

Arboricultural Report

Former Wolfe Parcels

September 8, 2025 | Project No. H4217314

Brownfield Assessment Grant

Cooperative Agreement BF02D09421

USEPA ACRES Property ID # 15274



Prepared For:

City of Clearwater
Clearwater, Florida

Site Address:

1720 Overbrook Avenue
Clearwater, Florida



Nationwide

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- Environmental
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September 8, 2025

City of Clearwater
600 Cleveland Street
Clearwater, Florida 33755

Attn: Mr. Joe DeCicco
P: (727) 562-4745
E: Joseph.DeCicco@MyClearwater.com

RE: **Arboricultural Report**
Former Wolfe Parcels
1720 Overbrook Avenue
Clearwater, Pinellas County, Florida
Terracon Project No. H4217314 3B.3
Brownfield Assessment Grant
Hazardous Substance and Petroleum Sites
Cooperative Agreement BF02D09421
USEPA ACRES ID # 15274

Dear Mr. DeCicco:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Arboricultural Report for the above-referenced site. The scope of this assessment included a tree inventory and tree health assessment. A Natural Resources Assessment and Desktop Cultural Assessment will be submitted under separate cover. This work was performed in general accordance with the scope of services outlined in the Consultant Work Order dated May 5, 2025, and the Site-Specific Quality Assurance Project Plan (SSQAPP) dated July 23, 2025. The City of Clearwater Brownfield Assessment Grant is funded with U.S. Environmental Protection Agency (USEPA) Region 4 brownfield hazardous substances and petroleum assessment cooperative agreement BF02D09421. Services were conducted as part of Task 3B of the Cooperative Agreement Work Plan between the client and EPA. This report was prepared for the exclusive reliance of City of Clearwater ("client"). Use or reliance by any other party is prohibited without the written authorization of the client and Terracon. If you have questions concerning this report, or if we can assist you in other matters, please contact us.



Sincerely,

Terracon Consultants, Inc.

A handwritten signature in black ink that reads 'Brianna Sanders'.

Brianna Sanders

Staff Scientist

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A handwritten signature in black ink that reads 'James Moody'.

James Moody, ISA Arborist

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A handwritten signature in black ink that reads 'Brian P. Brandon'.

Brian P. Brandon, PWS

Sr. Associate/Department Manager

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Brian.brandon@terracon.com

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1.0 Introduction

The site consists of ±11.80 acres of vacant commercial land located at 1720 Overbrook Avenue (identified as Pinellas County Parcel Nos. 03-29-15-00000-430-0500 and 03-29-15-85428-000-0030) in Clearwater, Florida. The site primarily consists of undeveloped land and a fire station. It is the understanding of Terracon that the site is being assessed as part of an EPA Brownfield grant.

Trees on the site are regulated under the jurisdiction of the City of Clearwater Community Development Code (CDC) Section 3-1205. Therefore, the following sections provide Terracon's methodologies and findings to conduct a tree inventory and health assessment of the site.

2.0 Methodology

2.1 Protected Tree Inventory

Terracon located and characterized all protected trees located on the site in accordance with the CDC. Pursuant to the City of Clearwater CDC Section 3-1205, protected trees cannot be cut, trimmed, or removed without obtaining a tree removal permit from the city. In accordance with the CDC, protected trees are classified as either "Protected," "Specimen," or "Heritage" trees. The term "Protected Tree" any shade tree four inches diameter-at-breast-height (DBH – stem diameter at ±4.5 feet above groundline) or greater, and any accent tree two inches DBH or greater, any palm with a ten-foot clear and straight trunk, and any tree or palm as part of an approved landscape plan, but excluding all hazardous and prohibited trees. The term "Specimen Tree" any tree which is determined to be of high value to the community because of its type, size, age, exceptional quality, or other professional criteria, and so designated by the community development coordinator. The term "Heritage Tree" means any tree which is determined to be of exceptional or historic quality and so designated by the community development coordinator.

In addition, the regulated trees identified on site were given a tree evaluation grade, as per Section 3-1202 of the City of Clearwater CDC. This grade ranges from 0 to 6 and follows the following evaluation criteria:

Grade	Evaluation Criteria
0	Dead; removal is required
1	Poor (nearly dead and/or hazardous); removal is required
2	Below average (declining, diseased, poor structure, potential hazard); removal is required
3	Average (minor problems, minor decline, minor tip dieback, minor inclusion); problems can be corrected; worthy of preservation

Grade	Evaluation Criteria
4	Above average (healthy tree with only minor problems); worthy of preservation
5	Outstanding (very healthy); shall be preserved
6	Specimen (unique in size, age, exceptional quality); shall be preserved

Relevant data on each tree is collected, including species and diameter-at-breast-height (DBH – stem diameter at ±4.5 feet above groundline). A health assessment is then conducted on each tree, and any health defects are recorded that would potentially allow the tree to be discounted from the required tree mitigation calculations for the City of Clearwater. The location and health data of each tree is recorded using a handheld Global Positioning System (GPS) device with sub-meter accuracy. Report production is reviewed and approved under the supervision of ISA Certified Arborist James Moody (ISA #FL-6326A).

2.2 Land Cover

To better categorize on-site habitats, on-site areas are demarcated and classified using the Florida Land Use, Cover, and Forms Classification System (FLUCFCS).¹ Particular attention is allocated to undeveloped and natural areas. The current conditions are discussed in Section 4.0 of this report and reflected in Exhibit 4 (Appendix A).

3.0 Desktop Assessment

3.1 Soil Survey

According to the Natural Resources Conservation Service (NRCS) Soil Survey for Pinellas County, mapped soil units on the site include the following:

NRCS Soil Survey					
Soil Type	Soil ID #	Hydric?	Burrowing Fauna Suitability	Estimated Depth to Water Table	Drainage Class
Immokalee soils and Urban land	13	N	Less Suited	6 to 18 inches	Poorly drained

¹Florida Department of Transportation, Survey and Mapping Office Geographic Mapping Section. January 1999, Third Ed. Florida Land Use, Cover and Forms Classification System. Tallahassee, FL.

NRCS Soil Survey					
Soil Type	Soil ID #	Hydric?	Burrowing Fauna Suitability	Estimated Depth to Water Table	Drainage Class
Matlacha and St. Augustine soils and Urban land	16	N	Moderately Suited	24 to 36 inches	Somewhat poorly drained
Myakka soils and Urban land	17	N	Less Suited	6 to 18 inches	Poorly drained
Wulfert muck, tidal, 0 to 1 percent slopes	32	Y	Unsuitable	0 inches, or at the soil surface	Very poorly drained

The NRCS Soil Survey Map for the site is included as Exhibit 3.

4.0 Site Reconnaissance

The site was reviewed by Brianna Sanders and Ashley Chattle on August 12 and August 13, 2025. The site was investigated for the presence of regulated trees per the standards of the City of Clearwater. In addition, a health assessment was performed on regulated trees located on the site. The following section outlines Terracon's observations during the site reconnaissance.

4.1 Existing Site Conditions

Based on the site inspection and review of the above resources, the following land uses were observed on the site:

- **Residential** (Mapped FLUCFCS Code – 110) ±0.05-acre: A portion of the northern area of the site contains landscaped areas associated with the adjacent residential property.
- **Governmental** (Mapped FLUCFCS Code – 175) ±1.65 acres: A portion of the site is an operational fire station that consists of a building, parking lot, landscaped areas, and associated infrastructure.

- **Open Land** (Mapped FLUCFCS Code – 190) ±2.33 acres: This land use type is located centrally on the site. This area has historically operated as a car lot and has been heavily altered over time. The ground cover vegetation present on site consists of Bahia grass (*Paspalum notatum*), frog fruit (*Phyla nodiflora*), beggartick (*Bidens alba*), common ragweed (*Ambrosia artemisiifolia*), camphor weed (*Heterotheca subaxillaris*), and sandspur (*Cenchrus echinatus*).
- **Upland Hardwood Forests** (Mapped FLUCFCS Code – 420) ±1.74 acres: This land use type is located on the western portion of the site. The canopy consists of live oak (*Quercus virginiana*), sand live oak (*Quercus geminata*), laurel oak (*Quercus laurifolia*), camphor tree (*Cinnamomum camphora*), earpod (*Enterolobium contortisiliquum*), and Australian pine (*Casuarina equisetifolia*). The subcanopy consists of cabbage palm (*Sabal palmetto*), red cedar (*Juniperus virginiana*), Brazilian pepper (*Schinus terebinthifolia*), carrotwood (*Cupaniopsis anacardioides*), and cherry laurel (*Prunus caroliniana*). The ground cover consists of sword fern (*Nephrolepis cordifolia*), air potato (*Dioscorea bulbifera*), bracken fern (*Pteridium aquilinum*), and saw palmetto (*Serenoa repens*).
- **Bays and Estuaries** (Mapped FLUCFCS Code – 540) ±1.44 acres: This land use type is located on the southern and western portion of the site. The feature is part of Stevenson Creek which is an estuarine waterbody that feeds into Clearwater Harbor.
- **Mangrove Swamps** (Mapped FLUCFCS Code – 612) ±2.08 acres: This land use type is located on the southern and western portion of the site. The subcanopy consists of red mangrove (*Rhizophora mangle*), black mangrove (*Avicennia germinans*), white mangrove (*Laguncularia racemosa*), and Brazilian pepper. The ground cover consists of coastal leather fern (*Acrostichum danaeifolium*), pepper vine (*Nekemias arborea*), and purslane (*Portulaca oleracea*).
- **Exotic Wetland Hardwoods** (Mapped FLUCFCS Code – 619) ±0.17-acre: This land use type is located centrally on the site. The vegetation consists of Brazilian pepper.
- **Disturbed Land** (Mapped FLUCFCS Code – 740) ±2.34 acres: This land use type is located centrally on the site. The subcanopy consists of Brazilian pepper, white leadtree (*Leucaena leucocephala*), common ragweed, air potato, pokeweed (*Phytolacca americana*), carrotwood, sicklepod (*Senna obtusifolia*), and wireweed (*Sida ulmifolia*).

