



# APPLICATION FOR A COMPREHENSIVE PLAN AMENDMENT - MAP

**Project Name:** White Willow

**Project Description:** Future Land Use Map amendment from Density Reduction/Groundwater Resources to Outlying Suburban to build a residential neighborhood on the north side of Bonita Beach Road, consistent with surrounding uses.

**Map(s) to Be Amended:** Future Land Use Map, Map 1A

**State Review Process:**  Small-Scale Review  State Coordinated Review  Expedited State Review

1. **Name of Applicant:** Pulte Homes  
Address: 24311 Walden Center Drive, Suite 300  
City, State, Zip: Bonita Springs, FL 34134  
Phone Number: \_\_\_\_\_ E-mail: patrick.butler@pultegroup.com

2. **Name of Contact:** Daniel DeLisi, AICP and Chris Wright, PE  
Address: 520 27th Street  
City, State, Zip: West Palm Beach, FL 33407  
Phone Number: 239-913-7159 E-mail: dan@delisi-inc.com

3. **Owner(s) of Record:** Crisafulli Investment Group, LLC  
Address: 6184 Jays Way  
City, State, Zip: Milton, FL 32570  
Phone Number: \_\_\_\_\_ E-mail: \_\_\_\_\_

**RECEIVED**  
DEC 19 2025  
COMMUNITY DEVELOPMENT

4. **Property Location:**  
1. Site Address: North side of Bonita Beach Road, approx. 1 1/2 miles east of I-75  
2. STRAP(s): See attached list.

5. **Property Information:**  
Total Acreage of Property: 47 Total Acreage Included in Request: 47  
Total Uplands: 34 Total Wetlands: 13 Current Zoning: AG-2  
Current Future Land Use Category(ies): DR/GR and Wetlands  
Area in Each Future Land Use Category: 13 acres Wetland, 34 acres DR/GR  
Existing Land Use: Vacant, former fill pits.

6. **Calculation of maximum allowable development under current Lee Plan:**  
Residential Units/Density: 4 Commercial Intensity: N/A Industrial Intensity: N/A

7. **Calculation of maximum allowable development with proposed amendments:**  
Residential Units/Density: 94 Commercial Intensity: N/A Industrial Intensity: N/A

## **Public Facilities Impacts**

NOTE: The applicant must calculate public facilities impacts based on the maximum development.

- 1. Traffic Circulation Analysis:** The analysis is intended to determine the effect of the land use change on the Financially Feasible Highway Plan Map 3A (20-year plus horizon) and on the Capital Improvements Element (5-year horizon). Toward that end, an applicant must submit a Traffic Impact Statement (TIS) consistent with Lee County Administrative Code (AC)13-17.
  - a.** Proposals affecting less than 10 acres, where development parameters are contained within the Traffic Analysis Zone (TAZ) or zones planned population and employment, or where there is no change in allowable density/intensity, may be eligible for a TIS requirement waiver as outlined in the Lee County TIS Guidelines and AC-13-17. Identification of allowable density/intensity in order to determine socio-economic data for affected TAZ(s) must be coordinated with Lee County Planning staff. Otherwise a calculation of trip generation is required consistent with AC-13-17 and the Lee County TIS Guidelines to determine required components of analysis for:
    - i. Total peak hour trip generation less than 50 total trip ends – trip generation.
    - ii. Total peak hour trip generation from 50 to 300 total trip ends – trip generation, trip distribution and trip assignment (manual or Florida Standard Urban Transportation Modeling Structure (FSUTMS) analysis consistent with AC-13-17 and TIS Guidelines), short-term (5 year) and long-range (to current Lee Plan horizon year) segment LOS analysis of the nearest or abutting arterial and major collector segment(s) identified in the Transportation Inventory based on the trip generation and roadway segment LOS analysis criteria in AC-13-17. A methodology meeting is recommended prior to submittal of the application to discuss use of FSUTMS, any changes to analysis requirements, or a combined CPA and Zoning TIS short term analysis.
    - iii. Total peak hour trip generation is over 300 total trip ends - trip generation, mode split, trip distribution and trip assignment (manual or FSUTMS analysis consistent with AC-13-17 and TIS Guidelines), short-term (five-year) and long-range (to current Lee Plan horizon year) segment LOS analysis of arterial and collector segments listed in the Transportation Inventory. LOS analysis will include any portion of roadway segments within an area three miles offset from the boundary of the application legal description metes and bounds survey. LOS analysis will also include any additional segments in the study area based on the roadway segment LOS analysis criteria in AC-13-17. A methodology meeting is required prior to submittal of the application.
  - b.** Map amendment - greater than 10 acres -Allowable density/intensity will be determined by Lee County Planning staff.
- 2. Provide an existing and future conditions analysis for the following (see Policy 95.1.3):**
  - a.** Sanitary Sewer
  - b.** Potable Water
  - c.** Surface Water/Drainage Basins
  - d.** Parks, Recreation, and Open Space
  - e.** Public Schools

**Analysis for each of the above should include (but is not limited to) the following (see the Lee County Concurrency Management Report):**

- a.** Franchise Area, Basin, or District in which the property is located
- b.** Current LOS, and LOS standard of facilities serving the site
- c.** Projected 2030 LOS under existing designation
- d.** Projected 2030 LOS under proposed designation
- e.** Existing infrastructure, if any, in the immediate area with the potential to serve the subject property
- f.** Improvements/expansions currently programmed in 5 year CIP, 6-10 year CIP, and long range improvements
- g.** Provide a letter of service availability from the appropriate utility for sanitary sewer and potable water

**In addition to the above analysis, provide the following for potable water:**

- a. Determine the availability of water supply within the franchise area using the current water use allocation (Consumptive Use Permit) based on the annual average daily withdrawal rate.
- b. Include the current demand and the projected demand under the existing designation, and the projected demand under the proposed designation.
- c. Include the availability of treatment facilities and transmission lines for reclaimed water for irrigation.
- d. Include any other water conservation measures that will be applied to the site (see Goal 54).

**3. Provide a letter from the appropriate agency determining the adequacy/provision of existing/proposed support facilities, including:**

- a. Fire protection with adequate response times
- b. Emergency medical service (EMS) provisions
- c. Law enforcement
- d. Solid Waste
- e. Mass Transit
- f. Schools

In reference to above, the applicant must supply the responding agency with the information from application items 5, 6, and 7 for their evaluation. This application must include the applicant's correspondence/request to the responding agency.

**Environmental Impacts**

Provide an overall analysis of the character of the subject property and surrounding properties, and assess the site's suitability for the proposed change based upon the following:

1. A map of the Plant Communities as defined by the Florida Land Use Cover and Classification system (FLUCCS).
2. A map and description of the soils found on the property (identify the source of the information).
3. A topographic map depicting the property boundaries and 100-year flood prone areas indicated (as identified by FEMA).
4. A map delineating the property boundaries on the most recent Flood Insurance Rate Map.
5. A map delineating wetlands, aquifer recharge areas, and rare & unique uplands.
6. A table of plant communities by FLUCCS with the potential to contain species (plant and animal) listed by federal, state or local agencies as endangered, threatened or species of special concern. The table must include the listed species by FLUCCS and the species status (same as FLUCCS map).

**Impacts on Historic Resources**

List all historic resources (including structure, districts, and/or archaeologically sensitive areas) and provide an analysis of the proposed change's impact on these resources. The following should be included with the analysis:

1. A map of any historic districts and/or sites listed on the Florida Master Site File which are located on the subject property or adjacent properties.
2. A map showing the subject property location on the archaeological sensitivity map for Lee County.

**Internal Consistency with the Lee Plan**

1. Discuss how the proposal affects established Lee County population projections, Lee Plan Table 1(b) and the total population capacity of the Lee Plan Future Land Use Map.
2. List all goals and objectives of the Lee Plan that are affected by the proposed amendment or that affect the subject property. This analysis should include an evaluation of all relevant policies under each goal and objective.
3. Describe how the proposal affects adjacent local governments and their comprehensive plans.

**State Policy Plan and Regional Policy Plan**

List State Policy Plan and Regional Policy Plan goals, strategies and actions, and policies which are relevant to this plan amendment.

**Justify the proposed amendment based upon sound planning principles**

Support all conclusions made in this justification with adequate data and analysis.

**Planning Communities/Community Plan Area Requirements**

If located within a planning community/community plan area, provide a meeting summary document of the required public informational session [Lee Plan Goal 17].

**Sketch and Legal Description**

The certified legal description(s) and certified sketch of the description for the property subject to the requested change. A metes and bounds legal description must be submitted specifically describing the entire perimeter boundary of the property with accurate bearings and distances for every line. The sketch must be tied to the state plane coordinate system for the Florida West Zone (North America Datum of 1983/1990 Adjustment) with two coordinates, one coordinate being the point of beginning and the other an opposing corner. If the subject property contains wetlands or the proposed amendment includes more than one land use category a metes and bounds legal description, as described above, must be submitted in addition to the perimeter boundary of the property for each wetland or future land use category.

**SUBMITTAL REQUIREMENTS**

*Clearly label all submittal documents with the exhibit name indicated below.*

*For each map submitted, the applicant will be required to submit a 24"x36" version and 8.5"x11" reduced map for inclusion in public hearing packets.*

**MINIMUM SUBMITTAL ITEMS (3 Copies)**

<input checked="" type="checkbox"/>	Completed Application (Exhibit – M1)
<input type="checkbox"/>	Disclosure of Interest (Exhibit – M2)
<input type="checkbox"/>	Surrounding Property Owners List, Mailing Labels, and Map For All Parcels Within 500 Feet of the Subject Property (Exhibit – M3)
<input checked="" type="checkbox"/>	Existing Future Land Use Map (Exhibit – M4)
<input type="checkbox"/>	Map and Description of Existing Land Uses (Not Designations) of the Subject Property and Surrounding Properties (Exhibit – M5)
<input checked="" type="checkbox"/>	Map and Description of Existing Zoning of the Subject Property and Surrounding Properties (Exhibit – M6)
<input type="checkbox"/>	Signed/Sealed Legal Description and Sketch of the Description for Each FLUC Proposed (Exhibit – M7)
<input checked="" type="checkbox"/>	Copy of the Deed(s) of the Subject Property (Exhibit – M8)
<input type="checkbox"/>	Aerial Map Showing the Subject Property and Surrounding Properties (Exhibit – M9)
<input checked="" type="checkbox"/>	Authorization Letter From the Property Owner(s) Authorizing the Applicant to Represent the Owner (Exhibit – M10)
<input type="checkbox"/>	Proposed Amendments (Exhibit – M11)
<input type="checkbox"/>	Lee Plan Analysis (Exhibit – M12)
<input type="checkbox"/>	Environmental Impacts Analysis (Exhibit – M13)
<input type="checkbox"/>	Historic Resources Impact Analysis (Exhibit – M14)
<input checked="" type="checkbox"/>	Public Facilities Impacts Analysis (Exhibit – M15)
<input checked="" type="checkbox"/>	Traffic Circulation Analysis (Exhibit – M16)
<input type="checkbox"/>	Existing and Future Conditions Analysis - Sanitary Sewer, Potable Water, Surface Water/Drainage Basins, Parks and Rec, Open Space, Public Schools (Exhibit – M17)
<input type="checkbox"/>	Letter of Determination For the Adequacy/Provision of Existing/Proposed Support Facilities - Fire Protection, Emergency Medical Service, Law Enforcement, Solid Waste, Mass Transit, Schools (Exhibit – M18)
<input type="checkbox"/>	State Policy Plan and Regional Policy Plan (Exhibit – M19)
<input checked="" type="checkbox"/>	Justification of Proposed Amendment (Exhibit – M20)
<input type="checkbox"/>	Planning Communities/Community Plan Area Requirements (Exhibit – M21)

**APPLICANT – PLEASE NOTE:**

Changes to Table 1(b) that relate directly to and are adopted simultaneously with a future land use map amendment may be considered as part of this application for a map amendment.

Once staff has determined the application is sufficient for review, 15 complete copies will be required to be submitted to staff. These copies will be used for Local Planning Agency hearings, Board of County Commissioners hearings, and State Reviewing Agencies. Staff will notify the applicant prior to each hearing or mail out to obtain the required copies.

If you have any questions regarding this application, please contact the Planning Section at (239) 533-8585.

AFFIDAVIT

I, Daniel DeLisi, AICP, certify that I am the owner or authorized representative of the property described herein, and that all answers to the questions in this application and any sketches, data, or other supplementary matter attached to and made a part of this application, are honest and true to the best of my knowledge and belief. I also authorize the staff of Lee County Community Development to enter upon the property during normal working hours for the purpose of investigating and evaluating the request made through this application.

*Daniel DeLisi*

12/19/2025

Signature of Applicant

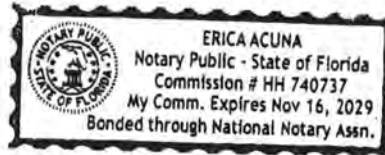
Date

Daniel DeLisi  
Printed Name of Applicant

STATE OF FLORIDA  
COUNTY OF LEE

The foregoing instrument was sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization on Dec 19th 2025 (date) by Daniel Bryon De Lisi (name of person providing oath or affirmation), who is personally known to me or who has produced FL DL (type of identification) as identification.

*Erica Acuna*  
Signature of Notary Public



Erica Acuna  
(Name typed, printed or stamped)

**DISCLOSURE OF INTEREST  
AFFIDAVIT**

BEFORE ME this day appeared Linda Crisafulli Manager, who, being first duly sworn and deposed says:

1. That I am the record owner, or a legal representative of the record owner, of the property that is located at \_\_\_\_\_ and is the subject of an Application for zoning action (hereinafter the "Property").

2. That I am familiar with the legal ownership of the Property and have full knowledge of the names of all individuals that have an ownership interest in the Property or a legal entity owning an interest in the Property.

[OPTIONAL PROVISION IF APPLICANT IS CONTRACT PURCHASER: In addition, I am familiar with the individuals that have an ownership interest in the legal entity that is under contract to purchase the Property.]

3. That, unless otherwise specified in paragraph 6 below, no Lee County Employee, County Commissioner, or Hearing Examiner has an Ownership Interest in the Property or any legal entity (Corporation, Company, Partnership, Limited Partnership, Trust, etc.) that has an Ownership Interest in the Property or that has contracted to purchase the Property.

4. That the disclosure identified herein does not include any beneficial Ownership Interest that a Lee County Employee, County Commissioner, or Hearing Examiner may have in any entity registered with the Federal Securities Exchange Commission or registered pursuant to Chapter 517, whose interest is for sale to the general public.

5. That, if the Ownership Interest in the Property changes and results in this affidavit no longer being accurate, the undersigned will file a supplemental Affidavit that identifies the name of any Lee County Employee, County Commissioner, or Hearing Examiner that subsequently acquires an interest in the Property.

6. Disclosure of Interest held by a Lee County Employee, County Commissioner, or Hearing Examiner.

Name and Address	Percentage of Ownership
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Under penalty of perjury, I declare that I have read the foregoing and the facts alleged are true to the best of my knowledge and belief.



Property Owner

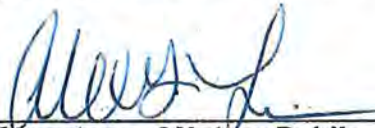
Linda Crisafulli Manager

Print Name

\*\*\*\*\*NOTE: NOTARY PUBLIC IS NOT REQUIRED FOR ADMINISTRATIVE APPROVALS\*\*\*\*\*  
ALL OTHER APPLICATION TYPES MUST BE NOTARIZED

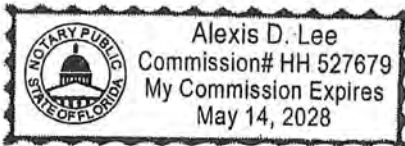
STATE OF FLORIDA  
COUNTY OF LEE

The foregoing instrument was sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, on 12/31/25 (date) by Linda Crisafulli (name of person providing oath or affirmation), who is personally known to me or who has produced FL DL (type of identification) as identification.



Signature of Notary Public

STAMP/SEAL



M-3 - Surrounding Property Owners, Map and Labels

Buffer: 500 Date: 11/11/2025 12:00:00 AM

List Size: 90

FolioId	STRAP	OwnerName	MailAddress	MailCity	MailState	MailZip
10353727	32-47-26-00-00001.0100	CRISAFULLI INVESTMENT GROUP LL	6184 JAYS WAY	MILTON	FL	32570
10353728	32-47-26-00-00001.0110	CRISAFULLI INVESTMENT GROUP LL	6184 JAYS WAY	MILTON	FL	32570
10353729	32-47-26-00-00001.0120	CRISAFULLI INVESTMENT GROUP LL	6184 JAYS WAY	MILTON	FL	32570
10353730	32-47-26-00-00001.0130	CRISAFULLI INVESTMENT GROUP LL	6184 JAYS WAY	MILTON	FL	32570
10353762	32-47-26-00-00001.0350	CRISAFULLI INVESTMENT GROUP LL	6184 JAYS WAY	MILTON	FL	32570
10353747	32-47-26-00-00001.0260	DACHUK DONALD	13060 RIO GRANDE DR	BONITA SPRINGS	FL	34135
10353756	32-47-26-00-00001.0300	GLASE GOLF INC	27730 FAYGIN LN	BONITA SPRINGS	FL	34135
10353764	32-47-26-00-00001.0370	GLASE JAMES A & JEAN A	6355 HIDDEN OAKS LN	NAPLES	FL	34119
10353767	32-47-26-00-00001.0400	MANNA CHRISTIAN MISSIONS INC	10421 PENNSYLVANIA AVE	BONITA SPRINGS	FL	34135
10353768	32-47-26-00-00001.0420	SANCTUARY RV RESORT LLC	1630 W GUADALUPE RD #101	GILBERT	AZ	85233
10353849	33-47-26-00-00001.0130	FERCHAU HUGO ALFRED JR +	48715 COUNTY RD X	SAGUACHE	CO	81149
10353854	33-47-26-00-00001.0190	BONITA SPRINGS ISLAMIC CENTER	27721 FAYGIN LN	BONITA SPRINGS	FL	34135
10353859	33-47-26-00-00001.0250	FERCHAU HUGO ALFRED JR +	48715 COUNTY RD X	SAGUACHE	CO	81149
10353867	33-47-26-00-00001.0340	SEAGATE REVANA LLC	9921 INTERSTATE COMMERCE DR	FORT MYERS	FL	33913
10353879	33-47-26-00-00001.1020	GAIL CARTER MARTIN TRUST	18330 SW 112TH CT	MIAMI	FL	33157
10353880	33-47-26-00-00001.1030	POOLE STANLEY R TR	2 FARM LN	ROCKPORT	MA	1966
10353881	33-47-26-00-00001.1040	POOLE STANLEY R TR	2 FARM LN	ROCKPORT	MA	1966
10353882	33-47-26-00-00001.1050	SOUTH FLORIDA WATER MANAGEMENT	PO BOX 24680	WEST PALM BEACH	FL	33416
10353883	33-47-26-00-00001.1060	POKLEMA DEBRA S	28049 E BROOK DR	BONITA SPRINGS	FL	34135
10629940	33-47-26-L4-U2795.1281	TIITF STATE OF FLORIDA	3900 COMMONWEALTH BLVD	TALLAHASSEE	FL	32399
10461979	04-48-26-B1-0010C.0000	GOLF CLUB AT PALMIRA INC	28501 MATTEOTTI VW	BONITA SPRINGS	FL	34135
10465364	04-48-26-B1-0010C.1120	PARKLANDS WEST CDD	2300 GLADES RD #410W	BOCA RATON	FL	33431
10618477	04-48-26-B4-0010C.1000	GOLF CLUB AT PALMIRA INC	28501 MATTEOTTI VW	BONITA SPRINGS	FL	34135
10354349	05-48-26-B2-00114.00CE	WORTHINGTON MASTER ASSN INC	13550 WORTHINGTON WAY	BONITA SPRINGS	FL	34135
10354708	05-48-26-B2-00600.00CE	WEDGEWOOD COMMONS ASSN II INC	13550 WORTHINGTON WAY	BONITA SPRINGS	FL	34135
10354924	05-48-26-B2-00800.00CE	WATERFORD-CAVENDISH COURT INC	AT WORTHINGTON	BONITA SPRINGS	FL	34135
10354777	05-48-26-B2-00600.4701	MIELE JOHN A & ANTOINETTE	26 TAMARAC AVE	NEW CITY	NY	10956
10354778	05-48-26-B2-00600.4702	ROUSH SQUARED LLC	6414 TORREY PINES DR	ASBURY	IA	52002
10354779	05-48-26-B2-00600.4703	ODONOGHUE JOHN PAUL &	333 RUSSELL WOODS DR	TECUMSEH	ON	N8N 4L2
10354780	05-48-26-B2-00600.4704	CAJANDER BARON T B +	TROLLBACKSVAGEN 10	SMEDJEBACKEN		777 91
10354781	05-48-26-B2-00600.4801	YORK MICHAEL J & DEBORAH M TR	4582 W TIMBER RIDGE RD	MOUNT CRAWFORD	VA	22841
10354782	05-48-26-B2-00600.4802	SNOW JUDITH R TR	28004 CAVENDISH CT #4802	BONITA SPRINGS	FL	34135
10354783	05-48-26-B2-00600.4803	LIGHTBODY COLIN A &	622 OLD TECUMSEH RD	BELLE RIVER	ON	N8L 0B6
10354784	05-48-26-B2-00600.4804	GRATTON GERALD L/E +	204-3455 EDMOND HARDY ST	LONGUEUIL	QC	J4N 0K4
10354785	05-48-26-B2-00600.4901	FARIA GREGORY C	28008 CAVENDISH CT #4901	BONITA SPRINGS	FL	34135
10354786	05-48-26-B2-00600.4902	RADEL STEVEN M	12 PROVENCE DR	O FALLON	MO	63367
10354787	05-48-26-B2-00600.4903	HABERLEIN WILLIAM BIRK TR	28008 CAVENDISH CT #4903	BONITA SPRINGS	FL	34135
10354788	05-48-26-B2-00600.4904	MARK R SINIBALDI TRUST +	3575 SCOTTSDALE CIR	NAPERVILLE	IL	60564

10354789	05-48-26-B2-00600.5001	WALTER NANCY G +	28012 CAVENDISH CT #5001	BONITA SPRINGS	FL	34135
10354790	05-48-26-B2-00600.5002	WOODY ROBERT +	28012 CAVENDISH CT	BONITA SPRINGS	FL	34135
10354791	05-48-26-B2-00600.5003	DOWNS SCOTT ALBERT WILLIAM &	2586 ARMOUR CRES	BURLINGTON	ON	L7M 4T3
10354792	05-48-26-B2-00600.5004	EVERSON DAVID LOWELL &	28012 CAVENDISH CT #5004	BONITA SPRINGS	FL	34135
10354793	05-48-26-B2-00600.5101	BESSO VICTOR TR	28016 CAVENDISH CT #5101	BONITA SPRINGS	FL	34135
10354794	05-48-26-B2-00600.5102	SKELTON JOHN R TR	126 WENTWORTH SHORES RD	MOULTONBOROUGH	NH	3254
10354795	05-48-26-B2-00600.5103	KONDRAT THOMAS J & ELLEN M TR	1285 FREEMAN RD	HOFFMAN ESTATES	IL	60192
10354796	05-48-26-B2-00600.5104	SANTIVASI LEONARD V &	28016 CAVENDISH CT # 5104	BONITA SPRINGS	FL	34135
10354797	05-48-26-B2-00600.5201	KRAUSE STEVEN P TR	N8441 NORTH SHORE RD	MENASHA	WI	54952
10354798	05-48-26-B2-00600.5202	NOTTLESON FRANCES F TR	106 THISTLE PATCH WAY	HINGHAM	MA	2043
10354799	05-48-26-B2-00600.5203	POULIN DAVID L & JOANNE L	28020 CAVENDISH CT #5203	BONITA SPRINGS	FL	34135
10354800	05-48-26-B2-00600.5204	HANNON NEAL D & JANE J TR	28020 CAVENDISH CT #5204	BONITA SPRINGS	FL	34135
10354801	05-48-26-B2-00600.5301	NICHOLAS R DICIOCCIO TRUST +	28024 CAVENDISH CT #5301	BONITA SPRINGS	FL	34135
10354802	05-48-26-B2-00600.5302	MILLER TERRY L & KAREN E	28024 CAVENDISH CT #5302	BONITA SPRINGS	FL	34135
10354803	05-48-26-B2-00600.5303	BRETON ANDRE &	155 FLEURY RUE	SAINTE CATHERINE DE HATLEY	QC	J08 1W0
10354804	05-48-26-B2-00600.5304	TUSCANY KEVIN J & JOANNE E	4147 BOLD MEADOWS	ROCHESTER	MI	48306
10354805	05-48-26-B2-00600.5401	VAUBEL THOMAS M & BETHANN H L/	378 SOUTH LAWSON DR #1	GREEN LAKE	WI	54941
10354806	05-48-26-B2-00600.5402	BOGEN PAUL J & PATRICIA A	417 VISTA LAKE DR	SUWANEE	GA	30024
10354807	05-48-26-B2-00600.5403	HILLCOAT BARRY M + JANICE L	28028 CAVENDISH CT #5403	BONITA SPRINGS	FL	34135
10354808	05-48-26-B2-00600.5404	DAVENPORT NADIA V TR	28028 CAVENDISH CT #5404	BONITA SPRINGS	FL	34135
10354809	05-48-26-B2-00600.5501	WEAFER ELISSA TR	28032 CAVENDISH CT #5501	BONITA SPRINGS	FL	34135
10354810	05-48-26-B2-00600.5502	FALLS TIMOTHY H & PATTY J TR	8626 PLEASANT LAKE DR	BRIGHTON	MI	48116
10354811	05-48-26-B2-00600.5503	JURKASH JOHN F TR	1850 WINDFIELD DR	MUNSTER	IN	46321
10354812	05-48-26-B2-00600.5504	GAUVIN GAETANE	28032 CAVENDISH CT #5504	BONITA SPRINGS	FL	34135
10354813	05-48-26-B2-00600.5601	STEWART JOLENNE L/E	28036 CAVENDISH CT #5601	BONITA SPRINGS	FL	34135
10354814	05-48-26-B2-00600.5602	DOWNEY RAYMOND JR &	3455 STILLWOOD BLVD	STOW	OH	44224
10354815	05-48-26-B2-00600.5603	CHELICO SUE ELLEN	2177 JACK NASH DR	LONDON	ON	N6K 5R1
10354816	05-48-26-B2-00600.5604	ROSS THOMAS J & KAREN M	3505 WESTCOTT DRIVE SOUTHEAST	ADA	MI	49301
10354817	05-48-26-B2-00600.5701	TIERNEY RONALD J &	6 WINONA WAY	NORTH WEYMOUTH	MA	2191
10354818	05-48-26-B2-00600.5702	WHEALE CHRISTINE TR	28040 CAVENDISH CT #5702	BONITA SPRINGS	FL	34135
10354819	05-48-26-B2-00600.5703	SYLJON 5703 LLC	268 THORNRIDGE DR	THORNDALE	PA	19372
10354820	05-48-26-B2-00600.5704	REECER LYNN HALLORAN TR	2814 MALLARD COVE LN	FORT WAYNE	IN	46804
10354821	05-48-26-B2-00600.5801	BROUSSEAU BRADLEY C JR &	420 BOLIVAR ST	CANTON	MA	2021
10354822	05-48-26-B2-00600.5802	PALMIERI JASON THOMAS SR &	32 BONNA ST	BEACON FALLS	CT	6403
10354823	05-48-26-B2-00600.5803	MAYETTE MICHAEL PAUL &	28044 CAVENDISH CT #5803	BONITA SPRINGS	FL	34135
10354824	05-48-26-B2-00600.5804	HOWENSTINE MARK & MARY J	28044 CAVENDISH CT #5804	BONITA SPRINGS	FL	34135
10354825	05-48-26-B2-00600.5901	WALKER BRYANT W TR	28048 CAVENDISH CT #5901	BONITA SPRINGS	FL	34135
10354826	05-48-26-B2-00600.5902	ZIMMER DONALD P & LINDA	28048 CAVENDISH CT #5902	BONITA SPRINGS	FL	34135
10354827	05-48-26-B2-00600.5903	MAGERA RENAE M TR	28048 CAVENDISH CT #5903	BONITA SPRINGS	FL	34135
10354828	05-48-26-B2-00600.5904	MCKINNEY BRENT	28048 CAVENDISH CT #5904	BONITA SPRINGS	FL	34135

10354985 05-48-26-B2-00825.2501	CURRAN PAUL E	31 CARROL ST	EAST WEYMOUTH	MA	2189
10354986 05-48-26-B2-00825.2502	CARCONE KATIE ALEXIS	42 TRANBY AVE	TORONTO	ON	M5R 1N5
10354987 05-48-26-B2-00825.2503	POULIN CARMELLE	28060 CAVENDISH CT #2503	BONITA SPRINGS	FL	34135
10354988 05-48-26-B2-00825.2504	STYLES ADELBERT B IV &	28060 CAVENDISH CT #2504	BONITA SPRINGS	FL	34135
10354989 05-48-26-B2-00825.2505	RUS DOUGLAS L & APRIL N	1208 WEST SCOTT CT	ELDRIDGE	IA	52748
10354990 05-48-26-B2-00825.2506	PARK JUDITH A TR	398 W THORNAPPLE LN	GRAFTON	WI	53024
10354991 05-48-26-B2-00825.2507	GUINN FREDERICK C + SUSAN G	1827 SHOEMAKER DR	NEW OXFORD	PA	17350
10354992 05-48-26-B2-00825.2508	RAY MICHAEL D & SANDRA D	28060 CAVENDISH CT # 2508	BONITA SPRINGS	FL	34135
10354993 05-48-26-B2-00825.2509	COLELLA LUIGI JR & ELAINE	6 PARK LN	OAK RIDGE	NJ	7438
10354994 05-48-26-B2-00825.2510	CORRAO JOHN C & CLAIRE H	28060 CAVENDISH CT #2510	BONITA SPRINGS	FL	34135
10354995 05-48-26-B2-00825.2511	HALF MOON PROPERTIES INC	4313 BLUFF POINTE	CLARKSTON	MI	48348
10354996 05-48-26-B2-00825.2512	BARRY JULIE +	889 MIKE CT	WESTERVILLE	OH	43081

