Conservation Management Plan

This management plan form is intended for Board of Trustees leases and subleases of conservation properties that are 160 acres or less. It is intended to address the requirements of Chapter 253.034, 259.032, 259.105, and rule 18-2.021. Attachments to, or expansion of this form are welcome, if the space provided below is not sufficient. Please answer all of the items below and number all attachments and reference them in the appropriate location below. You are under no obligation to use this form. Any plan format is acceptable, provided it includes all of the appropriate items from the above mentioned statutes and rule. This form is available in electronic format upon request. For additional information pertaining to management plans, please visit the Division of State Lands Stewardship page on the web at https://floridadep.gov/lands/environmental-services/content/land-stewardship.

A. General Information

1. Common Name of the Property: Earl Gilbert Park

2. Lease Number: 4682

3. Acres: 3.44

4. Managing Agency: City of Parker

5. Provide an executive summary/description of this property that includes a brief description of the resources, uses and proposed uses, outstanding features etc.

The parcel is a part of the City of Parker's Earl Gilbert Park which is a 4.20 acre park that consists of vehicle only parking, picnic pavilions, beach, vehicle/boat-trailer combination parking, single access boat ramp and dock.

At present DEP is building a pier at the park, and we are planning to install bathrooms and grills.

6. Attach a map showing the location and boundaries of the property including:

    a) The location and type of structures or improvements currently on the property.

    b) The location and type of proposed improvements. Appendix B

7. Attach a map showing the proximity of this managed area to other conservation areas within 10 miles. Appendix C

8. Please attach a legal description of the property. Appendix D

9. Provide a physical description of the land including a quantitative data description of the land which includes an inventory of forest and other natural resource, exotic and invasive plants, hydrologic features, infrastructure including recreational facilities, and other significant land, cultural or historical features.

The Parcel is located east of Tyndall Parkway (US. Hwy 98) and bounded on the south and east by the north and west shores of East Bay; on the west by Oak Shore Dr.; and on the northern boundary by the southern boundary of a parcel owned by The City of Parker. There is a paved parking area for vehicle/boat-trailer combinations, a boat ramp, a dock, and 15 pavilions for picnics, located along the beach front.

10. A brief description of soil types, attaching USDA maps when available.

The soil in the lease area of park consists of Arents soil type. This type of soil is characterized as having been deeply,mixed by plowing, spading, or other methods of moving by humans. See also Exhibit A.

11. Is the property adjacent to an aquatic preserve or designated area of critical state concern? YES____ NO X

If YES, please identify:

12. Was the property acquired by a conservation land acquisition program? If YES, please identify.

State of Florida, Department of Natural Resources, Florida Recreation Development Assistance Program, Development Agreement as recorded at ORB 802, Page 782 in the public records in the Office of the Clerk of the Circuit Court of Bay County, FL

13. Do any agency-specific statute requirements or legislative/executive directives constrain the use of the property? (These restrictions can frequently be found in the lease) YES X NO _____

If YES, please identify

Public outdoor recreational park, conservation, and related park purposes outlined in item 12-1 of State of Florida, Department of Natural Resources, Florida Recreation Development Assistance Program, Development Agreement as Recorded at ORB 802, Page 782 in the public records in the Office of the Clerk of the Circuit Court of Bay County, Florida

14. Are there any reservations or encumbrances on the property?
YES X NO _____

If YES, please identify:

Property may not be converted to other than public outdoor recreation uses without the express written approval of the Executive Director of the Department of Natural Resources as outlines in the Notice of Limitations of Use as recorded at ORB 802, Page 781 in the public records in the Office of the Clerk of the Circuit Court of Bay County, Florida.

B. Natural and Cultural Resources

15. Are there any archeological or historical sites on this property? YES _____ NO X
If YES,

A) How do you plan to locate, protect and preserve these resources?

B) Please describe the actions the agency plans to take to locate and identify unknown Resources such as surveys of unknown archeological or historical sites.

16. Are there any buildings on the property that are fifty or more years old?
YES_____NO x_____ If YES,

A) Please Identify:

B) Have these buildings been evaluated by a historian or historic architect to determine their historical and/or architectural significance. If YES, please identify both the building(s) and the evaluators(s):

C) Please state whether any such buildings are listed in the Florida Master Site File, National Register of Historic Places or a local register of historic places and identify such buildings.

By law, the managing agency must consult with the Division of Historical Resources with regard to any proposed land clearing or ground disturbing activities or with regard to any proposed rehabilitation, restoration or demolition of structures 50 or more years old. Please contact the Division of Historic Resources if you would like to obtain information on archeological/historical sites.