4.2 Tree Inventory & Health Assessment

In compliance with the City of Clearwater CDC, Terracon performed a regulated tree inventory and health assessment on the property utilizing the methodologies referenced in Section 2.1. Terracon documented a total of 177 trees within the proposed project area. 165 of these trees were healthy, native trees that are subject to regulation and 12 of these trees were native unhealthy trees with possible nutrient deficiency or significant arboricultural defects. Of the

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September 8, 2025 ■ Terracon Project No. H4217314 3B.3



healthy trees subject to regulation, four (4) were identified as potential specimen trees. The unhealthy and invasive trees are not subject to regulation by the City of Clearwater. The following table summarizes Terracon's results of the tree inventory.

Status	Total Trees	DBH
Protected/Healthy	161	1,567.4
Protected/Healthy (Specimen)	4	99.5
Unhealthy	12	120.5
Total Trees	177	1,787.4
Total Regulated Trees	165	1,666.9

The total DBH of healthy native trees under consideration for city permitting is ±1,666.9 inches (including palms); and the DBH of unhealthy trees that should not be counted for mitigation considerations totals ±120.5 inches. The total DBH of healthy native trees under consideration for city permitting not including palms is ±1,218.3 inches. With proper protection during construction, some native/healthy trees could be maintained if reasonable to the objectives of the project. The regulated trees that cannot be avoided, preserved, or replaced through landscape plantings will likely need to be offset with a contribution to the City of Clearwater Tree Bank Fund. The contribution is determined by the City Manager and will be based on the value of the plantings not being replaced.

Additionally, as per Section 3-1202 of the City of Clearwater CDC, the protected trees that were documented were also given a tree evaluation grade. The following table summarizes Terracon's results of the tree evaluation grading.

Tree Evaluation Grade	Number of Trees
0	0
1	6
2	6
3	65
4	64
5	32
6	4

The tree summary map for the site is included as Exhibit 5 in Appendix A, and a table of tree data is included in Appendix C.

5.0 Conclusions and Recommendations

The site was investigated to identify the potential presence of regulated tree species and conduct a health assessment on the site. Based on the results of our assessment, Terracon makes the following conclusions and recommendations:

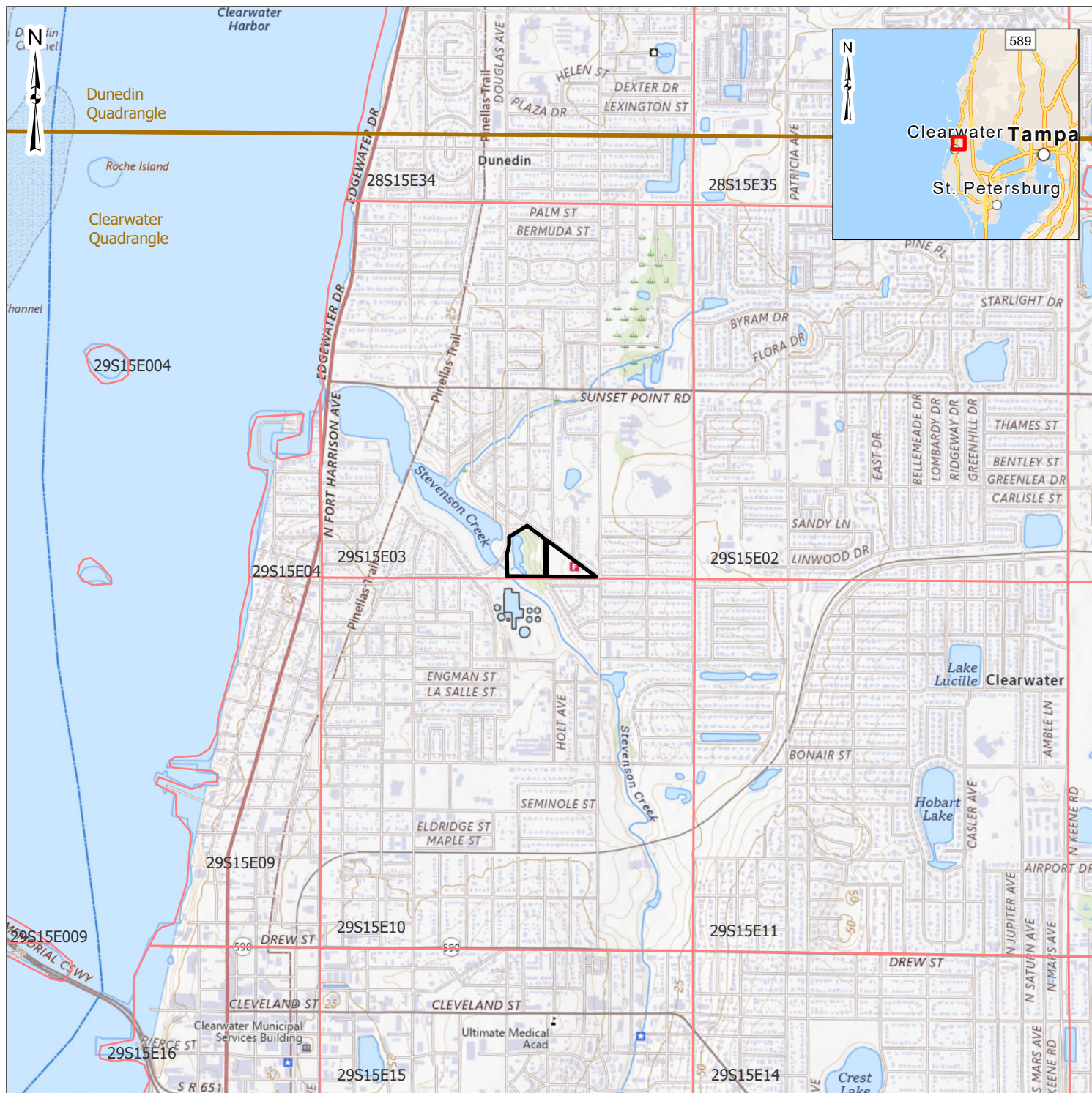
- Terracon identified and recorded 177 trees on the site. Of these trees, 12 trees, totaling ± 120.5 inches, were assigned a tree evaluation grade of 1 or 2 and determined to be unhealthy native trees. The remaining 165 trees, totaling $\pm 1,666.9$ inches, were assigned a tree evaluation grade of 3, 4, 5, or 6 and were determined to be native, healthy, and protected trees.

6.0 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third-party resources supplying information used in the preparation of the report. These services were performed in accordance with the scope of work agreed to by the client. Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time.

Appendix A

Exhibits



- Project Location
- USGS 24K Quadrangle Grid
- Public Land Survey System - TRIS

Feet
0 1,000 2,000 4,000

DATA SOURCES:
USGS Topographic Survey; Clearwater Quadrangle;
ESRI - USGS Topographic Basemap & World
Navigation Map

Project No.:
H4217314
Date:
Sep 2025
Drawn By:
JMA
Reviewed By:
BH

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Project Location

Arboricultural Assessment
City of Clearwater EPA Brownfields Assessment
Former Wolfe Parcels
Clearwater, Pinellas County, Florida

Exhibit

1



- Project Boundary
- Pinellas County Property Parcels



DATA SOURCES:
 Pinellas County, FL - Property Parcels (2025); ESRI -
 World Imagery Basemap (Feb. 2023) & World
 Navigation Map