DACHUK DONALD  
13060 RIO GRANDE DR  
BONITA SPRINGS FL 34135

GLASE GOLF INC  
27730 FAYGIN LN  
BONITA SPRINGS FL 34135

GLASE JAMES A & JEAN A  
6355 HIDDEN OAKS LN  
NAPLES FL 34119

MANNA CHRISTIAN MISSIONS INC  
10421 PENNSYLVANIA AVE  
BONITA SPRINGS FL 34135

SANCTUARY RV RESORT LLC  
1630 W GUADALUPE RD #101  
GILBERT AZ 85233

FERCHAU HUGO ALFRED JR +  
48715 COUNTY RD X  
SAGUACHE CO 81149

BONITA SPRINGS ISLAMIC CENTER  
27721 FAYGIN LN  
BONITA SPRINGS FL 34135

FERCHAU HUGO ALFRED JR +  
48715 COUNTY RD X  
SAGUACHE CO 81149

SEAGATE REVANA LLC  
9921 INTERSTATE COMMERCE DR  
FORT MYERS FL 33913

GAIL CARTER MARTIN TRUST  
WARREN MARTIN  
18330 SW 112TH CT  
MIAMI FL 33157

POOLE STANLEY R TR  
2 FARM LN  
ROCKPORT MA 01966

POOLE STANLEY R TR  
2 FARM LN  
ROCKPORT MA 01966

SOUTH FLORIDA WATER MANAGEMENT  
PO BOX 24680  
WEST PALM BEACH FL 33416

POKLEMBIA DEBRA S  
28049 E BROOK DR  
BONITA SPRINGS FL 34135

TITF STATE OF FLORIDA  
3900 COMMONWEALTH BLVD  
MAIL STATION 115  
TALLAHASSEE FL 32399

GOLF CLUB AT PALMIRA INC  
28501 MATTEOTTI VW  
BONITA SPRINGS FL 34135

PARKLANDS WEST CDD  
2300 GLADES RD #410W  
BOCA RATON FL 33431

GOLF CLUB AT PALMIRA INC  
28501 MATTEOTTI VW  
BONITA SPRINGS FL 34135

WORTHINGTON MASTER ASSN INC  
13550 WORTHINGTON WAY  
BONITA SPRINGS FL 34135

WEDGEWOOD COMMONS ASSN II INC  
13550 WORTHINGTON WAY  
BONITA SPRINGS FL 34135

WATERFORD-CAVENDISH COURT INC  
 AT WORTHINGTON  
 13500 WORTHINGTON WAY  
 BONITA SPRINGS FL 34135

ROUSH SQUARED LLC  
 6414 TORREY PINES DR  
 ASBURY IA 52002

CAJANDER BARON T B +  
 CAJANDER CHRISTER + LOUISE  
 TROLLBACKSVAGEN 10  
 SMEDJEBACKEN 777 91  
 SWEDEN

SNOW JUDITH R TR  
 28004 CAVENDISH CT #4802  
 BONITA SPRINGS FL 34135

GRATTON GERALD L/E +  
 204-3455 EDMOND HARDY ST  
 LONGUEUIL QC J4N 0K4  
 CANADA

RADEL STEVEN M  
 12 PROVENCE DR  
 O FALLON MO 63367

MARK R SINIBALDI TRUST +  
 3575 SCOTTSDALE CIR  
 NAPERVILLE IL 60564

WOODY ROBERT +  
 28012 CAVENDISH CT #5002  
 BONITA SPRINGS FL 34135

EVERSON DAVID LOWELL &  
 28012 CAVENDISH CT #5004  
 BONITA SPRINGS FL 34135

SKELTON JOHN R TR  
 126 WENTWORTH SHORES RD  
 MOULTONBOROUGH NH 03254

MIELE JOHN A & ANTOINETTE  
 26 TAMARAC AVE  
 NEW CITY NY 10956

ODONOGHUE JOHN PAUL &  
 333 RUSSELL WOODS DR  
 TECUMSEH ON N8N 4L2  
 CANADA

YORK MICHAEL J & DEBORAH M TR  
 4582 W TIMBER RIDGE RD  
 MOUNT CRAWFORD VA 22841

LIGHTBODY COLIN A &  
 622 OLD TECUMSEH RD  
 BELLE RIVER ON N8L 0B6  
 CANADA

FARIA GREGORY C  
 28008 CAVENDISH CT #4901  
 BONITA SPRINGS FL 34135

HABERLEIN WILLIAM BIRK TR  
 28008 CAVENDISH CT #4903  
 BONITA SPRINGS FL 34135

WALTER NANCY G +  
 28012 CAVENDISH CT #5001  
 BONITA SPRINGS FL 34135

DOWNS SCOTT ALBERT WILLIAM &  
 2586 ARMOUR CRES  
 BURLINGTON ON L7M 4T3  
 CANADA

BESSO VICTOR TR  
 28016 CAVENDISH CT #5101  
 BONITA SPRINGS FL 34135

KONDRAT THOMAS J & ELLEN M TR  
 1285 FREEMAN RD  
 HOFFMAN ESTATES IL 60192

SANTIVASI LEONARD V &  
28016 CAVENDISH CT # 5104  
BONITA SPRINGS FL 34135

KRAUSE STEVEN P TR  
N8441 NORTH SHORE RD  
MENASHA WI 54952

NOTTLESON FRANCES F TR  
106 THISTLE PATCH WAY  
HINGHAM MA 02043

POULIN DAVID L & JOANNE L  
28020 CAVENDISH CT #5203  
BONITA SPRINGS FL 34135

HANNON NEAL D & JANE J TR  
28020 CAVENDISH CT #5204  
BONITA SPRINGS FL 34135

NICHOLAS R DICIOCCIO TRUST +  
28024 CAVENDISH CT #5301  
BONITA SPRINGS FL 34135

MILLER TERRY L & KAREN E  
28024 CAVENDISH CT #5302  
BONITA SPRINGS FL 34135

BRETON ANDRE &  
155 FLEURY RUE  
SAINTE CATHERINE DE HATLEY QC J0B 1W0  
CANADA

TUSCANY KEVIN J & JOANNE E  
4147 BOLD MEADOWS  
ROCHESTER MI 48306

VAUBEL THOMAS M & BETHANN H L/  
378 SOUTH LAWSON DR #1  
GREEN LAKE WI 54941

BOGEN PAUL J & PATRICIA A  
417 VISTA LAKE DR  
SUWANEE GA 30024

HILLCOAT BARRY M + JANICE L  
28028 CAVENDISH CT #5403  
BONITA SPRINGS FL 34135

DAVENPORT NADIA V TR  
28028 CAVENDISH CT #5404  
BONITA SPRINGS FL 34135

WEAFER ELISSA TR  
28032 CAVENDISH CT #5501  
BONITA SPRINGS FL 34135

FALLS TIMOTHY H & PATTY J TR  
8626 PLEASANT LAKE DR  
BRIGHTON MI 48116

JURKASH JOHN F TR  
1850 WINDFIELD DR  
MUNSTER IN 46321

GAUVIN GAETANE  
28032 CAVENDISH CT #5504  
BONITA SPRINGS FL 34135

STEWART JOLENNE L/E  
28036 CAVENDISH CT #5601  
BONITA SPRINGS FL 34135

DOWNEY RAYMOND JR &  
3455 STILLWOOD BLVD  
STOW OH 44224

CHELICO SUE ELLEN  
2177 JACK NASH DR  
LONDON ON N6K 5R1  
CANADA

ROSS THOMAS J & KAREN M  
3505 WESTCOTT DRIVE SOUTHEAST  
ADA MI 49301

TIERNEY RONALD J &  
6 WINONA WAY  
NORTH WEYMOUTH MA 02191

WHEALE CHRISTINE TR  
28040 CAVENDISH CT #5702  
BONITA SPRINGS FL 34135

SYLJON 5703 LLC  
268 THORNRIDGE DR  
THORNDALE PA 19372

REECER LYNN HALLORAN TR  
2814 MALLARD COVE LN  
FORT WAYNE IN 46804

BROUSSEAU BRADLEY C JR &  
420 BOLIVAR ST  
CANTON MA 02021

PALMIERI JASON THOMAS SR &  
32 BONNA ST  
BEACON FALLS CT 06403

MAYETTE MICHAEL PAUL &  
28044 CAVENDISH CT #5803  
BONITA SPRINGS FL 34135

HOWENSTINE MARK & MARY J  
28044 CAVENDISH CT #5804  
BONITA SPRINGS FL 34135

WALKER BRYANT W TR  
28048 CAVENDISH CT #5901  
BONITA SPRINGS FL 34135

ZIMMER DONALD P & LINDA  
28048 CAVENDISH CT #5902  
BONITA SPRINGS FL 34135

MAGERA RENAE M TR  
28048 CAVENDISH CT #5903  
BONITA SPRINGS FL 34135

MCKINNEY BRENT  
28048 CAVENDISH CT #5904  
BONITA SPRINGS FL 34135

CURRAN PAUL E  
31 CARROL ST  
EAST WEYMOUTH MA 02189

CARCONE KATIE ALEXIS  
42 TRANBY AVE  
TORONTO ON M5R 1N5  
CANADA

POULIN CARMELLE  
28060 CAVENDISH CT #2503  
BONITA SPRINGS FL 34135

STYLES ADELBERT B IV &  
28060 CAVENDISH CT #2504  
BONITA SPRINGS FL 34135

RUS DOUGLAS L & APRIL N  
1208 WEST SCOTT CT  
ELDRIDGE IA 52748

PARK JUDITH A TR  
KELLY OLSON  
398 W THORNAPPLE LN  
GRAFTON WI 53024

GUINN FREDERICK C + SUSAN G  
1827 SHOEMAKER DR  
NEW OXFORD PA 17350

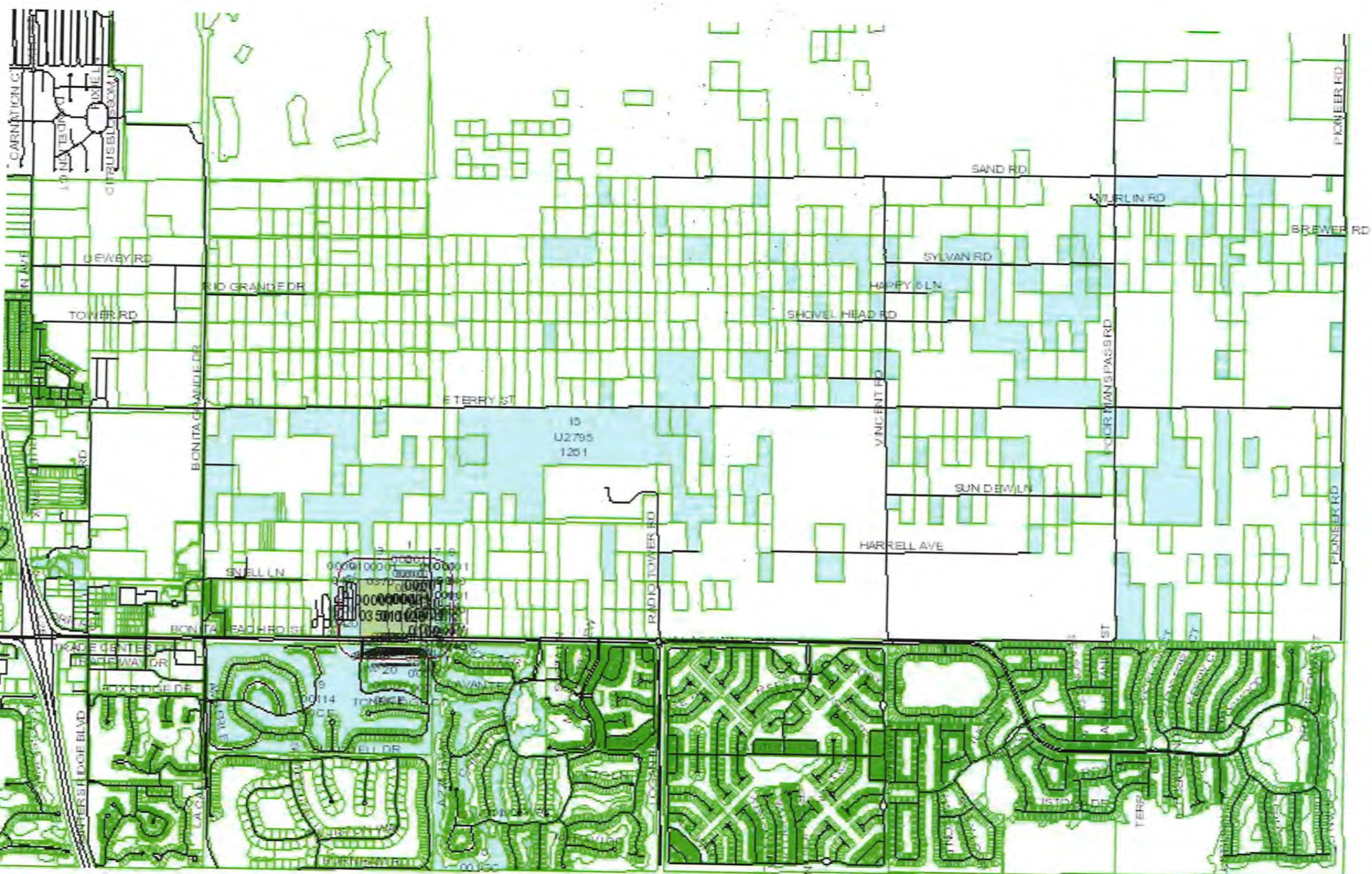
RAY MICHAEL D & SANDRA D  
28060 CAVENDISH CT # 2508  
BONITA SPRINGS FL 34135

COLELLA LUIGI JR & ELAINE  
6 PARK LN  
OAK RIDGE NJ 07438

CORRAO JOHN C & CLAIRE H  
28060 CAVENDISH CT #2510  
BONITA SPRINGS FL 34135

HALF MOON PROPERTIES INC  
4313 BLUFF POINTE  
CLARKSTON MI 48348

BARRY JULIE +  
889 MIKE CT  
WESTERVILLE OH 43081



1000


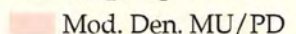
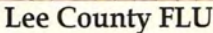

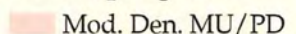
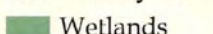
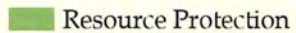

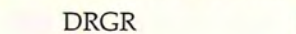

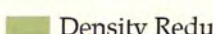
1 mile



BBR 50

Bonita Beach Road

Worthington Country Club

- |   |   |  |
|---|---|--|
|  BBR 50 Boundary |  Bonita Springs FLU  |  Lee County FLU                         |
|  Bonita Springs  |  Mod. Den. MU/PD     |  Wetlands                               |
|   |  Resource Protection |  Conservation Lands Upland              |
|   |  DRGR                |  Conservation Lands Wetland             |
|   |   |  Density Reduction/Groundwater Resource |





Pine Lake Preserve

Corkscrew Regional Ecosystem Watershed (CREW)

Construction Equipment

Vacant

Residential/Junkyard/Warehouse

RV Park

Bonita Beach Road

Bonita Grande Dr.

I-75

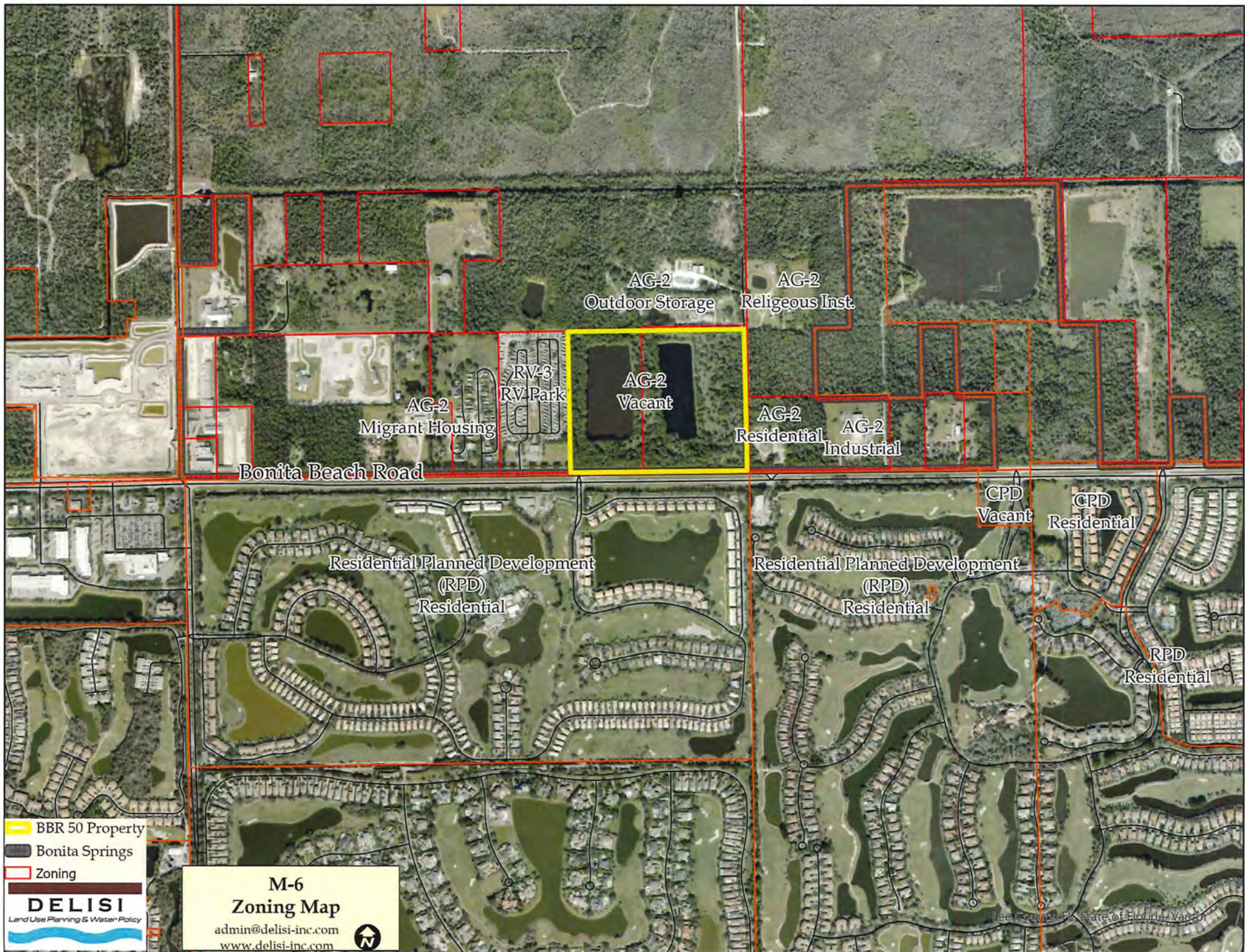
Worthington Country Club Residential

Palmira Residential

Quail West

 BBR 50 Property  
 Bonita Springs  
**DELISI**  
 Land Use Planning & Water Policy

**M5 & M9**  
**Existing and Surrounding**  
**Uses/Properties**  
 admin@delisi-inc.com  
 www.delisi-inc.com



AG-2 Outdoor Storage    AG-2 Religious Inst.

AG-2 Migrant Housing    RV-3 RV Park    AG-2 Vacant    AG-2 Residential    AG-2 Industrial

Bonita Beach Road

Residential Planned Development (RPD) Residential

Residential Planned Development (RPD) Residential

CPD Vacant    CPD Residential

RPD Residential

BBR 50 Property  
 Bonita Springs  
 Zoning  
**DELISI**  
 Land Use Planning & Water Policy

**M-6**  
**Zoning Map**  
 admin@delisi-inc.com  
 www.delisi-inc.com

## LEGAL DESCRIPTION

The Land referred to herein below is situated in the County of LEE, State of Florida, and is described as follows:

### PARCEL 1:

THE EAST THREE-QUARTERS (E 3/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 32, TOWNSHIP 47 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA. LESS AND EXCEPT THE NORTH 25 FEET, THE EAST 25 FEET AND THE SOUTH 30 FEET THEREOF RESERVED FOR COUNTY ROAD RIGHT-OF-WAY AS SET OUT IN THE WARRANTY DEED RECORDED IN BOOK 694, PAGE 536, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA.

### PARCEL 2:

THE EAST HALF (E 1/2) OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 32, TOWNSHIP 47 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA. LESS AND EXCEPT THE NORTH 25 FEET THEREOF RESERVED FOR COUNTY ROADWAY RIGHT-OF-WAY AS SET OUT IN THE WARRANTY DEED RECORDED IN BOOK 191, PAGE 368, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA.

### PARCEL 3:

THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 32, TOWNSHIP 47 SOUTH OF RANGE 26 EAST, LEE COUNTY, FLORIDA. LESS AND EXCEPT THE NORTH 25 FEET THEREOF RESERVED FOR COUNTY ROADWAY RIGHT-OF-WAY AS SET OUT IN THE WARRANTY DEED RECORDED IN BOOK 191, PAGE 370, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA.

### PARCEL 4:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 32, TOWNSHIP 47 SOUTH, RANGE 25 EAST, LEE COUNTY, FLORIDA. LESS AND EXCEPT THE SOUTH 25 FEET THEREOF RESERVED FOR COUNTY ROADWAY RIGHT-OF-WAY AS SET OUT IN THE WARRANTY DEED 191, PAGE 364, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA.

### PARCEL 5:

THE EAST HALF (E 1/2) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 32, TOWNSHIP 47 SOUTH OF RANGE 26 EAST, LEE COUNTY, FLORIDA. LESS AND EXCEPT THE SOUTH 25 FEET THEREOF RESERVED FOR COUNTY ROADWAY RIGHT-OF-WAY AS SET OUT IN THE WARRANTY DEED RECORDED IN BOOK 191, PAGE 366, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA.



**Prepared by and when recorded return to:**

Lynchard & Seely, PLLC  
1901 Andorra St.  
Navarre, Florida 32566

**Property Appraiser's Parcel Identification  
No. 32-47-26-00-00001-0350**

(Space above this line reserved for recording office use only)

**CORRECTIVE WARRANTY DEED**

**\*to correct mailing address to instrument #2020000190104\***

**THIS INDENTURE** made on August 25, 2020, between **GAIL C. GONZALEZ**, as successor Co-Trustee of The Dorothy Crisafulli Trust dated July 10, 1991, who resides at 6228 East Bay Boulevard, Gulf Breeze, Santa Rosa County, Florida 32563, and **LINDA CRISAFULLI**, as successor Co-Trustee of The Dorothy Crisafulli Trust dated July 10, 1991, who resides at 6184 Jays Way, Milton, Santa Rosa County, Florida 32570, (hereinafter collectively referred as "Grantor"), and for and in consideration of the sum of TEN and NO/100 DOLLARS (\$10.00) cash and other good and valuable consideration in hand paid by **CRISAFULLI INVESTMENT GROUP, LLC** (hereinafter referred to as "Grantee"), such Grantee having an address of 6184 Jays Way, Milton, Florida 32570, and hereby GRANT, CONVEYS and WARRANTS unto Grantee, all of Grantor's interest in and to the following described real estate in the County of Lee and State of Florida:

**PARCEL 1:**

The East half (E ½) of the Northeast quarter (NE ¼) of the Southwest quarter (SW ¼) of the Southeast quarter (SE ¼) of Section 32, Township 47 South, of Range 26 East

**PARCEL 2:**

The West half (W ½) of the Northwest quarter (NW ¼) of the Southeast quarter (SE ¼) of the Southeast quarter (SE ¼) of Section 32, Township 47 South of Range 26 East

**PARCEL 3:**

The West half (W ½) of the Southwest quarter (SW ¼) of the Southeast quarter (SE ¼) of the Southeast quarter (SE ¼) of Section 32, Township 47 South, Range 25 East

PARCEL 4:


The East half (E 1/2) of the Southeast quarter (SE 1/4) of the Southwest quarter (SW 1/4) of the Southeast quarter (SE 1/4) of Section 32, Township 47 South of Range 26 East.

TO HAVE AND TO HOLD the property, to the extent conveyed hereby, in fee simple forever, subject to the terms and provisions contained herein, together with each and every right, privilege, hereditament and appurtenance in anywise incident or appertaining to the property. The conveyance made hereby, and the warranties made hereunder, are made by Grantor and accepted by Grantee subject to the following matters, to the extent same are in effect at this time: any and all restrictions, covenants, conditions, liens, encumbrances, reservations, easements, and other exceptions to title, if any, relating to the property, but only to the extent they are still in force and effect and shown of record in Lee County, Florida, and to all zoning laws, regulations and ordinances of municipal and/or other governmental or quasi-governmental authorities, if any, relating to the property and to all matters which would be revealed by an inspection and/or a current survey of the property.

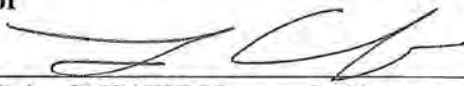
Grantor does hereby bind Grantor and Grantor's heirs, personal representatives, executors, administrators, successors and assigns to warrant and forever defend all and singular the property, to the extent conveyed hereby, unto Grantee and Grantee's heirs, personal representatives, executors, administrators, successors and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof. Taxes for the current year have been prorated and are assumed by Grantee.

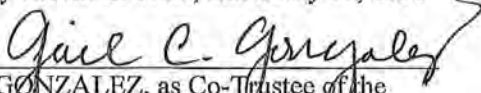
NOTE: THE PREPARER OF THIS DEED REPRESENTS THAT: THIS DEED HAS BEEN PREPARED AT THE EXPRESS DIRECTION AND REQUEST OF THE ABOVE GRANTOR(S) AND/OR GRANTEE(S) SOLELY FROM LEGAL DESCRIPTION (S) PROVIDED TO THE PREPARER BY THE SAID GRANTOR(S) AND/OR GRANTEE(S); THAT NO TITLE SEARCH, SURVEY, OR INSPECTION OF THE ABOVE PROPERTY HAS BEEN PERFORMED BY THE PREPARER, NOR HAS THE PREPARER BEEN PROVIDED SUCH DOCUMENTS; THAT THE TITLE TO THE ABOVE-DESCRIBED REAL PROPERTY HAS NOT BEEN EXAMINED BY THE PREPARER; THAT THE PREPARER MAKES ABSOLUTELY NO REPRESENTATIONS, WARRANTIES, OR GUARANTEES WHATSOEVER AS TO THE STATUS OF THE TITLE OR THE OWNERSHIP OF THE REAL PROPERTY DESCRIBED ABOVE; THAT THIS CONVEYANCE IS SUBJECT TO, AND MAY BE AFFECTED BY, ANY AND ALL RESERVATIONS, LIENS, RESTRICTIONS, AND OTHER ENCUMBRANCES OF RECORD AND BY ANY UNPAID AD VALOREM REAL PROPERTY TAXES, PAST OR PRESENT; AND THAT THESE MATTERS HAVE BEEN EXPLAINED TO, AND UNDERSTOOD BY, THE ABOVE SAID GRANTOR(S) AND/OR GRANTEE(S).

IN WITNESS WHEREOF, the Grantor has executed this Warranty Deed on the day and year first above written. **Signed, Sealed and Delivered in presence of**

  
\_\_\_\_\_  
Sean J. Seely

  
\_\_\_\_\_  
Sarah L. Olive-Smith

  
\_\_\_\_\_  
LINDA CRISAFULLI, as Co-Trustee of the Dorothy Crisafulli Trust, dated July 10, 1991

  
\_\_\_\_\_  
GAIL GONZALEZ, as Co-Trustee of the Dorothy Crisafulli Trust, dated July 10, 2019

STATE OF FLORIDA  
COUNTY OF SANTA ROSA

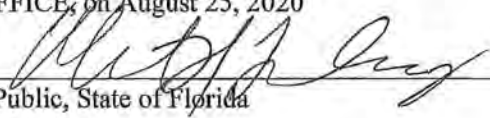
§

The foregoing instrument was acknowledged before me, the undersigned authority, by  physical presence or  online notarization, by LINDA CRISAFULLI, Grantor, who produced a driver's license issued by Florida that contained her photograph and signature as identification thereby proving her to be the person whose name is subscribed to the foregoing instrument as Grantor, by  physical presence or  online notarization, by GAIL GONZALEZ, Grantor, who produced a driver's license issued by Florida that contained her photograph and signature as identification thereby proving her to be the person whose name is subscribed to the foregoing instrument as Grantor, both of whom identified this instrument as a Deed and signed such instrument willingly as Grantor for the purposes and consideration therein expressed, who signed such instrument in the presence of Sean J. Seely, a witness who is personally known to me, and of Sarah L. Olive-Smith, a witness who is personally known to me.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, on August 25, 2020



ALBERT L. HAWKINS, JR.  
MY COMMISSION # GG 066109  
EXPIRES: February 5, 2021  
Bonded Thru Budget Notary Services

  
\_\_\_\_\_  
Notary Public, State of Florida

Notary Public, State of Florida

**Prepared by and when recorded return to:**

Lynchard & Seely, PLLC  
1901 Andorra St.  
Navarre, Florida 32566

**Property Appraiser's Parcel Identification**

No. 32-47-26-00-00001-0100  
32-47-26-00-00001.0110  
32-47-26-00-00001.0120  
32-47-26-00-00001.0130

(Space above this line reserved for recording office use only)

**CORRECTIVE WARRANTY DEED**

**\*to correct mailing address for Grantor and Grantee for deed recorded as Instrument # 2020000190107\***

**THIS INDENTURE** made on August 25, 2020, between **GAIL C. GONZALEZ**, as successor Co-Trustee of The Dorothy Crisafulli Trust dated July 10, 1991, who resides at 6228 East Bay Boulevard, Gulf Breeze, Santa Rosa County, Florida 32563, and **LINDA CRISAFULLI**, as successor Co-Trustee of The Dorothy Crisafulli Trust dated July 10, 1991, who resides at 6184 Jays Way, Milton, Santa Rosa County, Florida 32570, (hereinafter collectively referred as "Grantor"), and for and in consideration of the sum of TEN and NO/100 DOLLARS (\$10.00) cash and other good and valuable consideration in hand paid by **CRISAFULLI INVESTMENT GROUP, LLC** (hereinafter referred to as "Grantee"), such Grantee having an address of 6184 Jays Way, Milton, Florida 32570, and hereby GRANT, CONVEYS and WARRANTS unto Grantee, all of Grantor's interest in and to the following described real estate in the County of Lee and State of Florida:


The East three-quarters (E  $\frac{3}{4}$ ) of the southeast quarter (SE  $\frac{1}{4}$ ) of the Southeast quarter (SE  $\frac{1}{4}$ ) of Section 32, Township 47 South, Range 26 East


TO HAVE AND TO HOLD the property, to the extent conveyed hereby, in fee simple forever, subject to the terms and provisions contained herein, together with each and every right, privilege, hereditament and appurtenance in anywise incident or appertaining to the property. The conveyance made hereby, and the warranties made hereunder, are made by Grantor and accepted by Grantee subject to the following matters, to the extent same are in effect at this time: any and all restrictions, covenants, conditions, liens, encumbrances, reservations, easements, and other exceptions to title, if any, relating to the property, but only to the extent they are still in force and effect and shown of record in Lee County, Florida, and to all zoning laws, regulations and ordinances of municipal and/or other governmental or quasi-governmental authorities, if any, relating to the property and to all matters which would be revealed by an inspection and/or a current survey of the property.

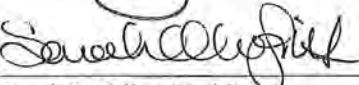
Grantor does hereby bind Grantor and Grantor's heirs, personal representatives, executors, administrators, successors and assigns to warrant and forever defend all and singular the property, to the extent conveyed hereby, unto Grantee and Grantee's heirs, personal representatives, executors, administrators, successors and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof. Taxes for the current year have been prorated and are assumed by Grantee.

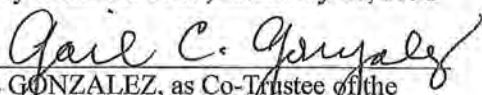
NOTE: THE PREPARER OF THIS DEED REPRESENTS THAT: THIS DEED HAS BEEN PREPARED AT THE EXPRESS DIRECTION AND REQUEST OF THE ABOVE GRANTOR(S) AND/OR GRANTEE(S) SOLELY FROM LEGAL DESCRIPTION (S) PROVIDED TO THE PREPARER BY THE SAID GRANTOR(S) AND/OR GRANTEE(S); THAT NO TITLE SEARCH, SURVEY, OR INSPECTION OF THE ABOVE PROPERTY HAS BEEN PERFORMED BY THE PREPARER, NOR HAS THE PREPARER BEEN PROVIDED SUCH DOCUMENTS; THAT THE TITLE TO THE ABOVE-DESCRIBED REAL PROPERTY HAS NOT BEEN EXAMINED BY THE PREPARER; THAT THE PREPARER MAKES ABSOLUTELY NO REPRESENTATIONS, WARRANTIES, OR GUARANTEES WHATSOEVER AS TO THE STATUS OF THE TITLE OR THE OWNERSHIP OF THE REAL PROPERTY DESCRIBED ABOVE; THAT THIS CONVEYANCE IS SUBJECT TO, AND MAY BE AFFECTED BY, ANY AND ALL RESERVATIONS, LIENS, RESTRICTIONS, AND OTHER ENCUMBRANCES OF RECORD AND BY ANY UNPAID AD VALOREM REAL PROPERTY TAXES, PAST OR PRESENT; AND THAT THESE MATTERS HAVE BEEN EXPLAINED TO, AND UNDERSTOOD BY, THE ABOVE SAID GRANTOR(S) AND/OR GRANTEE(S).

IN WITNESS WHEREOF, the Grantor has executed this Warranty Deed on the day and year first above written. **Signed, Sealed and Delivered in presence of**

  
Sean J. Seely

  
LINDA CRISAFULLI, as Co-Trustee of the Dorothy Crisafulli Trust, dated July 10, 1991


  
Sarah L. Olive-Smith

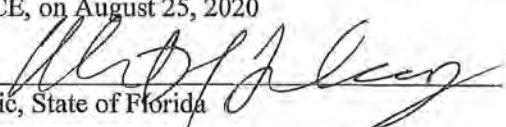
  
GAIL GONZALEZ, as Co-Trustee of the Dorothy Crisafulli Trust, dated July 10, 2019

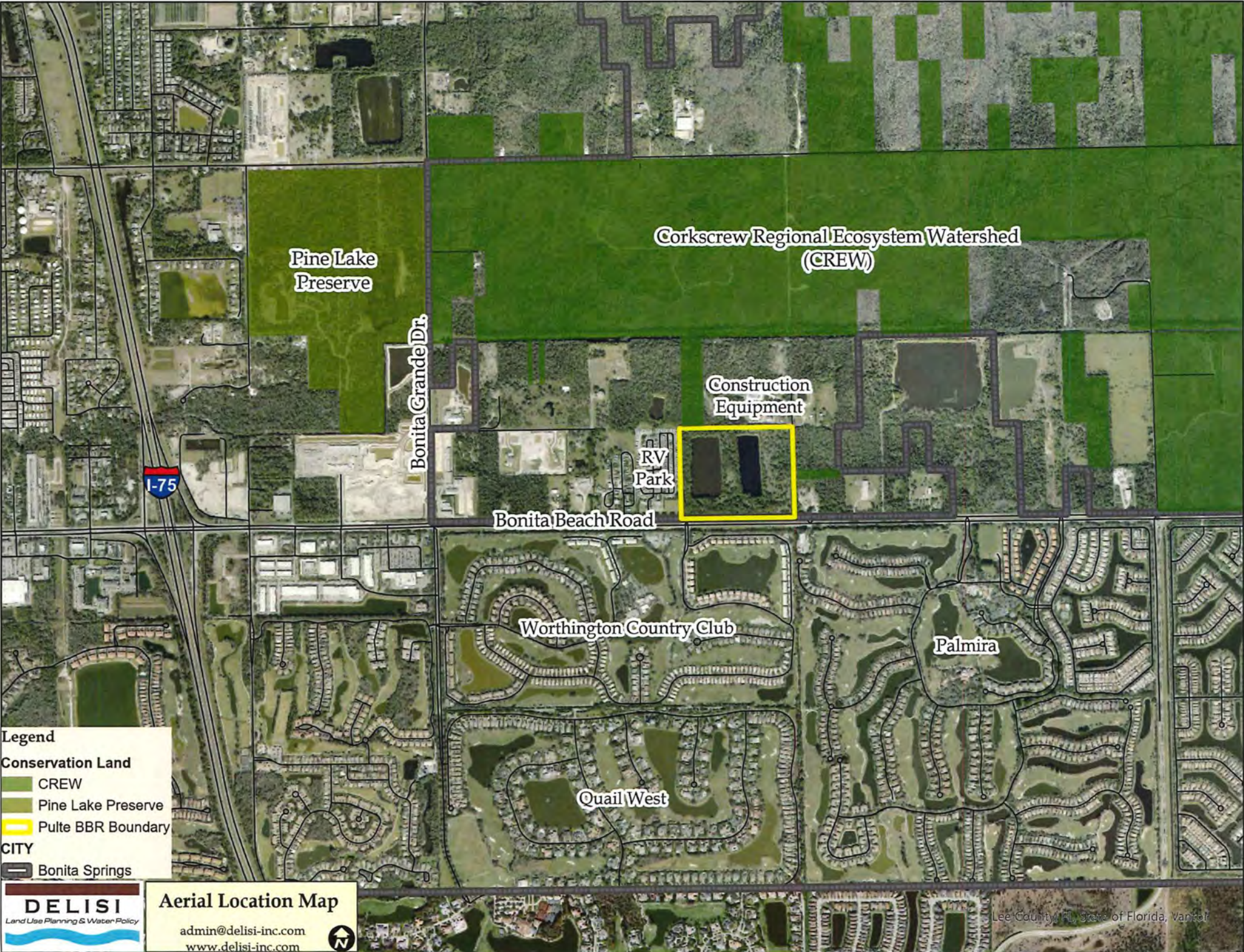
STATE OF FLORIDA §  
COUNTY OF SANTA ROSA

The foregoing instrument was acknowledged before me, the undersigned authority, by  physical presence or  online notarization, by LINDA CRISAFULLI, Grantor, who produced a driver's license issued by Florida that contained her photograph and signature as identification thereby proving her to be the person whose name is subscribed to the foregoing instrument as Grantor, by  physical presence or  online notarization, by GAIL GONZALEZ, Grantor, who produced a driver's license issued by Florida that contained her photograph and signature as identification thereby proving her to be the person whose name is subscribed to the foregoing instrument as Grantor, both of whom identified this instrument as a Deed and signed such instrument willingly as Grantor for the purposes and consideration therein expressed, who signed such instrument in the presence of Sean J. Seely, a witness who is personally known to me, and of Sarah L. Olive-Smith, a witness who is personally known to me.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, on August 25, 2020

 ALBERT L. HAWKINS, JR.  
MY COMMISSION # GG 086109  
EXPIRES: February 5, 2021  
Bonded Thru Budget Notary Services

  
Notary Public, State of Florida



Pine Lake Preserve

Corkscrew Regional Ecosystem Watershed (CREW)

Bonita Grande Dr.

Construction Equipment

RV Park

I-75

Bonita Beach Road

Worthington Country Club

Palmira

Quail West

**Legend**

**Conservation Land**

- CREW
- Pine Lake Preserve
- Pulte BBR Boundary

**CITY**

- Bonita Springs

**DELISI**  
Land Use Planning & Water Policy

**Aerial Location Map**

admin@delisi-inc.com  
www.delisi-inc.com

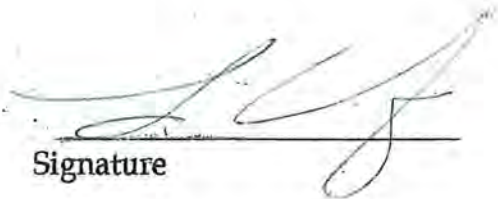


**Letter of Authorization  
Exhibit M-10**

Please be advised that I, Linda Crisafulli, Manager / Crisafulli Investment Group, LLC (Name/Company) am an authorized representative of the fee simple property owner of the property described by the STRAP number below and that Pulte Homes and Daniel DeLisi, AICP, DeLisi, Inc. have been authorized to represent the below referenced parcel in all matters pertaining to amending the Lee County Comprehensive Plan. This authority to represent my interest includes any and all documents required by the Comprehensive Plan Amendment requests submitted on my behalf by either Pulte Homes or DeLisi, Inc.

**STRAP Numbers:**

- 32-47-26-00-00001.0100
- 32-47-26-00-00001.0110
- 32-47-26-00-00001.0120
- 32-47-26-00-00001.0130
- 32-47-26-00-00001.0350

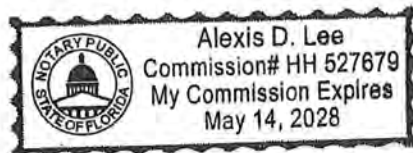
  
Signature

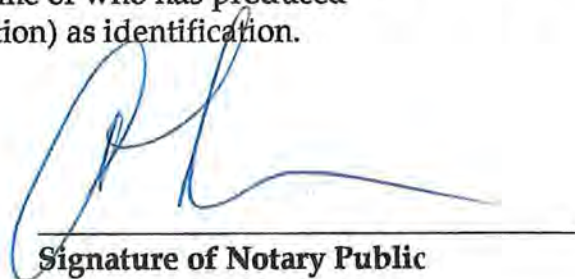
12/3/25  
Date

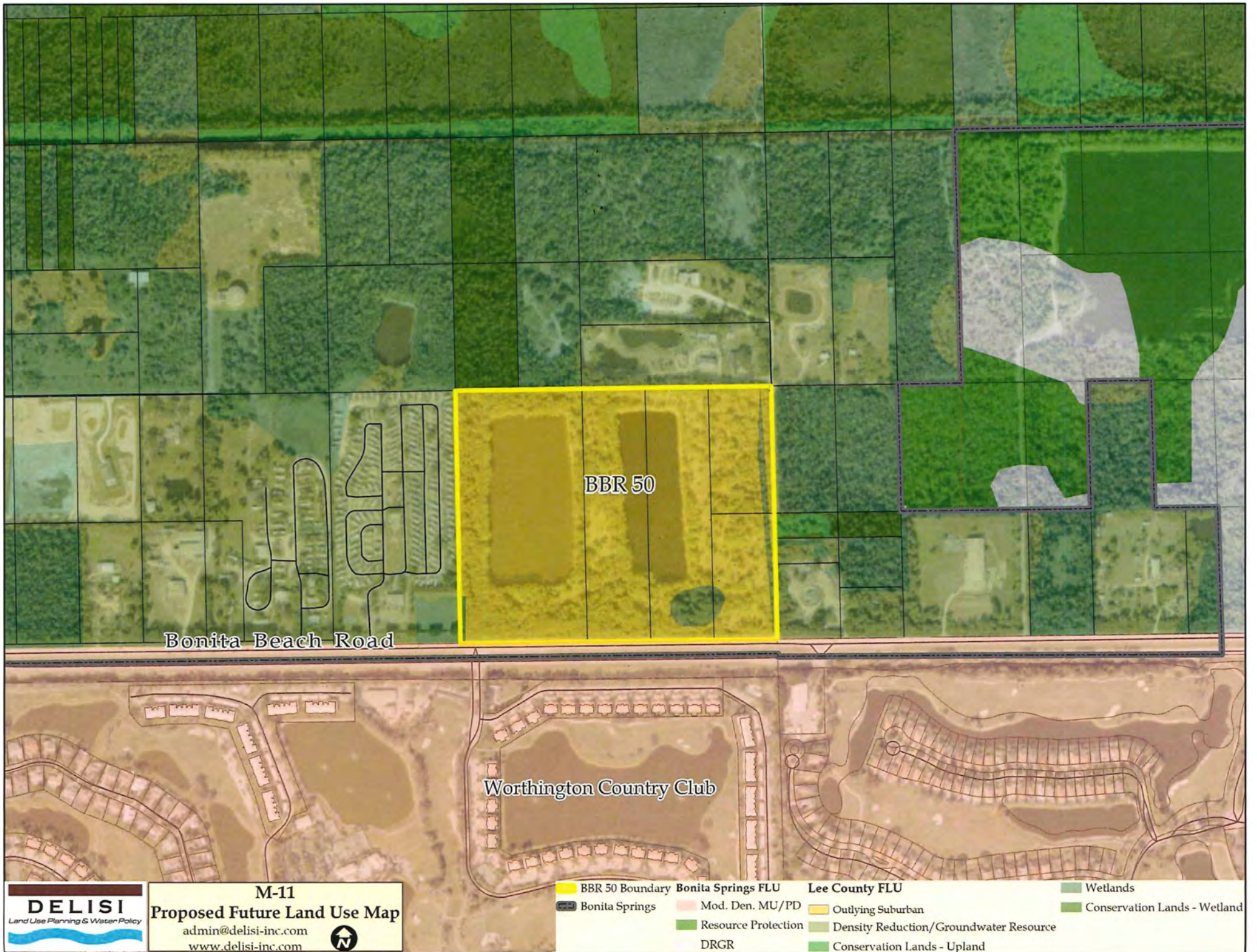
State of FL  
County of Santa Rosa

The foregoing instrument was sworn to (or affirmed) and subscribed before me on 12/3/25 (Date) by Linda Crisafulli (name of person providing oath or affirmation), who is personally know to me or who has produced FL DL (type of identification) as identification.

