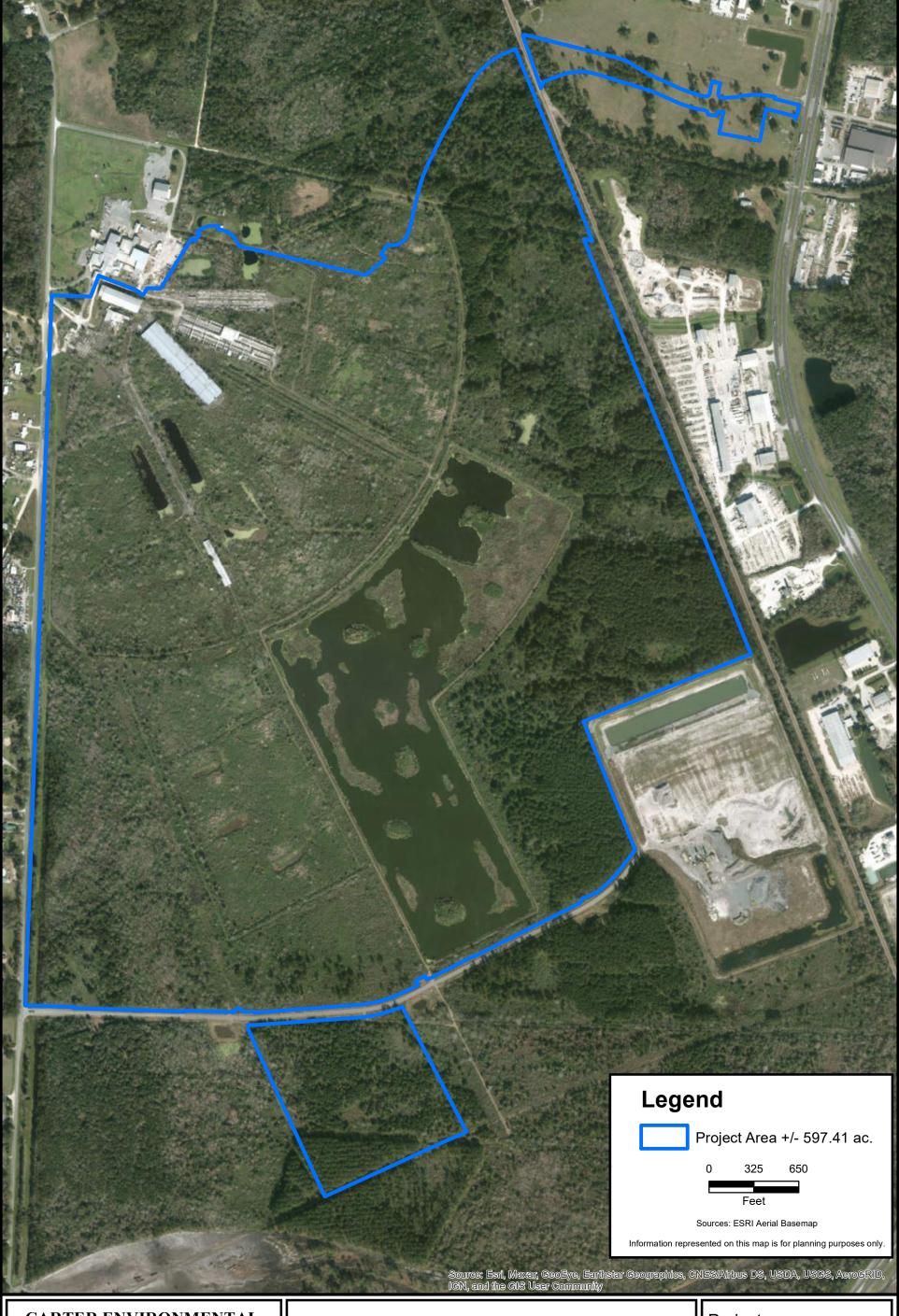
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DRH - The Rookery

Clay County, Florida

May 13 2022 Date:



CARTER ENVIRONMENTAL SERVICES, INC.