Project No.:	H4217314
Date:	Sep 2025
Drawn By:	JMA
Reviewed By:	BH

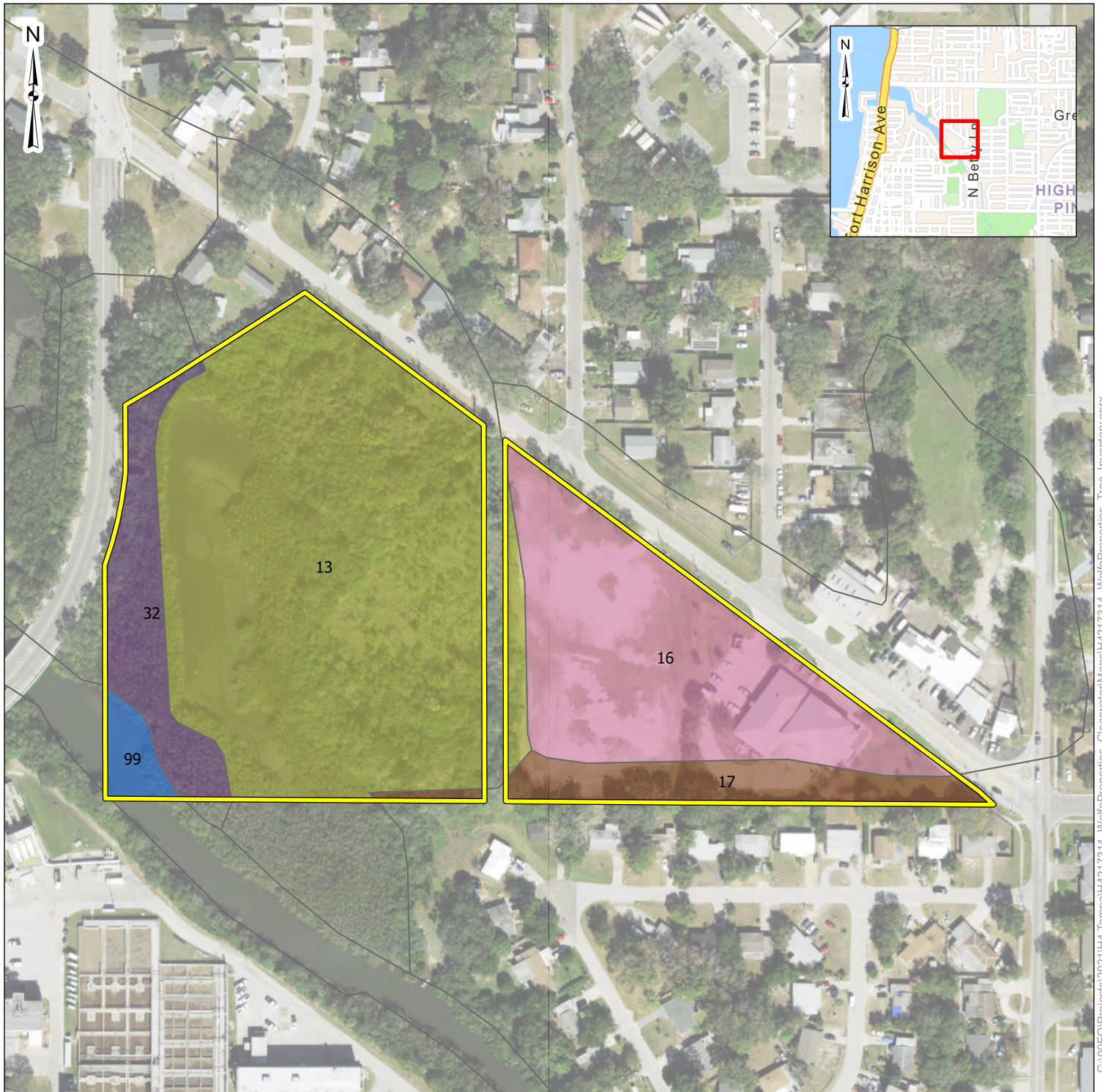
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Aerial Photograph
Arboricultural Assessment City of Clearwater EPA Brownfields Assessment Former Wolfe Parcels Clearwater, Pinellas County, Florida

Exhibit
2

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Project Boundary

Soils

- 13, Immokalee Soils and Urban Land
- 16, Matlacha and St. Augustine Soils and Urban Land
- 17, Myakka Soils and Urban Land
- 32, Wulfert Muck, Tidal, 0-1% Slopes
- 99, Water

Feet
0 100 200 400

DATA SOURCES:
NRCS - USDA Soils Survey of Pinellas County, FL;
ESRI - World Imagery Basemap (Feb. 2023) & World
Navigation Map

Project No.:
H4217314

Date:
Sep 2025

Drawn By:
JMA

Reviewed By:
BH

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NRCS Soils

Arboricultural Assessment
City of Clearwater EPA Brownfields Assessment
Former Wolfe Parcels
Clearwater, Pinellas County, Florida

Exhibit

3



- Project Boundary (11.80 ac.±)**
- FLUCFCS**
- 110, Residential (0.05 ac.±)
 - 175, Governmental (1.65 ac.±)
 - 190, Open Land (2.33 ac.±)
 - 420, Upland Hardwood Forests (1.74 ac.±)
 - 540, Bays and Estuaries (1.44 ac.±)
 - 612, Mangrove Swamps (2.08 ac.±)
 - 619, Exotic Wetland Hardwoods (0.17 ac.±)
 - 740, Disturbed Lands (2.34 ac.±)

Feet
0 100 200 400

DATA SOURCES:
Florida Land Use, Cover and Forms Classification System (FLUCFCS); ESRI - World Imagery Basemap (Feb 2023) & World Navigation Map

Project No.:
H4217314

Date:
Sep 2025

Drawn By:
JMA

Reviewed By:
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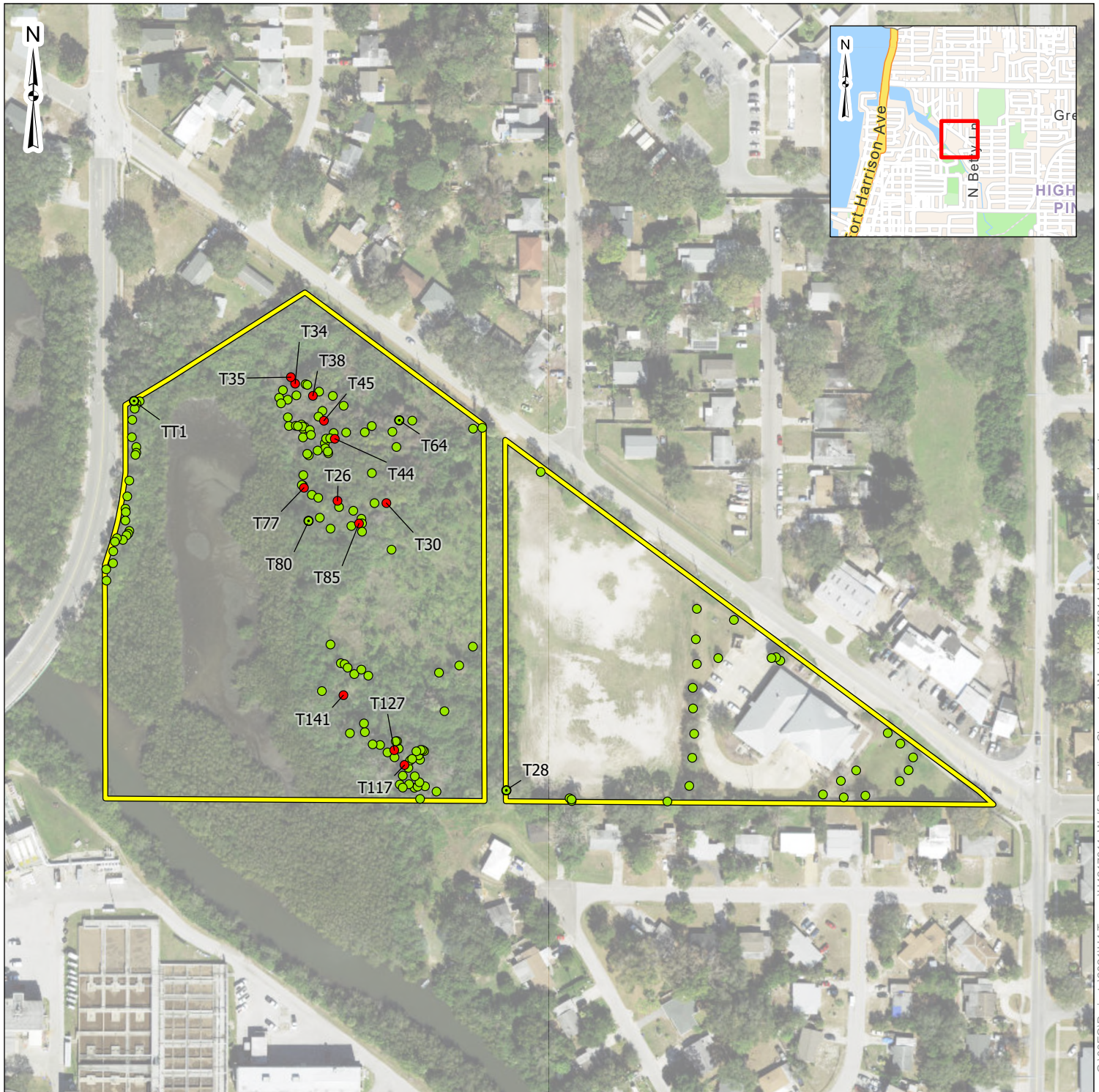
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Existing Site Conditions

Arboricultural Assessment
City of Clearwater EPA Brownfields Assessment
Former Wolfe Parcels
Clearwater, Pinellas County, Florida

Exhibit

4



Project Boundary (11.80 ac.±)

Tree Survey (177 Total)

- Healthy (150)
- Unhealthy (12)
- Specimen (4)

0 100 200 400 Feet

DATA SOURCES:
Terracon - Protected Tree Inventory and Health Assessment (08/2025); ESRI - World Imagery Basemap (Feb. 2023) and World Navigation Map

Project No.:
H4217314

Date:
Sep 2025

Drawn By:
JMA

Reviewed By:
BH

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Tree Inventory

Arboricultural Assessment
City of Clearwater EPA Brownfields Assessment
Former Wolfe Parcels
Clearwater, Pinellas County, Florida

Exhibit

5

Appendix B

Photos

Arboricultural Report

Former Wolfe Parcels ■ Clearwater, Florida

August 13, 2025 ■ Terracon Project No. H4217314



Photo #1 View of trunk and lean of T34.