**STAMP/SEAL**



  
Signature of Notary Public



Bonita Beach Road













BBR 50

Worthington Country Club

**DELISI**  
Land Use Planning & Water Policy

**M-11**  
**Proposed Future Land Use Map**  
admin@delisi-inc.com  
www.delisi-inc.com



 BBR 50 Boundary	 Bonita Springs FLU	 Lee County FLU	 Wetlands
 Bonita Springs	 Mod. Den. MU/PD	 Outlying Suburban	 Conservation Lands - Wetland
	 Resource Protection	 Density Reduction/Groundwater Resource	
	 DRGR	 Conservation Lands - Upland	



## LEE PLAN ANALYSIS Exhibit M12

The proposed Map Amendment will allow for a residential neighborhood along the north side of Bonita Beach Road. An analysis of how the proposed amendment is consistent with the following Lee Plan policies is described below:

***POLICY 1.1.6:*** *The Outlying Suburban future land use category is characterized by its peripheral location in relation to established urban areas. In general, this category is rural in nature or contains existing low-density development. Some of the requisite infrastructure needed for higher density development is planned or in place. Industrial land uses are not permitted. The standard density range is from one dwelling unit per acre (1 du/acre) to three dwelling units per acre (3 du/acre). Bonus densities are not allowed.*

The subject property is proposed to be designated as Outlying Suburban on the future land use map. This is the land use category that was designated for the properties south of Bonita Beach Road in the 1990 Lee Plan and but for the need in 1990 to reduce density on the future land use map, would have been the designation for this property. Although this property is distinctly no longer rural and has urban development directly adjacent on the south and west, densities in the area are generally consistent with the Outlying Suburban land use category and all infrastructure is in place to serve development. The proposed planned development is requesting 94 residential units. The Outlying Suburban future land use category would allow up to 102 units on the 34 upland acres of the property. The proposed Comprehensive plan amendment and rezoning request meet the purpose and intent of the outlying Suburban future land use category.

***POLICY 1.4.5:*** *The Density Reduction/Groundwater Resource (DR/GR) land use category includes upland areas that provide substantial recharge to aquifers most suitable for future wellfield development. These areas also are the most favorable locations for physical withdrawal of water from those aquifers. Only minimal public facilities exist or are programmed.*

*1. New land uses in these areas that require rezoning or a development order must demonstrate compatibility with maintaining surface and groundwater levels at their historic levels (except as provided in Policies 33.1.3 and 33.3.5) utilizing hydrologic modeling, the incorporation of increased storage capacity, and inclusion of green infrastructure. The modeling must also show that no adverse impacts will result to properties located upstream, downstream, as well as adjacent to the site. Offsite mitigation may be utilized, and may be required, to demonstrate this compatibility. Evidence as to historic levels may be submitted during the rezoning or development review processes.*

*2. Permitted land uses include agriculture, natural resource extraction and related facilities, conservation uses, public and private recreation facilities, ~~and~~ residential uses at a maximum density of one dwelling unit per ten acres (1 du/10 acres), and commercial uses in accordance with Policy 33.3.5. See Policies 33.3.2, 33.3.3, 33.3.4, 33.3.5 and 33.3.6 for potential density adjustments resulting from concentration or transfer of development rights.*

The subject property no longer meets the characteristics of the Density Reduction Groundwater Resource land use category. A hydrologic analysis has been conducted and is being submitted with this application demonstrating "compatibility with maintaining surface and groundwater levels at their historic levels". In addition, modeling was conducted which shows "that no adverse impacts will result to properties located upstream, downstream, as well as adjacent to the site."

There is very little about the location of the subject property that is rural. The property is along and has direct access to a four lane divided arterial road, has utility lines in place to serve the property, is proximate to fire, EMS, schools, a YMCA and commercial services. Bonita Beach Road now connects to Logan Boulevard east of the subject property which provides an arterial connection to Collier County.

**OBJECTIVE 1.5: WETLANDS.** *Designate on the Future Land Use Map those lands that are identified as Wetlands in accordance with F.S. 373.019(27) through the use of the unified state delineation methodology described in FAC Chapter 27-340, as ratified and amended in F.S. 373.4211.*

**POLICY 1.5.1:** *Permitted land uses in Wetlands consist of very low density residential uses and recreational uses that will not adversely affect the ecological functions of wetlands. All development in Wetlands must be consistent with Goal 124 of this plan. The maximum density is one dwelling unit per twenty acres (1 du/20 acre) except as otherwise provided in Table 1(a) and Chapter XIII of this plan.*

The subject property has areas that have been designated as wetlands in accordance with F.S. 373.019(27) through the use of the unified state delineation methodology. The wetland areas are highly impacted and do not meet the definition of indigenous vegetation. According to the Passarella ecological assessment, these wetland areas provide very limited functional value. Mitigation for these areas will provide a net positive benefit for the ecology and hydrology regionally. Density on these properties will remain at 1 du/20 acres.

**OBJECTIVE 2.1: DEVELOPMENT LOCATION.** *Contiguous and compact growth patterns will be promoted through the rezoning process to contain urban sprawl, minimize energy costs, conserve land, water, and natural resources, minimize the cost of services, prevent development patterns where large tracts of land are by-passed in favor of development more distant from services and existing communities.*

The proposed amendment is in a location where large-scale residential development is occurring or in place directly to the south and west, and in close proximity to the east. The proposed plan amendment would allow for the development of an appropriate use for the subject property in an appropriate location.

***POLICY 2.1.1:*** *Most residential, commercial, industrial, and public development is expected to occur within the designated Future Urban Areas on the Future Land Use Map through the assignment of very low densities to the non-urban categories.*

There is very little about the location of the subject property that is rural. The property is along and has direct access to a four lane divided arterial road, has utility lines in place to serve the property, is proximately to fire, EMS, schools, a YMCA and commercial services. Since the property's designation as DR/GR in 1990 this area has changed dramatically and is now distinctly urban in character. The changed reality of this area should be reflected on the future land use map.

***POLICY 2.3.1:*** *All proposed changes to the Future Land Use Map in critical areas for future potable water supply (Lehigh Acres as described in Policy 54.1.9 and all land in the DR/GR land use category) will be subject to a special review by the staff of Lee County. This review will analyze the proposed land uses to determine the short-term and long-term availability of irrigation and domestic water sources, and will assess whether the proposed land uses would cause any significant impact on present or future water resources. If the Board of County Commissioners wishes to approve any such changes to the Future Land Use Map, it must make a formal finding that no significant impacts on present or future water resources will result from the change.*

***POLICY 2.3.2:*** *Future Land Use Map amendments to the existing DR/GR areas south of SR 82 east of I-75, excluding areas designated by the Port Authority as needed for airport expansion, which increase the current allowable density or intensity of land use will be discouraged by the County. It is Lee County's policy not to approve further urban designations there for the same reasons that supported its 1990 decision to establish this category. In addition to satisfying the requirements in Ch. 163, Part II, Fla. Stat., the Strategic Regional Policy Plan, the State Comprehensive Plan, and all of the criteria in the Lee Plan, applicants seeking such an amendment must:*

- 1. analyze the proposed allowable land uses to determine the availability of irrigation and domestic water sources; and,*
- 2. identify potential irrigation and domestic water sources, consistent with the Regional Water Supply Plan. Since regional water suppliers cannot obtain permits consistent with the planning time frame of the Lee Plan, water sources do not have to be currently permitted and available, but they must be reasonably capable of being permitted; and,*
- 3. present data and analysis that the proposed land uses will not cause any significant harm to present and future public water resources; and,*
- 4. supply data and analysis specifically addressing urban sprawl.*

*During the transmittal and adoption process, the Board of County Commissioners must review the application for all these analytical requirements and make a finding that the amendment complies with all of them.*

Attached to this application is a *Characterization of Groundwater and Surface water resources* report conducted by RESPEC, which provides an in depth analysis in response to Policies 2.3.1 and 2.3.2. Specifically, the report states:

*“Regional SFWMD groundwater modeling indicated that projected withdrawals, including existing recreational and aesthetic withdrawals within and near the DR/GR result in only minor drawdowns (0.5 to 3 feet) and do not threaten long-term potable water availability. Because the irrigation demand associated with the proposed development is considered minimal, the project’s groundwater use will not impair existing or future potable water resources and is therefore consistent with Policy 2.3.1.*

*The Lower Tamiami Aquifer is a planned and sustainable irrigation source within the regional water-supply framework. SFWMD modeling demonstrates that cumulative future withdrawals remain within sustainable aquifer yield limits, including within recharge areas associated with the DR/GR. The hydrogeologic properties of the Lower Tamiami Aquifer, high transmissivity, substantial thickness, and protection by an overlying confining unit further support its ability to accommodate low-intensity landscape irrigation without compromising recharge or inducing undesirable water-level changes. Groundwater flow modeling (see **Section 5** below) of the proposed residential irrigation demands, and the detailed integrated modeling analysis clearly demonstrate no adverse impacts to the DR/GR and the overall water resources will occur. In fact, recharge potential increases because of the proposed development.” (Page 7 of 15)*

The groundwater resource component of the DRGR has been addressed by the requirements set forth in Section 163.3177(6)(c)4, F.S. as implemented through Policy 55.1.3. The subject property is not shown as being needed to implement the County’s water supply needs in the Water Supply Facilities Work Plan or the SFWMD Lower West Coast Water Supply Plan.

**GOAL 5: RESIDENTIAL LAND USES.** *To accommodate the projected population of Lee County in the year 2045 in appropriate locations, guided by the Future Land Use Map, and in attractive and safe neighborhoods with a variety of price ranges and housing types.*

The primary reason why the subject property was designated DR/GR in the 1990 settlement with the then DCA was premature designation of excessing population through the year 2010 on the future land use map. As Goal 5 demonstrates the intent of the Lee Plan is to now look out to 2045, 35 years ahead of the horizon year in the 2010 plan. This area have experienced a dramatic transformation in that time.

**POLICY 5.1.1:** *Residential developments requiring rezoning and meeting Development of County Impact (DCI) thresholds must be developed as Planned Developments except if located within the Mixed Use Overlay.*

A planned development application is being filed concurrent with the proposed Lee Plan amendment.

**POLICY 5.1.2:** *Prohibit residential development where physical constraints or hazards exist, or require the density and design to be adjusted accordingly. Such constraints or hazards include but are not limited to flood, storm, or hurricane hazards; unstable soil or geologic conditions; environmental limitations; aircraft noise; or other characteristics that may endanger the residential community.*

The subject property is not within the Coastal High Hazard area and not in an area where physical constraints exist. Any development of the property will need to meet FEMA design standards and be permitted through the SFWMD to ensure that the property does not flood or cause off site flooding.

**POLICY 60.4.3:** *The county encourages the preservation of existing natural flow-ways and the restoration of historic natural flow-ways.*

As shown on the attached flowway map, there are no historic flowways that cross the subject property.

**GOAL 61: PROTECTION OF WATER RESOURCES.** *To protect the county's water resources through the application of innovative and sound methods of surface water management and by ensuring that the public and private construction, operation, and maintenance of surface water management systems are consistent with the need to protect receiving waters.*

**OBJECTIVE 61.2: MIMICKING THE FUNCTIONS OF NATURAL SYSTEM.** Support a surface water management strategy that relies on natural features (flow ways, sloughs, strands, etc.) and natural systems to receive and otherwise manage storm and surface water.

As stated in the ground and surface water analysis conducted by RESPEC: *"The site design incorporates open space areas and pervious surfaces consistent with the LDC to maintain groundwater recharge functions while preventing land uses or activities that could degrade groundwater quality within the wellfield protection area. These measures further support Lee Plan Goal 61 (Water Resources) and Objective 61.2 by maintaining pre-development hydrologic conditions to the maximum extent practicable and protecting groundwater recharge and water quality."*

**POLICY 63.1.2:** The staff hydrogeologist will review and comment on all development applications near public utility potable water wellfields, with particular attention to proposed land uses within a 10-year travel time from the wellheads.

As stated in the ground and surface water analysis conducted by RESPEC: *“Stormwater management systems are designed to meet or exceed Lee County LDC and SFWMD water quality and treatment standards. Stormwater runoff will receive appropriate treatment prior to discharge or infiltration to minimize pollutant migration within the wellfield travel time zones, consistent with Lee Plan Policy 63.1.2 and corresponding LDC performance standards. Untreated stormwater infiltration within sensitive portions of the wellfield protection area is avoided, and pretreatment is provided where infiltration practices are utilized.”*

## **Conclusion**

The proposed Lee Plan amendment and Planned Development application are consistent with the Lee Plan as a whole. The current future land use category is no longer applicable or consistent with the subject property or the surrounding uses to the west, east and south of the subject property. Analyses have been conducted to adequately demonstrate that approval of this project will not have a negative impact on future water resources of the county and may have an overall net improvement.



-  Bonita Beach 50
-  Bonita Springs
-  Flowway Arrows
-  Historic Flowways Connections
-  Flowways 2005

**DELISI** Historic Flowways Map  
 Land Use Planning & Water Policy  
 admin@delisi-inc.com  
 www.delisi-inc.com



**BONITA BEACH ROAD 50  
ENVIRONMENTAL ASSESSMENT**

**December 2025**

Prepared For:

***Pulte Home Company, LLC***  
*24311 Walden Center Drive, Suite 300*  
*Bonita Springs, Florida 34134*  
*(239) 495-4850*

Prepared By:

***Passarella & Associates, Inc.***  
*13620 Metropolis Avenue, Suite 200*  
*Fort Myers, Florida 33912*  
*(239) 274-0067*

## TABLE OF CONTENTS

	<u>Page</u>
Introduction.....	1
Land Uses and Vegetation Associations.....	1
Soils.....	3
Jurisdictional Wetlands.....	3
Listed Species .....	3
Summary .....	7
References.....	7

## LIST OF FIGURES

	<u>Page</u>
Figure 1. Project Location Map.....	2

## LIST OF TABLES

	<u>Page</u>
Table 1. SFWMD Wetland and OSW Acreages by FLUCFCS Code .....	3
Table 2. Listed Wildlife Species That Could Potentially Occur Within the Project .....	4
Table 3. Listed Plant Species That Could Potentially Occur Within the Project.....	5

## LIST OF APPENDICES

	<u>Page</u>
Appendix A. Aerial with Boundary.....	A-1
Appendix B. FLUCFCS and Wetlands Map .....	B-1
Appendix C. Aerial with FLUCFCS and Wetlands Map .....	C-1
Appendix D. Existing Land Use and Cover Summary Table and FLUCFCS Descriptions ....	D-1
Appendix E. Soils Map .....	E-1
Appendix F. Soils Summary Table and Descriptions.....	F-1
Appendix G. Quad Sheet.....	G-1
Appendix H. Documented Occurrences of Listed Species.....	H-1
Appendix I. Aerial with FLUCFCS, Survey Transects, and Protected Species Locations.....	I-1

## **INTRODUCTION**

An environmental assessment was conducted on Bonita Beach Road 50 (Project) to document existing land uses and vegetative cover; document the presence of state-jurisdictional wetlands; research potential utilization by wildlife and plant species listed by the Florida Fish and Wildlife Conservation Commission (FWCC), the Florida Department of Agriculture and Consumer Services (FDACS), or the U.S. Fish and Wildlife Service (USFWS) as threatened, endangered, or species of special concern; and document listed species utilization within the Project site. The assessment included field surveys to map vegetation communities, a review of agency records for documented occurrences of listed species on the Project, and field surveys to document listed species utilization within the Project. This report summarizes the results of the environmental assessment.

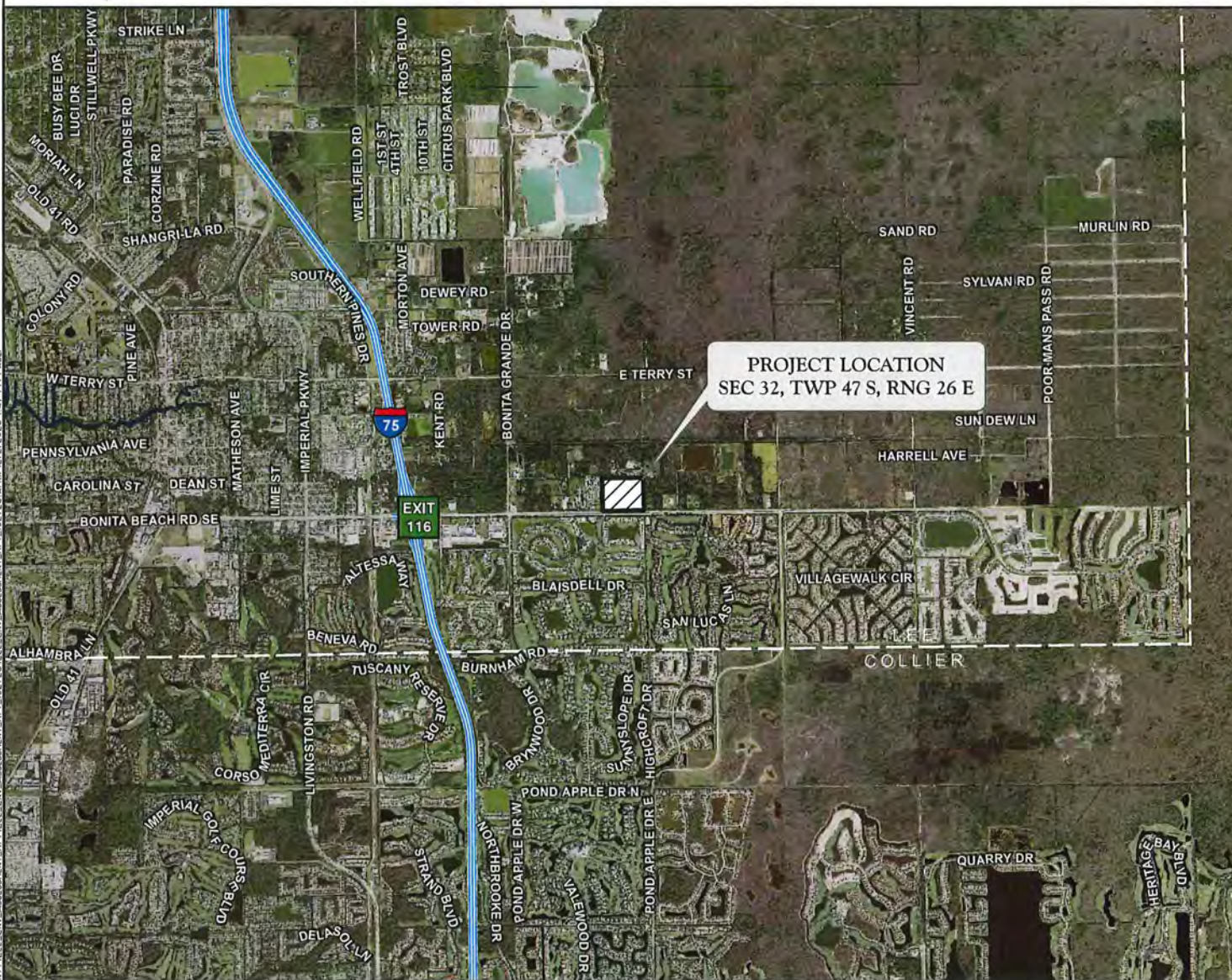
The Project totals 47.02± acres and is located in Section 32, Township 47 South, Range 26 East, Lee County (Figure 1). The Project is bordered to the north by undeveloped land and commercial buildings; to the south by Bonita Beach Road and Worthington Country Club; to the east by Faygin Lane, undeveloped land, and a single-family residence; and to the west by Sanctuary RV Resort (Appendix A).

The Project currently consists of non-indigenous upland and wetland habitats, lakes, and ditches.

## **LAND USES AND VEGETATION ASSOCIATIONS**

Vegetation associations for the Project were originally mapped by Passarella & Associates, Inc. on August 16, 2024, using 2024 Lee County rectified color aerial photographs, utilizing the Florida Land Use, Cover and Forms Classification System (FLUCFCS). The mapping was subsequently updated in October 2025 per a survey boundary and wetland lines received from Barraco and Associates, Inc. Groundtruthing to map the vegetative communities was conducted utilizing FLUCFCS Levels III and IV (Florida Department of Transportation 1999). Level IV was utilized to denote exotic disturbance and hydrologic conditions. AutoCAD Map 3D 2024 software was used to determine the acreage of each mapping area, produce summaries, and generate the FLUCFCS map (Appendix B). An aerial photograph of the Project with an overlay of the FLUCFCS and wetlands is provided as Appendix C.

A total of ten vegetative and land cover types (i.e., FLUCFCS codes) were identified on the Project site. The dominant land uses on the Project include mixed exotics, lakes, and hydric disturbed land, which together occupy 35.07± acres or 75 percent of the site. The site contains disturbed non-native wetland systems, consisting of exotic wetland hardwoods and hydric disturbed land habitat types. The on-site wetland habitats have been disturbed by ditches, lakes, and exotic vegetation. There are no rare or unique upland habitats on the Project site. A summary of the FLUCFCS codes with acreage breakdown and a description of each FLUCFCS code are presented in Appendix D.



PROJECT LOCATION  
SEC 32, TWP 47 S, RNG 26 E

FIGURE 1. PROJECT LOCATION MAP  
BONITA BEACH ROAD 50

DRAWN BY	DATE
P.F.	10/20/25
REVIEWED BY	DATE
S.J.	10/20/25
REVISED	DATE



J:\2024\24-004260\COUNTY\EE - ENV. ASSESSMENT - RPT\EE - ENV. ASSESSMENT - RPT - 102725.FPKX.12/2/2025 1:27 PM PAULF

## SOILS

The soils for the Project, per the Natural Resources Conservation Service (formerly the Soil Conservation Service), are shown on Appendix E. A brief description for each soil type per the Soil Survey of Lee County, Florida (U.S. Department of Agriculture 1984 and 2020) is presented in Appendix F.

## JURISDICTIONAL WETLANDS

The jurisdictional wetlands and “other surface waters” (OSWs) by FLUCFCS Code are summarized in Table 1. South Florida Water Management District (SFWMD) jurisdictional wetlands constitute a total of 13.00± acres (27.7 percent) of the Project site. SFWMD-jurisdictional OSWs constitute a total of 17.13± acres (36.4 percent) of the Project site.

**Table 1. SFWMD Wetland and OSW Acreages by FLUCFCS Code**

<b>FLUCFCS Code</b>	<b>Description</b>	<b>Acreage (±)</b>
<b>Wetlands</b>		
514H	Ditch, Hydric	0.11
619	Exotic Wetland Hardwoods	3.10
7401	Disturbed Land, Hydric	9.79
<b>Wetlands Total</b>		<b>13.00</b>
<b>OSWs</b>		
514	Ditch	0.25
520	Lakes	16.88
<b>OSWs Total</b>		<b>17.13</b>

The prominent wetland features consist of Exotic Wetland Hardwoods (FLUCFCS Code 619) and Disturbed Land, Hydric (FLUCFCS Code 7401), which contain high levels of exotic infestation. A U.S. Geological Survey quadrangle map is provided as Appendix G.

## LISTED SPECIES

Wildlife species listed by the FWCC or the USFWS that can occur on the Project site are listed in Table 2 (FWCC 2025, USFWS 1999). Plant species listed by the FDACS or the USFWS (FDACS Chapter 5B-40) that can occur on the Project site are listed in Table 3. Information used in assessing the potential occurrence of these species included the Lee County Land Development Code, Field Guide to the Rare Plants of Florida (Chafin 2000), Atlas of Florida Vascular Plants (Wunderlin 2004), and professional experience and knowledge of the geographic region. In addition, FWCC and USFWS records for documented listed species were reviewed for listed species records on or adjacent to the Project (Appendix H).

**Table 2. Listed Wildlife Species That Could Potentially Occur Within the Project**

Common Name	Scientific Name	Designated Status		Potential Habitats (FLUCFCS Code)
		FWCC	USFWS	
<b>Amphibians and Reptiles</b>				
American alligator	<i>Alligator mississippiensis</i>	FT(S/A)	FT(S/A)	514, 514H, 520, 619
Eastern indigo snake	<i>Drymarchon corais couperi</i>	FT	FT	4289
Gopher frog	<i>Lithobates capito</i>	*	-	4349, 740, 747
Gopher tortoise	<i>Gopherus polyphemus</i>	ST	-	4349, 740, 747
<b>Birds</b>				
Audubon's crested caracara	<i>Caracara plancus audubonii</i>	ST	FE	4289, 4349
Everglade snail kite	<i>Rostrhamus sociabilis plumbeus</i>	FE	FE	520
Florida burrowing owl	<i>Athene cunicularia floridana</i>	ST	-	740, 747
Limpkin	<i>Aramus guarauna</i>	*	-	514, 514H, 520, 619, 7401
Little blue heron	<i>Egretta caerulea</i>	ST	-	514, 514H, 520, 619, 7401
Reddish egret	<i>Egretta rufescens</i>	ST	-	514, 514H, 520
Roseate spoonbill	<i>Platalea ajaja</i>	ST	-	514, 514H, 520
Snowy egret	<i>Egretta thula</i>	*	-	514, 514H, 520, 619, 7401
Tricolored heron	<i>Egretta tricolor</i>	ST	-	514, 514H, 520, 619, 7401
Wood stork	<i>Mycteria americana</i>	FT	FT	514, 514H, 520, 619, 7401
<b>Mammals</b>				
Big Cypress fox squirrel	<i>Sciurus niger avicennia</i>	ST	-	4349, 439, 619
Everglades mink	<i>Neovison vison evergladensis</i>	ST	-	514, 514H, 520, 7401
Florida black bear	<i>Ursus americanus floridanus</i>	*	-	4289, 4349, 439, 619
Florida bonneted bat	<i>Eumops floridanus</i>	FE	FE	4289, 4349, 439, 514, 514H, 520, 619, 740, 7401, 747
Florida panther	<i>Puma concolor coryi</i>	FE	FE	4289, 4349, 439, 619

FWCC – Florida Fish and Wildlife Conservation Commission

USFWS – U.S. Fish and Wildlife Service

FE – Federally Endangered

FT – Federally Threatened

FT(S/A) – Federally Threatened Due to Similarity of Appearance

ST – State-Threatened

\*No longer listed by the FWCC; however, certain protection measures still apply.

**Table 3. Listed Plant Species That Could Potentially Occur Within the Project**

Common Name	Scientific Name	Designated Status		Potential Location (FLUCFCS Code)
		FDACS	USFWS	
Hand fern	<i>Ophioglossum palmatum</i>	E	-	4289
Simpson's stopper	<i>Myrcianthes fragrans</i> var. <i>simpsonii</i>	T	-	4289
Twisted airplant	<i>Tillandsia flexuosa</i>	T	-	4349

FDACS – Florida Department of Agriculture and Consumer Services

USFWS – U.S. Fish and Wildlife Service

E – Endangered

T – Threatened

American Alligator (*Alligator mississippiensis*)

The American alligator could potentially occur within the ditches, open-water habitats, and wetlands within the Project site.

Eastern Indigo Snake (*Drymarchon corais couperi*)

The Eastern indigo snake could potentially occur within native uplands on the Project site. The Eastern indigo snake is typically found in association with populations of gopher tortoise (*Gopherus polyphemus*).

Gopher Frog (*Lithobates capito*)

The gopher frog could potentially occur within the native uplands on the Project site. The gopher frog is typically found in association with populations of gopher tortoises.

Gopher Tortoise (*Gopherus polyphemus*)

Potential habitat on the Project site for the gopher tortoise includes mixed hardwood/conifer habitats, disturbed land, and berms.

Audubon's Crested Caracara (*Caracara plancus audubonii*)

Potential nesting habitat for the crested caracara on the Project site consists of cabbage palm and mixed hardwood/conifer habitats.

Everglade Snail Kite (*Rostrhamus sociabilis plumbeus*)

Potential foraging habitat for the Everglade snail kite includes lakes on the Project site.

Florida Burrowing Owl (*Athene cunicularia floridana*)

Potential burrowing owl habitat exists within the disturbed land and berms on the Project site.

Limpkin (*Aramus guarauna*)

Potential foraging habitat within the Project site for the limpkin includes the forested wetlands, hydric disturbed lands, ditches, and lakes.

Little Blue Heron (*Egretta caerulea*), Snowy Egret (*E. thula*), and Tricolored Heron (*E. tricolor*)  
Potential foraging habitat within the Project site for state-listed wading birds includes the forested wetlands, hydric disturbed lands, ditches, and lakes.

Reddish Egret (*Egretta rufescens*)  
Potential habitat for the reddish egret on the Project site includes ditches and lakes.

Roseate Spoonbill (*Platalea ajaja*)  
Potential habitat for the roseate spoonbill on the Project site includes ditches and lakes.

Wood Stork (*Mycteria americana*)  
Potential wood stork foraging habitat within the Project site includes forested wetlands, hydric disturbed lands, ditches, and lakes. Almost any wetland depression where fish tend to become concentrated, either through local reproduction by fishes or as a consequence of area drying, may be suitable as feeding habitat (Rodgers *et al.* 1996).

Big Cypress Fox Squirrel (*Sciurus niger avicennia*)  
Potential nesting and foraging habitat for the Big Cypress fox squirrel includes upland and wetland forested habitats on the Project site.

Everglades Mink (*Neovison vison evergladensis*)  
The Everglades mink inhabits South Florida and in particular the shallow freshwater marshes of the Everglades and Big Cypress Swamp regions. Most sightings and specimens have come from either Collier or Dade County, but the Everglades mink presumably inhabits northern and eastern Monroe County as well (Humphrey 1992). The Everglades mink is listed as a protected species by Lee County and could potentially utilize the ditches, lakes, and herbaceous wetland habitats on the Project site.

Florida Black Bear (*Ursus americanus floridanus*)  
Potential habitat for the Florida black bear includes upland and wetland forested lands on the Project site. The USFWS and the FWCC have documented Florida black bear occurrences to the northeast of the Project site.

Florida Bonneted Bat (*Eumops floridanus*)  
Florida bonneted bats could potentially roost within the forested upland and wetland habitats on the Project site and forage over the herbaceous wetlands, ditches, lakes, and disturbed land. The Florida bonneted bat is known to occur in cities and forested areas on both the east and west coasts of South Florida, from Charlotte County to Palm Beach County (Marks and Marks 2006, Humphrey 1992).

Florida Panther (*Puma concolor coryi*)  
The majority of the Project site is located outside of the Florida panther focus area; however, the Florida panther Primary Zone overlaps portions of the Project along the northern and eastern boundaries. (Kautz *et al.* 2006). There are no Florida panther telemetry points documented on the Project site and there were no Florida panthers or their sign (scat, tracks, etc.) observed on the site.

However, the Florida panther could potentially utilize the forested upland and wetland habitats on the Project.

A Lee County protected species survey was conducted on the Project site on September 18, 2025. Two American alligators and one American alligator nest were documented within the Project area (Appendix I). No listed plant species were observed on the Project during the protected species survey.

## **SUMMARY**

A total of ten vegetative and land cover types (i.e., FLUCFCS codes) were identified within the Project site. SFWMD-jurisdictional wetlands constitute a total of 13.00± acres (27.7 percent) of the Project site. SFWMD-jurisdictional OSWs constitute a total of 17.13± acres (36.4 percent) of the Project site. There are no rare or unique upland habitats on the Project site.

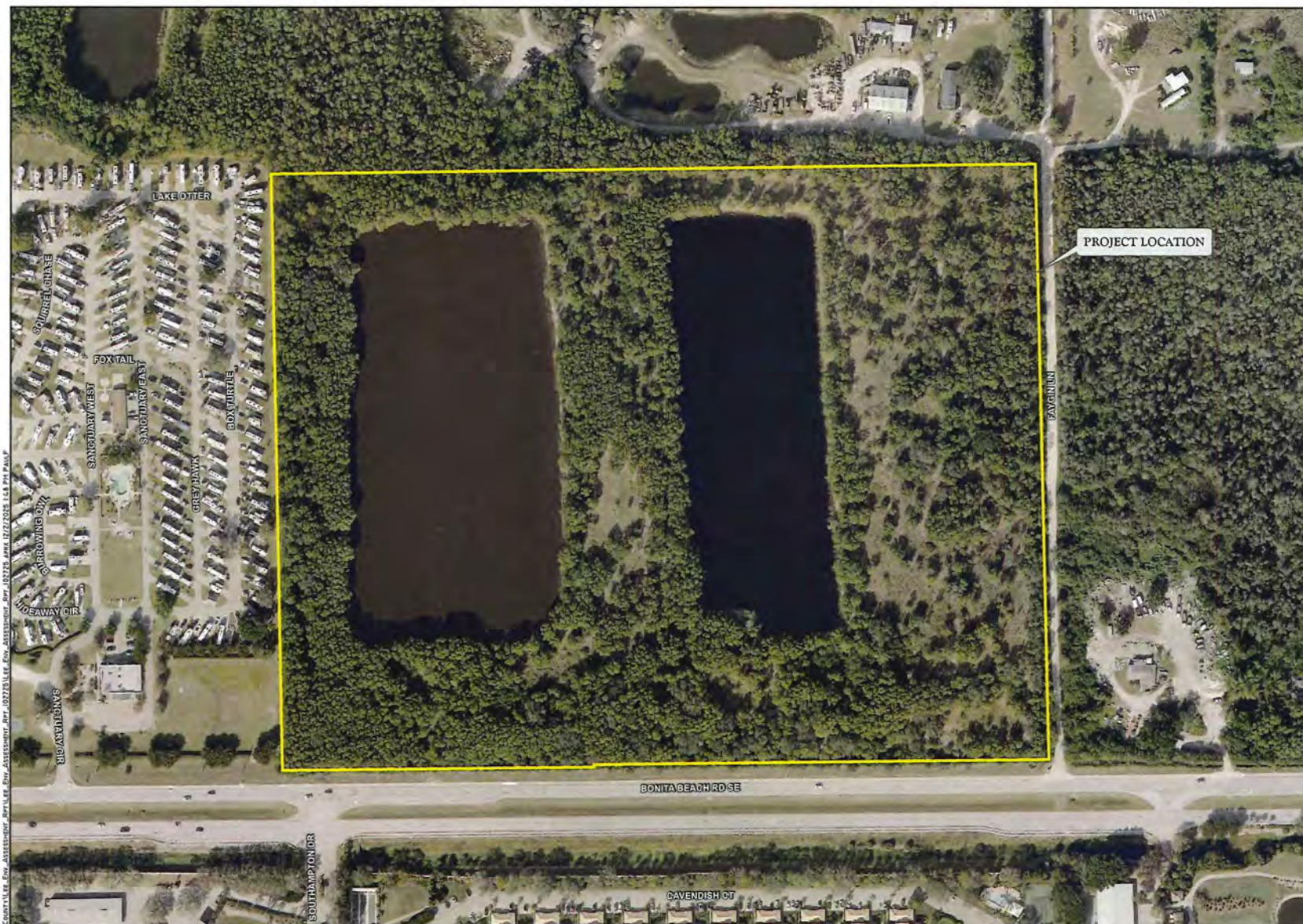
A Lee County protected species survey was conducted on the Project site. Two American alligators and one American alligator nest were documented on the Project during the survey. No listed plant species were observed on the Project during the protected species survey.