CES

42 Masters Drive St. Augustine, FL 32084 904-540-1786

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Current Color Aerial

DRH - The Rookery

Clay County, Florida

Project: 5.20092

Date: May 13 2022



Florida Natural Areas Inventory **Biodiversity Matrix Query Results** UNOFFICIAL REPORT

(Contact the FNAI Data Services Coordinator at 850.224.8207 or kbrinegar@fnai.fsu.edu

for information on an official Standard Data Report)

NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 4 Matrix Units: 39329, 39330, 39695, 39696



Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

The species or community is known to occur in this vicinity, and is considered likely within this Matrix Unit because

- documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; or
- 2. there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 39329

0 Documented Elements Found

0 Documented-Historic Elements Found

3 Likely Elements Found

5 Einery Elements round				
Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Balduina atropurpurea Purple Honeycomb-head	G2	S1	N	E
Mesic flatwoods	G4	S4	N	N
<u>Ursus americanus floridanus</u> Florida Black Bear	G5T2	S2	N	N

Matrix Unit ID: 39330 0 Documented Elements Found

0 Documented-Historic Elements Found

3 Likely Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<u>Balduina atropurpurea</u> Purple Honeycomb-head	G2	S1	N	E
Mesic flatwoods	G4	S4	N	N
<u>Ursus americanus floridanus</u> Florida Black Bear	G5T2	S2	N	N

Matrix Unit ID: 39695

0 Documented Elements Found

0 Documented-Historic Elements Found

2 Likely Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Mesic flatwoods	G4	S4	N	N
<u>Ursus americanus floridanus</u> Florida Black Bear	G5T2	S2	N	N

Matrix Unit ID: 39696

0 Documented Elements Found

0 Documented-Historic Elements Found

2 Likely Flements Found

- 1	Edition Found				
	Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
	<u>Trichechus manatus</u> West Indian Manatee	G2	S2	LE	FE
	<u>Ursus americanus floridanus</u> Florida Black Bear	G5T2	S2	N	N

Matrix Unit IDs: 39329 , 39330 , 39695 , 39696 38 Potential Elements Common to Any of the 4 Matrix Units

38 Potential Elements Common to Any of the 4 Matrix Units Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Agrimonia incisa	G3	S2	N	T
Incised Groove-bur Arnoglossum diversifolium	G2	S2	N	т
Variable-leaved Indian-plantain Asclepias viridula				
Southern Milkweed Asplenium heteroresiliens	G2	S2	N	Т
Wagner's Spleenwort	GNA	S1	N	N
Balduina atropurpurea Purple Honeycomb-head	G2	S1	N	E
Baptisia calycosa var. calycosa Canby's Wild Indigo	G3T1	S1	N	Е
Calopogon multiflorus Many-flowered Grass-pink	G2G3	S2S3	N	Т
Calydorea coelestina Bartram's Ixia	G2G3	S2S3	N	Е
Carex chapmanii Chapman's Sedge	G3	S3	N	т
Corynorhinus rafinesquii	G3G4	S2	N	N
Rafinesque's Big-eared Bat Ctenium floridanum	G2	S2	N	E
Florida Toothache Grass Drymarchon couperi				
Eastern Indigo Snake Gopherus polyphemus	G3	S3	LT	FT
Gopher Tortoise Grus canadensis pratensis	G3	S3	С	ST
Florida Sandhill Crane	G5T2T3	S2S3	N	ST
<u>Hartwrightia floridana</u> Hartwrightia	G2	S2	N	Т
Heterodon simus Southern Hognose Snake	G2	S2	N	N
<u>Linum westii</u> West's Flax	G1	S1	N	E
<u>Lithobates capito</u> Gopher Frog	G3	S3	N	SSC
<u>Litsea aestivalis</u> Pondspice	G3?	S2	N	E
Lythrum curtissii Curtiss' Loosestrife	G1	S1	N	Е
Matelea floridana	G2	S2	N	E
Florida Spiny-pod <u>Monotropsis reynoldsiae</u>	G1Q	S1	N	E
Pygmy Pipes Nemastylis floridana	G2	S2	N	E
Celestial Lily Neofiber alleni				
Round-tailed Muskrat Notophthalmus_perstriatus	G3	S3	N	N
Striped Newt Orbexilum virgatum	G2G3	S2	С	N
Pineland Scurfpea	G1	S1	N	Е
Peucaea aestivalis Bachman's Sparrow	G3	S3	N	N
<u>Picoides borealis</u> Red-cockaded Woodpecker	G3	S2	LE	FE
Podomys floridanus Florida Mouse	G3	S3	N	SSC
<u>Pteroglossaspis ecristata</u> Giant Orchid	G2G3	S2	N	Т
Pycnanthemum floridanum Florida Mountain-mint	G3	S3	N	Т
Rhododendron chapmanii Chapman's Rhododendron	G1	S1	LE	E
Rhynchospora thornei	G3	S1S2	N	N
Thorne's Beaksedge <u>Rudbeckia nitida</u>	G3	S2	N	E
St. John's Blackeyed Susan Salix floridana	G2	S2	N	E
Florida Willow Sciurus niger shermani				
Sherman's Fox Squirrel Sideroxylon alachuense	G5T3	S3	N	SSC
Silver Buckthorn Verbesina heterophylla	G1	S1	N	Е
Veroesina neterophyna Variable-leaf Crownbeard	G2	S2	N	Е

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a Standard Data Request option for those needing certifiable data.