Photo #2 View of branch and canopy decline of T34.



Photo #3 View of trunk and lean of T35.



Photo #4 View of branch and canopy decline of T35.



Photo #5 View of branch dieback of T38.



Photo #6 View of branch and canopy dieback of T38.

Arboricultural Report

Former Wolfe Parcels ■ Clearwater, Florida

August 13, 2025 ■ Terracon Project No. H4217314



Photo #7 View of multistem trunk of T44.



Photo #8 View of branch dieback of T44.



Photo #9 View of trunk and lean of T77.



Photo #10 View of branch and canopy dieback of T77.



Photo #11 View of stem cavity of T85.



Photo #12 View of top of T85.

Arboricultural Report

Former Wolfe Parcels ■ Clearwater, Florida

August 13, 2025 ■ Terracon Project No. H4217314



Photo #13 View of trunk and lean of T117.



Photo #14 View of mechanical injury of T117.



Photo #15 View of trunk of T141.



Photo #16 View of top of T141.



Photo #17 View of stem cavity of TT30.



Photo #18 View of branch cavity of TT30.

Appendix C

Tables

Table 1. Former Wolfe Parcels – Healthy Protected Trees

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score
T1	Southern Magnolia (<i>Magnolia grandiflora</i>)	5.7		Healthy	4
T2	Southern Magnolia (<i>Magnolia grandiflora</i>)	4.2		Healthy	4
T3	Southern Magnolia (<i>Magnolia grandiflora</i>)	7.0		Healthy	4
T4	Southern Magnolia (<i>Magnolia grandiflora</i>)	4.3		Healthy	4
T5	Southern Magnolia (<i>Magnolia grandiflora</i>)	6.7		Healthy	4
T6	Southern Magnolia (<i>Magnolia grandiflora</i>)	4.3		Healthy	5
T7	Live Oak (<i>Quercus virginiana</i>)	18.0		Healthy	5
T8	Live Oak (<i>Quercus virginiana</i>)	19.9		Healthy	5
T9	Live Oak (<i>Quercus virginiana</i>)	16.5		Healthy	5
T10	Live Oak (<i>Quercus virginiana</i>)	16.0		Healthy	5
T11	Red Maple (<i>Acer rubrum</i>)	16.0		Healthy	4
T12	Red Maple (<i>Acer rubrum</i>)	17.9		Healthy	4
T13	Red Maple (<i>Acer rubrum</i>)	6.3		Healthy	5
T14	Red Maple (<i>Acer rubrum</i>)	13.2		Healthy	5
T15	Red Maple (<i>Acer rubrum</i>)	11.9		Healthy	5
T16	Southern Magnolia (<i>Magnolia grandiflora</i>)	6.1		Healthy	4
T17	Southern Magnolia (<i>Magnolia grandiflora</i>)	6.0		Healthy	4
T18	Southern Magnolia (<i>Magnolia grandiflora</i>)	6.8		Healthy	4
T19	Southern Magnolia (<i>Magnolia grandiflora</i>)	5.7		Healthy	4
T20	Southern Magnolia (<i>Magnolia grandiflora</i>)	7.6		Healthy	4
T21	Cabbage Palm (<i>Sabal palmetto</i>)	8.9	10	Healthy	5

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score
T22	Cabbage Palm (<i>Sabal palmetto</i>)	12.8	14	Healthy	5
T23	Cabbage Palm (<i>Sabal palmetto</i>)	11.3	12	Healthy	5
T24	Slash Pine (<i>Pinus elliottii</i>)	16.7		Healthy	5
T25	Cherry Laurel (<i>Prunus caroliniana</i>)	2.4		Healthy	3
T26	Cherry Laurel (<i>Prunus caroliniana</i>)	3.7		Healthy	3
T27	Cherry Laurel (<i>Prunus caroliniana</i>)	3.3		Healthy	3
T29	Live Oak (<i>Quercus virginiana</i>)	12.0		Healthy	4
T30	Live Oak (<i>Quercus virginiana</i>)	8.7		Healthy	3
T31	Live Oak (<i>Quercus virginiana</i>)	12.7		Healthy	3
T32	Live Oak (<i>Quercus virginiana</i>)	10.3		Healthy	3
T33	Live Oak (<i>Quercus virginiana</i>)	15.6		Healthy	4
T36	Live Oak (<i>Quercus virginiana</i>)	9.7		Healthy	3
T37	Laurel Oak (<i>Quercus laurifolia</i>)	9.0		Healthy	4
T39	Laurel Oak (<i>Quercus laurifolia</i>)	9.6		Healthy	3
T40	Laurel Oak (<i>Quercus laurifolia</i>)	12.0		Healthy	4
T41	Laurel Oak (<i>Quercus laurifolia</i>)	14.3		Healthy	4
T42	Sand Live Oak (<i>Quercus geminata</i>)	12.7		Healthy	3
T43	Sand Live Oak (<i>Quercus geminata</i>)	11.5		Healthy	3
T46	Sand Live Oak (<i>Quercus geminata</i>)	16.8		Healthy	3
T47	Sand Live Oak (<i>Quercus geminata</i>)	10.2		Healthy	3
T48	Sand Live Oak (<i>Quercus geminata</i>)	12.0		Healthy	3
T49	Sand Live Oak (<i>Quercus geminata</i>)	13.0		Healthy	3

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score
T50	Sand Live Oak (<i>Quercus geminata</i>)	10.0		Healthy	3
T51	Sand Live Oak (<i>Quercus geminata</i>)	7.2		Healthy	3
T52	Sand Live Oak (<i>Quercus geminata</i>)	13.4		Healthy	3
T53	Sand Live Oak (<i>Quercus geminata</i>)	8.0		Healthy	3
T54	Sand Live Oak (<i>Quercus geminata</i>)	13.5		Healthy	3
T55	Sand Live Oak (<i>Quercus geminata</i>)	12.2		Healthy	3
T56	Sand Live Oak (<i>Quercus geminata</i>)	11.8		Healthy	3
T57	Sand Live Oak (<i>Quercus geminata</i>)	11.3		Healthy	3
T58	Laurel Oak (<i>Quercus laurifolia</i>)	10.7		Healthy	4
T59	Laurel Oak (<i>Quercus laurifolia</i>)	5.3		Healthy	3
T60	Laurel Oak (<i>Quercus laurifolia</i>)	8.0		Healthy	4
T61	Laurel Oak (<i>Quercus laurifolia</i>)	13.3		Healthy	3
T62	Laurel Oak (<i>Quercus laurifolia</i>)	7.4		Healthy	3
T63	Laurel Oak (<i>Quercus laurifolia</i>)	4.0		Healthy	3
T65	Laurel Oak (<i>Quercus laurifolia</i>)	12.2		Healthy	3
T66	Laurel Oak (<i>Quercus laurifolia</i>)	5.0		Healthy	3
T67	Laurel Oak (<i>Quercus laurifolia</i>)	11.3		Healthy	4
T68	Laurel Oak (<i>Quercus laurifolia</i>)	11.3		Healthy	3
T69	Laurel Oak (<i>Quercus laurifolia</i>)	9.5		Healthy	3
T70	Laurel Oak (<i>Quercus laurifolia</i>)	5.3		Healthy	4
T71	Water Oak (<i>Quercus nigra</i>)	10.3		Healthy	4
T72	Laurel Oak (<i>Quercus laurifolia</i>)	5.4		Healthy	3

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score
T73	Live Oak (<i>Quercus virginiana</i>)	17.2		Healthy	5
T74	Live Oak (<i>Quercus virginiana</i>)	9.2		Healthy	4
T75	Laurel Oak (<i>Quercus laurifolia</i>)	4.9		Healthy	4
T76	Live Oak (<i>Quercus virginiana</i>)	9.2		Healthy	4
T78	Laurel Oak (<i>Quercus laurifolia</i>)	11.0		Healthy	4
T79	Laurel Oak (<i>Quercus laurifolia</i>)	11.5		Healthy	4
T81	Live Oak (<i>Quercus virginiana</i>)	8.3		Healthy	4
T82	Live Oak (<i>Quercus virginiana</i>)	15.9		Healthy	3
T83	Live Oak (<i>Quercus virginiana</i>)	15.3		Healthy	3
T84	Live Oak (<i>Quercus virginiana</i>)	9.0		Healthy	3
T86	Live Oak (<i>Quercus virginiana</i>)	12.2		Healthy	4
T87	Live Oak (<i>Quercus virginiana</i>)	14.8		Healthy	3
T88	Laurel Oak (<i>Quercus laurifolia</i>)	6.9		Healthy	3
T89	Cabbage Palm (<i>Sabal Palmetto</i>)	13.0	17	Healthy	4
T90	Cabbage Palm (<i>Sabal Palmetto</i>)	11.0	10	Healthy	4
T91	Cabbage Palm (<i>Sabal Palmetto</i>)	15.0	20	Healthy	4
T92	Cabbage Palm (<i>Sabal Palmetto</i>)	12.0	11	Healthy	4
T93	Cabbage Palm (<i>Sabal Palmetto</i>)	12.0	11	Healthy	4
T94	Cabbage Palm (<i>Sabal Palmetto</i>)	13.0	15	Healthy	4
T95	Cabbage Palm (<i>Sabal Palmetto</i>)	12.5	15	Healthy	4
T96	Laurel Oak (<i>Quercus laurifolia</i>)	4.4		Healthy	4
T97	Cabbage Palm (<i>Sabal Palmetto</i>)	12.0	14	Healthy	4