## **REFERENCES**

- Chafin, Linda G. 2000. Field Guide to the Rare Plants of Florida. Florida Natural Areas Inventory. Tallahassee, Florida.
- Florida Department of Agriculture and Consumer Services. Florida's Federally Listed Plant Species. Chapter 5B-40, F.A.C.
- Florida Department of Transportation. 1999. Florida Land Use, Cover and Forms Classification System (FLUCFCS). Procedure No. 550-010-001-a. Third Edition.
- Florida Fish and Wildlife Conservation Commission. 2025. Florida's Endangered and Threatened Species. Official Lists, Bureau of Non-Game Wildlife, Division of Wildlife. Florida Fish and Wildlife Conservation Commission. Tallahassee, Florida.
- Humphrey, Stephen R. 1992. Rare and Endangered Biota of Florida; Volume I. Mammals. University Press of Florida, Gainesville, Florida. 392 pages.
- Kautz, R., R. Kawula, T. Hctor, J. Comiskey, D. Jansen, D. Jennings, J. Kasbohm, F. Mazzotti, R. McBride, L. Richardson, K. Root. 2006. How much is enough? Landscape-scale conservation for the Florida panther. *Biological Conservation*, Volume 130, Issue 1, Pages 118-133.
- Marks, C.S. and G.E. Marks. 2006. Bats of Florida. University Press of Florida, Gainesville, Florida.

- Rodgers, J.A, H.W. Kale, and H.T. Smith. 1996. Rare and Endangered Biota of Florida. Volume V. Birds. University Press of Florida, Gainesville, Florida.
- U.S. Department of Agriculture, Soil Conservation Service. 1984. Soil Survey of Lee County, Florida.
- U.S. Department of Agriculture, Soil Conservation Service. 2020. Soil Survey of Lee County, Florida.
- U.S. Fish and Wildlife Service. 1999. Multi-Species Recovery Plan for South Florida. U.S. Fish and Wildlife Service, Vero Beach, Florida.
- Wunderlin, R.P., and B.F. Hansen. 2004. Atlas of Florida Vascular Plants. (<http://www.plantatlas.usf.edu/>). Institute for Systematic Botany, University of South Florida, Tampa.

**APPENDIX A**  
**AERIAL WITH BOUNDARY**



**LEGEND**  
 BONITA BEACH ROAD 50



NOTES:  
 AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE LEE COUNTY PROPERTY APPRAISER'S OFFICE WITH A FLIGHT DATE OF JANUARY - MARCH 2025.  
 PROPERTY BOUNDARY PER BARRACO AND ASSOCIATES, INC. DRAWING No. 24350500.DWG DATED OCTOBER 17, 2025.

REVISION	DATE

DRAWN BY	P.F.	DATE	10/21/25
DESIGNED BY	P.S.	DATE	10/21/25
REVIEWED BY	S.J.	DATE	10/21/25

13620 Metropolis Avenue  
 Suite 200  
 Ft. Myers, FL 33912  
 Phone (239) 274-0067  
 Fax (239) 274-0069



BONITA BEACH ROAD 50  
 AERIAL WITH BOUNDARY

DRAWING No.	24CIG4260
SHEET No.	APPENDIX A

J:\2024\24CIG4260\24CIG4260\_Aerial\_Env\_Assessment\_Pt\_1\_02715\Lee\_Env\_Assessment\_Pt\_1\_02715\_Aerial\_Env\_Assessment\_Pt\_1\_02715.dwg ASSIGNED BY: P.F. DATE: 10/21/25

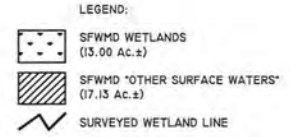
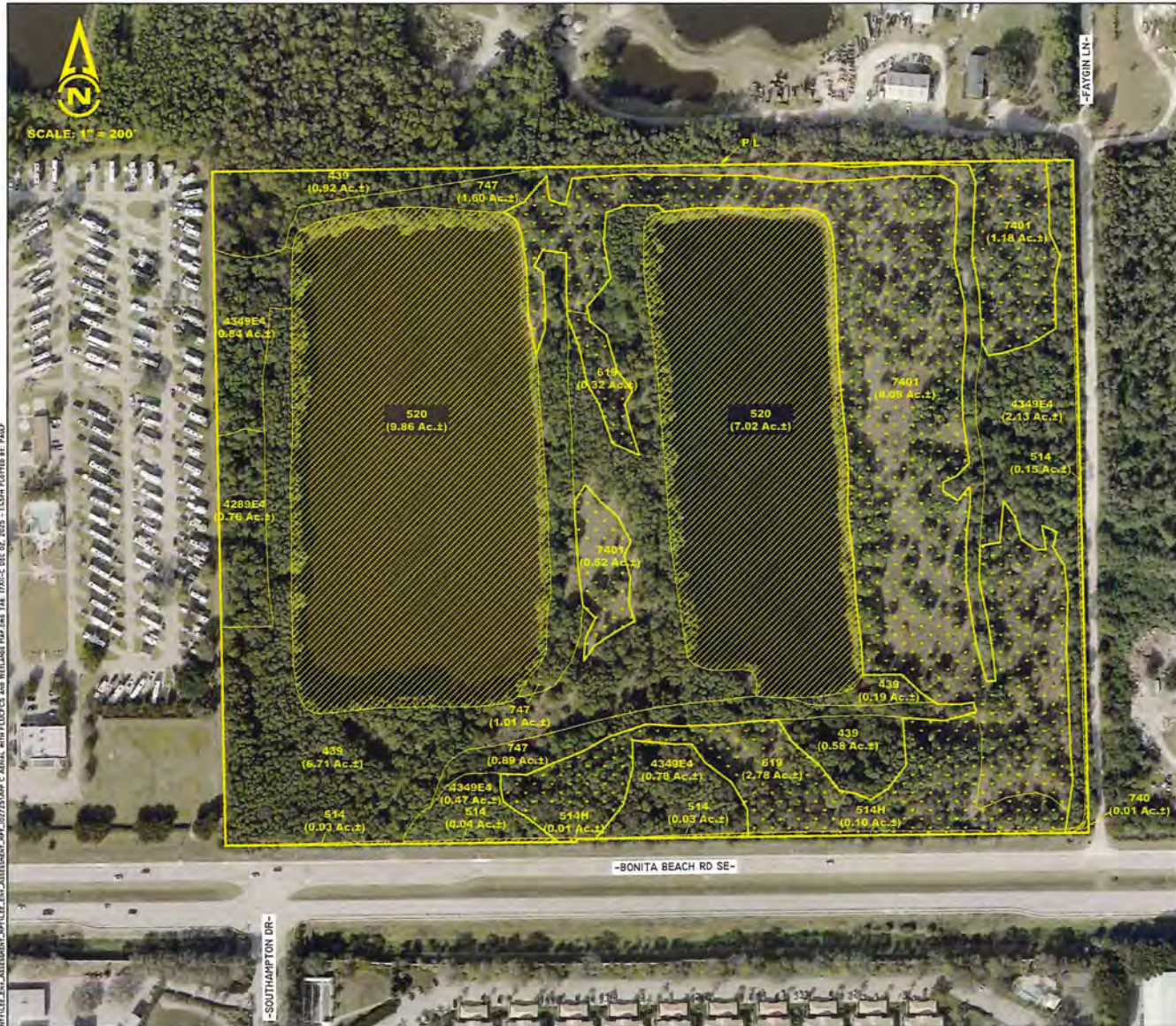
**APPENDIX B**

**FLUCFCS AND WETLANDS MAP**



**APPENDIX C**

**AERIAL WITH FLUCFCS AND WETLANDS MAP**



FLUCFCS CODES	DESCRIPTIONS	ACREAGE	% OF TOTAL
4289 E4	CABBAGE PALM, DISTURBED (76-100% EXOTICS)	0.76 Ac.±	1.6%
4349 E4	HARDWOOD/CONIFER MIXED, DISTURBED (76-100% EXOTICS)	4.22 Ac.±	9.0%
439	MIXED EXOTICS	8.40 Ac.±	17.9%
514	DITCH	0.25 Ac.±	0.5%
514H	DITCH, HYDRIC	0.11 Ac.±	0.2%
520	LAKES	16.88 Ac.±	35.8%
619	EXOTIC WETLAND HARDWOODS	3.10 Ac.±	6.6%
740	DISTURBED LAND	0.01 Ac.±	0.0%
7401	DISTURBED LAND, HYDRIC	9.79 Ac.±	20.8%
747	BERM	3.50 Ac.±	7.4%
<b>TOTAL</b>		<b>47.02 Ac.±</b>	<b>100.0%</b>

NOTES:

AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE LEE COUNTY PROPERTY APPRAISER'S OFFICE WITH A FLIGHT DATE OF JANUARY - MARCH 2025.


PROPERTY BOUNDARY AND SURVEYED WETLAND LINES PER BARRACO AND ASSOCIATES, INC. DRAWING No. 24J350S00.DWG DATED OCTOBER 17, 2025.

FLUCFCS LINES ESTIMATED FROM 1"=200' AERIAL PHOTOGRAPHS AND LOCATIONS APPROXIMATED.

FLUCFCS PER FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM (FLUCFCS) (FDOT 1999).

UPLAND/WETLAND LIMITS HAVE NOT BEEN REVIEWED BY ANY REGULATORY AGENCY AND ARE SUBJECT TO CHANGE.

J:\24\24J350S00\24J350S00.dwg C:\Users\jbarra\OneDrive\Documents\24J350S00.dwg 10/20/25 10:20:25 AM 17.15MB PLOTTED BY: PMAF

REVISIONS	DATE	DRAWN BY A.G.	DATE 10/20/25	13620 Metropolis Avenue Suite 200 Ft. Myers, FL 33912 Phone (239) 274-0067 Fax (239) 274-0069		<b>BONITA BEACH ROAD 50</b> <b>AERIAL WITH FLUCFCS AND WETLANDS MAP</b>	DRAWING No. 24CIG4260
		DESIGNED BY P.S.	DATE 10/20/25				SHEET No.
		REVIEWED BY S.J.	DATE 10/20/25				APPENDIX C

**APPENDIX D**

**EXISTING LAND USE AND COVER SUMMARY TABLE AND  
FLUCFCS DESCRIPTIONS**

**BONITA BEACH ROAD 50  
EXISTING LAND USE AND COVER SUMMARY TABLE AND  
FLUCFCS DESCRIPTIONS**

December 2025

Table 1 provides a summary and an acreage breakdown of the existing land use and habitat cover types (i.e., Florida Land Use, Cover and Forms Classification System (FLUCFCS) codes) found on the Bonita Beach Road 50 (Project), while a description of each FLUCFCS classification follows.

**Table 1. Existing Land Use and Cover Summary**

<b>FLUCFCS Code</b>	<b>Description</b>	<b>Acreage (±)</b>	<b>Percent Total</b>
4289 E4	Cabbage Palm, Disturbed (76–100% Exotics)	0.76	1.6
4349 E4	Hardwood/Conifer Mixed, Disturbed (76–100% Exotics)	4.22	9.0
439	Mixed Exotics	8.40	17.9
514	Ditch	0.25	0.5
514H	Ditch, Hydric	0.11	0.2
520	Lakes	16.88	35.9
619	Exotic Wetland Hardwoods	3.10	6.6
740	Disturbed Land	0.01	<0.1
7401	Disturbed Land, Hydric	9.79	20.8
747	Berm	3.50	7.4
<b>Totals</b>		<b>47.02</b>	<b>100.0</b>

Cabbage Palm, Disturbed (76–100% Exotics) (FLUCFCS Code 4289 E4)

The canopy of this upland habitat type consists of cabbage palm (*Sabal palmetto*), earleaf acacia (*Acacia auriculiformis*), Brazilian pepper (*Schinus terebinthifolia*), Florida strangler fig (*Ficus aurea*), and live oak (*Quercus virginiana*). The sub-canopy consists of cabbage palm, live oak, Brazilian pepper, and sicklepod (*Senna obtusifolia*). The ground cover includes rosary pea (*Abrus precatorius*), muscadine grapevine (*Vitis rotundifolia*), cabbage palm, Florida tickseed (*Coreopsis floridana*), and earleaf greenbrier (*Smilax auriculata*).

Hardwood/Conifer Mixed, Disturbed (76–100% Exotics) (FLUCFCS Code 4349 E4)

The canopy of this upland habitat type consists of cabbage palm, earleaf acacia, Torell's eucalyptus (*Corymbia torelliana*), Florida strangler fig, and scattered slash pine (*Pinus elliottii*). The sub-canopy consists of cabbage palm, earleaf acacia, and Brazilian pepper. The ground cover includes rosary pea, muscadine grapevine, Florida tickseed, earleaf greenbrier, broomsedge (*Andropogon virginicus*), and dog fennel (*Eupatorium capillifolium*).

#### Mixed Exotics (FLUCFCS Code 439)

The canopy of this upland habitat type consists of earleaf acacia, laurel oak (*Quercus laurifolia*), and cabbage palm. The sub-canopy consists of cabbage palm, Brazilian pepper, and Java plum (*Syzygium cumini*). The ground cover consists of Brazilian pepper, caesarweed (*Urena lobata*), dog fennel, woodland false buttonweed (*Spermacoce remota*), balsampear (*Momordica charantia*), common ragweed (*Ambrosia artemisiifolia*), common dayflower (*Commelina diffusa* var. *diffusa*), Florida tickseed, earleaf greenbrier, creeping cucumber (*Melothria pendula*), rosary pea, muscadine grapevine, and blackberry (*Rubus* sp.).

#### Ditch (FLUCFCS Code 514)

This land use type is a shallow man-made ditch along the southern and eastern border of the Project site.

#### Ditch, Hydric (FLUCFCS Code 514H)

This land use type is a shallow man-made ditch within a wetland habitat type along the southern border of the Project site.

#### Lakes (FLUCFCS Code 520)

This land use type consists of man-made lakes.

#### Exotic Wetland Hardwoods (FLUCFCS Code 619)

The canopy of this wetland habitat type consists of earleaf acacia, Brazilian pepper, widely scattered bald cypress (*Taxodium distichum*), cabbage palm, and scattered laurel oak. The sub-canopy consists of bullhorn acacia (*Vachellia cornigera*), earleaf acacia, and scattered cabbage palm. The ground cover consists of rosary pea, caesarweed, dog fennel, spermacoce (*Borreria verticillata*), and Florida tickseed.

#### Disturbed Land (FLUCFCS Code 740)

The canopy is open. The sub-canopy contains widely scattered Brazilian pepper and earleaf acacia. The ground cover contains bahiagrass (*Paspalum notatum*).

#### Disturbed Land, Hydric (FLUCFCS Code 7401)

The canopy of this wetland habitat type is mostly open with widely scattered live oak, bald cypress, melaleuca (*Melaleuca quinquenervia*), and earleaf acacia. The sub-canopy consists of scattered earleaf acacia, wax myrtle (*Morella cerifera*), melaleuca, Florida bully (*Sideroxylon reclinatum* subsp. *reclinatum*), and bald cypress. The ground cover consists of rosary pea, caesarweed, Virginia saltmarsh mallow (*Kosteletzkya pentacarpos*), dog fennel, torpedograss (*Panicum repens*), spermacoce, Florida tickseed, swamp fern (*Telmatoblechnum serrulatum*), little blue maidencane (*Amphicarpum muehlenbergianum*), Apalachicola toadflax (*Linaria floridana*), broomsedge, bulltongue arrowhead (*Sagittaria lancifolia* subsp. *lancifolia*), and scattered fireflag (*Thalia geniculata*).

#### Berm (FLUCFCS Code 747)

The canopy and sub-canopy are mostly open with widely scattered live oak. The ground cover includes bahiagrass, tropical Mexican clover (*Richardia brasiliensis*), caesarweed, and blackberry.

**APPENDIX E**

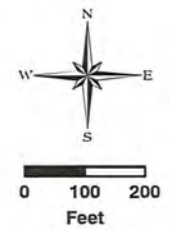
**SOILS MAP**



**LEGEND**

BONITA BEACH ROAD 50

SOILS



NOTES:

AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE LEE COUNTY PROPERTY APPRAISER'S OFFICE WITH A FLIGHT DATE OF JANUARY - MARCH 2025.

PROPERTY BOUNDARY PER BARRACO AND ASSOCIATES, INC. DRAWING No. 24350500.DWG DATED OCTOBER 17, 2025.

SOILS MAPPING WAS ACQUIRED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE WEBSITE MAY 2024.

Soil Unit	Description
27	Pompano fine sand, frequently ponded, 0 to 1 percent slopes
28	Immokalee sand, 0 to 2 percent slopes
99	Water
132	Pompano fine sand, ponded-Urban land complex, 0 to 1 percent slopes

REVISIONS	DATE

DRAWN BY	P.F.	DATE	10/21/25
DESIGNED BY	P.S.	DATE	10/21/25
REVIEWED BY	S.J.	DATE	10/21/25

13620 Metropolis Avenue  
Suite 200  
Fr. Myers, FL 33912  
Phone (239) 274-0067  
Fax (239) 274-0069



BONITA BEACH ROAD 50  
SOILS MAP

DRAWING No.	24CIG4260
SHEET No.	APPENDIX E

J:\2025\24350500\24350500\CONT\LEE\_ENV\_ASSESSMENT\_RPT\LEE\_ENV\_ASSESSMENT\_RPT\_021725\_V01.dwg, 10/21/25, 1:58 PM, P. 1

**APPENDIX F**

**SOILS SUMMARY TABLE AND DESCRIPTIONS**

## BONITA BEACH ROAD 50 SOILS SUMMARY TABLE AND DESCRIPTIONS

December 2025

**Table 1. Soils Listed by the Natural Resources Conservation Service on the Project**

Mapping Unit	Description
27	Pompano fine sand, frequently ponded, 0 to 1 percent slopes
28	Immokalee sand, 0 to 2 percent slopes
99	Water
132	Pompano fine sand, ponded-Urban land complex, 0 to 1 percent slopes

27 – Pompano fine sand, frequently ponded, 0 to 1 percent slopes

This is a nearly level, poorly drained soil in depressions. Slopes are concave and less than one percent. Typically, the surface layer is gray fine sand about 3 inches thick. The substratum is fine sand to a depth of 80 inches or more. The upper 32 inches are light brownish gray with few fine, faint, yellowish-brown mottles. The lower 45 inches are light gray. In most years, under natural conditions, the water table is within 10 inches of the surface for two to four months and stands above the surface for about three months. It is 10 to 40 inches below the surface for more than five months.

28 – Immokalee sand, 0 to 2 percent slopes

This is a nearly level, poorly drained soil in flatwoods areas. Slopes are smooth to convex and range from zero to two percent. Typically, the surface layer is black sand about 4 inches thick. The subsurface layer is dark gray sand in the upper 5 inches and light gray sand in the lower 27 inches. The subsoil is sand to a depth of 69 inches. The upper 14 inches are black and firm, the next 5 inches are dark reddish brown, and the lower 14 inches are dark yellowish brown. The substratum is very pale brown sand to a depth of 80 inches or more. In most years, under natural conditions, the water table is within 10 inches of the surface for one to three months and 10 to 40 inches below the surface for two to six months.

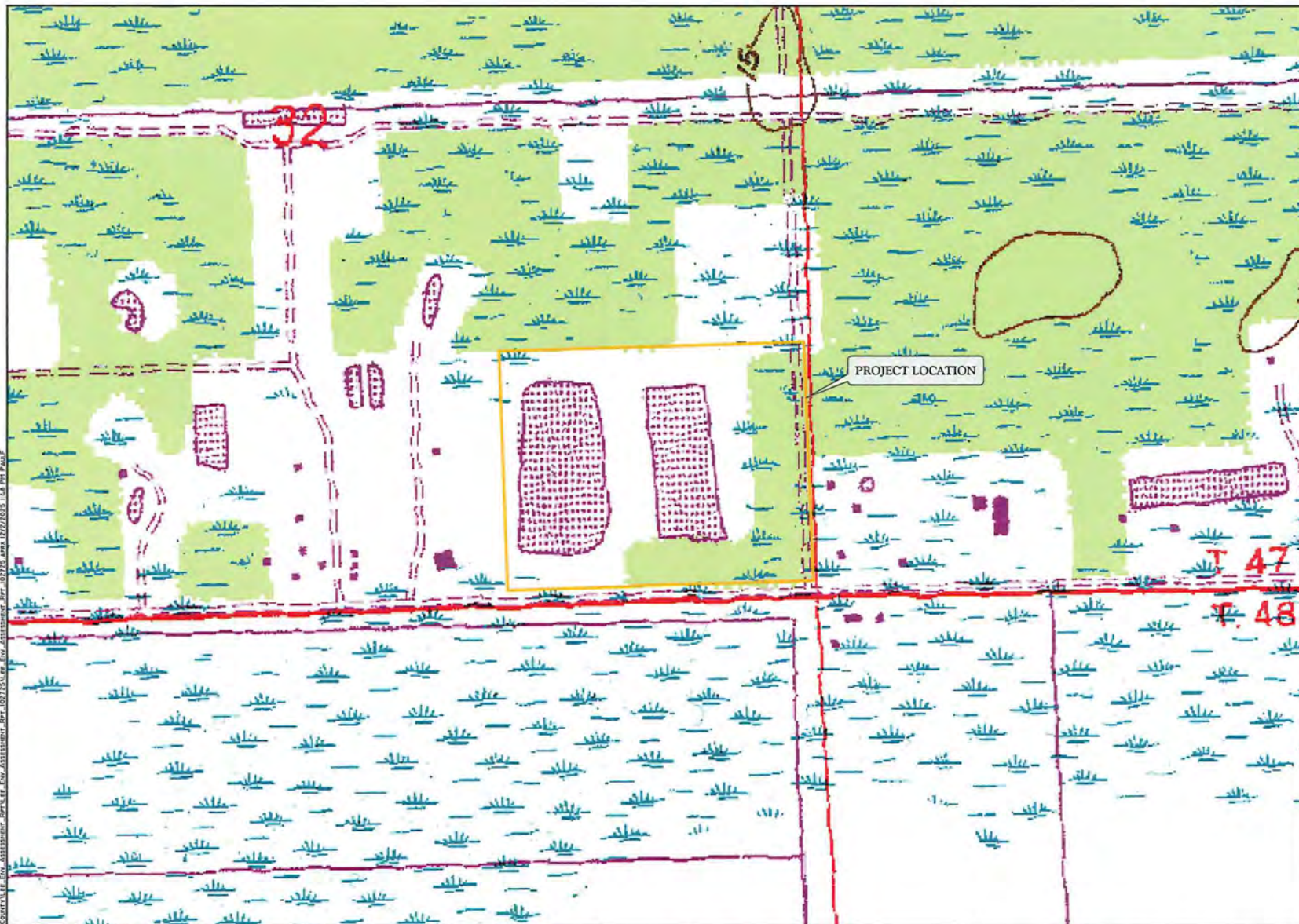
99 – Water


Not applicable.

132 – Pompano fine sand, ponded-Urban land complex, 0 to 1 percent slopes

This is a nearly level, poorly drained soil in depressions. Slopes are concave and less than one percent. This soil type occurs where Pompano fine sand is found in its natural state with areas that have been altered by urban development, including buildings, roads, sidewalks, and areas covered by fill material (i.e., mixed sand, shells, and lime rock fragments). The natural soil (i.e., 27 – Pompano fine sand, frequently ponded, 0 to 1 percent slopes) makes up about 48 percent, urban land makes up about 40 percent, and the remaining 12 percent is made up of minor soil components. Soil properties and horizon characteristics vary widely depending on the kind and amount of disturbance, typically associated with urban development.

**APPENDIX G**  
**QUAD SHEET**



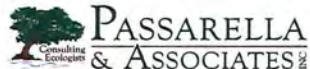
**LEGEND**  
 BONITA BEACH ROAD 50



NOTES:  
 DIGITAL RASTER GRAPHIC USGS TOPOGRAPHIC QUADRANGLES WERE ACQUIRED FROM THE LAND BOUNDARY INFORMATION SYSTEM (LABINS) WEBSITE JULY 2007.  
 PROPERTY BOUNDARY PER BARRACO AND ASSOCIATES, INC. DRAWING No. 24350500.DWG DATED OCTOBER 17, 2025.

REVISION	DATE	DRAWN BY	DATE
		P.F.	10/21/25
		DESIGNED BY	DATE
		P.S.	10/21/25
		REVIEWED BY	DATE
		S.J.	10/21/25

13620 Metropolis Avenue  
 Suite 200  
 Ft. Myers, FL 33912  
 Phone (239) 274-0067  
 Fax (239) 274-0069



BONITA BEACH ROAD 50  
 QUAD SHEET

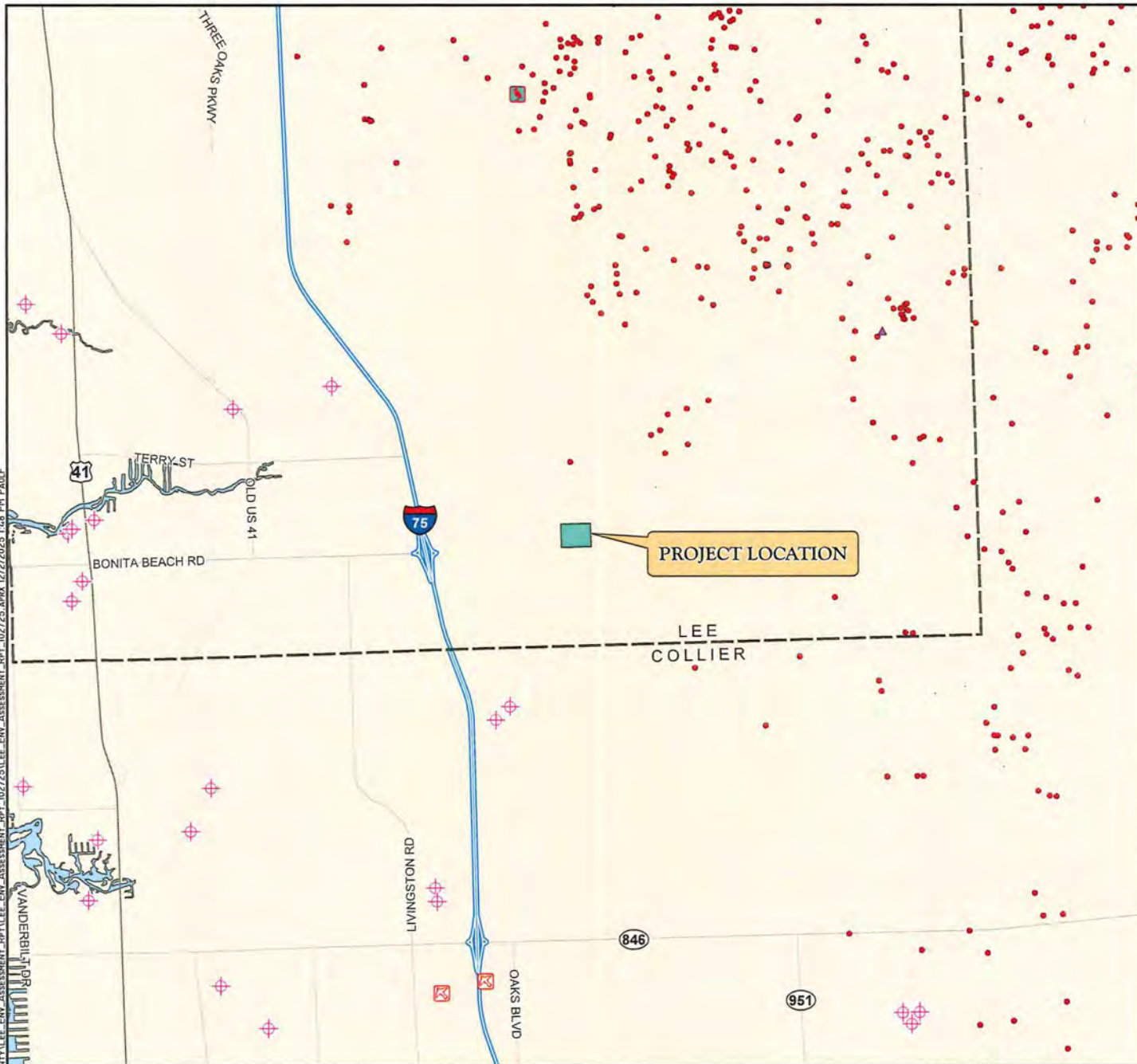
DRAWING No.	24CIG4260
SHEET No.	APPENDIX G

J:\2025\24350500\CONTROLLING\ENV\_ASSHESMENT\_RPT\FILE\_ENV\_ASSHESMENT\_RPT\_VLE\_ENV\_ASSHESMENT\_RPT\_102125.dwg 10/21/2025 1:14 PM PAGE 6

**APPENDIX H**

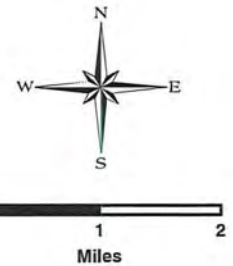
**DOCUMENTED OCCURRENCES OF LISTED SPECIES**

J:\2024\21061260\COUNTY\LEE\_ENV\_ASSESSMENT\_RPT\LEE\_ENV\_ASSESSMENT\_RPT\_102725\LEE\_ENV\_ASSESSMENT\_RPT\_102725\_APPA\_12122025\_1.48 PM PAUL



**LEGEND**

- BONITA BEACH ROAD 50
- BALD EAGLE NEST LOCATION
- BLACK BEAR LOCATION
- FLORIDA PANTHER LOCATION
- RED-COCKADED WOODPECKER LOCATION
- WADING BIRD LOCATION



**NOTES:**

EAGLE NEST LOCATIONS WERE ACQUIRED FROM THE AUDUBON EAGLEWATCH ON OCTOBER 2025.

BLACK BEAR LOCATIONS WERE ACQUIRED FROM THE FWCC ON AUGUST 2025 AND ARE CURRENT TO 2007.

PANTHER TELEMETRY WAS ACQUIRED FROM THE FWCC ON JULY 2025 AND IS CURRENT TO JANUARY 2025.

RED-COCKADED WOODPECKER LOCATIONS WERE ACQUIRED FROM THE FWCC ON AUGUST 2025.

WADING BIRD ROOKERIES WERE ACQUIRED FROM THE FWCC ON AUGUST 2025 AND ARE CURRENT TO 1999.

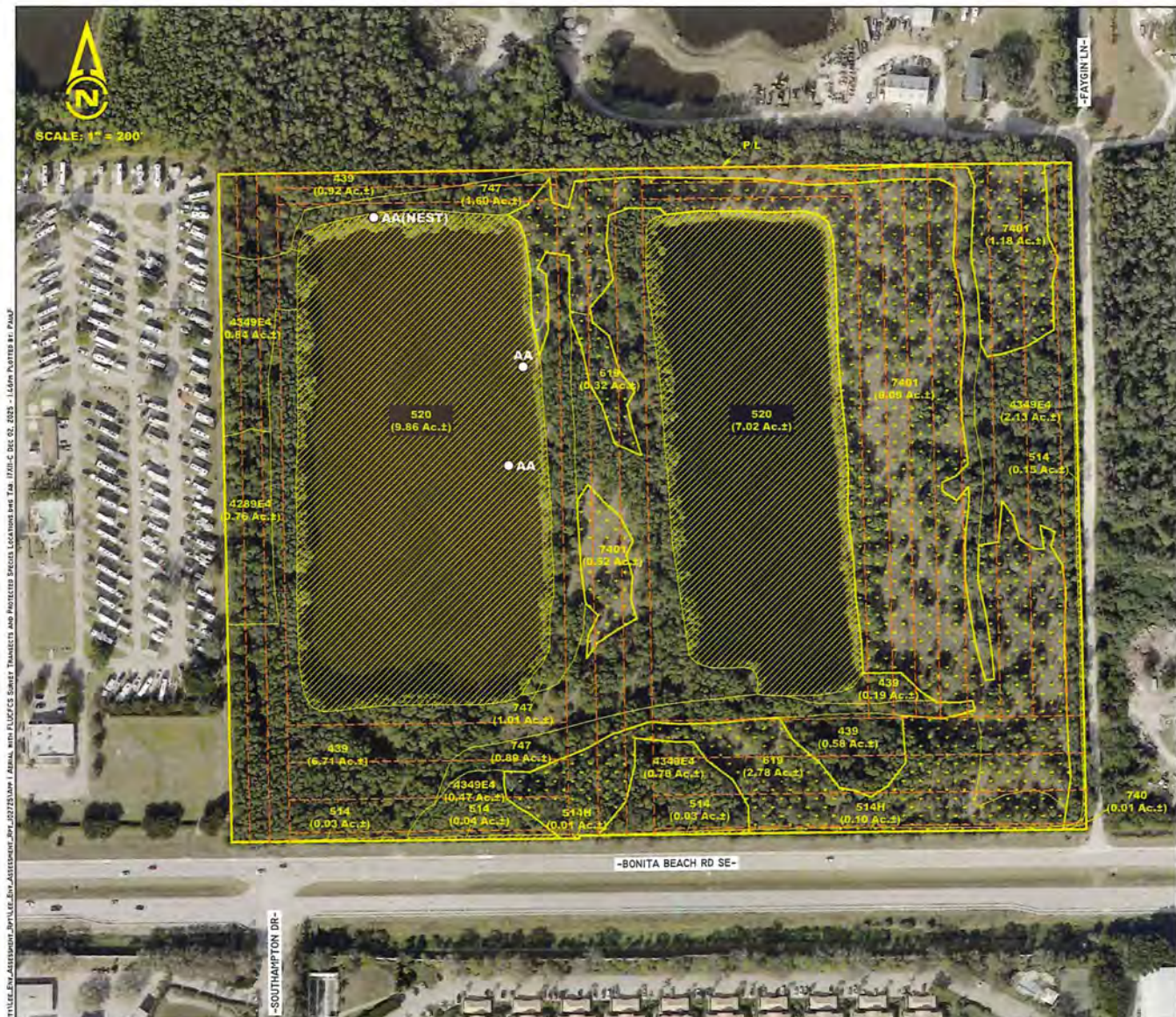
**APPENDIX H. DOCUMENTED OCCURRENCES OF LISTED SPECIES  
BONITA BEACH ROAD 50**

DRAWN BY	DATE
P.F.	10/27/25
REVIEWED BY	DATE
S.J.	10/27/25
REVISED	DATE



**APPENDIX I**

**AERIAL WITH FLUCFCS, SURVEY TRANSECTS, AND  
PROTECTED SPECIES LOCATIONS**



- LEGEND:
- SFWMD WETLANDS (13.00 Ac.±)
  - SFWMD 'OTHER SURFACE WATERS' (17.15 Ac.±)
  - SURVEYED WETLAND LINE
  - APPROXIMATE LOCATION OF WALKED TRANSECTS
  - AMERICAN ALLIGATOR

FLUCFCS CODES	DESCRIPTIONS	ACREAGE	% OF TOTAL
4289 E4	CABBAGE PALM, DISTURBED (78-100% EXOTICS)	0.78 Ac.±	1.6%
4349 E4	HARDWOOD/CONIFER MIXED, DISTURBED (76-100% EXOTICS)	4.22 Ac.±	9.0%
439	MIXED EXOTICS	8.40 Ac.±	17.9%
514	DITCH	0.25 Ac.±	0.5%
514H	DITCH, HYDRIC	0.11 Ac.±	0.2%
520	LAKES	16.88 Ac.±	35.9%
619	EXOTIC WETLAND HARDWOODS	3.10 Ac.±	6.6%
740	DISTURBED LAND	0.01 Ac.±	0.0%
7401	DISTURBED LAND, HYDRIC	9.79 Ac.±	20.8%
747	BERM	3.50 Ac.±	7.4%
<b>TOTAL</b>		<b>47.02 Ac.±</b>	<b>100.0%</b>

NOTES:

AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE LEE COUNTY PROPERTY APPRAISER'S OFFICE WITH A FLIGHT DATE OF JANUARY - MARCH 2025.

PROPERTY BOUNDARY AND SURVEYED WETLAND LINES PER BARRACO AND ASSOCIATES, INC. DRAWING No. 24350S00.DWG DATED OCTOBER 17, 2025.

FLUCFCS LINES ESTIMATED FROM 1"=200' AERIAL PHOTOGRAPHS AND LOCATIONS APPROXIMATED.

FLUCFCS PER FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM (FLUCFCS) (FDOT 1999).