Division of Historical Resources
Florida Department of State
R.A. Gray Building, MS-8
Tallahassee, Florida 32399
(850) 245-6312

17. Please identify natural resources on the property that are listed in the Florida Natural Areas Inventory.

NONE

18. Are any imperiled natural communities, unique natural features, or any State and federally listed endangered or threatened plant or animal species, on site?
YES_____NO X_____

If YES, please provide a specific description of how you plan to identify, locate, protect and preserve these species.

If you would like further information regarding natural resources or endangered species please contact the Florida Natural Areas Inventory (FNAI).

Florida Natural Areas Inventory
1018 Thomasville Road, Suite 200-C
Tallahassee, Florida 32303
(850) 224-8207

19. Please identify the water resources including swamps, marshes or other wetlands, on the property including the water quality classification for each water body and if the water body has been designated "Outstanding Florida Waters".

There is no fresh water on property. Property is bounded on south and east by East Bay.

20. Are any known mineral resources, such as oil, gas and phosphates, or any unique natural features, such as coral reefs, beaches, dunes, natural springs, caverns, large sinkholes, virgin timber stands, scenic vistas, and natural rivers and streams, and outstanding native landscapes containing relatively unaltered flora, fauna, and geological features on site? YES X_____NO _____

If YES, Please identify and provide locations of these resources on a map.
Appendix

21. Are there fish or wildlife resources (both game and non-game) on the property?
YES_____NO x_____ If YES, please describe:

C. Use of the Property

22. Please provide a statement of the purpose for which the lands were acquired, the projected use or uses as defined in Chapter 253.034, Florida Statutes, and the statutory authority you have for such uses.

Single Use- Public access and recreational opportunities.

23. Please state the desired outcome for this property, and key management activities necessary to achieve the desired outcome, including public access.

The City would like to install bathrooms as well as grills to the park. We will have to work on our budget to achieve this desired outcome.

24. Please state the single or multiple uses currently made of the property and if the property is single use, please provide an analysis of its potential for multiple-use.

Single x___ Multiple _____ use/s is/are:

Boat ramp to East Bay, vehicle boat trailer combo parking, family beach, and picnic area and single vehicle parking for both.

25. Were multiple uses considered but not adopted? YES_____NO x_____

If YES, please describe why:

26. Please provide an analysis of the potential use of private land managers to facilitate the restoration or management of these lands.

Not Feasible. The City of Parker has Police, Fire, Street, Trash and Parks Departments., as well as administration on staff. No maintenance building is available on site nor is one necessary. No income is derived from the park to pay for these services.

27. Please provide an analysis of the potential of the property to generate revenues to enhance the management of the property.

With the pier opening soon, it may be possible to charge a parking fee.

28. Describe the projected, current and recent past uses of the property, and any unauthorized uses, if known.

Boat launch and removal from East Bay, vehicle boat trailer combo parking, family beach and picnic area and single vehicle parking for both. A pier currently being built.

29. Do the planned uses impact renewable and non-renewable resources on the property?

YES_____NO X_____

If YES, please describe what specific activities will be taken to protect or enhance and conserve those resources and to compensate/mitigate the damage that is caused by the impacting use.

30. Should any parcels of land within or adjacent to the property be purchased because they are essential to management of the property? YES____ NO X_____
If YES, please attach a map of this area. Appendix

31. Are there any portions of this property no longer needed for your use?

YES_____NO X_____ If YES, please attach a map of this area.

32. Please describe what public uses and public access that would be consistent with the purpose for which this property was acquired.

Boat launch and removal from East Bay, vehicle boat trailer combo parking, family beach and picnic area, single vehicle parking for both, and a pier.

33. Assess the feasibility of managing the lands >40 contiguous acres as a recipient site for gopher tortoises consistent with rules of the Fish and Wildlife Conservation Commission, as prepared by the agency or cooperatively with a Fish and Wildlife Conservation Commission wildlife biologist.

Not Applicable

34. Economic feasibility of establishing a gopher tortoise recipient site, including the initial cost, recurring management costs and the revenue projections.

Not Applicable

D. Management Activities

35. If more than one agency manages this property, describe the management responsibilities of each agency and how such responsibilities will be coordinated.

City of Parker is the only manager.

36. Please discuss management needs and problems on the property including conservation of soil and water resources and control and prevention of soil erosion and water and soil contamination.

None

37. Identify adjacent land uses that will conflict with the planned use of this property, if any.

None

38. Please describe measures used to prevent/control invasive, non-native plants.

Mowed and cleaned up on a weekly basis.