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score
T98	Cabbage Palm (<i>Sabal Palmetto</i>)	13.0	13	Healthy	4
T99	Cabbage Palm (<i>Sabal Palmetto</i>)	11.0	10	Healthy	4
T100	Live Oak (<i>Quercus virginiana</i>)	11.9		Healthy	4
T101	Live Oak (<i>Quercus virginiana</i>)	7.6		Healthy	3
T102	Cabbage Palm (<i>Sabal Palmetto</i>)	10.0	25	Healthy	5
T103	Cabbage Palm (<i>Sabal Palmetto</i>)	11.5	25	Healthy	5
T104	Live Oak (<i>Quercus virginiana</i>)	10.0		Healthy	3
T105	Cabbage Palm (<i>Sabal Palmetto</i>)	16.0	25	Healthy	5
T106	Queen Palm (<i>Syagrus romanzoffiana</i>)	12.0	20	Healthy	4
T107	Cherry Laurel (<i>Prunus caroliniana</i>)	4.9		Healthy	4
T108	Cherry Laurel (<i>Prunus caroliniana</i>)	2.7		Healthy	3
T109	Cherry Laurel (<i>Prunus caroliniana</i>)	4.5		Healthy	3
T110	Cherry Laurel (<i>Prunus caroliniana</i>)	3.0		Healthy	4
T111	Cherry Laurel (<i>Prunus caroliniana</i>)	12.4		Healthy	5
T112	Cherry Laurel (<i>Prunus caroliniana</i>)	5.5		Healthy	4
T113	Cherry Laurel (<i>Prunus caroliniana</i>)	4.6		Healthy	3
T114	Cherry Laurel (<i>Prunus caroliniana</i>)	4.4		Healthy	3
T115	Cherry Laurel (<i>Prunus caroliniana</i>)	2.2		Healthy	4
T116	Cherry Laurel (<i>Prunus caroliniana</i>)	6.7		Healthy	3
T118	Cherry Laurel (<i>Prunus caroliniana</i>)	5.7		Healthy	3
T119	Cherry Laurel (<i>Prunus caroliniana</i>)	5.6		Healthy	4
T120	Cherry Laurel (<i>Prunus caroliniana</i>)	3.9		Healthy	3

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score
T121	Cherry Laurel (<i>Prunus caroliniana</i>)	6.4		Healthy	4
T122	Cherry Laurel (<i>Prunus caroliniana</i>)	5.3		Healthy	3
T123	Cherry Laurel (<i>Prunus caroliniana</i>)	7.0		Healthy	3
T124	Cherry Laurel (<i>Prunus caroliniana</i>)	4.3		Healthy	3
T125	Cherry Laurel (<i>Prunus caroliniana</i>)	2.2		Healthy	3
T126	Cherry Laurel (<i>Prunus caroliniana</i>)	8.9		Healthy	4
T128	Cherry Laurel (<i>Prunus caroliniana</i>)	6.3		Healthy	3
T129	Cherry Laurel (<i>Prunus caroliniana</i>)	9.4		Healthy	3
T130	Live Oak (<i>Quercus virginiana</i>)	6.4		Healthy	4
T131	Cabbage Palm (<i>Sabal Palmetto</i>)	11.0	30	Healthy	5
T132	Cherry Laurel (<i>Prunus caroliniana</i>)	2.4		Healthy	4
T133	Cherry Laurel (<i>Prunus caroliniana</i>)	4.2		Healthy	3
T134	Cherry Laurel (<i>Prunus caroliniana</i>)	2.4		Healthy	4
T135	Cherry Laurel (<i>Prunus caroliniana</i>)	7.2		Healthy	4
T136	Live Oak (<i>Quercus virginiana</i>)	12.0		Healthy	4
T137	Cabbage Palm (<i>Sabal Palmetto</i>)	12.0	10	Healthy	4
T138	Laurel Oak (<i>Quercus laurifolia</i>)	6.6		Healthy	3
T139	Live Oak (<i>Quercus virginiana</i>)	13.5		Healthy	3
T140	Cherry Laurel (<i>Prunus caroliniana</i>)	3.8		Healthy	3
T142	Cabbage Palm (<i>Sabal Palmetto</i>)	10.5	25	Healthy	5
T143	Cabbage Palm (<i>Sabal Palmetto</i>)	11.0	20	Healthy	4
T144	Slash Pine (<i>Pinus elliottii</i>)	17.2		Healthy	5

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score
T145	Cabbage Palm (<i>Sabal Palmetto</i>)	15.0	10	Healthy	4
T146	Cabbage Palm (<i>Sabal Palmetto</i>)	15.9	14	Healthy	4
T147	Laurel Oak (<i>Quercus laurifolia</i>)	4.3		Healthy	3
TT2	Cabbage Palm (<i>Sabal Palmetto</i>)	10.3	25	Healthy	5
TT3	Cabbage Palm (<i>Sabal Palmetto</i>)	11.5	25	Healthy	5
TT4	Live Oak (<i>Quercus virginiana</i>)	17.7		Healthy	3
TT5	Cabbage Palm (<i>Sabal Palmetto</i>)	10.8	12	Healthy	4
TT6	Live Oak (<i>Quercus virginiana</i>)	16.1		Healthy	5
TT7	Cabbage Palm (<i>Sabal Palmetto</i>)	10.4	20	Healthy	5
TT8	Cabbage Palm (<i>Sabal Palmetto</i>)	10.2	30	Healthy	5
TT9	Live Oak (<i>Quercus virginiana</i>)	8.0		Healthy	3
TT10	Live Oak (<i>Quercus virginiana</i>)	18.7		Healthy	3
TT11	Live Oak (<i>Quercus virginiana</i>)	7.6		Healthy	4
TT12	Live Oak (<i>Quercus virginiana</i>)	8.8		Healthy	3
TT13	Live Oak (<i>Quercus virginiana</i>)	19.7		Healthy	3
TT14	Cabbage Palm (<i>Sabal palmetto</i>)	13.5	15	Healthy	5
TT15	Live Oak (<i>Quercus virginiana</i>)	7.5		Healthy	5
TT16	Live Oak (<i>Quercus virginiana</i>)	4.6		Healthy	5
TT17	Live Oak (<i>Quercus virginiana</i>)	4.1		Healthy	5
TT18	Red Cedar (<i>Juniperus virginiana</i>)	7.5		Healthy	5
TT19	Red Cedar (<i>Juniperus virginiana</i>)	8.4		Healthy	5
TT20	Red Cedar (<i>Juniperus virginiana</i>)	9.4		Healthy	5

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score
TT21	Live Oak (<i>Quercus virginiana</i>)	16.4		Healthy	3
TT22	Live Oak (<i>Quercus virginiana</i>)	14.7		Healthy	3
TT23	Live Oak (<i>Quercus virginiana</i>)	8.3		Healthy	3
TT24	Live Oak (<i>Quercus virginiana</i>)	6.0		Healthy	4
TT25	Sand Live Oak (<i>Quercus geminata</i>)	5.2		Healthy	4
TT27	Laurel Oak (<i>Quercus laurifolia</i>)	11.6		Healthy	5
TT28	Laurel Oak (<i>Quercus laurifolia</i>)	13.6		Healthy	5
TT29	Laurel Oak (<i>Quercus laurifolia</i>)	6.5		Healthy	5

Table 2. Former Wolfe Parcels – Unhealthy Trees

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score	Notes
T34	Live Oak (<i>Quercus virginiana</i>)	12.7		Unhealthy	2	Minor branch dieback, minor canopy decline, minor lean 10 degree West, fungal fruiting bodies.
T35	Live Oak (<i>Quercus virginiana</i>)	15.5		Unhealthy	2	Severe lean 45 degree West, major branch dieback, minor canopy dieback, fungal fruiting bodies.
T38	Live Oak (<i>Quercus virginiana</i>)	11.5		Unhealthy	1	Major branch dieback, minor canopy dieback.
T44	Live Oak (<i>Quercus virginiana</i>)	18.8		Unhealthy	2	Multistem, terminal mortality 10 feet from ground North-facing stem, major branch dieback.
T45	Sand Live Oak (<i>Quercus geminata</i>)	11.9		Unhealthy	2	Minor lean 10 degrees South, major branch dieback, mild canopy decline.
T77	Laurel Oak (<i>Quercus laurifolia</i>)	5.7		Unhealthy	2	Severe lean 45 degrees West, 90 degree sweep to the West, minor branch dieback, minor canopy dieback.