UPLAND/WETLAND LIMITS HAVE NOT BEEN REVIEWED BY ANY REGULATORY AGENCY AND ARE SUBJECT TO CHANGE.

J:\2024\24350\24350\COMPTITLE\FLUCFCS\ASSIGNMENT\_DPTALE\_Env\_Assessment\_09\_120225\Map 1 Aerial with FLUCFCS Survey Transects and Protected Species Locations.mxd Tab 0746-C DEC 02, 2025 - 1:44pm PLOTTER BY: PAMP

REVISIONS	DATE	DRAWN BY	DATE	DESIGNED BY	DATE	REVIEWED BY	DATE
		A.G.	10/20/25	P.S.	10/20/25	S.J.	10/20/25

13620 Metropolis Avenue  
Suite 200  
Ft. Myers, FL 33912  
Phone (239) 274-0067  
Fax (239) 274-0069



**BONITA BEACH ROAD 50**  
AERIAL WITH FLUCFCS, SURVEY TRANSECTS, AND PROTECTED SPECIES LOCATIONS

DRAWING No.	24CIG4260
SHEET No.	APPENDIX I

**WHITE WILLOW CPA**  
**M-14 - HISTORIC RESOURCES ANALYSIS**

The subject property is located along Bonita Beach Road in unincorporated Lee County, Florida. The property is surrounded by development on the south, east and west. According to the County's Archeological Sensitivity Map, only a small portion of the western area on the subject property is within Archeological Sensitivity Zone 2. No part of the property is within an area of high archeological sensitivity.

Attached is correspondence from the Florida Department of State, Division of Historic Resources which states that there are no known Historic resources on the subject property. At the time of environmental resource permitting, an archeological survey will need to be conducted.

## Daniel DeLisi

---

**From:** Miller, Marissa L. <Marissa.Miller@dos.fl.gov>  
**Sent:** Monday, December 15, 2025 9:09 AM  
**To:** Daniel DeLisi  
**Subject:** RE: Letter on Historic Resources  
**Attachments:** Map.pdf

Good morning Daniel,



I have completed your search and there are no previously recorded resources within your requested area. I have attached a map for your reference. Let me know if you need anything else or if you have any questions. Have a great day!



**This record search is for informational purposes only and does **NOT** constitute a project review. This search identifies resources recorded at the Florida Master Site File only and does **NOT** provide project approval from the Division of Historical Resources. Contact the Compliance and Review Section of the Division of Historical Resources at [CompliancePermits@dos.myflorida.com](mailto:CompliancePermits@dos.myflorida.com) or 850-245-6333 for project review information.**

### Marissa Miller

**Historic Data Analyst** | Florida Master Site File | Bureau of Historic Preservation | Division of Historical Resources | Florida Department of State | 500 South Bronough Street | Tallahassee, Florida 32399 | 850.245.6424 | 1.800.847.7278 | Fax: 850.245.6439 | [flheritage.com](http://flheritage.com)

**From:** Daniel DeLisi <dan@delisi-inc.com>  
**Sent:** Friday, December 12, 2025 4:45 PM  
**To:** FMSFILE <FMSFILE@dos.fl.gov>  
**Subject:** RE: Letter on Historic Resources

EMAIL RECEIVED FROM EXTERNAL SOURCE

The attachments/links in this message have been scanned by Proofpoint.

Greetings,

The attached is a request to search for previously recorded cultural resources on the subject property. I have attached the appropriate form, and a property boundary overlaid on an aerial. If you should require any additional information, please do not hesitate to contact me.

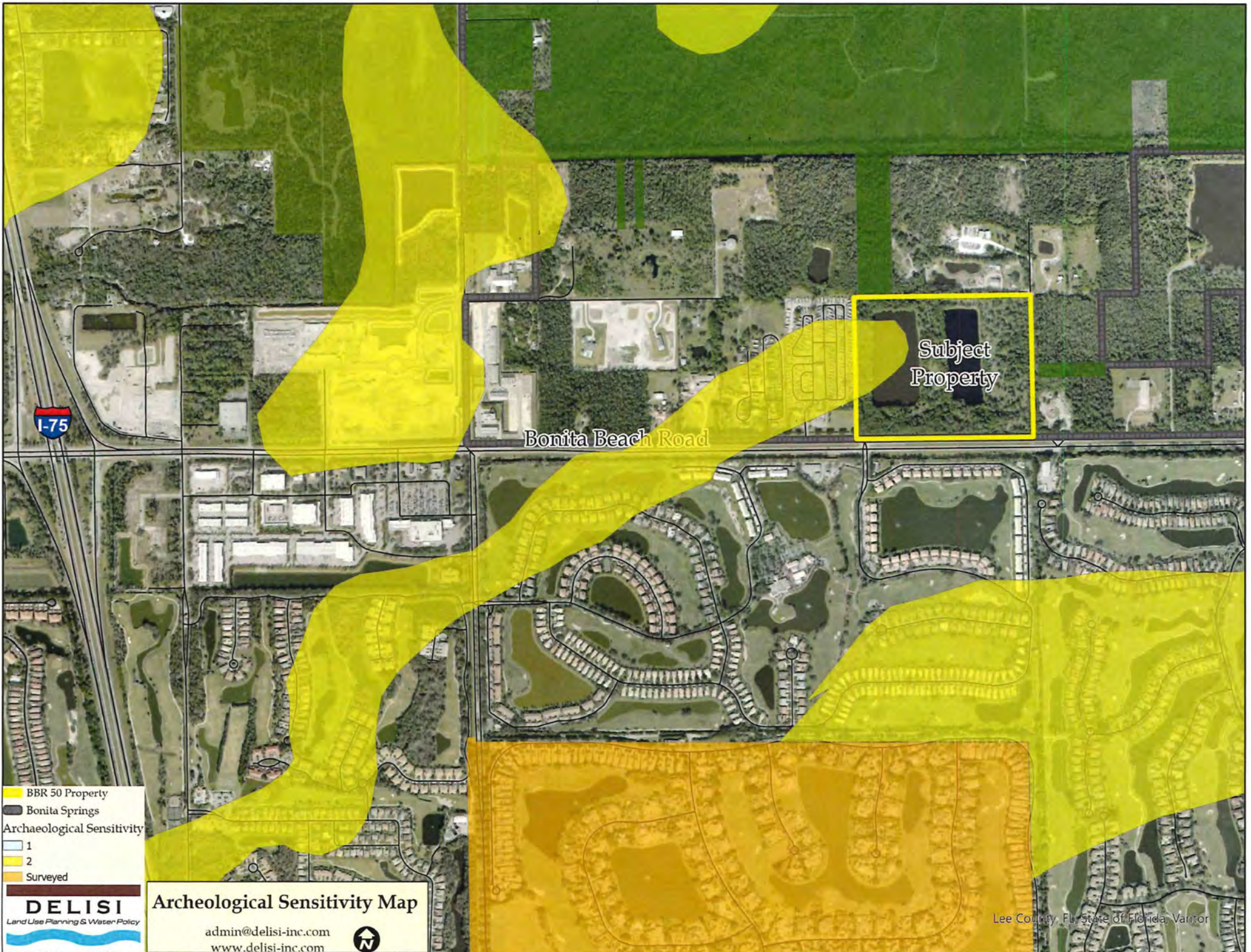
Best regards.

Daniel DeLisi, AICP  
DeLisi, Inc.  
[dan@delisi-inc.com](mailto:dan@delisi-inc.com)  
[www.delisi-inc.com](http://www.delisi-inc.com)





Esri, HERE, Garmin, (c) OpenStreetMap contributors, Source: Esri, DeLorme, Earthstar Geographics, and the GIS User Community, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State; U.S. NOAA National Centers for Environmental Information. Data refreshed October 27, 2025.



Subject  
Property

Bonita Beach Road

I-75

- BBR 50 Property
- Bonita Springs
- Archaeological Sensitivity
  - 1
  - 2
- Surveyed



### Archeological Sensitivity Map

admin@delisi-inc.com  
www.delisi-inc.com



Lee County, FL, State of Florida, Vantor



## White Willow M-15 & M-17 - Existing and Future Conditions Analysis

In accordance with Policy 95.1.3 below is an analysis on public facilities that may result from the adoption of the proposed Lee Plan Amendment of the subject property from Density Reduction/Groundwater Resource to Outlying Suburban. In addition, attached are analyses of the impacts to sanitary sewer, potable water and surface water by Barraco and Associates and RESPEC, as well as a Transportation Impact Study by TR Transportation. In addition, attached are letters of service availability for the required service providers.

The current Lee Plan will allow for the development of 4 residential units as shown below. The proposed amendment would allow for the development of 96 residential units.

### Current Entitlements

Future Land Use	Acres	Density Allowed	Units
DR/GR	34	1 du/10 acres	3
Wetlands	13	1 du/20 acres	1
<b>Total</b>	<b>47</b>		<b>4</b>

### Proposed Entitlements

Future Land Use	Acres	Density Allowed	Units
Outlying Suburban	34	3 du/acre	102
Wetlands	13	1 du/20 acres	1
<b>Total</b>	<b>47</b>		<b>103*</b>

\*The proposed Lee Plan Amendment is being submitted currently with the Planned Development capping density at 94 units. Therefore, the analysis is based on a maximum of 94 single family units with a difference (current vs. proposed) of 90 single family units.

### Sanitary Sewer and Potable Water

A 16-inch sewer force main and a 12-inch potable water main are both extend along Bonita Beach Road in front of the subject property. Attached is a letter of service availability from Bonita Springs Utilities demonstrating the ability to serve the proposed development.

**Surface Water**

Attached is a preliminary surface water analysis prepared by Barraco and Associates.

**Parks**

The level of service for Parks is established in Policy 95.1.3.6 as follows:

*NON-REGULATORY STANDARDS*

*6. Parks and Recreation Facilities:  
Minimum Level of Service:*

*(a) Regional Parks - 6 acres of developed regional park land open for public use per 1000 total seasonal county population.*

*(b) Community Parks - 0.8 acres of developed standard community parks open for public use per 1000 permanent population, unincorporated county only.*

According to American Community Survey data on Census.gov the average unit occupancy in Lee County is 1.6 persons per unit. Therefore, the proposed increase of 90 units will generate a population of 144 people. The projected increased demand for regional park area would be 0.9 acres and the projected increased demand for Community Park area would be 0.1 acres. The on-site open space, on site recreation and park impact fees off set the projected need.

**Lee County Schools**

Attached is a letter from the Lee County School District stating that the proposed amendment would have a negligible impact on the school system. The Lee County School Board projects student generation by dwelling unit. According to the School Board, the school children generation rate for single family homes is .297 students per unit. This student generation rate is further broken down by grade level into the following, .149 for elementary, .071 for middle and .077 for high. Assuming a total increase of 90 units, all single family, a total of 27 school-aged children would be generated.

<b>Student Generation Rates</b>		
	<b>Rate</b>	<b>Projected Students</b>
<b>Elementary</b>	.149	13.4
<b>Middle</b>	.071	6.4
<b>High</b>	.077	7.0
<b>Total</b>	.297	27

### Environmental Impacts

The proposed amendment will have no impact on environmentally sensitive resources in Lee County as demonstrated in Exhibit M-12 of this application. The subject property has already been cleared and was used for mining.



May 21, 2025

Carl Barraco Jr., P.E.  
Barraco and Associates, Inc.  
2271 McGregor Blvd. # 100  
Ft. Myers, FL 32407

Sent via e-mail: [carljr@barraco.net](mailto:carljr@barraco.net)

Re: Bonita Beach Road 50

Dear Mr. Barraco,

You have requested potable water, sewer and irrigation service for the project referenced above. Plant capacities are adequate; however, the Developer is required to install all off-site and on-site utility line extensions necessary to provide service to the project in accordance with Bonita Springs Utilities, Inc. specifications. No construction submittals have been received, reviewed or approved as of this date. This letter expires in one year.

You have estimated the usage to be 16,250 gallons per day. Bonita Springs Utilities, Inc. has the capacity to provide the above estimated gallonage from its 21 million gallon per day Water Treatment Plant. The Water Reclamation Facilities have the capacity to treat the above estimated gallonage from the plants currently rated at 11.0 million gallon per day.

Potable water is available for irrigation use as no reuse water is available in proximity to the subject property at this time.

This letter should not be construed as a commitment or guarantee to serve nor as approval for construction, but only as to the availability of potable water, sewer and reuse at this time. Bonita Springs Utilities, Inc. may commit to reserve plant capacity if available, at such time that ANC (Aid-to-New Construction) fees are paid for each unit of required capacity.

If there are any proposed utility infrastructure installations, then the appropriate meetings and submittals per the Bonita Springs Utilities specifications shall be required.

Respectfully,  
Bonita Springs Utilities, Inc.

Kim Hoskins, P.E.  
Director of Engineering

## **White Willow STORMWATER NARRATIVE**

The White Willow project is located in Bonita Springs, Florida, on a site that has been previously cleared and improved. The property includes two man-made lakes that currently serve as depressional storage areas. The majority of the site is relatively flat, and stormwater runoff generally follows two primary drainage patterns. The northern portion of the site conveys runoff into the existing lakes, which discharge through a pipe system connected to a shallow swale near the north property line. This swale flattens in the northwest corner of the site, where stormwater sheet flows across adjacent property toward Kehl Canal. Kehl Canal flows west and ultimately discharges into the Imperial River, which continues west to Estero Bay. The southern portion of the site sheet flows toward existing roadside ditches along Bonita Beach Road, which also convey westward and converge with Kehl Canal before reaching the Imperial River.

The proposed stormwater management system will incorporate the existing man-made lakes, which account for approximately 25 percent of the project area and provide substantial storage, attenuation, and water quality benefits. The system is designed to closely mimic existing conditions and maintain historical discharge locations, consistent with the requirements of the South Florida Water Management District (SFWMD) which will review the project. The proposed system will capture, attenuate, and treat stormwater runoff for all rainfall events up to the 25-year, 3-day storm event. Attenuated stormwater will be directed to the existing discharge point at the northwest corner of the property, preserving the natural drainage pattern.

To meet state water quality standards and nutrient removal requirements, the proposed system will implement Best Management Practices (BMPs) such as maintaining permanent pool volume and increased residence time for settling, establishing littoral plantings to enhance nutrient uptake, and incorporating stormwater harvesting for irrigation reuse. These measures will ensure compliance with regulatory requirements while providing long-term environmental benefits.

The project site is not located within a FEMA-designated flood zone, and no adverse floodplain impacts are anticipated as a result of the proposed development. The stormwater management system has been designed to maintain existing drainage patterns and discharge locations, ensuring that downstream properties and receiving waters are not negatively affected.

# Total Housing Units in Lee County, Florida is **465,172** ± 347

2024 American Community Survey 1-Year Estimates

[View This Result](#)

1,623 Datasets, 11 Profiles, 7 Pages

View: 10 | 25 | 50

## Data

American Community Survey

**B25002** Occupancy Status

[View All 28 Products](#)

Decennial Census

**H1** OCCUPANCY STATUS

[View All 4 Products](#)

American Community Survey

**S1101** Households and Families

[View All 28 Products](#)

American Community Survey

**S2501** Occupancy Characteristics

[View All 28 Products](#)

American Community Survey

**S2502** Demographic Characteristics for Occupied Housing Units

[View All 28 Products](#)

American Community Survey

**S2503** Financial Characteristics

[View All 28 Products](#)

American Community Survey

**S2504** Physical Housing Characteristics for Occupied Housing Units

[View All 28 Products](#)

American Community Survey

**S2506** Financial Characteristics for Housing Units With a Mortgage

[View All 28 Products](#)

American Community Survey

**S2507** Financial Characteristics for Housing Units Without a Mortgage

[View All 28 Products](#)

American Community Survey

**S2801** Types of Computers and Internet Subscriptions

[View All 16 Products](#)

[VIEW ALL DATASETS \(1823\)](#)

[Table](#) [Map](#) [Chart](#)

[Table](#) [Map](#) [Chart](#)

[Table](#) [Map](#) [Chart](#)

[Table](#) [Map](#) [Chart](#)

[Table](#) [Map](#) [Chart](#)

[Table](#) [Map](#) [Chart](#)

[Table](#) [Map](#) [Chart](#)

[Table](#) [Map](#) [Chart](#)

[Table](#) [Map](#) [Chart](#)

[Table](#) [Map](#) [Chart](#)

County

### Lee County, Florida

Total Population: 760,822

Median Household Income: \$83,602

Bachelor's Degree or Higher: 32.4%

Employment Rate: 54.1%

Total Housing Units: 465,172

Without Health Care Coverage: 13.2%

Total Employer Establishments: 22,756

Total Households: 337,411

Hispanic or Latino (of any race): 173,161

[View Profile](#)

## Related Searches

[Owner/Renter \(Householder\) Characteristics](#)

[Race and Ethnicity](#)

[Physical Characteristics](#)

[Families and Living Arrangements](#)

[Families and Household Characteristics](#)

[Income and Poverty](#)

[Populations and People](#)

[Owner/Renter \(Tenure\)](#)

[Income and Earnings](#)

## Profiles

View: 10 | 25 | 50

County

[Lee County, Florida](#)

Lee County, Florida has 781.2 square miles of land area and is the 26th largest county in Florida by total area.

County Subdivision

[Boca Grande CCD, Lee County, Florida](#)

Boca Grande CCD, Lee County, Florida is a city, town, place equivalent, or township located in Lee County, Florida. Boca Grande CCD, Lee County, Florida has a land area of 2.2 square miles.

County Subdivision

[Bonita Springs CCD, Lee County, Florida](#)

Bonita Springs CCD, Lee County, Florida is a city, town, place equivalent, or township located in Lee County, Florida. Bonita Springs CCD, Lee County, Florida has a land area of 129.1 square miles.

County Subdivision

[Cape Coral CCD, Lee County, Florida](#)

Cape Coral CCD, Lee County, Florida is a city, town, place equivalent, or township located in Lee County, Florida. Cape Coral CCD, Lee County, Florida has a land area of 134.0 square miles.

County Subdivision

### **Estero Island CCD, Lee County, Florida**

Estero Island CCD, Lee County, Florida is a city, town, place equivalent, or township located in Lee County, Florida. Estero Island CCD, Lee County, Florida has a land area of 5.8 square miles.

County Subdivision

### **Fort Myers CCD, Lee County, Florida**

Fort Myers CCD, Lee County, Florida is a city, town, place equivalent, or township located in Lee County, Florida. Fort Myers CCD, Lee County, Florida has a land area of 80.5 square miles.

County Subdivision

### **Fort Myers Shores CCD, Lee County, Florida**

Fort Myers Shores CCD, Lee County, Florida is a city, town, place equivalent, or township located in Lee County, Florida. Fort Myers Shores CCD, Lee County, Florida has a land area of 69.3 square miles.

County Subdivision

### **Lehigh Acres CCD, Lee County, Florida**

Lehigh Acres CCD, Lee County, Florida is a city, town, place equivalent, or township located in Lee County, Florida. Lehigh Acres CCD, Lee County, Florida has a land area of 251.8 square miles.

County Subdivision

### **North Fort Myers CCD, Lee County, Florida**

North Fort Myers CCD, Lee County, Florida is a city, town, place equivalent, or township located in Lee County, Florida. North Fort Myers CCD, Lee County, Florida has a land area of 44.6 square miles.

County Subdivision

### **Pine Island CCD, Lee County, Florida**

Pine Island CCD, Lee County, Florida is a city, town, place equivalent, or township located in Lee County, Florida. Pine Island CCD, Lee County, Florida has a land area of 40.5 square miles.

[VIEW ALL PROFILES \(11\)](#)

## Pages

View: 10 | 25 | 50

[https://www.census.gov/quickfacts/fact/table/lee-county-alabama,AL\\_US/PST045219](https://www.census.gov/quickfacts/fact/table/lee-county-alabama,AL_US/PST045219)

### **U.S. Census Bureau QuickFacts: Lee County, Alabama; Alabama; United States**

...Census Bureau QuickFacts: **Lee County, Alabama; Alabama; United States** QuickFacts **Lee County, Alabama; Alabama**...area in square miles, 2010 Clear 3Table Map **Lee**...States Dashboard **Lee County, Alabama**Alabama...Transportation Income & Poverty Businesses Geography **Lee**...

<https://www.census.gov/quickfacts/fact/table/lee-county-florida/PST045219>

### **U.S. Census Bureau QuickFacts: Lee County, Florida**

...Census Bureau QuickFacts: **Lee County, Florida** QuickFacts...**Lee County, Florida** QuickFacts provides statistics...for all states and **counties**, and for cities and towns...Transportation Income & Poverty Businesses Geography **Lee**...**County, Florida** Population estimates, July 1, 2019...

<https://www.census.gov/quickfacts/fact/table/lee-summit-city-missouri/PST045219>

### **U.S. Census Bureau QuickFacts: Lee's Summit city, Missouri**

...QuickFacts provides statistics for all states and **counties**...2015-2019 Foreign born persons, percent, 2015-2019 **Housing**...units, July 1, 2019, (V2019) Owner-occupied **housing**...**Housing** units, July 1, 2019, (V2019) X Owner-occupied...**housing** unit rate, 2015-2019 77.2% Median value of...

<https://www.census.gov/srd/csmreports/byism.html>

### **CSM Research Reports and Studies - Working Papers in Survey Measurement (SM)**

...**Lee**, and Theresa J....**Lee**, and Naomi E...to Improve Accuracy of Reporting in the American **Housing**...from a Cognitive Exploration of the 1993 American **Housing**...Return Rates in the 1986 Census of Central Los Angeles **County**...

<https://www.census.gov/srd/csmreports/byev.html>

### **CSM Research Reports and Studies - Ethnographic Evaluation of the 1990 Decennial Census Reports (EV)**

...of a Heterogeneous Population in a San Francisco **Housing**...New York City's Chinatown , (about 4.00MB) by Betty **Lee**...

<https://www.census.gov/srd/csmreports/byssm.html>

### **CSM Research Reports and Studies - Study Series - Methodology (SSM)**

...Report of Cognitive Testing of the 2013 American **Housing**...Report of Cognitive Testing on the 2013 American **Housing**...**Lee**, and Theresa J....Interviews During the 2006 Census Test in Travis **County**...Subsidy Questions in the American **Housing** Survey ...

<https://www.census.gov/srd/csmreports/byname.html>

### **CSM Research Reports and Studies - Research Reports and Studies Sorted by Author**

...**Lee**, and Theresa J....**Lee**, and Naomi E...**Lee**, and Naomi E...**Lee**, and Naomi E...**Lee**, and Naomi E...

[VIEW ALL PAGES \(7\)](#)



2726 OAK RIDGE COURT, SUITE 503  
FORT MYERS, FL 33901-9356  
OFFICE 239.278.3090  
FAX 239.278.1906

TRAFFIC ENGINEERING  
TRANSPORTATION PLANNING  
SIGNAL SYSTEMS/DESIGN

# **TRAFFIC IMPACT STATEMENT**

FOR

## **BONITA BEACH 50 COMPREHENSIVE PLAN AMENDMENT & REZONING**

(PROJECT NO. F2510.11)

**PREPARED BY:**

**TR Transportation Consultants, Inc.  
Certificate of Authorization Number: 27003  
2726 Oak Ridge Court, Suite 503  
Fort Myers, Florida 33901-9356  
(239) 278-3090**

**December 1, 2025**

## CONTENTS

- I. INTRODUCTION
- II. EXISTING CONDITIONS
- III. COMPREHENSIVE PLAN AMENDMNET
- IV. TRIP GENERATION
- V. COMPREHENSIVE PLAN AMENDMENT ANALYSIS
- VI. ZONING ANALYSIS
- VII. CONCLUSION

## I. INTRODUCTION

TR Transportation Consultants, Inc. has conducted a traffic impact statement to fulfill requirements set forth by the Lee County Department of Community Development for projects seeking amendment to the Comprehensive Land Use Plan and re-zoning approval. The subject site is located along the north side of Bonita Beach Road approximately 1½ miles east of I-75 in Lee County, Florida. **Figure 1** illustrates the approximate location of the subject site.

The analysis in this report will determine the impacts of change in land use designation on approximately 50-acres from DRGR/Wetlands to Outlying Suburban land use category to permit the development of the subject site with a residential community on the overall 50-acre site. Approximately 34-acres is currently in the DR/GR Future Land Use Category and approximately 13-acres is in the Wetlands Future Land Use Category. With the proposed land use category (Outlying Suburban), and the companion rezoning application that is being filed, the overall 50-acre site will be rezoned to permit up to 94 residential dwelling units.

The transportation related impacts of the proposed Comprehensive Plan Amendment will be assessed based on evaluation of the long-range impact (20-year horizon) and short range impact (5-year horizon) the proposed amendment would have on the existing and future roadway infrastructure. The transportation related impacts of the proposed rezoning will be evaluated based on the estimated build-out year of the project and the impacts the proposed rezoning will have on the surrounding roadway infrastructure. Access to the subject site is proposed to Bonita Beach Road via two access connections as shown on the Master Concept Plan.

F2510.11



This report examines the impact of the development on the surrounding roadways. Trip generation and assignments to the various roadways within the study area will be completed and analysis conducted to determine the impacts of the development on the surrounding roadways.

## II. EXISTING CONDITIONS

The subject site is currently vacant. The overall site is generally bordered by vacant land to the north and east, a commercial business to the north, a mobile home park to the west and Bonita Beach Road borders the site to the south.

**Bonita Beach Road** is a four-lane divided arterial that borders the subject site to the south. Bonita Beach Road has a posted speed limit of 45 mph and is under the jurisdiction of the Lee County Department of Transportation.

## III. COMPREHENSIVE PLAN AMENDMENT

The Comprehensive Plan Amendment would change the future land use designation on approximately 50-acres from DR/GR & Wetlands to Outlying Suburban. Under the existing DR/GR and Wetlands land use category, the site could be developed with up to approximately 4 residential dwelling units (1 dwelling unit/10-acres on DR/GR and 1 dwelling unit/20-acres on Wetlands). **Table 1** summarizes the land uses that could be constructed under the existing land use designations and the intensity of uses under the proposed land use designation that is being limited by the companion rezoning application to 94 dwelling units.

**Table 1  
Land Uses  
Bonita Beach 50**

Existing/ Proposed	Land Use Category	Intensity
Existing	DR/GR & Wetlands	4 Dwelling Units (DR/GR ≈ 34 acres @ 1 DU/10-Acres & Wetlands ≈ 13 acres @ 1 DU/20 acres
Proposed	Outlying Suburban	94 Dwelling Units

#### IV. TRIP GENERATION

The trip generation for the permitted and proposed development was determined by referencing the Institute of Transportation Engineer’s (ITE) report, titled *Trip Generation*, 12<sup>th</sup> Edition. Land Use Code 210 (Single-Family Detached Housing) was utilized for the trip generation purposes of the permitted and proposed residential uses on the subject site. The trip generation equations utilized for this land use are attached to the Appendix of this report for reference. **Table 2** and **Table 3** outline the anticipated weekday AM and PM peak hour trip generation based on the existing and proposed future land use category, respectively.

**Table 2  
Trip Generation  
Based on Existing Land Use Category  
Bonita Beach 50**

Land Use	Weekday AM Peak Hour			Weekday PM Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Single-Family Detached Housing (4 Dwelling Units)	1	2	3	2	2	4	36

**Table 3  
Trip Generation  
Based on Proposed Land Use Category  
Bonita Beach 50**

Land Use	Weekday AM Peak Hour			Weekday PM Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Single-Family Detached Housing (94 Dwelling Units)	19	50	69	56	35	91	854

Table 4 indicates the trip generation difference between the proposed and existing land use categories. The long range transportation impact (20-year horizon) and the short range transportation impact (5-year horizon) will be evaluated based on the resultant trip change illustrated in Table 4.

**Table 4  
Trip Generation – Resultant Trip Change  
Bonita Beach 50**

Land Use	A.M. Peak Hour			P.M. Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Proposed Land Use Designation (94 Dwelling Units)	19	50	69	56	35	91	854
Existing Land Use Designation (4 Dwelling Units)	-1	-2	-3	-2	-2	-4	-36
<b>Resultant Trip Change</b>	<b>+18</b>	<b>+48</b>	<b>+66</b>	<b>+54</b>	<b>+33</b>	<b>+87</b>	<b>+818</b>

The resultant trip change in Table 4 indicates that the trip generation will be **increased** in the AM and PM peak hour conditions as a result of this land use change.

## V. COMPREHENSIVE PLAN AMENDMENT ANALYSIS

The Comprehensive Plan Amendment would change the future land use designation on the approximately 50-acres from DR/GR & Wetlands to an Outlying Suburban land use category. The transportation related impacts of the proposed Comprehensive Plan Amendment were evaluated pursuant to the criteria in the application document. This included an evaluation of the long range impact (20-year horizon) and short range impact (5-year horizon) the proposed amendment would have on the existing and future roadway infrastructure.

### **Long Range Impacts (20-year horizon)**

The Lee County Metropolitan Planning Organization's (MPO) 2045 Long Range Transportation Plan was reviewed to determine if any future roadway improvements were planned in the vicinity of the subject site. Based on the review, there were no roadway improvement projects **within a 3-mile radius of the site** shown on the 2045 Cost Feasible Plan.

The Lee County Metropolitan Planning Organization's (MPO) 2045 Long Range Transportation Plan was reviewed to determine if any future roadway improvements were planned in the vicinity of the subject site. Based on the review, I-75 within the vicinity of the site was shown to be widened to a 10-lane facility. The future 2045 Level of Service Analysis also included the recently extended Logan Boulevard to the south of Bonita Beach Road. These improvements were assumed to be in place for the purposes of the future 2045 Level of Service Analysis. There are no other programmed improvements within the vicinity of the subject site. The Lee County 2045 Highway Cost Feasible Plan map is attached to this report for reference.

The Lee County Metropolitan Planning Organization's (MPO) long range transportation plan along with the FDOT District One travel model were also reviewed in order to determine the impacts the amendment would have on the surrounding area. The base 2045 loaded network volumes were determined for the roadways within the study area and then the PM peak hour trips to be generated by additional trips shown in Table 4 were then added to the projected 2045 volumes. The Level of Service for the surrounding roadways was then evaluated. The Level of Service threshold volumes were derived based on the Lee County's *Generalized Peak Hour Directional Service Volumes* table as well as FDOT's *Multi-Modal Generalized Peak Hour Directional Volumes*.

A Level of Service analysis for the 2045 Existing plus Committed (E + C) roadway network is attached to this Memorandum for reference. Table 1A and Table 2A reflect the Level of Service analysis based on the 2045 conditions. The results of the analysis indicate that the addition of the trips as a result of the proposed amendment to the projected 2045 volumes will not cause any other roadway link to fall below the recommended minimum acceptable Level of Service thresholds. Therefore, no changes to the adopted long range transportation plan are required as result of the proposed land use change.

#### **Short Range Impacts (5-year horizon)**

The 2023/2024-2027/2028 Lee County Transportation Capital Improvement Plan, FDOT's 5-Year Work Program as well as the City of Bonita Springs Five Year Capital Improvements Plan were reviewed to determine if any future roadway improvements were planned in the vicinity of the subject site in the next five (5) years. Based on the review, there only improvement identified was the widening of I-75 from Collier County to Corkscrew Road to an 8-lane highway. There are no other roadway capacity improvements identified on the aforementioned work programs.

As can be depicted from Table 4 of this report, the proposed map amendment will increase the overall trip generation potential of the subject site by approximately 66 vehicles during the A.M. peak hour and 87 vehicles during the P.M. peak hour. **Table 3A**

and **Table 4A** attached to this report indicate the projected 5-year planning Level of Service on the area roadways based on the additional trips shown in Table 4. The existing peak hour, peak season, peak direction traffic volumes on the various roadway links maintained by Lee County were obtained from the most recent Lee County *Public Facilities Level of Service and Concurrency Report*. The existing peak hour, peak season, peak direction traffic volumes were then factored by the appropriate annual growth rates in order to obtain the 2030 background traffic conditions on the area roadway network. The growth rates for each roadway were calculated based on historical traffic data obtained from the FDOT's *Florida Traffic Online* resource as well as the traffic data from the latest *Lee County Traffic Count Report*. Based on the projected traffic distribution, the roadway link data was analyzed for the year 2030 without the proposed amendment and year 2030 with the proposed amendment. Traffic data obtained from the aforementioned Lee County and FDOT resources is attached to the Appendix of this report for reference.

The results of the analysis indicate that the addition of the trips as a result of the proposed amendment to the projected 2030 volumes will not cause any roadway link to fall below the minimum acceptable Level of Service standards. Therefore, based on this analysis no modifications will be necessary to the Lee County or the City of Bonita Springs short term capital improvement programs.

The proposed Comprehensive Plan Amendment is to change the future land use designation on approximately 50-acres from DR/GR & Wetlands to Outlying Suburban. Based on the analysis, no modifications will be necessary to the Lee County or FDOT short term capital improvement programs.

## VI. ZONING ANALYSIS

An analysis was also completed to support the rezoning of the entire 50-acre subject site from AG-2 to RPD. The site is currently zoned AG-2. If the Comprehensive Plan change was approved on the site, under the existing AG-2 zoning, the site could be developed with up to 94 dwelling units considering the wetlands and other environmental characteristics of the parcel. **Table 5** summarizes the land uses that are being proposed for the proposed rezoning application.

**Table 5**  
**Land Uses**  
**Bonita Beach 50 RPD**

Land Use	Proposed
Residential	94 Dwelling Units

<sup>1</sup> Assumes the Comp Plan Amendment is approved

Access to the subject site is proposed to Bonita Beach Road via two access connections.

The trip generation for the project was based on data from the Institute of Transportation Engineer's (ITE) report, titled *Trip Generation Manual*, 12<sup>th</sup> Edition. Land Use Code 210 (Single Family Detached Housing) was utilized to formulate the trip generation for all of the dwelling units since this would represent the "worst case" in terms of trip generation for the residential units. The equations used from this land use are contained in the Appendix of this report for reference.

**Table 6** outlines the anticipated weekday A.M. and P.M. peak hour and daily trip generation of the development as currently proposed if the rezoning change is approved.

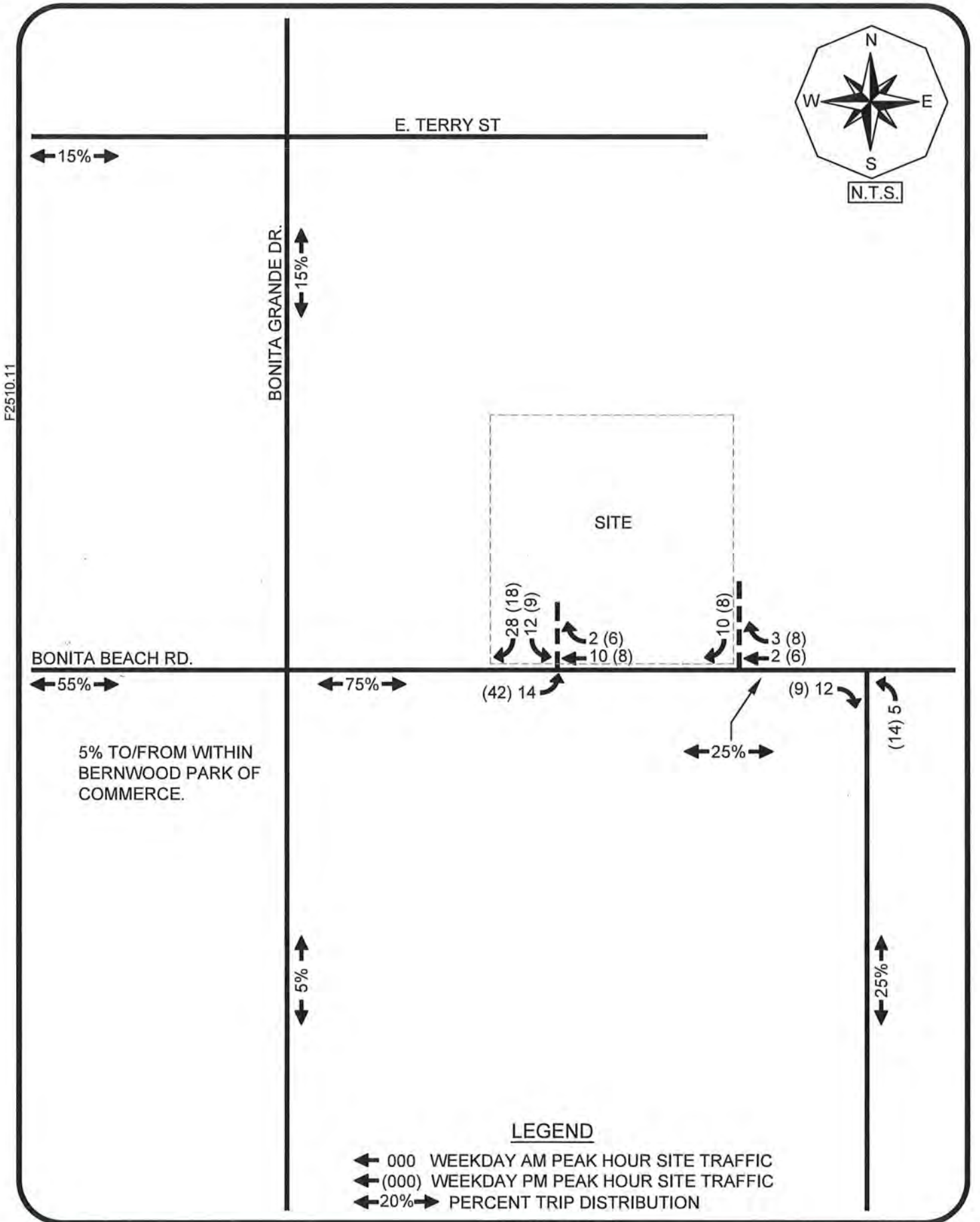
**Table 6  
Trip Generation – Proposed  
Bonita Beach 50 RPD**

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Single-Family Residential (94 Units)	19	50	69	56	35	91	854

The trips the proposed development is anticipated to generate were then assigned to the surrounding roadway network. The net new trips anticipated to be added to the surrounding roadway network were assigned based upon the routes drivers are anticipated to utilize to approach the subject site. **Figure 2** illustrates the percent project distribution and site traffic assignment of the residential related trips to the surrounding roadway network

In order to determine which roadway segments surrounding the site may be significantly impacted as outlined in the Lee County Traffic Impact Statement Guidelines, **Table 5A**, in the Appendix, was created. This table indicates which roadway links will accommodate greater than 10% of the Peak Hour Level of Service “C” volumes. The Level of Service thresholds for the County maintained roadways were obtained from the Lee County’s *Generalized Peak Hour Directional Service Volumes* table. Based on Table 1A, no roadway segments are projected to be significantly impacted as a result of the proposed development.