39. Was there any public or local government involvement / participation in the development of this plan? YES X NO _____ If YES, please describe:

The City of Parker manages the park and request from the public for more access to water resources and increasing use of the facilities has led the City to try to enlarge the park

40. If an arthropod control plan has been established for this property, please include it as an attachment. (Attachment_____) If one does not exist, provide a statement as to what arrangement exists between the local mosquito control district and the managing agency. See Chapter 388.4111 regarding mosquito control on public lands.

The County handles mosquito control.

41. Management Goals – **The following 8 goals may not all be applicable to your site. Write N/A where appropriate. Also, please add as many goals, objectives, and measures as you wish.**

Core Objectives		Measure	Timeframe 2 yrs = Short Term 10 yrs = Long Term	Expenses and Manpower Budget
1.	**Habitat restoration and improvement (Description):**			
	N/A			
	Prescribe burn_____ acres per year	_____acres burned per year	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	Maintain_____acres per year within target fire return interval.	_____ acres within fire return interval target	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Person $_____
	Conduct habitat/natural community improvement on _____ acres	_____ acres with restoration underway	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Person $_____
	Conduct habitat/natural community restoration activities on_____ acres.	_____ acres restored	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	Conduct timber harvest for the purposes of habitat restoration on _____ acres	_____ acres harvested	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____

2	**Public access and recreational opportunities (Description):** The City plans on installing educational signs once the pier is finished.-(Short Term Goal) The City also will be installing bathrooms withing the next 6 months.- (Short Term Goal) The City also plans to install more grills when funding becomes available- (Long Term Goal)			
	Maintain public access and recreational opportunities to allow for a recreational carrying capacity of 50 visitors per day	100 visitor opportunities/day	Within 2 yrs ___ Within 10 yrs ___	Expense $6,740.00 Personnel $28,068.71
	Develop additional public access and recreational opportunities to allow for a carrying capacity of 100 visitors/day	150 visitor opportunities/day	Within 2 yrs ___ Within 10 yrs ___	Expense $6,740.00 Personnel $28,068.71
	Continue to provide interpretive/education programs	_____ interpretive/education programs	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	Develop_____new interpretive/education programs	_____ interpretive/education programs	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
3	**Hydrological preservation and restoration (Description):** N/A			
	Conduct or obtain a site assessment/study to identify potential hydrology restoration needs	Assessment conducted? Y_____ N_____	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	Restore natural hydrologic condition and functions to _____ acres on site	____ acres for which hydrologic restoration is underway (planning, grant writing, earth moving, etc.)	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____

		____ acres for which natural hydrologic conditions and function are restored	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
4	**Sustainable forest management (Description):**			
	N/A			
	Prepare& implement a silviculture management plan including reforestation, harvesting, prescribed burning, restoration, and timber stand improvement activities and goals.	Silviculture management plan complete? Y___N____ _____acres treated	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	Develop and implement a process for conducting stand descriptions and forest inventory including a GIS database containing forest stands, roads & other attributes (including but not limited to: threatened & endangered species, archeological resources, exotic species locations, historical areas)	Complete GIS database and re-inventory all attributes every 3-5 years or as needed.	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
		____ acres of forest inventoried annually	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
5	**Exotic and invasive species maintenance and control (Description):**			
	Although the park has no exotic plans the city plans to have a survey done to establish was is in the area.- (Long Term Goal)			

	Annually treat_____acres of EPPC Category I and Category II invasive exotic plant species.	_____acres treated	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	Implement control measures on exotic and nuisance animal species	_____nuisance and exotic species for which control measures are implemented	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
6	**Capital facilities and infrastructure (Description:**			
	The City does not have any trails at this park, but it does have an asphalt road that the city will maintain.- (Long Term Goal)			
	To maintain_____facilities, ___miles of roads, and ____miles of trails existing on site (as applicable)	____ facilities,_____miles roads,_____miles trails maintained	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	To construct_____facilities. _____miles of roads, and ____miles of trails (as applicable)	_____ facilities,_____ miles roads,_____miles trails constructed	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	To improve or repair_____ facilities._____miles of roads, and_____miles of trails existing on site (as applicable)	_____ facilities,_____ miles roads,_____miles trails improved or repaired	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
7	**Cultural and Historical resources (Description:**			
	N/A			
	Ensure all known sites are recorded in the FL Division of Historical Resources Master Site file	____ of recorded sites	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	Monitor_____recorded sites and send updates to DHR Master Site file as needed	_____ of sites monitored	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____