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score	Notes
T85	Live Oak (<i>Quercus virginiana</i>)	6.8		Unhealthy	1	Major stem cavity 0 to 10 feet off ground north-facing, 90 degree sweep North facing, fungal fruiting bodies.
T117	Cherry Laurel (<i>Prunus caroliniana</i>)	3.6		Unhealthy	2	Mechanical injury from large nearby tree, severe lean 45 degrees West, epicormic branching.
T127	Cherry Laurel (<i>Prunus caroliniana</i>)	5.4		Unhealthy	1	Topped at 6 feet.
T141	Cabbage Palm (<i>Sabal Palmetto</i>)	9.1	30	Unhealthy	1	Palm fell over, laying on ground.
TT26	Laurel Oak (<i>Quercus laurifolia</i>)	6.2		Unhealthy	1	Topped at 8 feet.
TT30	Live Oak (<i>Quercus virginiana</i>)	13.3		Unhealthy	1	Branch collar cavity at 8 feet, stem cavity at 4 feet, major branch dieback.

Table 3. Former Wolfe Parcels – Specimen Trees

Tree ID	Tree Species	Tree Diameter at Breast Height (Inches)	Palm Height (Feet)	Status	Tree Score
T28	Live Oak (<i>Quercus virginiana</i>)	32.3		Healthy (Specimen)	6
T64	Live Oak (<i>Quercus virginiana</i>)	23.6		Healthy (Specimen)	6
T80	Live Oak (<i>Quercus virginiana</i>)	20.3		Healthy (Specimen)	6
TT1	Live Oak (<i>Quercus virginiana</i>)	23.3		Healthy (Specimen)	6

Appendix D

Resumes

BRIANNA SANDERS

FIELD SCIENTIST

ENVIRONMENTAL PLANNING

PROFESSIONAL EXPERIENCE

Ms. Sanders is a Field Scientist in in Terracon's Winter Park, Florida office. Ms. Sanders graduated from the University of Florida in 2021 with a degree in Sustainability Studies and is currently pursuing a master's degree in Sustainability from Black Hills State University, South Dakota. Ms. Sanders has previous experience with land management in various cemeteries and conservation land. Her role at Terracon primarily consists of providing field support for a variety of environmental services in the commercial and government sector. Her current duties and responsibilities include wetland delineation, threatened and endangered species surveys, habitat assessments, vegetation surveys, and agency consultation.

PROJECT EXPERIENCE

Project Maynard Nexsen Arboricultural Service, Orange City, FL

Field scientist for a tree inventory project for over 50 acres of forested land proposed for development. Identified trees and performed health assessments to sample the total population of trees onsite.

Conez Solar Natural Resources Service, Swainsboro, GA

Field scientist for a survey for the federally threatened Eastern indigo snake for proposed solar site development. Services included pedestrian transect surveys through over 200 acres of habitat and the scoping of gopher tortoise burrows on site to identify if the Eastern indigo snake occupied the site.

Horizon West Library Natural Resources Services, Horizon West, FL

Field scientist providing services for a proposed library in Orange County. Services included a 100% gopher tortoise survey where over 70 burrows were identified and direction of backhoe operations to locate and remove gopher tortoises under the supervision of an FWC Authorized Gopher Tortoise Agent.

Dog Track Road Natural Resources Services, Longwood, FL

Field scientist for a natural resources project for proposed land development. Services included wetland delineation of extent of jurisdictional wetlands, listed species assessment, and environmental resource documentation.

Hamilton Industrial Site Natural Resources Services, Lakeland, FL

Field scientist providing natural resources services for a proposed industrial warehouse facility in Polk County. The scope of services included a wetland delineation, 100% gopher tortoise survey, and direction of backhoe operations to locate and remove gopher tortoises under the supervision of an FWC Authorized Gopher Tortoise Agent.



EDUCATION

Bachelor of Arts,
Sustainability Studies –
University of Florida, 2021

Masters of Science,
Sustainability – Black Hills
State University (in progress)

YEARS WITH TERRACON: 1

CERTIFICATIONS

Authorized Gopher Tortoise
Agent

Green Globes Emerging
Professional Certification

Brianna Sanders (continued)

Ocoee Crown Point Gopher Tortoise Services, Ocoee, FL

Project manager for a gopher tortoise project for a proposed residential development project. Services included a 100% gopher tortoise survey and direction of backhoe operations to locate and remove gopher tortoises under the supervision of an FWC Authorized Gopher Tortoise Agent.

Peninsula Pipeline NSB Natural Gas Expansion, New Smyrna Beach, FL

Field scientist for natural resources services for a proposed natural gas line expansion through approximately 15 miles of roadway. The project covered over 190 acres of land consisting of roadways and rights-of-way and services included wetland delineation, listed species assessment, and a 100% gopher tortoise survey.

Lake Mattie Gas Main Expansion, Lake Alfred, FL

Project manager for natural resources services for a proposed natural gas line expansion through approximately 9 miles of roadway. The project covered over 150 acres of land consisting of roadways and rights-of-way and services included wetland delineation, listed species assessment, and a 100% gopher tortoise survey.

Faith Assembly Multi-Family Wetland Delineation, Orlando, FL

Field scientist for a wetland delineation project of 20.9 acres for proposed residential development. Assisted with site reconnaissance and delineated the extent of jurisdictional wetlands.

Paul B. Stephens High School Gopher Tortoise Service, Clearwater, FL

Field scientist for a gopher tortoise survey project for a high school in Pinellas County, FL. Identified potentially occupied burrows and placed bucket traps for removal of the species from the site.

New Garden Viera – Cultural Resources, Rockledge, FL

Field scientist for a 15.6-acre archeology dig to investigate if cultural resources were present onsite near a potential midden feature. Assisted with digging test pits, identifying stratigraphic soil lines, and uncovering potential artifact materials.

HR Orlando Water Feature - Soil Chemistry Testing, Orlando, FL

Field scientist for collection of representative soil samples for an 8.13-acre proposed development site.

Hollywood LAP-Johnson St. Corridor NEPA, Hollywood, FL

Field scientist for natural resources services for a corridor improvement project. Services included a wetland assessment, listed species assessment, and scoping potential roost trees for the federally endangered Florida bonneted bat.

Riverview and Tampa McDonald's Arboricultural Services, Tampa, FL

Project manager for arboricultural services for two McDonald's locations in Hillsborough County, FL, for proposed parking lot infrastructure improvements. Services included protected tree inventories and health assessments for the trees located at each project site.

Ashley Chattle

STAFF SCIENTIST – ENVIRONMENTAL PLANNING

PROFESSIONAL EXPERIENCE

Ms. Chattle serves as a Staff Scientist at Terracon's Winter Park Office, offering vital support across both field and office environments for a diverse range of environmental planning services catering to commercial and governmental sectors. With 6 years of dedicated experience in environmental management, her expertise spans wetland management, tree island and wetland restoration, habitat assessments, wildlife monitoring, and surveys for threatened and endangered species, breeding birds, and vegetation. Ms. Chattle's professional repertoire encompasses wetland delineation, permitting assistance, mitigation planning and monitoring, functional assessments, listed species surveys, tree inventory, and agency consultation.

PROJECT EXPERIENCE

Florida Department of Agriculture and Consumer Services – Baseline Documentation Services

Staff scientist providing Baseline Documentation Services for Charlie Creek, Grubb Ranch and Keystone Longleaf Preserve properties in Hardee County for the Rural and Family Land Protection Program. The scope of services included providing a record of the property's condition for conservation easement.

Fish Camp Property – Listed Species Assessment

Project manager and staff scientist providing listed species services for an undeveloped property in Polk County. The scope of services included conducting a general wildlife survey and habitat assessment to identify the presence or absence of listed threatened or endangered species on the site.

Lake Wales Tree Inventory – Arboricultural Assessment

Project manager and staff scientist providing arboricultural services under the supervision of an International Society of Arboricultural (ISA) Certified Arborist. The scope of services included conducting a full tree inventory and health assessment for all eligible trees on the property.

Winter Springs High School – Migratory Bird Assessment

Staff scientist assisting with a migratory bird assessment at the Winter Springs High School. The scope of services including conducting a migratory bird survey and risk assessment on the site.

Lake Electric Bus Charging and Fleet Facility – Bonneted Bat Survey

Staff scientist conducting a bonneted bat survey for the City of Hallandale Public Works Department. The scope of services included conducting a limited roost bonneted bat survey with a pole-mounted cavity scope within a City of Hallandale property that was proposed for the development of an electric bus charging and fleet facility.

Proposed Medical Laboratories – Scrub Jay and Gopher Tortoise Survey

Staff scientist providing listed species services for a project in La Belle. The scope of services included conducting a scrub jay survey and a gopher tortoise survey onsite.



EDUCATION

Bachelor of Science, Biology – Ecology, Evolution & Behavior
University of Texas at Austin, 2012

YEARS WITH TERRACON: 1 YEARS WITH REGULATORY AGENCIES: 6

CERTIFICATIONS

Wetland Professional in Training (WPIT)

Certified Prescribed Burn Manager

Archeological Resource Management (ARM) Certified

Airboat Operator Certified

Motorboat Operator Certified

AFFILIATIONS

Florida Bat Working Group

The Wildlife Society

** Work performed prior to joining Terracon.*

Ashley Chattle, WPIT (continued)

Ashley Chattle (continued)

Stillwell Pasco Station – Southeastern American Kestrel Survey

Project manager and staff scientist providing listed species services for a project in Pasco County. The scope of services included conducting a southeastern American kestrel survey onsite.