A horizon year analysis of 2028 was selected as the analysis year to evaluate the future impacts this project will have on the surrounding roadway network. Based on this horizon year, a growth rate was applied to the existing traffic conditions for all roadway links in the study area. The growth rates were obtained through comparisons of annual traffic data obtained from the *City of Bonita Springs Traffic Count Report*. Based on the project distribution illustrated on Figure 2, the link data was analyzed for the year 2028 without the development and year 2028 with the development.



**Table 6A** in the Appendix of the report indicates the methodology utilized to obtain the year 2028 build-out traffic volumes as well as the growth rate utilized for each roadway segment. The base year traffic volumes for County maintained roadways were obtained from the latest *Lee County Public Facilities Level of Service and Concurrency Report*.

Adverse impacts are defined as a degradation of the Level of Service beyond the adopted Level of Service Thresholds for those links as indicated in Table 5A. In comparing the links' functional classification and calculated 2028 traffic volumes to the Service Volume Tables, it was determined that all analyzed roadways are projected to operate above the minimum adopted Level of Service in 2028 both with and without the proposed development. Therefore, roadway capacity improvements will not be warranted as a result of the additional traffic to be generated by the proposed development.

**Figure 3** indicates the year 2028 peak hour – peak direction traffic volumes and Level of Service for the various roadway links within the study area. Noted on Figure 3 is the peak hour – peak direction volume and Level of Service of each link should no development occur on the subject site and the peak hour – peak direction volume and Level of Service for the weekday P.M. peak hour with the development traffic added to the roadways. This figure was derived from **Table 6A** contained in the Appendix.

Turn lane improvements at the site access drive intersections will be evaluated at the time the project seeks a Development Order from Lee County.



F2510.11

E. TERRY ST.

BONITA GRANDE DR.

723 - "E"  
(732 - "E")

SITE

BONITA BEACH RD.

1,050 - "C"  
(1,081 - "C")

1,308 - "C"  
(1,350 - "C")

1,308 - "C"  
(1,322 - "C")

LOGAN BLVD

**LEGEND**

XXX - "X" 2028 PEAK SEASON PEAK HOUR PEAK DIRECTION  
BACKGROUND TRAFFIC AND LEVEL OF SERVICE  
DESIGNATION

(XXX -"X") 2028 PEAK SEASON PEAK HOUR PEAK DIRECTION  
BACKGROUND TRAFFIC PLUS PROJECT TRAFFIC AND LEVEL  
OF SERVICE DESIGNATION

## **IX. CONCLUSION**

The proposed development is located along the north side of Bonita Beach Road 1 ½ miles east of I-75 in Lee County, Florida. Based upon the roadway link Level of Service analysis conducted as a part of this report for both a Comprehensive Plan amendment and rezoning request, the development of the subject site meets the requirements set forth by the Lee County Comprehensive Plan and Land Development Code in that there is sufficient capacity available to accommodate the new trips that will be generated by the proposed development. Therefore, no roadway capacity improvements will be warranted as a result of the additional traffic to be generated by the proposed Comprehensive Plan amendment and rezoning requests.

The 2045 Financially Feasible Roadway network and the short term 5-year Capital Improvement Program currently in place in the Lee County will not require any modification in order to accommodate the proposed Land Use Change. The rezoning analysis also indicates that the subject site will not have an adverse impact on the surrounding roadway network. The project will pay road impact fees to offset the impacts to the area road network as part of the mitigation of the project.

# APPENDIX

**TABLES 1A & 2A**  
**LONG RANGE TRANSPORTATION**  
**ANALYSIS**

**TABLE 1A  
LEVEL OF SERVICE THRESHOLDS  
2045 LONG RANGE TRANSPORTATION ANALYSIS - BONITA BEACH 50**

ROADWAY	ROADWAY SEGMENT FROM TO		2045 E + C NETWORK LANES # Lanes Roadway Designation		GENERALIZED SERVICE VOLUMES				
					LOS A	LOS B	LOS C	LOS D	LOS E
					VOLUME	VOLUME	VOLUME	VOLUME	VOLUME
Bonita Beach Road	Bonita Beach Rd End	Valencia Bonita Blvd	4LD	Arterial	0	250	1,840	1,960	1,960
	Valencia Bonita Blvd	Villagewalk Blvd	4LD	Arterial	0	250	1,840	1,960	1,960
	Villagewalk Blvd	Logan Blvd	4LD	Arterial	0	250	1,840	1,960	1,960
	Logan Blvd	Site	4LD	Arterial	0	250	1,840	1,960	1,960
	Site	Southampton Dr	4LD	Arterial	0	250	1,840	1,960	1,960
	Southampton Dr	Bonita Grande Dr	4LD	Arterial	0	250	1,840	1,960	1,960
	Bonita Grande Dr	I-75	4LD	Arterial	0	250	1,840	1,960	1,960
	I-75	Imperial Pkwy	6LD	Arterial	0	400	2,840	2,940	2,940
	Imperial Pkwy	Old 41 Rd	6LD	Arterial	0	400	2,840	2,940	2,940
Bonita Grande Dr	E. Terry St	Bonita Beach Rd	2LN	Collector	0	0	310	660	740
E. Terry St	Bonita Grande Dr	Imperial Pkwy	2LN	Collector	0	0	310	660	740
	Imperial Pkwy	Old 41 Rd	4LD	Collector	0	0	770	1,510	1,600
Imperial Pkwy	Shangrila Rd	E. Terry St	4LD	Controlled Access Facility	0	270	1,970	2,100	2,100
	Bonita Beach Rd	Dellwood Ln	4LD	Arterial	0	250	1,840	1,960	1,960
Logan Blvd	Bonita Beach Rd	Immokalee Rd	2LD	Arterial	0	140	800	860	860
I-75	Corkscrew Rd	Bonita Beach Rd	10LF	Freeway	0	6,080	8,421	10,521	11,140
	Bonita Beach Rd	Immokalee Rd	10LF	Freeway	0	6,080	8,421	10,521	11,140

□ - Denotes the LOS Standard for each roadway segment

\* Level of Service Thresholds for Lee County/City arterials/collectors were taken from the Generalized Peak Hour Directional Service Volume tables for Urbanized Areas (dated April 2016)

\* Level of Service Thresholds for I-75 were taken from the FDOT's Generalized Peak Hour Directional Service Volume Table.

**TABLE 2A  
2045 ROADWAY LINK LEVEL OF SERVICE CALCULATIONS  
BONITA BEACH 50 CPA**

TOTAL AM PEAK HOUR PROJECT TRAFFIC      69 VPH      IN=      19      OUT=      50  
 TOTAL PM PEAK HOUR PROJECT TRAFFIC      91 VPH      IN=      56      OUT=      35

ROADWAY	ROADWAY SEGMENT		2045 FSUTMS AADT	STA #	K-100 FACTOR	100TH HIGHEST HOUR PK DIR 2-WAY VOLUME	D FACTOR	PM PK HR PEAK DIRECTION	2045 PEAK DIRECTION TRAFFIC VOLUMES & LOS		PK DIR PM PROJ TRAFFIC <sup>1</sup>	2045 BACKGROUND PLUS PROJ PEAK DIRECTION TRAFFIC VOLUMES & LOS	
	FROM	TO							VOLUME	LOS		VOLUME	LOS
Bonita Beach Road	Bonita Beach Rd E. End	Valencia Bonita Blvd	25,998	0019	0.090	2,340	0.57	EAST	1,334	C	0	1,334	C
	Valencia Bonita Blvd	Villagewalk Blvd	26,193	0019	0.090	2,357	0.57	EAST	1,343	C	0	1,343	C
	Villagewalk Blvd	Logan Blvd	26,193	0019	0.090	2,357	0.57	EAST	1,343	C	0	1,343	C
	Logan Blvd	Site	23,203	0019	0.090	2,088	0.57	EAST	1,190	C	14	1,204	C
	Site	Southampton Dr	23,203	0019	0.090	2,088	0.57	EAST	1,190	C	42	1,232	C
	Southampton Dr	Bonita Grande Dr	23,203	0019	0.090	2,088	0.57	EAST	1,190	C	42	1,232	C
	Bonita Grande Dr	I-75	39,966	0018	0.090	3,597	0.57	EAST	2,050	F	31	2,081	F
	I-75	Imperial Pkwy	70,211	0017	0.090	6,319	0.57	EAST	3,602	F	17	3,619	F
	Imperial Pkwy	Old 41 Rd	59,401	1230	0.090	5,346	0.56	EAST	2,994	F	8	3,002	F
Bonita Grande Dr	E. Terry St	Bonita Beach Rd	6,726	1202	0.090	605	0.57	NORTH	345	D	8	353	D
E. Terry St	Bonita Grande Dr	Imperial Pkwy	14,531	1203	0.090	1,308	0.57	WEST	746	F	5	751	F
	Imperial Pkwy	Old 41 Rd	29,836	1211	0.090	2,685	0.57	WEST	1,530	E	6	1,536	E
Imperial Pkwy	Shangrila Rd	E. Terry St	28,588	1227	0.140	4,002	0.62	NORTH	2,481	F	5	2,486	F
	Bonita Beach Rd	Dellwood Ln	38,512	0004	0.140	5,392	0.62	NORTH	3,343	F	6	3,349	F
Logan Blvd	Bonita Beach Rd	Immokalee Rd	6,071	0024	0.090	546	0.57	NORTH	311	C	14	325	C
I-75	Corkscrew Rd	Bonita Beach Rd	172,881	120054	0.090	15,559	0.561	NORTH	8,729	D	8	8,737	D
	Bonita Beach Rd	Immokalee Rd	164,883	039950	0.090	14,839	0.524	NORTH	7,776	C	6	7,782	C

<sup>1</sup> Project traffic volumes were obtained from Table 3A.

\* The K-100 and D factors for County/City roadways were obtained from City of Bonita Springs Traffic Count Report.


\*\* The K-100 and D factors for I-75 were obtained from FDOT's Florida Traffic Online resource.

**TABLES 3A & 4A**  
**5-YEAR CIP TRANSPORTATION**  
**ANALYSIS**

**TABLE 3A  
LEVEL OF SERVICE THRESHOLDS  
BONITA BEACH 50**

TOTAL AM PEAK HOUR PROJECT TRAFFIC = 69 VPH      IN= 19      OUT= 50  
 TOTAL PM PEAK HOUR PROJECT TRAFFIC = 91 VPH      IN= 58      OUT= 35

<u>ROADWAY</u>	<u>ROADWAY SEGMENT</u>	<u># LANES</u>						<u>PERCENT</u>		
			<u>LOS A</u> <u>VOLUME</u>	<u>LOS B</u> <u>VOLUME</u>	<u>LOS C</u> <u>VOLUME</u>	<u>LOS D</u> <u>VOLUME</u>	<u>LOS E</u> <u>VOLUME</u>	<u>PROJECT</u> <u>TRAFFIC</u>	<u>PROJECT</u> <u>TRAFFIC</u>	<u>PROJ/</u> <u>LOS C</u>
Bonita Beach Road	E. of Logan Blvd	4LD	0	250	1,840	1,960	1,960	0%	0	0.0%
	E. of Site	4LD	0	250	1,840	1,960	1,960	25%	15	0.8%
	W. of Site	4LD	0	250	1,840	1,960	1,960	75%	44	2.4%
	W. of Southampton Dr.	4LD	0	250	1,840	1,960	1,960	75%	44	2.4%
	W. of Bonita Grande Dr.	4LD	0	250	1,840	1,960	1,960	55%	32	1.7%
Bonita Grande Dr	S. of E. Terry St	2LN	0	0	310	660	740	15%	9	2.8%
E. Terry St	W. of Bonita Grande Dr	2LN	0	0	310	660	740	15%	9	2.8%
Logan Blvd	S. of Bonita Beach Rd	2LD	0	140	800	860	860	25%	15	1.8%

 - Denotes the LOS Standard for each roadway segment

\* Level of Service Thresholds for Lee County arterials/collectors taken from the Lee County Generalized Peak Hour Directional Service Volume Tables.

**TABLE 4A  
LEE COUNTY TRAFFIC COUNTS AND CALCULATIONS  
BONITA BEACH 50**

TOTAL PROJECT TRAFFIC AM =	69	VPH	IN =	19	OUT=	50
TOTAL PROJECT TRAFFIC PM =	91	VPH	IN=	56	OUT=	35

ROADWAY	ROADWAY SEGMENT	LCDOT PCS OR FDOT SITE #	BASE YR ADT	2021 ADT	YRS OF GROWTH <sup>1</sup>	ANNUAL RATE	2024	2030		PERCENT PROJECT	2030			2030					
							PK HR	PK HR	PK SEASON		BCKGRND	BCKGRND	BCKGRND	V/C	+ AM PROJ	+ PM PROJ	V/C		
							PK SEASON	PEAK DIRECTION	LOS	Ratio	TRAFFIC	TRAFFIC	TRAFFIC	VOLUME	LOS	Ratio	VOLUME	LOS	Ratio
Bonita Beach Road	E. of Logan Blvd	0019	15,900	22,600	6	6.04%	145	246	B	0.13	0%	0	0	246	B	0.13	246	B	0.13
	E. of Site	0019	15,900	22,600	6	6.04%	868	1,471	C	0.75	25%	13	14	1,483	C	0.76	1,485	C	0.76
	W. of Site	0019	15,900	22,600	6	6.04%	868	1,471	C	0.75	75%	38	42	1,508	C	0.77	1,513	C	0.77
	W. of Southampton Dr.	0019	15,900	22,600	6	6.04%	868	1,471	C	0.75	75%	38	42	1,508	C	0.77	1,513	C	0.77
	W. of Bonita Grande Dr.	0018	21,400	25,200	6	2.76%	868	1,109	C	0.57	55%	28	31	1,137	C	0.58	1,140	C	0.58
Bonita Grande Dr	S. of E. Terry St	1202	6,200	10,600	10	5.51%	497	805	F	1.09	15%	8	8	813	F	1.10	814	F	1.10

<sup>1</sup> AGR for all roadways was calculated based the historical traffic data obtained from 2025 City of Bonita Springs Traffic Count Report

<sup>2</sup> Current peak hour peak season peak direction traffic volumes for all County roadways were obtained from the 2024 Lee County Public Facilities Level of Service and Concurrency Report.

<sup>2</sup> Current peak hour peak season peak direction traffic volumes for City of Bonita Springs maintained roadways were obtained from the City of Bonita Springs Traffic Count Report

**TABLES 5A & 6A**  
**ZONING LEVEL OF SERVICE**  
**ANALYSIS**

**TABLE 5A  
LEVEL OF SERVICE THRESHOLDS  
BONITA BEACH 50**

TOTAL AM PEAK HOUR PROJECT TRAFFIC = 69 VPH      IN= 19      OUT= 50  
 TOTAL PM PEAK HOUR PROJECT TRAFFIC = 91 VPH      IN= 58      OUT= 35

<u>ROADWAY</u>	<u>ROADWAY SEGMENT</u>	<u># LANES</u>						<u>PERCENT</u>		
			<u>LOS A VOLUME</u>	<u>LOS B VOLUME</u>	<u>LOS C VOLUME</u>	<u>LOS D VOLUME</u>	<u>LOS E VOLUME</u>	<u>PROJECT TRAFFIC</u>	<u>PROJECT TRAFFIC</u>	<u>PROJ/ LOS C</u>
Bonita Beach Road	E. of Logan Blvd	4LD	0	250	1,840	1,960	1,960	0%	0	0.0%
	E. of Site	4LD	0	250	1,840	1,960	1,960	25%	15	0.8%
	W. of Site	4LD	0	250	1,840	1,960	1,960	75%	44	2.4%
	W. of Southampton Dr.	4LD	0	250	1,840	1,960	1,960	75%	44	2.4%
	W. of Bonita Grande Dr.	4LD	0	250	1,840	1,960	1,960	55%	32	1.7%
Bonita Grande Dr	S. of E. Terry St	2LN	0	0	310	660	740	15%	9	2.8%
E. Terry St	W. of Bonita Grande Dr	2LN	0	0	310	660	740	15%	9	2.8%
Logan Blvd	S. of Bonita Beach Rd	2LD	0	140	800	860	860	25%	15	1.8%

- Denotes the LOS Standard for each roadway segment

\* Level of Service Thresholds for Lee County arterials/collectors taken from the Lee County Generalized Peak Hour Directional Service Volume Tables.

**TABLE 6A  
LEE COUNTY TRAFFIC COUNTS AND CALCULATIONS  
BONITA BEACH 50**

TOTAL PROJECT TRAFFIC AM = 89 VPH IN = 19 OUT= 50  
 TOTAL PROJECT TRAFFIC PM = 91 VPH IN= 56 OUT= 35

ROADWAY	ROADWAY SEGMENT	LCDOT PCS OR FDOT SITE #	BASE YR ADT	2021 ADT	YRS OF GROWTH <sup>1</sup>	ANNUAL RATE	2024		2028			2028			2028				
							PK HR	PK HR	PK SEASON	PERCENT	BCKGRND		BCKGRND						
							PK SEASON	PEAK DIRECTION	V/C	PROJECT	AM PROJ	PM PROJ	+ AM PROJ	V/C	+ PM PROJ	V/C			
						PEAK DIR. <sup>2</sup>	VOLUME	LOS	Ratio	TRAFFIC	TRAFFIC	TRAFFIC	VOLUME	LOS	Ratio	VOLUME	LOS	Ratio	
Bonita Beach Road	E. of Logan Blvd	0019	15,900	22,600	6	6.04%	145	219	B	0.11	0%	0	0	219	B	0.11	219	B	0.11
	E. of Site	0019	15,900	22,600	6	6.04%	868	1,308	C	0.67	25%	13	14	1,321	C	0.67	1,322	C	0.67
	W. of Site	0019	15,900	22,600	6	6.04%	868	1,308	C	0.67	75%	38	42	1,346	C	0.69	1,350	C	0.69
	W. of Southampton Dr.	0019	15,900	22,600	6	6.04%	868	1,308	C	0.67	75%	38	42	1,346	C	0.69	1,350	C	0.69
	W. of Bonita Grande Dr.	0018	21,400	25,200	6	2.76%	868	1,050	C	0.54	55%	28	31	1,078	C	0.55	1,081	C	0.55
Bonita Grande Dr	S. of E. Terry St	1202	6,200	10,600	10	5.51%	497	723	E	0.98	15%	8	8	731	E	0.99	732	E	0.99

<sup>1</sup> AGR for all roadways was calculated based the historical traffic data obtained from 2025 City of Bonita Springs Traffic Count Report  
<sup>2</sup> Current peak hour peak season peak direction traffic volumes for all County roadways were obtained from the 2024 Lee County Public Facilities Level of Service and Concurrency Report.  
<sup>2</sup> Current peak hour peak season peak direction traffic volumes for City of Bonita Springs maintained roadways were obtained from the City of Bonita Springs Traffic Count Report

**LEE COUNTY GENERALIZED  
SERVICE VOLUMES**

**Lee County**  
**Generalized Peak Hour Directional Service Volumes**  
**Urbanized Areas**

April 2016

c:\input5

<b>Uninterrupted Flow Highway</b>						
Level of Service						
Lane	Divided	A	B	C	D	E
1	Undivided	130	420	850	1,210	1,640
2	Divided	1,060	1,810	2,560	3,240	3,590
3	Divided	1,600	2,720	3,840	4,860	5,380
<b>Arterials</b>						
Class I (40 mph or higher posted speed limit)						
Level of Service						
Lane	Divided	A	B	C	D	E
1	Undivided	*	140	800	860	860
2	Divided	*	250	1,840	1,960	1,960
3	Divided	*	400	2,840	2,940	2,940
4	Divided	*	540	3,830	3,940	3,940
Class II (35 mph or slower posted speed limit)						
Level of Service						
Lane	Divided	A	B	C	D	E
1	Undivided	*	*	330	710	780
2	Divided	*	*	710	1,590	1,660
3	Divided	*	*	1,150	2,450	2,500
4	Divided	*	*	1,580	3,310	3,340
<b>Controlled Access Facilities</b>						
Level of Service						
Lane	Divided	A	B	C	D	E
1	Undivided	*	160	880	940	940
2	Divided	*	270	1,970	2,100	2,100
3	Divided	*	430	3,050	3,180	3,180
<b>Collectors</b>						
Level of Service						
Lane	Divided	A	B	C	D	E
1	Undivided	*	*	310	660	740
1	Divided	*	*	330	700	780
2	Undivided	*	*	730	1,440	1,520
2	Divided	*	*	770	1,510	1,600
Note: the service volumes for I-75 (freeway), bicycle mode, pedestrian mode, and bus mode should be from FDOT's most current version of LOS Handbook.						

**TRAFFIC DATA FROM CITY OF  
BONITA SPRINGS TRAFFIC COUNT  
REPORT**

TABLE 2 HISTORIC TRAFFIC COUNT SUMMARY  
CITY OF BONITA SPRINGS, FL

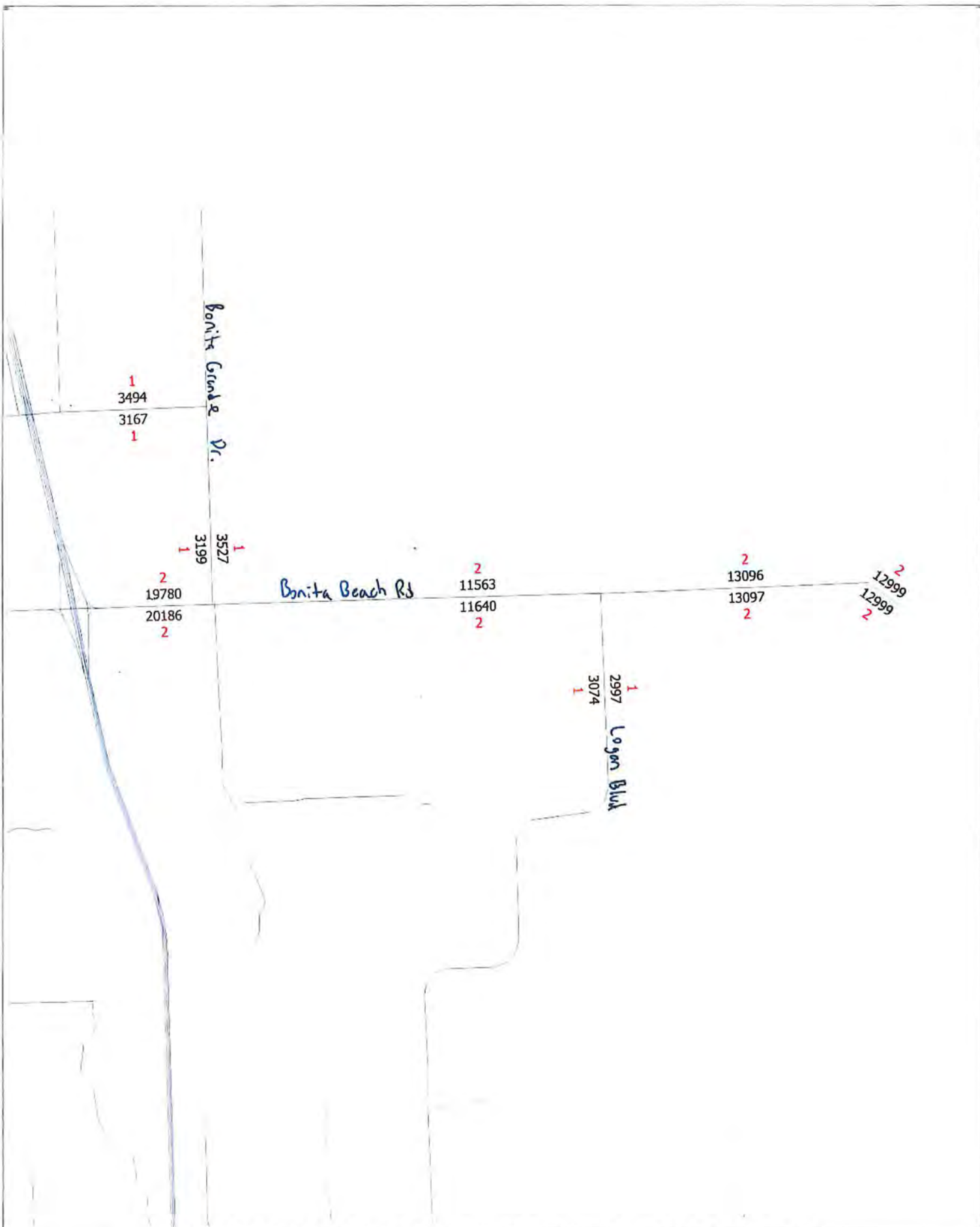


FTE Station Number	Reference Lee County Station Number	Location	Obtained from the Lee County Traffic Count Report 2012							Counts performed by FTE or obtained from Lee County														
			2003	2004	2005	2006	2007	2008	Dec-09	Dec-10	Feb-12	Jan-14	Feb-15	Feb-16	March-17	March-18	April-19	March-20	March-21	March-22	Feb-23	Feb-24	Feb-25	
1224	0496	Arroyal Rd N of Bonita Beach Rd	5000	6200	6500	6400	5300	4700	6000	5600	5000	5900	5500	6300	6100	6300	6700	6300	6200	6800	6000	6400	6400	
0005	N/A	Bonita Beach Rd between Wisconsin & Michigan St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28500	26700	30500	31300	31000	32000	32400	31600	31600	
0016	0007	Bonita Beach Rd E. of Vanderbilt Dr	N/A	N/A	N/A	N/A	U/C	23400	24800	23000	23500	24600	25700	25900	30300	25300	28600	29400	26800	30200	23900	26300	27500	
1229	0221	Bonita Beach Rd East of Arroyal Rd	N/A	27000	25200	25600	26300	26300	22900	23600	N/A	N/A	N/A	32300	31100	28800	32800	35500	32500	34000	34100	33200	33100	
0006	N/A	Bonita Beach Rd W. of Arroyal Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30700	30500	34500	34900	33000	35600	35200	34400	34700	
1230	N/A	Bonita Beach W of Race Track Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	37500	36100	34900	41000	41600	40200	47000	43200	39500	41700
0012**	N/A	Bonita Beach Rd E. of Barefoot Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19400	19000	21300	22900	20400	23500	14300	20000	20500	
0007**	N/A	Bonita Beach Rd W. of Vanderbilt Dr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25300	24200	26800	28600	25400	29300	20100	24200	25400	
1202	0519	Bonita Grande Dr N of Bonita Beach Rd	5400	7400	7100	8200	6800	5300	5300	5600	6100	5500	6200	6600	6300	7200	7900	9100	9100	10400	10200	10400	10600	
1213	N/A	Cockleshell Dr N of Shangri-La Rd	N/A	N/A	N/A	N/A	N/A	N/A	1900	1900	2300	1700	1900	3900	3700	2100	1600	2200	2000	2100	1900	1100	2300	
1207	N/A	Dean St E of Lime St	N/A	N/A	N/A	N/A	N/A	N/A	3400	3100	3200	2800	2700	3000	2900	2600	3400	3500	3600	4100	4600	4700	4600	
1208	N/A	Dean St W of Matheson Ave	N/A	N/A	N/A	N/A	N/A	N/A	2800	2300	2400	2000	2000	2500	2400	2100	2600	2600	2800	3300	3700	3800	3800	
1205	N/A	E Terry St E of I-75	N/A	N/A	N/A	N/A	N/A	N/A	8100	7900	7900	7800	8100	9000	8600	8700	10100	11200	10200	12200	12900	12500	13100	
1211	0271	E Terry St E of Old 41 Rd	9900	12000	13800	U/C	10000	13000	14400	14300	14800	13400	12700	14800	14200	13200	15700	16700	14300	16800	16800	15200	13600	
1203	N/A	E Terry St W of Bonita Grande Dr	N/A	N/A	N/A	N/A	N/A	N/A	4600	4500	4600	4400	4500	5600	5400	5700	6900	7900	7300	8900	9000	9000	9400	
0013**	N/A	Estero Blvd N. of Hickory Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9100	9300	10000	10600	9500	11000	7600	9400	9800	
0015**	N/A	Estero Blvd N. of Lovers Key State Park	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8600	9000	9600	9700	9100	10100	7100	8700	9000	
0014**	N/A	Estero Blvd S. of Lovers Key State Park	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8800	9100	9700	10100	8900	10400	7100	8900	9300	
1206	N/A	Imperial Pkwy Between Bonita Beach Rd and E Terry St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	16300	17400	19600	20600	23300	21100	23300	27400	25000	23400	26500	26200	27800	28100	
1226	N/A	Imperial Pkwy N/O Shangri-La	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13000	15900	15300	15700	19900	18500	16600	20500	21400	21500	23000	
0004	N/A	Imperial Pkwy S. of Tropic Dr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20200	20500	25100	23100	21400	24500	25700	25500	25900	
1227	N/A	Imperial Pkwy S/O Shangri-La	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13800	17200	16600	18000	21400	20000	18000	21600	22600	22600	23700	
1209	N/A	Matheson Ave N of Dean St	N/A	N/A	N/A	N/A	N/A	N/A	1900	1700	1500	1800	1500	2100	2100	1600	2000	2000	2100	2100	2300	2400	2400	
1204	N/A	Morton Ave N of East Terry St	N/A	N/A	N/A	N/A	N/A	N/A	5800	5400	5700	5300	5300	5900	5700	5600	6600	6600	6000	6800	7300	6800	7000	
1223	N/A	Old 41 Rd Between Collier County Line to Bonita Beach Rd	12600	13700	14000	14000	13000	11600	N/A	15200	14600	14100	14900	14700	14200	15200	17600	17500	17600	18900	19300	18400	18600	
1222	N/A	Old 41 Rd N of Bonita Beach Rd	16500	18500	17600	17400	18300	13200	15400	15000	14700	13500	13100	9000	8700	10500	12200	12400	12900	13600	13900	13500	14400	
1220	N/A	Old 41 Rd N of E/W Terry St	22000	24600	26300	26700	23500	19900	23800	23700	28300	25200	20700	18400	17700	19000	11900	22000	20100	23100	22100	21400	27800	
1216	N/A	Old 41 Rd S of US 41	13000	14200	15000	16000	13200	N/A	12000	12500	12200	12100	12000	11900	11500	11800	13500	14200	13700	15000	15100	14800	14800	
1228	N/A	Old 41 S/O Bemwood Pkwy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13600	13900	13300	13700	15700	16300	15500	16900	17500	17500	
0002	N/A	Paradise Rd N. of Shangri-La	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2500	2900	3500	3600	3500	3600	3800	5700	4900	
0001	N/A	Pennsylvania Ave E. of Los Amigos Lane	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3100	3500	4200	3600	3100	3600	3700	3500	3600	
1221	0494	Pennsylvania Ave W of Old 41 Rd	4100	4000	4900	4500	4300	3000	6300	6400	6000	5600	4400	3400	3300	4300	4800	5900	4100	5100	5000	4600	4700	
0003	N/A	Tropical Accrs Dr N. of Shangri-La	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	400	500	500	600	-400	600	700	800	
1212	N/A	Shangri-La Rd E of Old US 41	N/A	N/A	N/A	N/A	N/A	N/A	5000	5100	5100	4900	4600	5800	5600	6300	7100	7500	6600	7200	6700	7700	7800	
0010	N/A	US-41, N. of Shopping Center Entrance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	49200	45600	54200	50600	49300	49600	53500	49700	50800	
0009	N/A	US-41, S. of Beaumont Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35600	35500	44000	41100	39500	41700	43500	40800	41700	
0008	N/A	Vanderbilt Dr N. of Woods Edge Pkwy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6900	8400	9500	10200	8900	10200	9200	10100	10400	

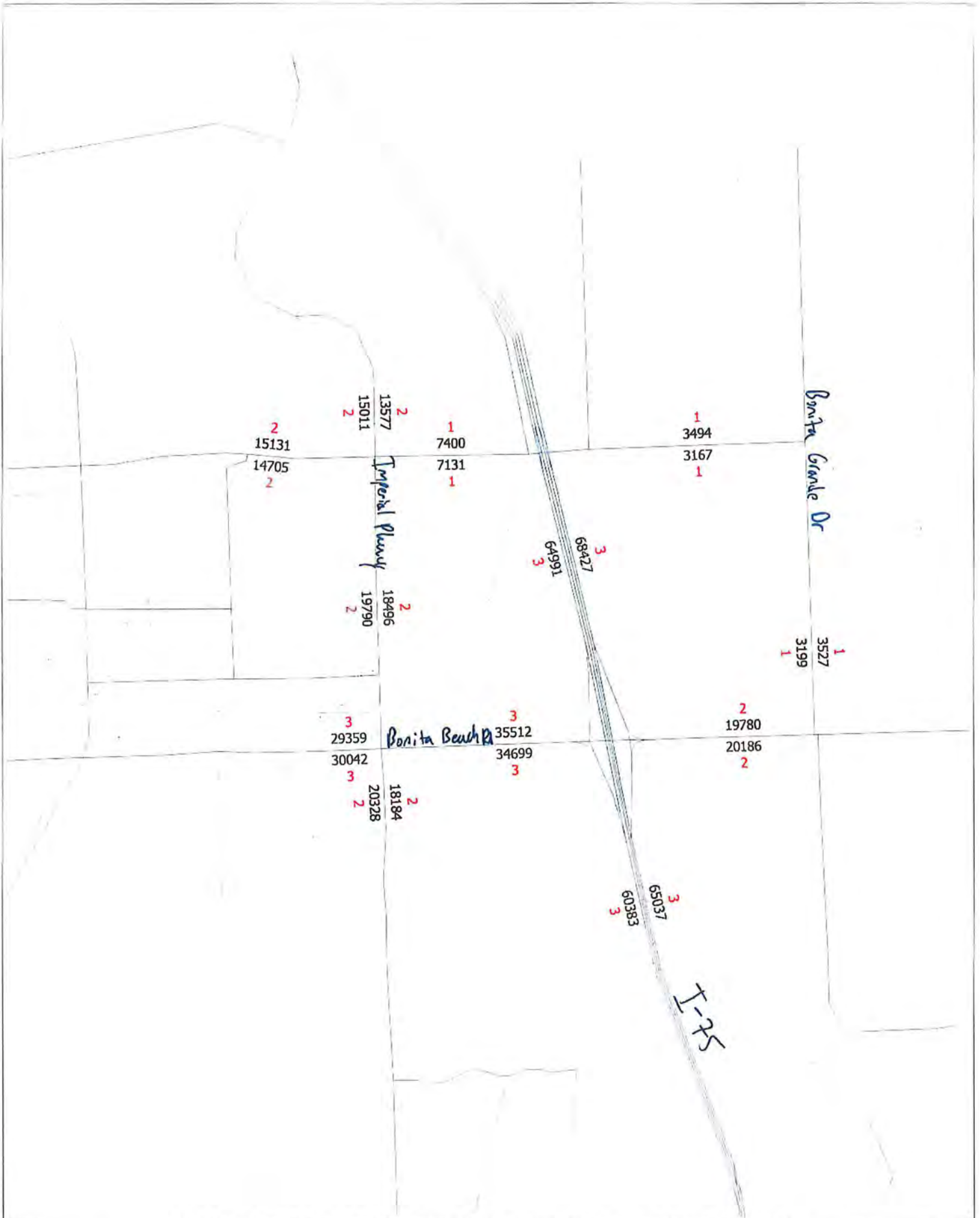
FTE Station Number	Reference Lee County Station Number	Location	Obtained from the Lee County Traffic Count Report 2012						Counts performed by FTE or obtained from Lee County														
			2003	2004	2005	2006	2007	2008	Dec-09	Dec-10	Feb-12	Jan-14	Feb-15	Feb-16	March-17	March-18	April-19	March-20	March-21	March-22	Feb-23	Feb-24	Feb-25
1219	N/A	W Terry St E of US 41	13300	12000	11400	12200	12200	11600	12700	12800	13900	11000	12400	13300	12800	11700	12700	13100	11200	11700	13200	12500	13900
1225	N/A	Woods Edge Pkwy W of US 41	N/A	N/A	N/A	N/A	N/A	N/A	4500	5000	3900	5300	4200	4500	4400	4100	5100	5600	5800	5400	5200	5500	5700
1210	N/A	Longfellow Ln W of Imperial Pkwy	N/A	N/A	N/A	N/A	N/A	N/A	500	300	300	200	U/C	600	500	N/A	800	600	700	700	900	1100	1000
0017	N/A	Bonita Beach Rd between Imperial Parkway and I-75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3700	50300	46600	43600	46100	47400	46600	49800
0018	N/A	Luke St between Kens Way and Bonita Beach Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18300	21400	22500	22900	25300	25600	25000	25200
0019	N/A	Bonita Beach Rd E. of Bonita Grande Dr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9700	15900	18800	18900	21200	22200	21600	22600
0020	N/A	Luke St between Kens Way and Bonita Beach Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	900	800	900	900	800	1200	1100	1300
0021	N/A	Quails Walk E. of Luke St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	500	400	500	500	500	400	700	400
0022	N/A	Imperial Shores Blvd S. of Vanda Dr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2200	2200	2500	2600	0	1900	2100
0023	N/A	Tarpon Avenue E. of Sherry Ln	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	800	700	700	900	1500	900	800
0024	N/A	Logan Blvd S. of Bonita Beach Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4300	5400	7200	7900	7800	9300
0025	N/A	Bonita Beach Rd E. of Logan Blvd		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12200	13200	14300	13600	13500
1231	N/A	W Terry St W of Old 41 Rd		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13500	14600	13400	17400
1232	N/A	Old 41 Rd S of E/W Terry St		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14000	14700	13900	14400

\*\* Collected weekend counts also.