	Bring____of____ recorded sites/cultural resources into good condition	_____of sites in good condition	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
8	**Imperiled species habitat maintenance, enhancement, restoration, or population restoration (Description:**			
	N/A			
	Develop baseline imperiled species occurrence inventory list	Baseline imperiled species occurrence inventory list complete Y___N____	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	Develop monitoring protocols for _____selected imperiled species	_____ imperiled species for which monitoring protocols are developed	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	Implement monitoring protocols for _____ imperiled species	_____ species for which monitoring is ongoing	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____
	[If applicable, provide additional measurable objective(s) for new or ongoing species-specific management activities for each of the priority species such as population augmentation, translocations, nest box projects, etc.]	Examples: Project-specific quantity, _____ of nest boxes, # of individuals introduced or trans-located, etc.	Within 2 yrs ___ Within 10 yrs ___	Expense $_____ Personnel $_____

42. Costs

Activity	Yearly Estimated Cost		
	Priority Cost	Other Management Cost	Cost Effective Methods
Resource Management			
Administration			$8,000
Support			$8,000

Capital Improvements	$100,000- Bathroom install in 2023		
Recreation Visitor Services			
Law Enforcement Activities	$8,920.00		

43. A finding regarding whether each planned use conforms to the appropriate policies and guidelines of the State Lands Management Plan is required. The Plan can be found at https://floridadep.gov/lands/environmental-services/content/land-stewardship, by writing to the State of Florida Department of Environmental Protection, Division of State Lands, Office of Environmental Services, 3900 Commonwealth Boulevard, Mail Station 140, Tallahassee, Florida 32399-3000, or by calling (850) 245-2784. Does this plan conform to the State Lands Management Plan?

YES X NO _____

44. Please provide the following contact information below:

Name:	Taylor Jeffreys
Managing Agency:	City of Parker
Address:	1001 W Park St Parker, FL 32404
Phone:	850-871-4283
Email Address:	tjeffreys@gmail.com

Date Management Plan Prepared: 6/8/2023

Please send this completed form and attachments to:

james.parker@dep.state.fl.us, Or
to: Division of State Lands
D.E.P. M.S. 140
3900 Commonwealth Blvd.
Tallahassee Fl. 32399-3000
850-245-3045

APPENDIX A

PROPERTY LOCATION MAP

Bay County Web Map

N
W E
S

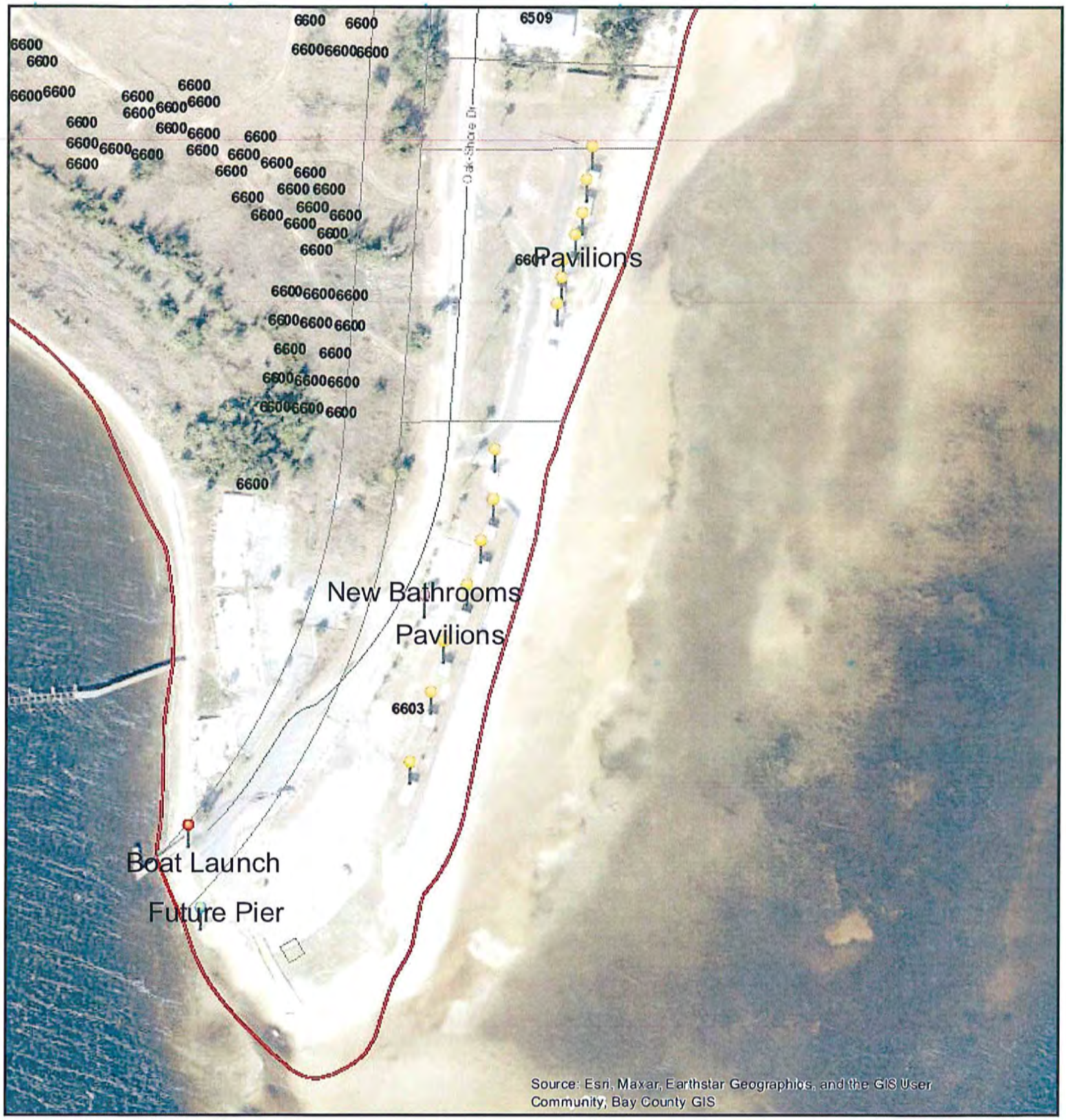
Addresses
Parcels
Roads
Parker City Limits
Major Road
Minor Road