Acadia/Orlando Health – Apopka – Wetland Permitting & Listed Species Services

Project manager and staff scientist providing environmental planning services for a behavioral health project in Apopka. The first phase of the project included a wetland delineation and listed species assessment. The second phase of the project included permitting efforts with SJRWMD & FDEP, a sand skink survey, a sandhill crane survey, and a gopher tortoise survey with permitting and relocation assistance.

Lake Placid Business Park – Natural Resources Services

Project manager for an approximately 358-acre project in Highlands County. The scope of services included a wetland assessment and a listed species assessment for a large area of orange groves.

Sims Road Extension – Natural Resources Services & Tree Inventory

Project manager and staff scientist providing natural resources services and a tree inventory for a road extension project in Palm Beach County. The scope of services included a wetland assessment, a listed species assessment and a protected tree inventory for 65 trees onsite.

Palm View – Natural Resources Services

Project manager and staff scientist providing environmental planning and permitting assistance services for an apartment complex project in Hillsborough County. The scope of services included a wetland delineation and a listed species assessment. Additional permitting assistance was provided with a SWFWMD pre-application meeting, a Manatee County meeting, and further consultation regarding permitting questions.

WMG Avalon – Gopher Tortoise Survey & Listed Species Assessment

Project manager and staff scientist providing environmental planning services for a commercial development project in Winter Garden. The scope of services included a gopher tortoise survey and a general listed species survey.

ADDITIONAL EXPERIENCE

Florida Fish & Wildlife Conservation Commission (FWC) – Biological Scientist II & III*

Biological Scientist and Lead Area Biologist for two Wildlife Management Areas (WMAs) in South Florida. The scope of duties included ecosystem management, contractor oversight, project development, species and habitat surveys, prescribed burning, wildlife and vegetation surveying, invasive species treatment, habitat restoration, cultural resource monitoring, and recording opportunistic observations for rare and endangered plant and animal species.

US Fish & Wildlife Service – New World Screwworm Outbreak Mitigation*

Biological science technician for the monitoring, treatment, and eradication of an outbreak of New World Screwworm in the Florida Keys. The scope of services included treating infected endangered Key deer, monitoring the Key deer population, and introducing irradiated flies to eradicate the invasive population. Also conducted rare plant surveys, endangered marsh rabbit surveys and sea turtle nesting surveys.

The Fort Worth Zoo – Endangered Anegada Iguana Research*

Field research assistant for collecting data on the endangered Anegada iguana (*Cyclura pinguis*) in the BVI. The scope of services included field surveys, habitat assessments, burrow investigations and health evaluations for Anegada iguanas, as well as VHF telemetry for predatory feral cats.

US Fish & Wildlife Service – Habitat and Conservation Intern*

Intern for the Trinity River National Wildlife Refuge in Texas. The scope of services included invasive plant species treatment, avian and herpetological surveys, endangered Rafinesque's big-eared bats surveys, and trail creation and maintenance.

James M. Moody

Project Manager

PROFESSIONAL EXPERIENCE

Mr. Moody is a project manager with skills, training, and experience in forestry and management of several aspects of natural resources. He has experience managing and performing timber inventories, protected tree inventories and arboricultural assessments, performing prescribed burns, managing timber resources, assessment of listed plant and wildlife populations including gopher tortoises, bald eagle and manatee monitoring, and performing GPS data collection. James has also worked on carbon development projects in the Southeastern U.S. and carbon verification/validation projects in Arizona, West Virginia, Wisconsin, and internationally in Belize, Kenya, and Uganda.

James also has experience with Phase I and Phase II environmental site assessments. Phase I assessments include historical research and on-site reconnaissance. Phase II environmental assessments include water quality and soil sampling, as well as conducting well surveys.

Within Terracon, James' responsibilities include meeting the client objectives in the fields of arboricultural assessments, ecological resource management, and environmental site assessment.

PROJECT EXPERIENCE

Murphy USA - Tallahassee, City of Tallahassee, Florida

Certified Arborist on Protected Tree Inventory and Health Assessment project in the City of Tallahassee. James conducted protected tree inventory and tree health assessment on 1.25-acre site specific to city of Tallahassee Land Development Code. Protected trees were assessed to determine if any could be exempt from required mitigation calculations due to safety issues or disease. Final report with tree photo essay was submitted to client to be approved by City of Tallahassee. Deadlines for completion of field work and final report were met on time.

West Augustine Gateway, City of St. Augustine, Florida

Certified Arborist on Protected Tree Health Assessment project in the City of St. Augustine. James conducted tree health assessment specific to city of St. Augustine Land Development Code on all protected trees located by surveyor on 5.66-acre site. Final report with tree photo essay was submitted to client to be approved by City of St. Augustine. Deadlines for completion of field work and final report were met on time.

Mayport Road Property, Duval County, Florida

Certified Arborist on Protected Tree Inventory and Health Assessment project in Jacksonville, Florida. James conducted protected tree inventory and tree health assessment on 2.13-acre site specific to city of Jacksonville Landscaping and Tree Protection Ordinance. Protected trees were located and assessed to determine if any could be exempt from required mitigation calculations due to tree health issues. Final report was submitted to client to be approved by City of Jacksonville. Deadlines for completion of field work and final report were met on time.



EDUCATION

Bachelor of Science, Forest Resource Management, Clemson University, 2001

AFFILIATIONS

International Society of Arboricultural – Florida Chapter

Xi Sigma Pi National Forestry Honor Society

CERTIFICATIONS

Certified Arborist FL6326A – International Society of Arboriculture

ISA Tree Risk Assessment Qualification

Certified Prescribed Burn Manager No. 20124396 - Florida Forest Service

OSHA 40 Hour HAZWOPER Training

FWC Approved Level 2- Marine Species Observer

YEARS EXPERIENCE: 20

YEARS AT FIRM: 16

SR100/ Old Kings Road, Palm Coast Parcel, Flagler County, Florida

Certified Arborist on Protected Tree Inventory and Health Assessment project in the City of Palm Coast. James was project manager for the 3-month long project that covered 505-acre parcel and involved multiple team members. Deadlines for completion of field work and final report were met on time.

Brooks-Warnell Protected Tree Inventory, Bryan County, Georgia

Certified Arborist and project manager on Protected Tree Inventory and Health Assessment project in Bryan County, Georgia. James conducted five percent protected tree inventory and health assessment on 532-acre parcel. Provided sampling plan and final report that was approved by Bryan County.

Coquina Shores, SR100 Credit Trees, Flagler County, Florida

Certified Arborist and project manager on Credit Tree Inventory for City of Palm Coast. James coordinated with the city of Palm Coast to come up with approved credit tree sampling plan for client. Credit tree inventory report was submitted to client for city of Palm Coast approval.

Joyce/Crystal Springs, Duval County, FL

Arboricultural review/consultation

Alta Drive, Duval County, FL

Arboricultural review/consultation

Love's Travel Center, Duval County, FL

Arboricultural review/consultation

Chaffee Road, Duval County, FL

Arboricultural review/consultation

RaceTrac DeBary Avenue, Volusia County, FL

Arboricultural review/consultation

Granada ALF, Volusia County, FL

Arboricultural review/consultation

Lennar, Mill Creek West, Duval County, FL

Arboricultural review/consultation

Lennar, Atlantic Boulevard, Duval County, FL

Arboricultural review/consultation

JEA, Racetrack Road, Duval County, FL

Arboricultural review/consultation

Mayo Clinic Roadway, Duval County, FL

Arboricultural review/consultation

Chick-fil-A, Volusia County, FL

Arboricultural review/consultation

Roosevelt Square, Duval County, FL

Arboricultural review/consultation

Nocatee, St. Johns County, FL

Specimen tree preservation plan

Toll Brothers, St. Johns County, FL

Specimen tree evaluation

Rivertown, St. Johns County, FL

Specimen tree evaluation

Oak Ridge Club, St. Johns County FL

Specimen tree evaluation

Arlington River Lots, Duval County, FL

Protected tree inventory

Meadow View at Twinn Creeks, St. Johns County, FL

Protected tree inventory

Turnbull Trace, Volusia County, FL

Protected tree inventory update

Daytona ALF, Volusia County, FL

Protected tree inventory update

Atlantic Beach, Duval County, FL

Protected tree inventory

Tree Inventory, Clay County, FL

Protected tree inventory

Amelia Entitlement, Nassau County, FL

Protected tree inventory

Collins Road and SR17, Duval County, FL

Protected tree inventory

Pinehurst Cemetery, Duval County, FL

Protected tree inventory/risk assessment

Nocatee-Deep Creek, St. Johns County, FL

Credit tree inventory

Beacon Lake, St. Johns County, FL

Credit tree inventory.