**2045 FSUTMS TRAFFIC VOLUMES ON  
AREA NETWORK  
(E+C NETWORK)**



2045 LRTP COST FEASIBLE ROADWAY NETWORK LANES & VOLUMES



2045 LRTP COST FEASIBLE ROADWAY NETWORK LANES & VOLUMES

18595  
7  
65037  
3  
20878  
2  
60383

I-75 (South of Bonita Beach Rd)

**LEE COUNTY PUBLIC FACILITIES  
LEVEL OF SERVICE AND  
CONCURRENCY REPORT**

LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)

Link No.	ROAD NAME	LOCATION		ROAD TYPE	PERFORMANCE STANDARD		2023 100TH HIGHEST HOUR			2028 FUTURE FORECAST*			Notes
					LOS <sup>(1)</sup>	CAPACITY <sup>(2)</sup>	LOS <sup>(1)</sup>	VOLUME <sup>(2)</sup>	V/C <sup>(3)</sup>	LOS <sup>(1)</sup>	VOLUME <sup>(2)</sup>	V/C <sup>(3)</sup>	
		FROM	TO		LOS <sup>(1)</sup>	CAPACITY <sup>(2)</sup>	LOS <sup>(1)</sup>	VOLUME <sup>(2)</sup>	V/C <sup>(3)</sup>	LOS <sup>(1)</sup>	VOLUME <sup>(2)</sup>	V/C <sup>(3)</sup>	
00100	A & W BULB RD	GLADIOLUS DR	McGREGOR BLVD	2LN	E	860	C	384	0.45	C	404	0.47	
00200	ALABAMA RD	SR 82	MILWAUKEE BLVD	2LN	E	990	C	428	0.43	D	479	0.48	pre-development order res development
00300	ALABAMA RD	MILWAUKEE BLVD	HOMESTEAD RD	2LN	E	990	D	481	0.49	D	506	0.51	
00400	ALEXANDER BELL BLVD	SR 82	MILWAUKEE BLVD	2LN	E	990	D	547	0.55	D	575	0.58	
00500	ALEXANDER BELL BLVD	MILWAUKEE BLVD	LEELAND HEIGHTS	2LN	E	990	D	547	0.55	D	637	0.64	pre-development order res development
00590	ALICO RD	US 41	DUSTY RD	4LD	E	1,980	B	1,170	0.59	B	1,230	0.62	
00600	ALICO RD	DUSTY RD	LEE RD	6LD	E	2,960	B	1,170	0.40	B	1,298	0.44	
00700	ALICO RD	LEE RD	THREE OAKS PKWY	6LD	E	2,960	B	1,170	0.40	B	1,422	0.48	Three Oaks Distribution Center
00800	ALICO RD	THREE OAKS PKWY	I-75	6LD	E	2,960	E	2,761	0.93	E	2,902	0.98	
00900	ALICO RD	I-75	BEN HILL GRIFFIN BLVD	6LD	E	2,960	B	1,448	0.49	B	1,521	0.51	
01000	ALICO RD	BEN HILL GRIFFIN BLVD	GREEN MEADOW DR	2LN/4LN	E	1100/1960	E	853	0.78	C	1,171	0.60	<sup>(4)(5)</sup> ; unincorporated Lee Co; Ctr Pl/Prm Aprt Pk
01050	ALICO RD	GREEN MEADOW DR	CORKSCREW RD	2LN	E	1,100	B	256	0.23	B	269	0.24	<sup>(4)</sup>
01200	BABCOCK RD	US 41	ROCKEFELLER CIR	2LN	E	860	C	60	0.07	C	65	0.08	<sup>(4)</sup>
01400	BARRETT RD	PONDELLA RD	PINE ISLAND RD (US 78)	2LN	E	860	C	150	0.17	C	158	0.18	
01500	BASS RD	SUMMERLIN RD	GLADIOLUS DR	4LN	E	1,790	C	655	0.37	C	709	0.40	
01600	BAYSHORE RD (SR 78)	BUS 41	NEW POST RD/HART RD	4LD	D	1,942	F	2,046	1.05	F	2,302	1.19	
01700	BAYSHORE RD (SR 78)	HART RD	SLATER RD	4LD	D	1,942	F	2,070	1.07	F	2,515	1.30	
01800	BAYSHORE RD (SR 78)	SLATER RD	I-75	4LD	D	2,910	B	1,275	0.44	B	1,426	0.49	
01900	BAYSHORE RD (SR 78)	I-75	NALLE RD	2LN	D	1,166	C	846	0.73	C	1,007	0.86	
02000	BAYSHORE RD (SR 78)	NALLE RD	SR 31	2LN	D	1,166	C	846	0.73	C	1,007	0.86	Bayshore Ranch/Stonhill Manor
02100	BEN HILL GRIFFIN PKWY	CORKSCREW RD	FGCU ENTRANCE	4LD	E	2,000	B	1,548	0.77	B	1,700	0.85	Grandeza
02200	BEN HILL GRIFFIN PKWY	FGCU BOULEVARD S	COLLEGE CLUB DR	4LD	E	2,000	B	1,548	0.77	B	1,627	0.81	
02250	BEN HILL GRIFFIN PKWY	COLLEGE CLUB DR	ALICO RD	6LD	E	3,000	B	1,525	0.51	B	1,603	0.53	
26950	BEN HILL GRIFFIN PKWY	ALICO RD	TERMINAL ACCESS RD	4LD	E	1,980	B	1,041	0.53	B	1,094	0.55	unincorporated Lee County
02300	BETH STACEY BLVD	23RD ST	HOMESTEAD RD	2LN	E	860	C	314	0.37	C	451	0.52	Ibis Landing (a.k.a. Copperhead Glf Community)
02400	BONITA BEACH RD	HICKORY BLVD	VANDERBILT DR	4LD	E	1,900	C	572	0.30	C	601	0.32	<sup>(4)</sup> ; constrained in city plan
02500	BONITA BEACH RD	VANDERBILT DR	US 41	4LD	E	1,900	C	1,124	0.59	C	1,181	0.62	constrained in city plan
02600	BONITA BEACH RD	US 41	OLD 41	4LD	E	1,860	C	1,713	0.92	C	1,800	0.97	constrained; old count projection (2010)
02700	BONITA BEACH RD	OLD 41	IMPERIAL ST	6LD	E	2,800	C	2,184	0.78	C	2,295	0.82	constrained in city plan
02800	BONITA BEACH RD	IMPERIAL ST	W OF I-75	6LD	E	2,800	C	2,144	0.77	C	2,253	0.80	constrained in city plan
02900	BONITA BEACH RD	E OF I-75	BONITA GRAND DR	4LD	E	2,020	B	868	0.43	B	912	0.45	constrained in city plan
02950	BONITA BEACH RD	BONITA GRANDE DR	Logan Boulevard	4LD	E	2,020	B	868	0.43	B	912	0.45	constrained in city plan
03100	BONITA GRANDE DR	BONITA BEACH RD	E TERRY ST	2LN	E	860	C	497	0.58	C	522	0.61	
03200	BOYSCOUT RD	SUMMERLIN RD	US 41	6LN	E	2,520	E	1,757	0.70	E	1,847	0.73	
03300	BRANTLEY RD	SUMMERLIN RD	US 41	2LN	E	860	C	270	0.31	C	284	0.33	
03400	BRIARCLIFF RD	US 41	TRIPLE CROWN CT	2LN	E	860	C	160	0.19	C	168	0.20	
03500	BROADWAY RD (ALVA)	SR 80	North RIVER RD	2LN	E	860	C	284	0.33	C	298	0.35	
03700	BUCKINGHAM RD	SR 82	GUNNERY RD	2LN	E	990	D	470	0.47	D	504	0.51	
03730	BUCKINGHAM RD	GUNNERY RD	ORANGE RIVER BLVD	2LN	E	990	C	346	0.35	C	383	0.39	
03800	BUCKINGHAM RD	ORANGE RIVER BLVD	SR 80	2LN	E	990	E	718	0.73	E	976	0.99	Lee County Homes (a.k.a. Buckingham 345)
03900	BURNT STORE RD	SR 78	VAN BUREN PKWY	4LD	E	2,950	A	847	0.29	B	890	0.30	City of Cape Coral
04000	BURNT STORE RD	VAN BUREN PKWY	COUNTY LINE	2LN	E	1,140	D	724	0.64	D	761	0.67	partially located in City of Cape Coral
04200	BUS 41 (N TAMIAMI TR, SR 739)	CITY LIMITS (N END EDISON BRG)	PONDELLA RD	6LD	D	2,950	C	1,936	0.66	C	2,274	0.77	
04300	BUS 41 (N TAMIAMI TR, SR 739)	PONDELLA RD	SR 78	6LD	D	2,950	C	1,936	0.66	C	2,274	0.77	
04400	BUS 41 (N TAMIAMI TR, SR 739)	SR 78	LITTLETON RD	4LD	D	1,900	C	1,177	0.62	C	1,406	0.74	
04500	BUS 41 (N TAMIAMI TR, SR 739)	LITTLETON RD	US 41	4LD	D	1,900	C	682	0.36	C	846	0.45	
04600	CAPE CORAL BRIDGE	DEL PRADO BLVD	McGREGOR BLVD	4LB	E	4,000	D	3,073	0.77	D	3,230	0.81	
04700	CAPTIVA DR	BLIND PASS	SOUTH SEAS PLANTATION RD	2LN	E	860	C	267	0.31	C	281	0.33	constrained, old count (2010)

# **TRIP GENERATION EQUATIONS**

# Single-Family Detached Housing (210)

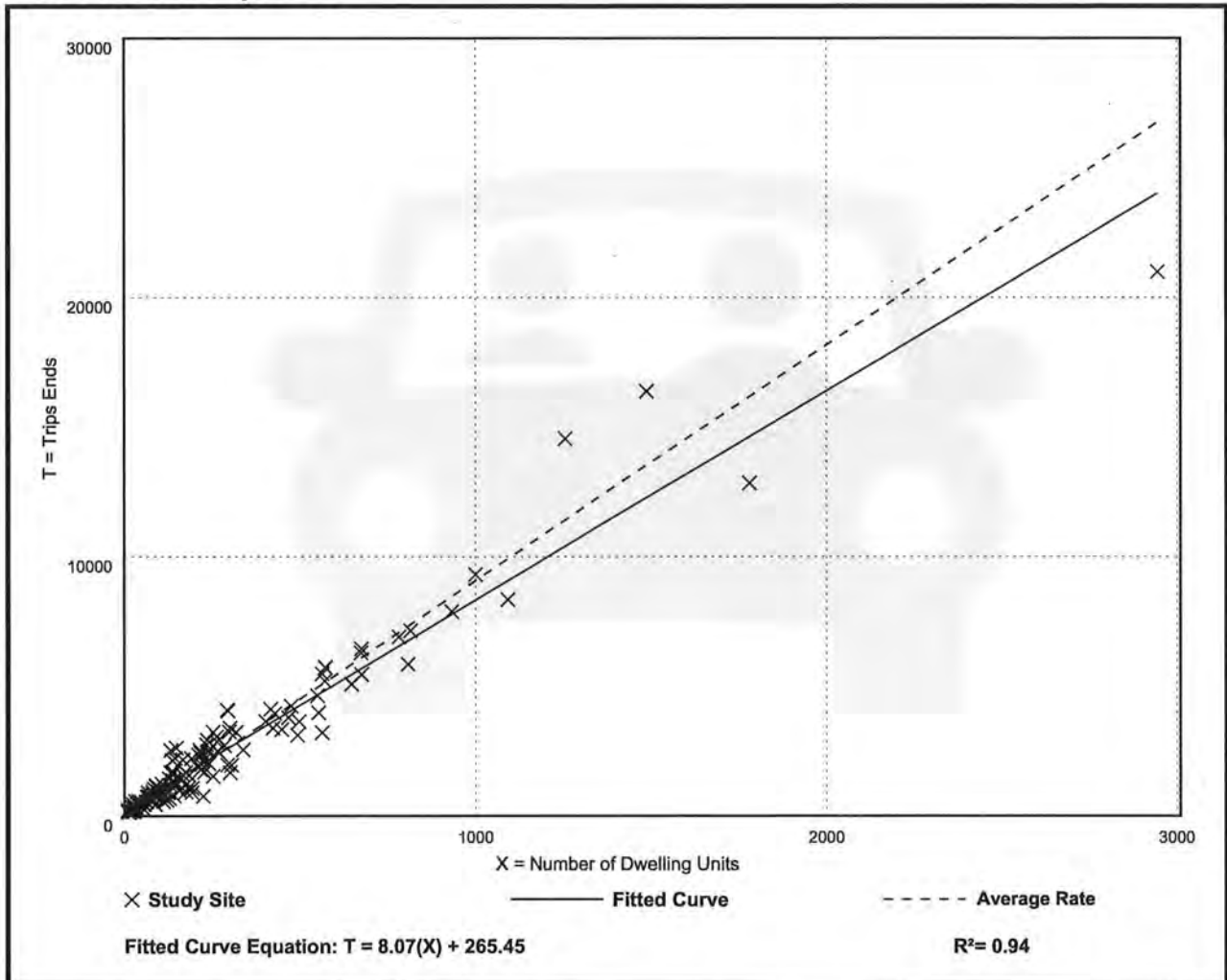
Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 155  
Avg. Num. of Dwelling Units: 261  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.09	3.47 - 23.80	2.29

## Data Plot and Equation



# Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 153

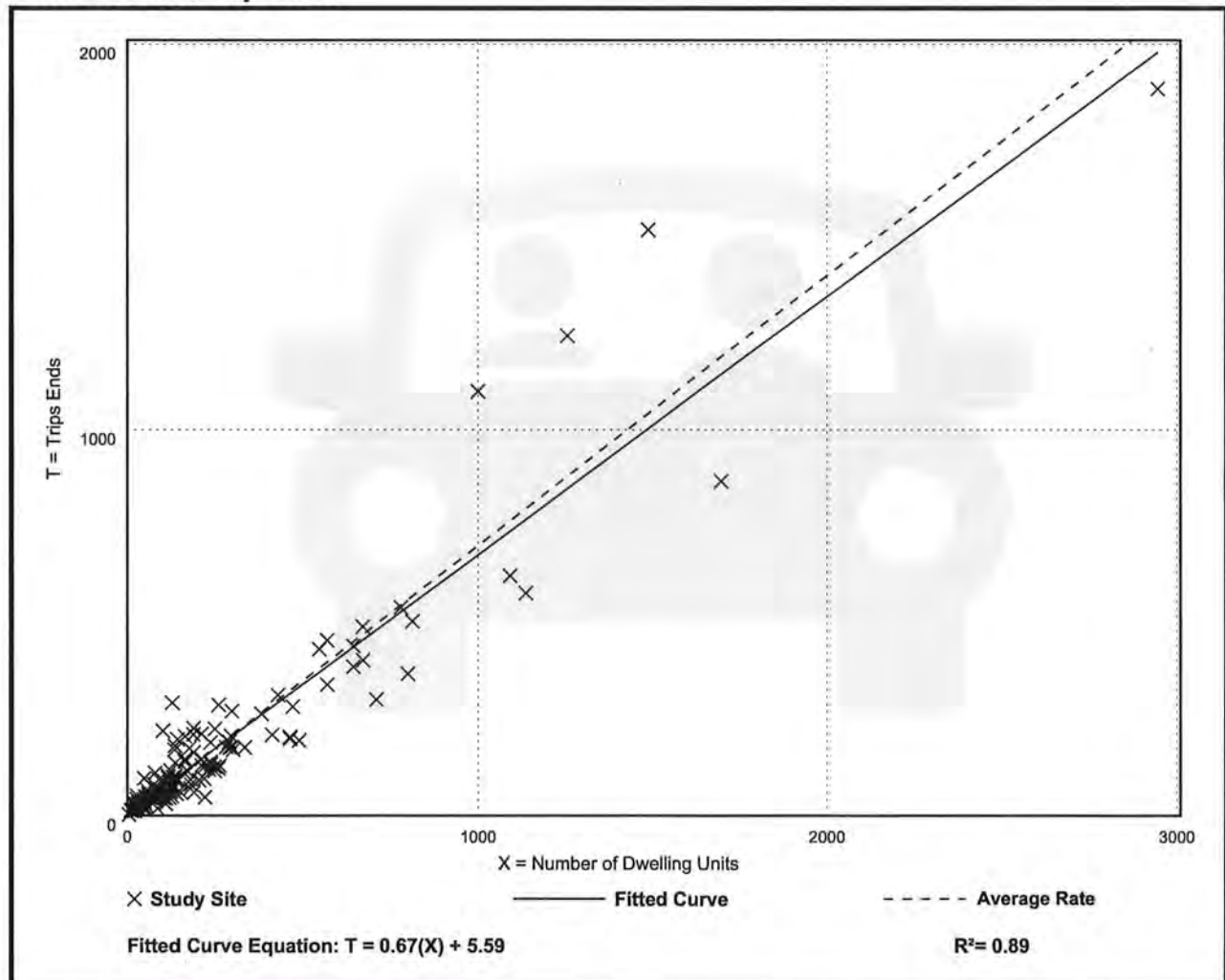
Avg. Num. of Dwelling Units: 239

Directional Distribution: 27% entering, 73% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.22 - 2.27	0.26

## Data Plot and Equation



# Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 166

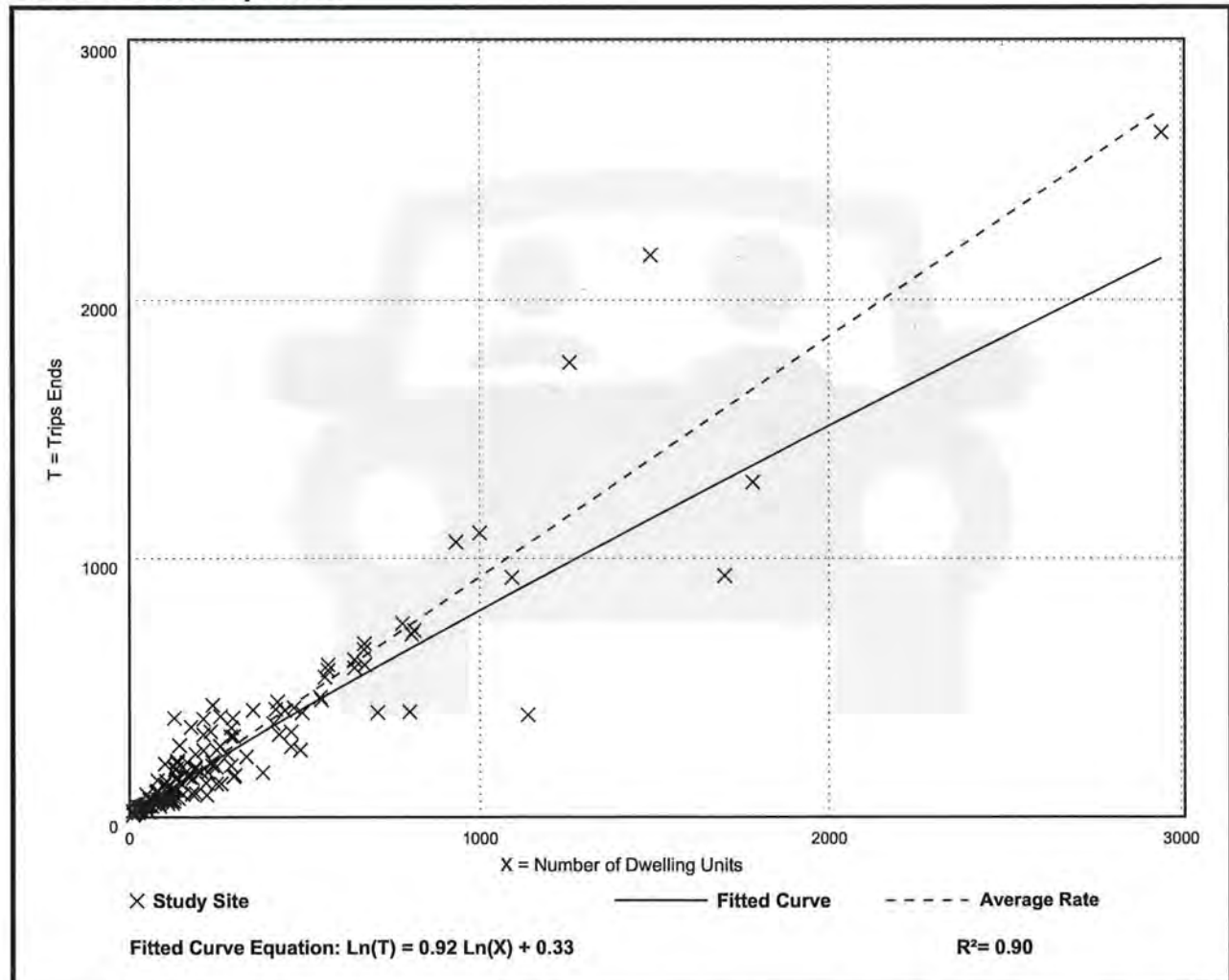
Avg. Num. of Dwelling Units: 266

Directional Distribution: 62% entering, 38% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.93	0.35 - 2.98	0.33

## Data Plot and Equation





# Lee County

Southwest Florida

## Board of County Commissioners

Kevin Ruane  
District One

November 26, 2025

Cecil L Pendergrass  
District Two

Daniel DeLisi, AICP  
DeLisi Land Use Planning

Ray Sandelli  
District Three

VIA ELECTRONIC MAIL

Brian Hamman  
District Four

Re: Letter of Service Availability

Mike Greenwell  
District Five

Mr. DeLisi,

Dave Harner, II  
County Manager

I am in receipt of your letter requesting a Letter of Service Availability for property associated with the following strap numbers:

Richard Wm. Wesch  
County Attorney

Donna Marie Collins  
County Hearing  
Examiner

32-47-26-00-00001.0100  
32-47-26-00-00001.0110  
32-47-26-00-00001.0120  
32-47-26-00-00001.0130  
32-47-26-00-00001.0350

Lee County Emergency Medical Services is the primary EMS transport agency responsible for coverage at the location you have provided. There is one ambulance located 1.1 miles away and an additional ambulance located within six miles of the property associated with the above straps.

It is our opinion that the EMS service availability for the location provided is adequate at this time.

Sincerely,

Paul DiCicco  
Deputy Director - EMS Chief

**Daniel DeLisi**

---

**From:** DeGuzman, Joel <joelsd@LeeSchools.net>  
**Sent:** Friday, November 21, 2025 10:08 AM  
**To:** Daniel DeLisi  
**Subject:** RE: Letter of Service Availability

Mr. DeLisi,

The location of this proposed development, its small number of residential units (94 max), and the student generation rates for the surrounding area, when taken in totality, will have little-to-no effect on student capacity in the area.

According to our current enrollment data and forecasted student population, there will be sufficient capacity to accommodate students generated by this development. However, students eventually living in this development may not get to attend their closest geographically located school, due to the district's enrollment zones and current capacity stresses.

Please let me know if I can be of any further assistance, and thank you for reaching out.

Respectfully,

**Joel DeGuzman, CST III**

**District Planning Coordinator,  
Capital Planning**

2855 Colonial Blvd, Fort Myers, FL 33966

**o:** 239-337-8368

**c:** 239-822-8362

[JoelSD@leeschools.net](mailto:JoelSD@leeschools.net)

[www.leeschools.net](http://www.leeschools.net)

**THE SCHOOL DISTRICT OF LEE COUNTY**



**From:** Daniel DeLisi <dan@delisi-inc.com>

**Sent:** Thursday, November 13, 2025 4:43 PM

To: DeGuzman, Joel <joelsd@LeeSchools.net>

Subject: Letter of Service Availability

**Caution:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. DeGuzman,

I am writing because I represent the owner of a property along Bonita Beach Road in Lee County, approximately 1 mile east of I-75 (see attached map) with the following STRAP #s:

32-47-26-00-00001.0100

32-47-26-00-00001.0110

32-47-26-00-00001.0120

32-47-26-00-00001.0130

32-47-26-00-00001.0350

This e-mail is to request a letter of service availability for a proposed comprehensive plan amendment. The property is 47 +/- acres in size and is currently in the Density Reduction/Groundwater Resource and Wetlands Land Use Categories which allow a total of 4 units on the subject property. The proposed plan amendment will change the property to Outlying Suburban and allow for up to 94 residential units, and is being submitted concurrent with a Planned Development application.

The Plan Amendment requires that I request a letter of service availability from you. Should you have any questions, or require any additional information, please do not hesitate to contact me. I may be reached at the contact information below.

Best regards,

Daniel DeLisi, AICP

DeLisi, Inc.

239-913-7159

[dan@delisi-inc.com](mailto:dan@delisi-inc.com)

[www.delisi-inc.com](http://www.delisi-inc.com)



***Carmine Marceno***  
Sheriff



***"Proud to Serve"***

**State of Florida**  
**County of Lee**

November 14, 2025

Daniel DeLisi, AICP  
DeLisi, Inc.

Mr. DeLisi,

The Lee County Sheriff's Office has reviewed your letter of service availability request for a change of land use from Density Reduction/Groundwater Resource and Wetlands Use Category to Outlying Suburban for an amendment from 4 residential units to 94 residential units. This property is along Bonita Beach Road, approximately 1 mile east of I-75.

Based on the information provided in your request, the Lee County Sheriff's Office has no objections to this request. This Agency will provide law enforcement services from out 4<sup>th</sup> Precinct offices in Bonita Springs.

Respectfully,

  
Daniel Greenup  
Major, Patrol Bureau



*"The Lee County Sheriff's Office is an Equal Opportunity Employer"*  
14750 Six Mile Cypress Parkway • Fort Myers, Florida 33912-4406 • (239) 477-1000



## BONITA SPRINGS FIRE CONTROL & RESCUE DISTRICT

27701 BONITA GRANDE DRIVE, BONITA SPRINGS, FL 34135

ADMINISTRATION  
TEL: (239) 949-6200  
FAX: (239) 949-6207

FIRE PREVENTION  
TEL: (239) 949-6211  
FAX: (239) 949-6216

JEFFREY MATURO  
CHAIRPERSON

STEVE LOHAN  
VICE CHAIRPERSON

THOMAS HUGO  
SECRETARY  
TREASURER

JAMES MURPHY  
COMMISSIONER

JEFFREY KERR  
COMMISSIONER

GREGORY L. DEWITT  
FIRE CHIEF

Mr. DeLisi,

The Bonita Springs Fire Control and Rescue District is governed by a five-member Board of Fire Commissioners elected by the voters of Bonita Springs. The Board has established a service objective of achieving a four- to six-minute response time throughout the Bonita Springs community.

The District operates seven fire stations strategically located throughout the service area. All first-out apparatus are State of Florida-licensed Advanced Life Support (ALS) units. Your proposed development is located approximately 1.2 miles from Fire Station 24, which is staffed with an ALS engine capable of pumping 2,000 gallons per minute. Station 24 is also equipped with a brush truck designed to respond to grass fires and urban-wildland interface incidents.

The next closest facility, Fire Station 26, is located approximately 2.4 miles from the project site and houses an additional ALS engine.

Based on my more than 30 years of experience in the fire service, it is my professional opinion that the Bonita Springs Fire Control and Rescue District is fully capable of providing effective emergency response services for this proposed development.

Should you have any questions or require additional information, please do not hesitate to contact me directly.

In Your Service,

Gregory L. DeWitt

Fire Chief

[www.bonitafire.org](http://www.bonitafire.org)



## **Exhibit M19 – State and Regional Policy Plan**

**List State Policy Plan and Regional Policy Plan goals and policies which are relevant to this plan amendment.**

There are no State or Regional Policy Plan goals or policies that are relevant to the proposed amendment.



## WHITE WILLOW CPA EXHIBIT M-20 JUSTIFICATION

### **Introduction**

The Bonita Beach Road 50 property is located on the north side of Bonita Beach Road, approximately 1 ½ miles east of I-75, and approximately 2/3 of a mile east of Bonita Grande Drive, directly north of the Worthington Country Club. The subject property is located in unincorporated Lee County, contiguous the City of Bonita Springs.

### **Property and Area History**

The proposed amendment is for a property within the unincorporated area of Lee County in the Density Reduction/Groundwater Resource Area (DR/GR). This area of DR/GR is somewhat unique in its location and history. The DR/GR was established as a land use category through a settlement agreement with the then Department of Community Affairs in 1990/1989. At the time, when Lee County adopted a 20-year plan that ran from 1990 through the year 2010, the County projected greater development density and resulting population than the County was able to justify pursuant to Rule 9J-5, FAC based on BEBR population projections. This led the DCA to raise concerns over premature development and the potential for Urban Sprawl. As a result, the DR/GR was created to lower potential densities in a vast area of Lee County, east of I-75, for the dual purpose of not over allocating development area through the year 2010.

The dual purpose of protecting properties that could be used as future water supply was added during the settlement agreement to limit development on properties near the County's well fields to protect future water supplies. The County submitted that they had to limit development in the vast area east of I-75 for future water supply since they couldn't identify the source of future water supply. The legislature later addressed this issue by requiring water management districts to adopt water supply plans which are then included in the relevant local government comprehensive plan.

Under that settlement, the Outlying Suburban future land use category extended along the area south of Bonita Beach Road approximately 2 ½ miles east of I-75 (past the subject property). East of the Outlying Suburban was designated DR/GR for the easternmost 3 sections. These easternmost sections were later removed from the DR/GR and then annexed into the City of Bonita Springs, leading to the development of Village Walk, Valencia and Bonita National Golf and Country Club. Worthington Country Club, the community just south of the subject property was constructed under the Outlying Suburban future land use beginning in 1993, shortly after the settlement with DCA. Over the last 35 years since that settlement, the corridor has transitioned from one with

no development east of I-75 to suburban residential communities spanning along the entire south side of Bonita Beach Road to the County line, several miles east of the subject property. On the north side of Bonita Beach Road, multiple developments have been constructed and approved with a myriad of uses including commercial, residential, recreational vehicles, and migrant farmworker housing.

The subject property was long ago impacted by development and entirely cleared of natural vegetation. Based on historic aerials, the property appears to have been cleared and used as a shallow fill pit sometime prior to the mid-1980s. There is limited ecological value of the property itself. When the DR/GR was designated in 1990, the north side of Bonita Beach Road consisted of scattered small scale mining operations, consistent with the DR/GR, and scattered mobile home/RV parks. While the need for additional density along the Bonita Beach Road corridor could not be justified in 1990, the land use pattern of the area and the population of the County as a whole has changed dramatically in the last 35 years making the subject property ripe for development, consistent with surrounding properties.

### **Surrounding Land Uses**

The subject property is surrounded on all sides by development. To the south of the subject property is the Worthington Country Club, a gated golf course residential community. As stated above, the suburban residential communities extend all the way east to the County line.

The development pattern in the area has extended intense land uses from I-75 along the north side of Bonita Beach Road as well, nearly to the western edge of subject property. Midtown Bonita, located on the northwest corner of Bonita Grand Drive and Bonita Beach Road, is a mixed-use development consisting of 200,000 square feet of commercial, 165 hotel units and 400 multi-family residential units. On the east side of Bonita Grand Drive is a Race Trac gas station and a residential community, Solis Grande, with approximately 157 multi-family units. Adjacent to Solid Grande to the east is the Bonita Beach Road CPD, a map amendment and zoning in progress to add 60,000 square feet of commercial uses to the corridor. Directly adjacent to the subject property on the west is an intensely developed recreational vehicle park. West of the RV park is a migrant farmworker housing development.

To the north of the property is land that has been heavily impacted and appears to be used as a residential unit and for the outdoor storage of construction equipment. To the east of the subject property is the Revana development, which in process in the City of Bonita Springs, requesting 299 residential units and 100,000 square feet of commercial.

## Access and Infrastructure

The subject property has direct access to Bonita Beach Road, a fully improved 4-lane and divided arterial road that extends to the County line, providing access to the urban uses along the north side of Bonita Beach Road and the suburban residential developments on the south side of the road. Bonita Beach Road is designed and built with curb and gutter and side walks along the entire stretch, an urban roadway design. A 16-inch sewer force main and a 12-inch water main abut the property along Bonita Beach Road. A fire station with EMS services is located approximately 1 mile away on Bonita Grande Drive.

## Justification

There is very little about the subject property to characterize it as non-urban, other than a land use category that was adopted to limit density during the 1990-2010 timeframe based on a rule that is no longer in effect. The surrounding uses are urban in nature, the property is in a location with urban infrastructure and the property is along and has direct access to an urban arterial road. To the north of the subject property is the Corkscrew Regional Watershed area (CREW), which the property is not contiguous to. Separating the subject property from CREW is a business that has cleared their property, utilizing it for what appears to be outdoor storage of heavy construction equipment.

The subject property itself has been entirely cleared with most of the property having previously been excavated. In reviewing historic aerials from within the last decade, the subject property was nearly entirely cleared of vegetation. There are no areas of the subject property that are considered indigenous due to the high level of exotic infestation. According to the environmental report from Passarella and Associates:

*A total of ten vegetative and land cover types (i.e., FLUCFCS codes) were identified on the Project site. The dominant land uses on the Project include mixed exotics, lakes, and hydric disturbed land, which together occupy 35.07± acres or 75 percent of the site. The site contains disturbed non-native wetland systems, consisting of exotic wetland hardwoods and hydric disturbed land habitat types. The on-site wetland habitats have been disturbed by ditches, lakes, and exotic vegetation. There are no rare or unique upland habitats on the Project site.*

Similarly, the hydrology of the property has been severely altered by development activity on the subject property and the surrounding properties. According to the RESPEC Hydrologic analysis "surface water hydrology on the property differs substantially from pre-development conditions. Mining-related disturbances have fragmented natural flow paths and created isolated subbasins with limited surface water connectivity. Groundwater hydrology has also been altered due to limestone excavation that penetrated the upper Tamiami

*Formation, a geologic unit comprising the unconfined Surficial Aquifer System (Water Table Aquifer)."*

In short, there is nothing environmentally or hydrologically sensitive about the subject property, and the density no longer needs to be depressed based on a 9J-5, FAC population accommodation analysis. The reasoning for keeping densities low in the 1990 settlement agreement no longer legally or factually exists, especially at this location. Therefore, the Density Reduction/Groundwater Resource future land use category is no longer applicable to the subject property in any manner. Development of the subject property would now be considered an orderly growth pattern.