maps.baycountyfl.gov

Printed: 4/20/2023

APPENDIX B

LOCATION AND TYP OF STRUCURES AND IMPROVEMENTS CURRENLTY ON THE PROPERTY & PROPOSED IMPROVEMENTS



Bay County Web Map

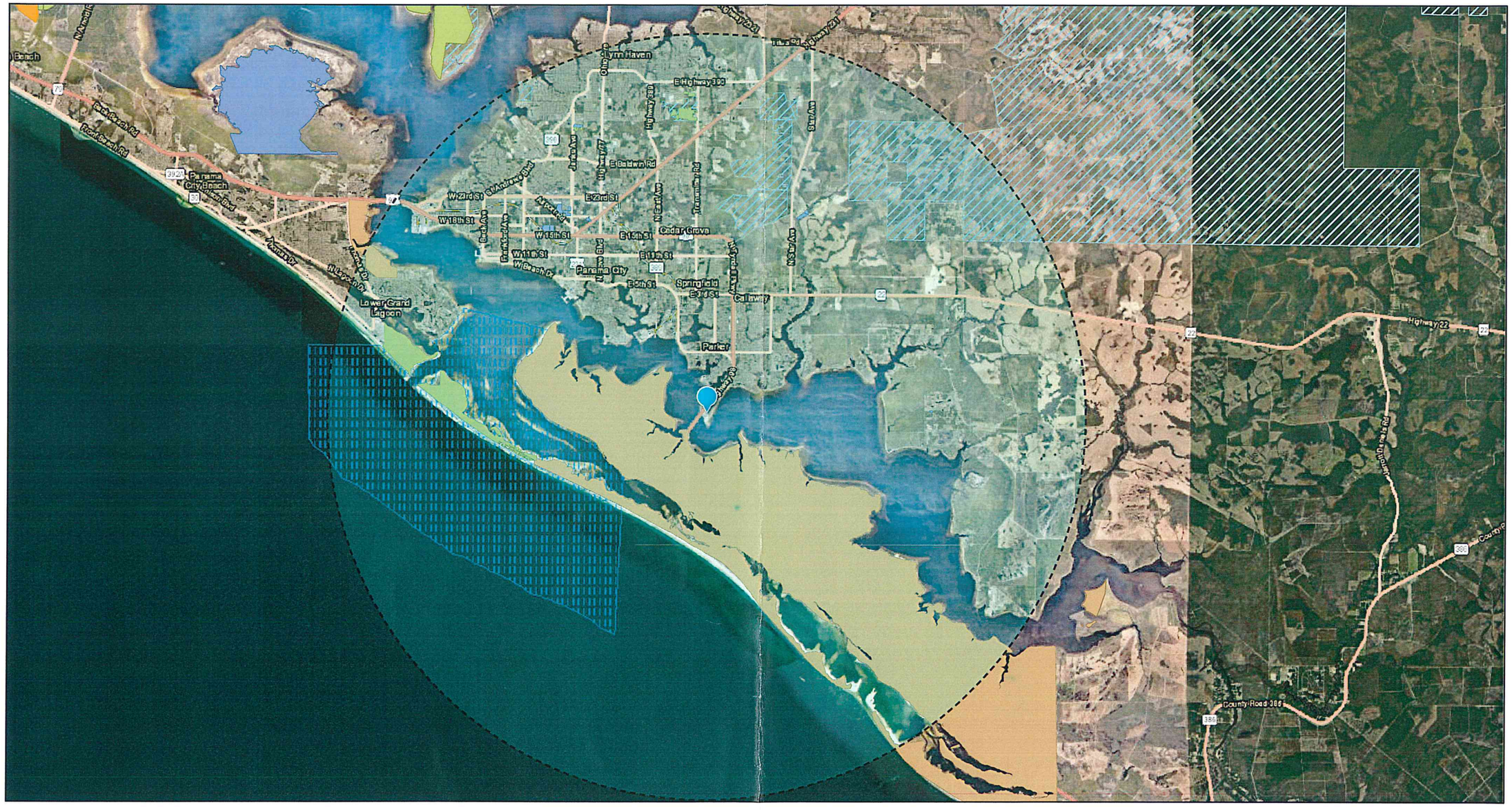
N
W E
S

Addresses
Parcels
Roads
Parker City Limits
Major Road
Minor Road

APPENDIX C

PROXIMITY OF THE MANAGED AREA TO OTHER CONSERVATION AREAS WITHING 10 MILES.

EARL GILBERT PARK - 10-MILE RADIUS BUFFER FOR CONSERVATION AREAS



April 20, 2023

Florida Forever BOT Projects

Florida Forever BOT Projects

FL_Conservation_Lands

Federal

State

Local

Private

Aquatic Preserves

1:183,450

0 2 4 8 mi

0 3 6 12 km

County of Bay, Esri, HERE, Bay County, FL, State of Florida, Earthstar Geographics, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, FDEP, RCP

Map created by Map Direct, powered by ESRI.

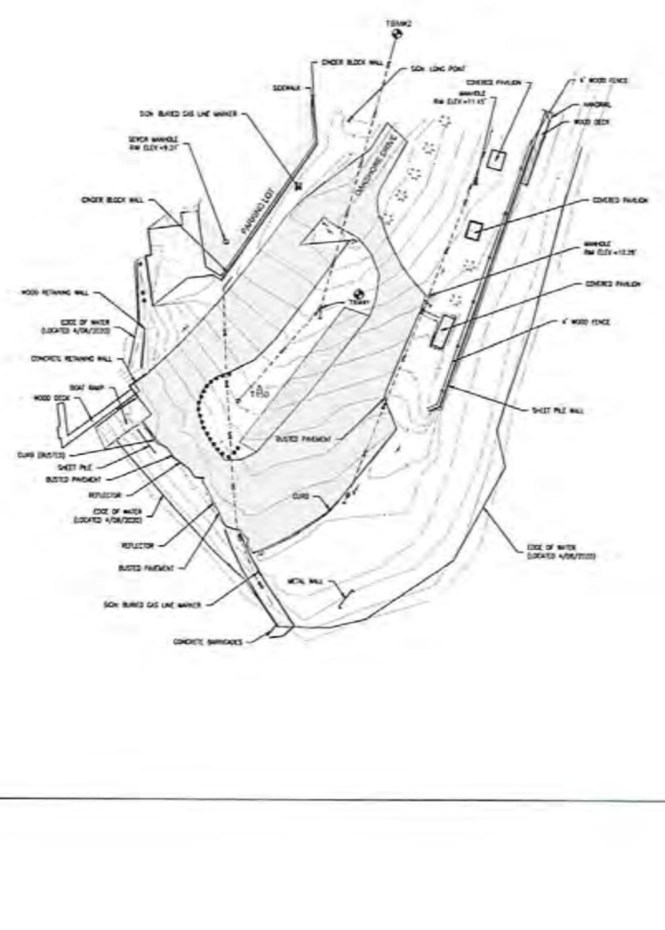