Rivertown, St. Johns County. FL

Credit tree inventory

Trail Ridge Landfill for COJ, Duval County, FL

Timber cruise

Highlands Ranch, Clay County, FL

Timber analysis/management

Nocatee Greenway Upland/Wetland Enhancement, St. Johns County, FL

Timber analysis/management

City of Charlottesville, Charlottesville, VA

Timber analysis/management

Florida Memorial University, St. Johns County, FL

Timber management plan

VanTrust, Duval County, FL

Timber management/timber cruise



Trailmark, St. Johns County, FL

Timber management plan/timber cruise

Amelia Walk, Nassau County, FL

Timber sale

Palm Coast, Tract 21, Flagler County, FL

Timber sale

Nine Mile Gang, St. Johns County, FL

Prescribed burning/fire management

FL State College at Jacksonville-Cecil Field Center, Duval County, FL

Prescribed burning/fire management

Town of Nocatee, St. Johns County, FL

Prescribed burning/fire management

Skinner, Clay County, FL

Prescribed burning/fire management

University of North Florida, Duval County, FL

Prescribed burning/fire management

Oglethorpe Power/Georgia Forestry Commission-Dixon Memorial Forest, Ware County, GA

Carbon project development

Blue Source Tracts, NC

Carbon project development

Bull Run Overseas, Belize

Carbon verification/validation

Clean Air Action Corporation, Uganda

Carbon verification/validation

Clean Air Action Corporation, Kenya

Carbon verification/validation

White Mountain Apache Tribe, AZ

Carbon verification

Northwoods, Air Resource Board, WI

Carbon verification

Marmet, Air Resource Board, WV

Carbon verification

Traffic Engineering Data Solutions, Inc., Marion County and Sumter County, FL

Gopher tortoise survey and wetland delineation

Turkey Trot Landfill, AL

Gopher tortoise survey and relocation

San Pablo, Duval County, FL

Gopher tortoise survey and relocation

Jack Williams Property, Alachua County, FL



Gopher tortoise survey

E-Town Parcel, Duval County, FL

Gopher tortoise survey

Nocatee, HyDry, St. Johns County, FL

Indigo snake survey

Trail Ridge Landfill, Duval County, FL

Wetland permitting

Black Hammock Island, Duval County, FL

Wetland delineation

Wisteria Farms, Clay County, FL

Wetland delineation

Parcel 9 at Flagler Center, Duval County, FL

Wetland delineation and permitting

Bradley Creek, Clay County, FL

Wetland delineation

Bay Street Bridge, Duval County, FL

Manatee monitoring

Merritt Island Airport, Brevard County, FL

Manatee monitoring

Black Creek, Clay County, FL

Eagle monitoring

Envision Environmental, Duval County, FL

Contamination site assessment

JaxPort Former Gun Range, Duval County, FL

Remedial action/closure plan

Multiple Wilco Hess Gas Stations, NC

Phase I environmental site assessment

Rayonier, Clinch County, GA

Phase I environmental site assessment

Rayonier, Ware County, GA

Phase I environmental site assessment

Rayonier, Putnam County, GA

Phase I environmental site assessment

Rayonier, Gilchrist County, FL

Phase I environmental site assessment

JEA, Duval County, FL

Phase II environmental site assessment

Zipper Farms, Hendry County, FL

Phase II environmental site assessment



NRCS, Highlands County, FL

Phase II environmental site assessment

Goodwill, Duval County, FL

Phase II environmental site assessment

KB Homes, Duval County, FL

Phase II environmental site assessment

Love's Travel Center, Duval County, FL

Phase II environmental site assessment

Lennar-Tarragon, Duval County, FL

Phase II environmental site assessment

Robinson Trust, St. Johns County, FL

Phase II environmental site assessment

Brian P. Brandon, PWS

Environmental Department Manager III

PROFESSIONAL EXPERIENCE

Mr. Brandon's experience includes serving in leadership roles at consulting firms in Florida for the past decade, having expert level experience in wetland delineation, wetland permitting and compliance, wetland functional assessment/mitigation plans, wetland monitoring, habitat assessments, habitat conservation plans, floral/vegetation surveys, threatened and endangered species surveys, migratory bird evaluations, wildlife monitoring, creation and maintenance of avian protection programs, tribal and agency consultation pursuant to the National Environmental Policy Act (NEPA), Phase I Environmental Site Assessments (ESA), Asbestos sampling, Lead-based Paint sampling, and other environmental assessment and monitoring techniques. His experience also includes coordination with the United States Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC), Federal Communications Commission (FCC), various state and tribal historic preservation offices (HPOs), the Florida Department of Environmental Protection (FDEP), United States Army Corps of Engineers (USACE), all 5 Florida Water Management Districts, and dozens of county and municipal representatives for various permitting and compliance projects.

PROJECT EXPERIENCE

Durando Yeehaw Ranch – Yeehaw Junction, Florida

Senior Staff Scientist and Project Manager for land analysis that includes demography of saw palmetto stands, agricultural soil analysis, and land use analysis to determine the correlation between palmetto densities and productivity and available soil nutrients on site. The 12,000-acre project site was proposed to be utilized for saw palmetto propagation and harvesting.

Placid Solar Projects – Highlands County

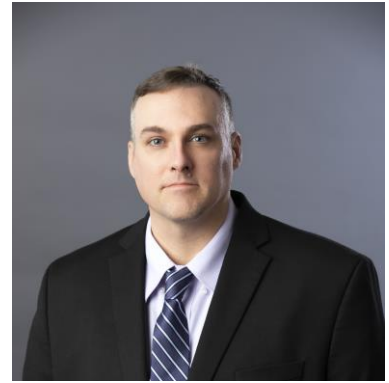
Senior Staff Scientist and Project Manager for a proposed 2,000 acre solar farm. Scope of services includes wetland delineation and permitting assistance, gopher tortoise and burrowing owl surveys, formal surveys for crested caracara, Florida scrub-jay, Florida bonneted bat, sand skinks and blue-tailed mole skinks, Southeastern American kestrel, and agency consultation.

Endangered Plant Surveys – Lake County Florida

Conducted surveys for the federally endangered Lewton's polygala and clasping warea on an outparcel owned by Seminole State Forest. Surveys were conducted in pre-established plots. The target species were identified, and the growth status was recorded. All collected data was used to monitor yearly population growth, correlate impacts of prescribed fire, and determine if detrimental effects from invasive herbs affected rare plant species population. Work was conducted as a volunteer for the Florida Forest Service.

Endangered Plant Surveys – Polk County, Florida

Conducted demography survey on the state endangered blushing scrub balm at a confidential site in Polk County, Florida. Surveys consisted of measuring



EDUCATION

Bachelor of Science, Biology
University of Central Florida, 2012

Graduate Certificate, Wetlands
and Water Resource Management,
University of Florida 2020

YEARS WITH TERRACON: 5
YEARS WITH OTHER FIRMS: 6

CERTIFICATIONS

Professional Wetland Scientist
(PWS) No. 3405

FWC Authorized Gopher Tortoise
Agent No. GTA-14-00004D

FWC Burrowing Owl Authorized
Agent No. RAG-21-00005

Certified Florida Master Naturalist

PROFESSIONAL TRAINING

38-Hour USACE Wetland
Delineation Training

AFFILIATIONS

Florida Native Plant Society –
Tarflower Chapter

National Association of
Environmental Professionals

Ecological Society of America

National Audubon Society

Florida Association of
Environmental Soil Scientists

Society of Wetland Scientists



and recording plant height and width, and counting stems, flowers, and seeds. The data was used to determine germination rates in response to the prescribed fire regiment of the area.

Grand Medina Resort (Everest Place) – Osceola County, Florida

Project Manager and Senior Ecologist for conducting annual wetland monitoring for Consumptive Use Permit with the City of Apopka. The scope of work included bringing the CUP permit into compliance by conducting wetland monitoring for a two-year period; collecting GPS data of water elevations at four lakes, analyzing vegetative cover, and making a correlation between annual rainfall data, piezometer data, and visual observations to determine if groundwater drawdown is occurring as the result of the City's water usage.

ADDITIONAL EXPERIENCE

Biological Assessments - Alabama, Florida, Georgia, North Carolina, South Carolina*

Project Manager and Lead Biologist. Analyzed habitat structure and performed surveys to determine anticipated impacts to threatened and endangered species and species of special concern pursuant to Section 7 of the Endangered Species Act. Species-specific surveys include gopher tortoise, migratory bird evaluations, bats, red cockaded woodpeckers, Florida scrub-jays, and various vegetation surveys. Consulted with lead agency for determinations of "no adverse effect" findings and coordinated permitting when necessary.

Wetland Delineations –Florida, Georgia, Maryland*

Project Manager and Lead Wetland Scientist. Determined the landward extent of wetlands and other surface waters in accordance with Florida Administrative Code 62-340 and the Army Corps of Engineers wetland delineation methodology. Delineated wetland boundaries and coordinated Environmental Resource Permits (ERP's), Nationwide Permits, and Individual Permits with the FDEP, USACE, and all Water Management Districts.

Migratory Bird Evaluations and Avian Protection Programs – Nationwide*

Director of Migratory Bird Services. Managed and directed a team of scientists to conduct evaluations/formal surveys of Osprey, Bald Eagle, Red-tailed Hawk, Great Horned Owl, Crested Caracara, Crows, Ravens, Eastern Kingbirds, and other migratory birds for compliance with the Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act, and Endangered Species Act. Determined nest status and facilitated permit actions. Created and maintained Avian Protection Programs for various national clientele.