APPENDIX D

LEGAL DESCRIPTION OF THE PROPERTY

Appendix C

SYMBOLS & ABBREVIATIONS:

- No. = NUMBER
- # = NUMBER
- —/— = DISTANCE NOT TO SCALE
- L.B. = LICENSED BUSINESS
- L.S. = LICENSED SURVEYOR
- P.S.M. = PROFESSIONAL SURVEYOR AND MAPPER
- ELEV. = ELEVATION
- R/W = RIGHT OF WAY
- ID = IDENTIFICATION
- F.D.O.T. = FLORIDA DEPARTMENT OF TRANSPORTATION
- INC. = INCORPORATED
- DWG. = DRAWING
- ℄ = CENTERLINE
- = LAMP POLE
- = SIGN POST
- = SANITARY SEWER MANHOLE
- = GAS VALVE
- = TEMPORARY BENCHMARK
- = BOLLARD / PILING
- = GUY ANCHOR
- x 10.38 = SPOT ELEVATION AT "x"
- = CONTOUR ELEVATION AT 1' INTERVALS
- = EXISTING OAK TREE (DIAMETER SHOWN IN INCHES)
- = EXISTING PALM TREE (DIAMETER SHOWN IN INCHES)
- ---GAS--- = BURIED GAS LINE
- ---OHU--- = OVERHEAD UTILITY LINE
- = EXISTING ASPHALT PAVEMENT
- = EXISTING CONCRETE
- = EXISTING GRAVEL



SOURCE CONTROL POINTS: (NOT GRAPHICALLY SHOWN)

	DESCRIPTION	NORTHING	EASTING	ELEV. (NAVD 1988)
S1	FOUND F.D.O.T. MONUMENT "46-93-GPS2"	420881.082'	1623630.423'	30.23' (PUBLISHED/FIELD SURVEYED)
S2	FOUND F.D.O.T. MONUMENT "46-88-A70"	412967.313'	1622070.022'	16.09' (PUBLISHED)
		412968.401'	1622073.772'	16.09' (FIELD SURVEYED)
S3	FOUND F.D.O.T. MONUMENT "46-05-ED4G"	404503.630'	1618960.173'	18.43' (PUBLISHED)
		404503.525'	1618960.222'	18.25' (FIELD SURVEYED-DISK MISSING FROM MONUMENT)

TEMPORARY SITE CONTROL POINTS:

Description	Northing	Easting	Elev. (NAVD 1988)
T105 SET 5/8" CAPPED IRON ROD LB. 8011	404241.110'	1619792.128'	11.91'
T150 SET 5/8" CAPPED IRON ROD LB. 8011	403655.719'	1619587.229'	9.34'

TEMPORARY SITE BENCHMARKS:

Description	Northing	Easting	Elev. (NAVD 1988)
TBM#1 SET NAIL AND DISK IN POWER POLE LB. 8011	403728.2'	1619640.8'	13.86'
TBM#2 SET NAIL AND DISK IN POWER POLE LB. 8011	403059.0'	1619707.5'	14.44'

SURVEYOR'S NOTES:

1. THIS SURVEY IS REFERENCED TO FLORIDA STATE PLANE COORDINATES, NORTH ZONE, NAD 1983/2011, U.S. SURVEY FEET, ESTABLISHED WITH SPECTRA PRECISION EPOCH 50 GNSS RTK GPS SYSTEM, PER F.D.O.T. MONUMENT "46-93-GPS2".
2. VERTICAL DATUM SHOWN HEREON IS REFERENCED TO NAVD 1988 PER, F.D.O.T. MONUMENT "46-93-GPS2".
3. SOURCE OF INFORMATION: PREVIOUS SURVEY BY DEWBERRY, PROJECT NUMBER [illegible], DATED 3/10/2016. PREVIOUS SURVEY BY DEWBERRY, PROJECT NUMBER 50127726, DATED 4/13/2020.
4. NO TITLE SEARCH, TITLE OPINION OR ABSTRACT WAS PERFORMED BY, NOR PROVIDED TO DEWBERRY FOR THE SUBJECT PROPERTY. THERE MAY BE DEEDS OF RECORD, UNRECORDED DEEDS, EASEMENTS, ENCROACHMENTS, RIGHT-OF-WAYS, BUILDING SETBACKS, RESTRICTIVE COVENANTS OR OTHER INSTRUMENTS WHICH COULD AFFECT THE BOUNDARIES OR USE OF THE SUBJECT PROPERTY.
5. NO UNDERGROUND UTILITIES, UTILITY LINES, FOUNDATIONS, OR OTHER UNDERGROUND STRUCTURES HAVE BEEN LOCATED BY DEWBERRY, EXCEPT AS SHOWN.
8. NO ATTEMPT HAS BEEN MADE BY DEWBERRY TO LOCATE OR DETERMINE ENVIRONMENTAL WETLAND LINES, IF ANY EXIST.
10. THERE MAY BE ADDITIONAL RESTRICTIONS NOT SHOWN ON THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF BAY COUNTY, FLORIDA.
11. THE PURPOSE OF THIS SURVEY IS TO RE-SURVEY THE AREA ADJACENT TO THE SHORELINE WHICH HAS BEEN AFFECTED BY HURRICANE SALLY.
12. DATE OF FIELD SURVEY: ORIGINAL SURVEY = APRIL 13, 2020
POST HURRICANE SALLY UPDATE = NOVEMBER 18, 2020

REVISIONS

FB/PG	DATE	DRAWN	REVISION	CKD
257/53	11/18/2020	FOR	RE-SURVEY AREA ADJACENT TO THE SHORELINE.	JR

Dewberry
DEWBERRY ENGINEERS INC.
203 ABERDEEN PARKWAY
PANAMA CITY, FLORIDA 32405
WWW.DEWBERRY.COM
CERTIFICATE OF AUTHORIZATION NO. LB 8011

TOPOGRAPHIC SURVEY
EARL GILBERT PARK
6603 OAKSHORE DRIVE
CITY OF PANAMA CITY
BAY COUNTY, FLORIDA

FB/PG
289/28-39 & 257/53
FIELD DATE
11/18/2020
DRAWING DATE
11/18/2020
BY
RWD
APPROVED
FCR
PROJECT NO.
50133598
SCALE
1" = 50'
S1

APPENDIX E

SOIL RESOURCE REPORT

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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 Bay County, Florida

EARL GILBERT PARK AREA

April 19, 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

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

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

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

Map Scale: 1:2,100 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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: Bay County, Florida
Survey Area Data: Version 22, Sep 1, 2022

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

Date(s) aerial images were photographed: Dec 2, 2020—Dec 8, 2020

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
21	Foxworth sand, 5 to 8 percent slopes	1.5	25.1%
40	Arents, 0 to 5 percent slopes	4.4	74.4%
99	Water	0.0	0.5%
Totals for Area of Interest		**6.0**	**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

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.

Bay County, Florida

21—Foxworth sand, 5 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w4g7
Elevation: 20 to 300 feet
Mean annual precipitation: 61 to 69 inches
Mean annual air temperature: 63 to 70 degrees F
Frost-free period: 252 to 282 days
Farmland classification: Not prime farmland

Map Unit Composition

Foxworth and similar soils: 88 percent
Minor components: 12 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Foxworth

Setting

Landform: Ridges on marine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope, interfluve, tread
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Eolian or sandy marine deposits

Typical profile

A - 0 to 8 inches: sand
C - 8 to 80 inches: sand

Properties and qualities

Slope: 5 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 to 50.00 in/hr)
Depth to water table: About 42 to 72 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: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Forage suitability group: Sandy soils on rises, knolls, and ridges of mesic uplands (G133AA121FL)
Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G133AA121FL)
Hydric soil rating: No

Minor Components

Blanton

Percent of map unit: 3 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve, side slope, tread
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G133AA121FL)
Hydric soil rating: No

Lakeland

Percent of map unit: 3 percent
Landform: Ridges on marine terraces, hills on marine terraces
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Interfluve, side slope, tread
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G133AA111FL)
Hydric soil rating: No

Troup

Percent of map unit: 3 percent
Landform: Ridges on marine terraces, knolls on marine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope, interfluve, tread
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G133AA111FL)
Hydric soil rating: No

Bonifay

Percent of map unit: 3 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve, side slope, tread
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G133AA121FL)
Hydric soil rating: No

40—Arents, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: brv9

Elevation: 0 to 350 feet
Mean annual precipitation: 61 to 69 inches
Mean annual air temperature: 63 to 70 degrees F
Frost-free period: 252 to 282 days
Farmland classification: Not prime farmland

Map Unit Composition

Arents and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arents

Setting

Landform: Rises on marine terraces
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Altered marine deposits

Typical profile

A - 0 to 10 inches: sand
C1 - 10 to 32 inches: sand
C2 - 32 to 60 inches: sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 to 50.06 in/hr)
Depth to water table: About 18 to 36 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 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Hydrologic Soil Group: A
Forage suitability group: Forage suitability group not assigned (G152AA999FL)
Other vegetative classification: Forage suitability group not assigned (G152AA999FL)
Hydric soil rating: No

Minor Components

Albany

Percent of map unit: 3 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G152AA131FL)

Hydric soil rating: No

Pottsburg, non-hydric

Percent of map unit: 3 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G152AA141FL)
Hydric soil rating: No

Centenary

Percent of map unit: 3 percent
Landform: Knolls on marine terraces, rises on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G152AA121FL)
Hydric soil rating: No

Leon, non-hydric

Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G152AA141FL)
Hydric soil rating: No

Kureb

Percent of map unit: 2 percent
Landform: Dunes on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G152AA111FL)
Hydric soil rating: No

Lakeland

Percent of map unit: 2 percent
Landform: Ridges on marine terraces, hills on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G152AA111FL)
Hydric soil rating: No

Blanton

Percent of map unit: 2 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Convex

Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G152AA121FL)
Hydric soil rating: No

Foxworth

Percent of map unit: 2 percent
Landform: Ridges on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G152AA121FL)
Hydric soil rating: No

99—Water

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Interpretive groups

Land capability classification (irrigated): None specified
Forage suitability group: Forage suitability group not assigned (G152AA999FL)
Other vegetative classification: Forage suitability group not assigned (G152AA999FL)
Hydric soil rating: Unranked

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