The properties surrounding the White Willow property were in the Outlying Suburban future land use category at the time of the 1990 Settlement with the then Department of Community Affairs. Given the significant changed conditions since that time, the significant increase in population, the subject property should be similarly placed in the same future land use category that the adjacent properties developed under.

The Bonita Beach Road corridor is distinctly suburban in character. As the corridor continues to develop, attracting uses like Midtown Bonita, which is urban in character, an argument could be made for the subject property to be placed in the Suburban future land use category. The subject property is arguably no longer "peripheral" to urban areas but on the fringe of an established urban area, as described in the Suburban future land use category.

The character of the corridor has changed dramatically since the early 1990s when it first started to develop on the periphery of Bonita Springs, in what at the time was a rural, active agricultural area in Outlying Suburban land use category. The tomato fields and packing houses are long gone. Now the character of the corridor, and the land uses surrounding the subject property make the proposed development infill in nature, which would warrant a higher density land use category, such as Suburban. However, given the on-site lakes and the development constraints, the Outlying Suburban future land use category is applicable for the proposed development and will create a step down of intensity to the CREW lands to the north.

## **CHARACTERIZATION OF GROUND AND SURFACE WATER RESOURCES**

White Willow  
Lee County, Florida  
December 2025



1986 aerial photograph, obtained from the Florida Department of Transportation

## CONTENTS

<b>1.0</b>	<b>Introduction</b> .....	<b>1</b>
<b>2.0</b>	<b>Property Setting</b> .....	<b>3</b>
<b>3.0</b>	<b>Hydrogeology</b> .....	<b>4</b>
3.1	Unconfined Water Table Aquifer .....	5
3.2	Lower Tamiami Aquifer .....	5
3.3	Sandstone Aquifer .....	6
3.4	Existing Recharge to Underlying Aquifers .....	6
3.5	Consistency with Lee Plan Policies 2.3.1 and 2.3.2 .....	6
3.5.1	Policy 2.3.1 – Protection of Potable Water Sources .....	7
3.5.2	Groundwater Resource Protection and Impact evaluation .....	7
<b>4.0</b>	<b>Proposed Irrigation Demands and Sources</b> .....	<b>7</b>
<b>5.0</b>	<b>Groundwater Flow Modeling</b> .....	<b>8</b>
<b>6.0</b>	<b>Bonita Springs Eastern Wellfield Protection</b> .....	<b>8</b>
<b>7.0</b>	<b>Enhanced Lake Management Practices</b> .....	<b>10</b>
7.1	Water Resources Best Management Practices.....	10
7.1.1	Construction Phase BMPs .....	10
7.1.2	Post-Construction Phase BMPs .....	11
7.2	Lake Maintenance .....	11
7.2.1	Nuisance and Exotic Vegetation Control .....	11
7.2.2	Littoral Vegetation Preservation.....	11
7.2.3	Fertilizer Application .....	12
7.3	Erosion Protection and Lake Bank Maintenance .....	12
7.4	Pesticide, Herbicide and/or Fungicide Applications .....	12
<b>8.0</b>	<b>Surface Water Quality Monitoring</b> .....	<b>13</b>
8.1	General Data Quality Objectives .....	13
8.2	Surface Water Quality Monitoring.....	13
8.3	Water Quality Data Reporting and Analysis .....	13
8.4	Remedial Actions .....	14
<b>9.0</b>	<b>Existing Onsite Wells</b> .....	<b>14</b>
<b>10.0</b>	<b>Conclusions</b> .....	<b>14</b>

## 1.0 INTRODUCTION

The White Willow project (subject property) is located in southern Lee County, Florida, approximately 1.5 miles east of Interstate 75 and immediately north of Bonita Beach Road (County Road 865). The property comprises approximately 50 acres and is owned by Crisafulli Investment Group, LLC. It lies along the southern boundary of the County's Density Reduction / Groundwater Resource (DR/GR) Future Land Use area (**Figure 1**) and within the DR/GR's Flint Pen sub-watershed (**Figure 2**). The site is currently zoned Agricultural (AG-2), and the Applicant is requesting a Comprehensive Plan Amendment and zoning change to allow for a proposed residential development.

The subject property and surrounding lands have experienced significant disturbance beginning with the excavation of the Kehl Canal in the early 1960s. The canal, constructed to drain lands east of the Imperial River, severed hydrologic connections between the site and the Corkscrew Swamp Regional Ecosystem Watershed (CREW) and altered historical north-to-south surface water flow paths. The subject property is located approximately 1,300 feet south of the Kehl Canal and is within Water Body Identification (WBID) 3258EE, which the Florida Department of Environmental Protection (FDEP) has designated as impaired for dissolved oxygen (DO).

The property contains two (2) centrally located, rectangular historic (pre-1980) limestone mining pits totaling approximately 15 acres, or about 30 percent of the site. In addition to the excavations, legacy mining features such as disturbed land surfaces, drainage ditches, and several debris piles remain onsite and contribute to the site's altered hydrologic conditions.

As a result of these historic land uses, surface water hydrology on the property differs substantially from pre-development conditions. Mining-related disturbances have fragmented natural flow paths and created isolated subbasins with limited surface water connectivity. Groundwater hydrology has also been altered due to limestone excavation that penetrated the upper Tamiami Formation, a geologic unit comprising the unconfined Surficial Aquifer System (Water Table Aquifer).

In accordance with Lee County's Comprehensive Plan (the Lee Plan), the Applicant's request is consistent with policies addressing groundwater recharge and wetland resource protection and is designed to improve existing site-specific water resource conditions. The proposed development incorporates site design and water management strategies intended to restore hydrologic functions that have been altered by prior land use activities on the subject property.

The proposed residential development advances key Lee Plan directives related to:

- / Groundwater protection and recharge (consistent with Lee Plan Goals 33 and 63)
- / Surface water quality improvement (consistent with Lee Plan Goals 60 and 61)
- / Preservation and ecological restoration (consistent with Lee Plan Goal 123)
- / Reclamation and beneficial reuse of disturbed lands (consistent with Lee Plan Objective 10.1)
- / Encouragement of development that enhances DR/GR environmental functions (consistent with Lee Plan Objective 33.1)

The project's stormwater management system will utilize the existing mine pits for stormwater treatment and attenuation, thereby improving water quality and providing substantial flood storage capacity. This approach is consistent with Lee Plan Goals 60 and 61 and promotes enhanced water quality and improved stormwater management. Routing treated stormwater into the limestone pits will also increase infiltration and support protection of the Surficial Aquifer, consistent with Goals 33 and 63, which emphasize groundwater recharge and resource protection within DR/GR lands. In addition, extensive nuisance and exotic vegetation removal, together with ecological restoration of disturbed areas, aligns with Goal 123, which encourage restoration and enhancement of degraded natural systems.

The development's proposed use of both stormwater and groundwater for irrigation reduces aquifer stress and supports water conservation. This aligns with Lee Plan Goal 60 (surface water management) and Goal 63 (groundwater protection). The centralized irrigation system promotes landscape water use efficiency and prevents over-irrigation, furthering water conservation and efficient water management. In addition, the proposed quarterly surface water quality monitoring and annual reporting support the Lee Plan's objectives under Goal 61 to maintain and improve surface water quality.

In summary, the project is expected to deliver the following water resource and environmental benefits:

- / **Improved surface water quality and attenuation:** The engineered stormwater management system will utilize the existing limestone mining pits for treatment and attenuation, resulting in improved surface water quality and increased flood storage capacity. The storage available within the water-filled mine pits will help address historic flooding concerns while also improving water quality conditions, including increased DO.
- / **Enhanced groundwater recharge and aquifer protection:** Routing treated stormwater into the historic limestone pits will promote mixing, increase infiltration, and enhance recharge to the shallow aquifer system. This approach leverages the storage capacity created by past excavation and its penetration into the underlying aquifer (see Integrated Modeling Report provided separately).
- / **Restoration of degraded ecological conditions:** Due to the site's disturbed condition, significant nuisance and exotic vegetation occurs throughout the uplands and disturbed wetland areas. Removal of this vegetation will support both hydrologic and ecological restoration across the project site.
- / **Conjunctive use of groundwater and stormwater for irrigation:** The development proposes to use both groundwater and captured stormwater for irrigation, with groundwater serving only as a supplement to surface water supplies stored within the project's lakes. Irrigation withdrawals will occur from these lakes, conserving groundwater withdrawals from the Lower Tamiami Aquifer and contributing to the project's overall resource benefits.
- / **Master-controlled irrigation system promoting water conservation:** A master-controlled irrigation system will regulate the initiation and duration of irrigation events, increase water-

use efficiency and prevent individual homeowners from adjusting irrigation timers. Future enhancements may include integrated communication between the surface water pump station controllers and the augmentation well pump stations.

- ✓ **Enhanced Lake Management Practices and ongoing water quality monitoring:** The project includes Enhanced Lake Management Practices designed to protect water resources on site. This plan provides for quarterly surface water quality monitoring of the existing water-filled limestone pits. Monitoring results will function as an early-warning system for potential resource impacts and will be submitted after each sampling event and summarized in an annual report.

Collectively, these measures deliver a level of water resource and environmental protection that not only meets but exceeds the future land use standards envisioned in the Lee Plan.

## 2.0 PROPERTY SETTING

Prior to anthropogenic alterations, the southern portion of Lee County's DR/GR area, including the CREW Flint Pen Strand, was generally characterized by a complex mosaic of wet prairies, marshes, and cypress forests, interspersed with isolated, slightly elevated areas of open rangeland and Pine Flatwoods. As shown on the pre-development 1958 historical aerial photograph (**Figure 3**), the project site consisted of Hydric Flatwoods and Cypress Communities, punctuated by elongated Pine Flatwoods "islands" corresponding to slightly elevated historic marine deposits. Defined surface water flow-ways or conveyance features, common in DR/GR areas further north, were not evident on the project site. Instead, historic surface water movement appears to have occurred as dispersed sheet flow around the Flatwoods islands.

This unique historic landform in the project vicinity likely originated as relict coastal dunes deposited roughly parallel to historic shorelines. These dunes formed elongated, gently sloping sand ridges that are presently occupied by Pine Flatwoods. Due to their isolated nature, these ridges are hereafter referred to as "islands." They appear to have been superimposed on a nearly level marine terrace, which over time developed into the Hydric Flatwoods and Cypress Community wetlands characteristic of southern DR/GR lands. Post-depositional erosion and dissolution of the underlying Tamiami Formation limestone likely accentuated elevation differences between the dunes and surrounding wetlands, further defining the Flatwoods islands.

Historic surface water sheet flow was significantly altered in the early 1960s with the excavation of the Kehl Canal. As shown in **Figure 4**, the canal was constructed to extend and define the Imperial River watershed and to drain lands to the east. In combination with the extension of East Terry Street, the Kehl Canal appears to have completely cut off and isolated the subject property from the northern DR/GR lands, including the CREW. Flow records for the Kehl Canal indicate high seasonal variability. During drought conditions, the canal can exhibit virtually no flow, whereas wet season flows have been reported to reach approximately 1,500 cubic feet per second (cfs).

Average monthly flows in the Kehl Canal range from as low as 0.2 cfs during the dry season to approximately 1,300 cfs during the rainy season (CH2M HILL, July 1996). The canal not only intercepts overland surface water flows from the north but also lowers Water Table Aquifer levels in

its vicinity, further affecting the hydrology of nearby wetlands. This hydrologic isolation has contributed to the property's presently altered conditions and supports the Applicant's proposed removal of the project area from the DR/GR classification. Evidence of this alteration is apparent in 1968 aerial imagery (**Figure 4**), which shows many of the Flatwoods islands appearing drier, with exposed, light-colored soil boundaries likely caused by desiccated soils.

Prior to 1980, the project site was cleared of vegetation for limestone mining, resulting in the creation of two rectangular pits. Upon cessation of mining, approximately 15 acres (30 percent) of the site became water-filled mining pits. Additional mining-related disturbances, including areas stripped of overburden, debris piles, and drainage ditches, have further altered the property. The post-mining topography is clearly evident in the LiDAR imagery provided as **Figure 5**. Current land surface elevations are variable due to mining but generally range from 12 to 13 feet North American Vertical Datum (NAVD).

The predominant soil type within the project area is Pompano Fine Sand, as identified by the Natural Resources Conservation Service (NRCS). Soils of the Pompano series are very poorly drained and developed from thick, nearly level sandy marine sediments. The Pine Flatwoods "islands" are underlain by Immokalee Sands, which are poorly drained soils also formed from sandy marine sediments. The NRCS soils map is shown in **Figure 6**. According to the Federal Emergency Management Agency's (FEMA) National Flood Hazard Map, the property lies within Flood Zone X, an area of minimal to moderate flood risk.

The project site is located within the State of Florida's WBID No. 3258E (Imperial River). A WBID represents a sub-watershed delineated by the FDEP based on U.S. Geological Survey (USGS) Hydrologic Unit Codes (HUCs). Surface water quality evaluations within WBID No. 3258E have verified the watershed as impaired for DO, with an established total maximum daily load (TMDL) for this constituent. Low DO in surface waters is often caused by nutrient enrichment but can also occur naturally in slow-moving, tannin-stained waters with deposits of decaying vegetation, such as swamps and sloughs. The project area's highly disturbed condition and water-filled mining pits may contribute to low DO levels. Implementation of the proposed development is expected to improve site conditions by restoring hydrologic connectivity among surface water basins and increasing mixing through the engineered stormwater management system.

### **3.0 HYDROGEOLOGY**

Three (3) principal aquifer systems underlie the project site:

- / Unconfined Surficial Aquifer System (also known as the Water Table Aquifer)
- / Confined Intermediate Aquifer System
- / Confined Upper Floridan Aquifer System

In southern Lee County, groundwater quality generally decreases with depth. Suitable sources for irrigation and potable water are typically located at depths less than 300 feet, while deeper units tend to be highly mineralized and saline. As a result, groundwater withdrawals are primarily focused on the shallow Surficial Aquifer System (Water Table Aquifer) and the semi-confined Lower Tamiami

Aquifer. Beneath the Lower Tamiami, a relatively fresh, confined producing zone known as the Sandstone Aquifer also exists. These shallower aquifer systems are further described below.

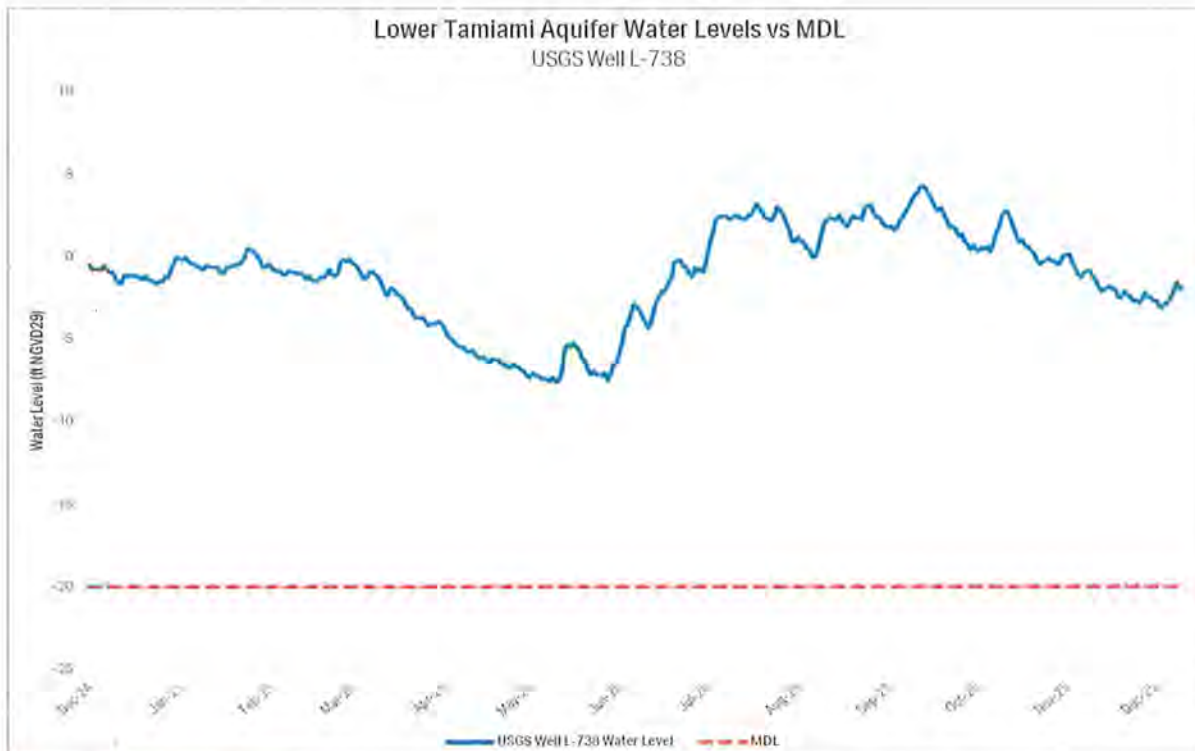
### **3.1 UNCONFINED WATER TABLE AQUIFER**

The unconfined Water Table Aquifer originates at land surface and consists of 8 to 10 feet of unconsolidated surficial deposits of fine-grained, silty quartz sand with minor shell content. Thin, discontinuous clayey sands may overlay the uneven limestone of the upper Tamiami Formation, which includes the Ochopee and Buckingham Limestone Members and the Pinecrest Sand Member (FGS Special Publication No. 49). Water quality is fresh in areas not affected by saline intrusion, with dissolved chloride concentrations ranging from 10 to 70 milligrams per liter (mg/L). The Water Table Aquifer is highly productive. Onsite limestone mining excavated portions of the upper Tamiami Formation.

### **3.2 LOWER TAMIAMI AQUIFER**

Beneath the upper Tamiami Formation, there are semi-confining clays and low-permeability sediments, known as the Bonita Springs Marl, which overlie the Lower Tamiami Aquifer. This aquifer is distinct from the overlying limestone and is highly productive. Water quality varies with proximity to tidally influenced water bodies, with dissolved chloride concentrations ranging from approximately 40 to 100 mg/L in non-saline areas. The Bonita Springs Marl reduces the potential for withdrawals from the Lower Tamiami Aquifer to induce drawdown in the overlying Water Table Aquifer and prevents adverse impacts to wetlands. The project's proposed irrigation system will utilize two (2) Lower Tamiami Aquifer augmentation wells to supplement surface water supplies from the stormwater management lakes - historic mining pits. It must be noted that Bonita Springs Utilities (BSU) operates a potable wellfield (Eastern Wellfield) that utilizes the Lower Tamiami Aquifer under SFWMD Water Use Permit No. 36-00008-W. To protect potable water supplies, Lee County has instituted wellfield protection zones (Lee Plan Map 4-C). As shown on **Figure 7**, due to the proximity of City of Bonita Springs wellfield, the Lee Plan 5- and 10-year travel time protection zones extend onto the subject property. No adverse drawdown or water quality impacts are anticipated to occur to City of Bonita Springs wellfield as a result of the proposed development.

Groundwater level data from the USGS Lower Tamiami Aquifer monitoring well No. L-738, located approximately 3 miles west of the subject property, indicate that long-term groundwater elevations have consistently remained above the established Maximum Developable Limit (MDL). These conditions demonstrate that groundwater resources in the vicinity of the site are being adequately maintained and that no groundwater quantity or water resource constraints are anticipated that would adversely affect the proposed development. A recent hydrograph for monitoring well No. L-738 is provided below. The location for monitoring well L-738 is shown in **Figure 1**.



### 3.3 SANDSTONE AQUIFER

The Sandstone Aquifer occurs within the Intermediate Aquifer System and lies below the Tamiami Formation and is separated from overlying aquifers by low-permeability clayey sediments. Depth to the top of this aquifer ranges from approximately 150 to 200 feet below land surface (bls), with thickness varying from 30 to 50 feet near the project site. It is composed of sandy limestone, sandstone, sandy dolomite, and calcareous sands, and is associated with the Peace River Formation of the Hawthorn Group (FGS Circular No. 103, 1986). Dissolved chloride concentrations generally range from 40 to 200 mg/L. Due to the occurrence of low-permeability sediments separating the Sandstone Aquifer from the overlying Water Table Aquifer, the potential for groundwater withdrawals from the Sandstone Aquifer to cause adverse drawdown in the Water Table Aquifer is considered remote.

### 3.4 EXISTING RECHARGE TO UNDERLYING AQUIFERS

The USGS estimates recharge at the site ranges from 0 to 3 inches per year (USGS/SFWMD, 1995). Due to the highly disturbed condition of the site, effective recharge to the Water Table Aquifer (and underlying Lower Tamiami Aquifer) is likely limited.

### 3.5 CONSISTENCY WITH LEE PLAN POLICIES 2.3.1 AND 2.3.2

The proposed Comprehensive Plan Amendment is consistent with Lee Plan Policies 2.3.1 and 2.3.2, which require that amendments in areas important for groundwater protection, including areas within the DR/GR area to demonstrate that the development will not adversely affect groundwater availability, recharge functions, or potable supply resources.

### **3.5.1 POLICY 2.3.1 – PROTECTION OF POTABLE WATER SOURCES**

The SFWMD 2022 Lower West Coast Water Supply Plan Update identifies the Lower Tamiami Aquifer as a traditional freshwater resource that is incorporated into long-range planning for Lee County and the DR/GR. Regional SFWMD groundwater modeling indicated that projected withdrawals, including existing recreational and aesthetic withdrawals within and near the DR/GR result in only minor drawdowns (0.5 to 3 feet) and do not threaten long-term potable water availability. Because the irrigation demand associated with the proposed development is considered minimal, the project's groundwater use will not impair existing or future potable water resources and is therefore consistent with Policy 2.3.1.

### **3.5.2 GROUNDWATER RESOURCE PROTECTION AND IMPACT EVALUATION**

The Lower Tamiami Aquifer is a planned and sustainable irrigation source within the regional water-supply framework. SFWMD modeling demonstrates that cumulative future withdrawals remain within sustainable aquifer yield limits, including within recharge areas associated with the DR/GR. The hydrogeologic properties of the Lower Tamiami Aquifer, high transmissivity, substantial thickness, and protection by an overlying confining unit further support its ability to accommodate low-intensity landscape irrigation without compromising recharge or inducing undesirable water-level changes. Groundwater flow modeling (see **Section 5** below) of the proposed residential irrigation demands, and the detailed integrated modeling analysis clearly demonstrate no adverse impacts to the DR/GR and the overall water resources will occur. In fact, recharge potential increases because of the proposed development.

The project will also incorporate efficient water use practices, including a master-controlled irrigation system whereby no individual homeowner can initiate or prolong irrigation cycles, and the conjunctive use of surface water (detained stormwater) for irrigation, thereby minimizing groundwater withdrawals and ensuring protection of DR/GR recharge functions. Therefore, the proposed withdrawals are consistent with Policy 2.3.2.

The Lower Tamiami Aquifer's favorable hydrogeologic characteristics, its planned use in regional water-supply strategies, and the modest irrigation demand associated with the proposed development collectively demonstrate that the project's groundwater use is sustainable, low-impact, and fully compatible with the protective intent of Lee Plan Policies 2.3.1 and 2.3.2, including the County's goals for safeguarding the DR/GR groundwater resource area.

## **4.0 PROPOSED IRRIGATION DEMANDS AND SOURCES**

A review of existing reclaimed water pipelines indicates that none are located in proximity to the subject property. Therefore, all irrigation supplies must be derived onsite. As shown on the Applicant's Concept Plan provided as **Figure 8**, stormwater will be treated within the reconfigured limestone mining water-filled pits. These surface water bodies afford an opportunity for stormwater capture and reuse for irrigation. However, during prolonged droughts, surface water supplies for irrigation are anticipated to be limited. Therefore, supplies are proposed to be augmented by the use of groundwater from the Lower Tamiami Aquifer. It is estimated that two (2) Lower Tamiami Aquifer wells will be required to irrigate an estimated landscaped area of approximately of 7.2 acres.

Using the SFWMD Blaney-Criddle irrigation allocation calculator, a preliminary estimate of the development's irrigation demand is approximately 25,974 gallons per day (gpd), with a peak dry season (maximum month) demand of approximately 1.18 million gallons. Considering the combined surface areas of the stormwater lakes and reconfigured mine pits portrayed in the conceptual development layout (**Figure 8**), the estimated daily irrigation demand of 25,974 gallons would only lower the combined surface water bodies by less than an inch each day. The SFWMD Blaney-Criddle irrigation documentation is provided as **Attachment A**.

The proposed conjunctive use of both ground and surface water supplies is anticipated to conserve groundwater resources proposed to be derived from the Lower Tamiami Aquifer when adequate surface water supplies are readily available, thereby furthering the project's resource benefits. In addition, the project proposes a master-controlled irrigation system that will regulate both the initiation and overall duration of irrigation events in order to increase irrigation water use efficiency and enhance water conservation (i.e., no individual homeowner will have access to irrigation timers).

## 5.0 GROUNDWATER FLOW MODELING

To demonstrate that the proposed use of the Lower Tamiami Aquifer for supplemental irrigation will not cause adverse impacts to surrounding existing legal users, a single-layer groundwater flow model was developed using capabilities of AquiferWin32 to evaluate potential drawdown impacts resulting from the proposed maximum monthly withdrawals. The analytical groundwater modeling scenario includes one stress period that represents transient / future or proposed conditions and was run for 90-days with no recharge to simulate the maximum monthly allocation for the three driest months of the year (March, April, and May). The Hantush and Jacob, 1955 (Leaky Aquifer) solution was utilized in this modeling scenario.

The results of the 90-day maximum monthly modeling scenario are shown for the Lower Tamiami Aquifer in **Figure 9**. The greatest drawdown predicted to occur as a result of the requested maximum month quantity is approximately 0.05 feet and occurs within the property boundary at the proposed well nodes. Per Section 3.1.2 of the SFWMD's Applicant Handbook, modeling analyses must include proposed wells, as well as any other permitted groundwater withdrawals within the "cone of depression" of proposed use. SFWMD defines the "cone of depression" of the proposed use as the 1.0-foot drawdown contour for confined aquifer systems. However, as shown in **Figure 9**, no drawdown greater than 1.0 foot is predicted as a result of the maximum monthly groundwater model. Therefore, the potential for harm to occur to existing legal users as a result of the requested allocation is considered to be de minimis and not adverse and a cumulative impact assessment was not performed.

A statement from a Professional Geologist certifying the results of these groundwater flow modeling scenarios is provided herein as **Attachment B**, and the required modeling files will be provided to District staff under a separate cover.

## 6.0 BONITA SPRINGS EASTERN WELLFIELD PROTECTION

The Bonita Springs Eastern Wellfield is a critical public water supply facility serving southern Lee County and the City of Bonita Springs. The proposed residential development is located within the

5- and 10-year groundwater travel time zones for the wellfield and has been evaluated for consistency with the Lee County Comprehensive Plan (Lee Plan) and the Lee County Land Development Code (LDC) wellfield protection standards applicable to public water supply facilities.

The proposed residential use is a permitted and compatible land use within the designated travel time zones and complies with Lee County's Wellfield Protection Ordinance and LDC provisions regulating development within wellfield protection areas. The development avoids prohibited or restricted land uses identified in the LDC that could pose an unreasonable risk to groundwater quality or the operation of public water supply wells. No industrial uses, bulk fuel storage, hazardous waste facilities, chemical manufacturing, or other high-risk activities regulated or prohibited by the LDC are proposed.

In accordance with the Lee Plan and applicable LDC utility requirements, the development will be served by centralized potable water and centralized sanitary sewer service. The use of central sewer eliminates on-site wastewater treatment systems and septic tanks, thereby reducing the potential for nutrient loading, pathogens, or other contaminants to enter the groundwater within the wellfield travel time zones, consistent with LDC wellfield protection objectives.

Hazardous material use and storage within the development will be limited to normal residential household quantities, consistent with LDC restrictions applicable within wellfield protection areas. No above-ground or underground fuel storage tanks, vehicle maintenance facilities, or bulk chemical storage are proposed. Any temporary construction-related fueling, equipment servicing, or material storage will comply with LDC spill prevention, secondary containment, and cleanup requirements to protect groundwater quality.

Stormwater management systems are designed to meet or exceed Lee County LDC and SFWMD water quality and treatment standards. Stormwater runoff will receive appropriate treatment prior to discharge or infiltration to minimize pollutant migration within the wellfield travel time zones, consistent with Lee Plan Policy 63.1.2 and corresponding LDC performance standards. Untreated stormwater infiltration within sensitive portions of the wellfield protection area is avoided, and pretreatment is provided where infiltration practices are utilized.

During site clearing, grading, and construction activities, erosion control, sediment management, and spill prevention best management practices required by the LDC will be implemented to prevent contaminants from entering surface waters or the groundwater system. Landscaping and site maintenance will comply with LDC landscaping standards and Lee County fertilizer regulations, with an emphasis on native or low-input plant species to reduce irrigation and fertilizer demands and minimize nutrient loading to groundwater.

The site design incorporates open space areas and pervious surfaces consistent with the LDC to maintain groundwater recharge functions while preventing land uses or activities that could degrade groundwater quality within the wellfield protection area. These measures further support Lee Plan Goal 61 (Water Resources) and Objective 61.2 by maintaining pre-development hydrologic conditions to the maximum extent practicable and protecting groundwater recharge and water quality.

Through compliance with the Lee Plan and the LDC wellfield protection standards, the proposed residential development ensures that land use within the 5- and 10-year travel time zones of the Bonita Springs Eastern Wellfield protects public drinking water supplies, minimizes contamination risk, and supports long-term potable water sustainability.

## **7.0 ENHANCED LAKE MANAGEMENT PRACTICES**

In order to protect water resources, the following management practices are proposed for the development's stormwater lakes. It is important to note that, as the development evolves, the Best Management Practices (BMPs) proposed to protect water resources must also evolve. The following management actions provide a framework of ground and surface water protection measures that will not only safeguard but help to sustain water resource conditions. Please note that no motorized boats will be allowed on any of the project's stormwater management lakes.

Through adherence to these BMPs, the project will maintain stormwater and groundwater quality, comply with Lee County LDC and Wellfield Protection Ordinance standards, and ensure long-term protection of water resources in accordance with the Lee Comprehensive Plan. The Developer's designated maintenance entity (Community Development District [CDD] or Homeowners Association) will be responsible in perpetuity for the operation and maintenance of all stormwater management facilities, including regular inspection, maintenance, and surface water quality monitoring.

### **7.1 WATER RESOURCES BEST MANAGEMENT PRACTICES**

As the project progresses from predominately a "construction phase" to "partial construction" and then ultimately to a "post-construction" phase, the BMPs must change to sustain the water resource protection measures. Construction of the proposed stormwater management system will occur relatively quickly. However, it is important that proper management practices be maintained to safeguard the water resources through the long-term operational phase.

#### **7.1.1 CONSTRUCTION PHASE BMPS**

All construction activities will comply with Lee County Wellfield Protection Ordinance No. 07-35, in accordance with Section 14-214 for Protection Zone No. 1 and Section 14-208 requirements for handling, storage, and use of regulated substances. The general contractor will ensure that all contractors and subcontractors evaluate site conditions prior to starting work to minimize risks to water resources and that any regulated substances are stored and handled in a manner that prevents accidental releases.

Contractors will maintain spill containment and cleanup equipment onsite and will be familiar with manufacturer safety data sheets and procedures for handling accidental releases. Any spill of a regulated substance will be reported immediately to the Developer, who will notify the Lee County Division of Natural Resources and the FDEP.

### **7.1.2 POST-CONSTRUCTION PHASE BMPS**

Upon completion of construction, all remaining regulated substances and containment systems will be removed from the site. Turbidity control, erosion management, and stormwater protection measures consistent with SFWMD, FDEP National Pollutant Discharge Elimination System (NPDES) permits, and Florida Stormwater Sedimentation Control standards will be implemented throughout construction until vegetation or other stabilization measures are established.

After the issuance of the Lee County Certificate of Compliance or SFWMD Stormwater Management System Certification, the project will transition to the post-construction phase, with the primary focus being the maintenance of the stormwater management lakes and associated conveyance and control structures.

## **7.2 LAKE MAINTENANCE**

Proper maintenance of stormwater wet detention areas is essential in Florida to ensure long-term water quality protection and flood control. These systems are designed to capture and treat runoff by allowing suspended solids, nutrients, and other pollutants to settle before the water is discharged downstream. Without regular upkeep, such as managing vegetation, removing accumulated sediment, and maintaining control structures, detention ponds can lose storage capacity and treatment efficiency, leading to degraded water quality and increased flood risk. Routine maintenance of these areas helps preserve the ecological function of these systems and supports compliance with state and local water management regulations.

### **7.2.1 NUISANCE AND EXOTIC VEGETATION CONTROL**

The controlling entity will be responsible for the removal (in perpetuity) of all nuisance and exotic vegetation from the stormwater management system as defined by the Lee County LDC.

The stormwater lakes must be inspected annually, and any prohibited vegetation must be removed by the use of hand-clearing or appropriate chemical treatment. Only aquatic-approved compounds may be utilized in the stormwater management system lake. Herbicides and/or algacides may only be applied by a licensed professional applicator who meets the requirements of Lee County, and in accordance with manufacturer specifications. All applicable local, state and/or federal guidelines and requirements will also be followed.

### **7.2.2 LITTORAL VEGETATION PRESERVATION**

Littoral zone vegetation is required to be installed and maintained. The littoral zone provides habitat for wading birds, fish and aquatic invertebrates. Littoral vegetation also helps stabilize the lake shoreline and helps prevent erosion.

Littoral plants that die will be replaced in accordance with Lee County LDC requirements. The presence of littoral plants in the lake is desirable and may also help to improve the water quality. The spread of littoral plants will be encouraged throughout the designated littoral areas. Mechanical trimming, mowing or the use of land-based herbicides on desirable littoral plants is prohibited. Any trimming or removal of vegetation required to promote the survival and viability of littoral vegetation will be performed by hand or by approved aquatic herbicides and methods.

### **7.2.3 FERTILIZER APPLICATION**

Strict adherence will be maintained with Lee County's Fertilizer Ordinance No. 08-08. Any person(s) applying fertilizers must have received a limited certification in compliance with Florida Statute (F.S.) 482.1562 prior to application of any and all fertilizers.

All professional landscape businesses must register with Lee County prior to performing landscape fertilization services within unincorporated Lee County. At least one (1) employee of a firm employed to perform landscape fertilization services must be a Certified Professional Landscaper. Proof of completion of a Lee County-approved BMP training program must be provided to the Division of Lee County Natural Resources. At least one (1) BMP-trained employee must be present onsite while fertilizers are applied. A registration decal provided by the division must be displayed on all company vehicles.

### **7.3 EROSION PROTECTION AND LAKE BANK MAINTENANCE**

Lake banks are generally susceptible to erosion due to overland flow of stormwater runoff, wave action, and the natural seasonal fluctuation of water levels. Accordingly, lake banks are designed to minimize this potential for erosion.

Lake banks will be inspected annually to identify areas of erosion. Once identified, the erosion will be repaired and the source of erosion shall be eliminated, if possible. Where excessive erosion occurs, repair of the lake banks and/or enhancement of stabilization measures may be necessary.

### **7.4 PESTICIDE, HERBICIDE AND/OR FUNGICIDE APPLICATIONS**

All applications of pesticides, herbicides, algacides and/or fungicides shall be applied by a licensed professional applicator, meet the requirements of Lee County, be applied in accordance with the manufacturer's specifications, and shall meet all applicable local, state and/or federal guidelines and requirements. Only approved aquatic herbicides may be used to treat the stormwater management system. The following BMPs are part of an Integrated Pest, Disease, and Herbicide Program.

The application of pesticides, herbicides and/or fungicides will only be performed by certified contractors. The use of any chemical product in a manner that will allow airborne or waterborne entry of such products into the surface water management system is prohibited. This requirement shall not apply to the chemical agents used by certified lake management specialists for the control of algae and nuisance vegetation within the stormwater management system lakes. However, application of such agents shall be in compliance with the requirements of Lee County, applied in accordance with the manufacturer's specifications, and meet all applicable local, state and/or federal guidelines and requirements. Pesticides, fungicides, and herbicides will be used only in response to a specific problem and in the manner and amount recommended by the manufacturer. Broad application of pesticides, fungicides and herbicides as a preventative measure is strongly discouraged.

## 8.0 SURFACE WATER QUALITY MONITORING

### 8.1 GENERAL DATA QUALITY OBJECTIVES

All surface water quality samples will be collected in accordance with Chapter 62-160, Florida Administrative Code (F.A.C.), and the FDEP's Standard Operating Procedures (SOPs) DEP-SOP-001/01 FQ 100 Field Quality Control Requirements. Surface water quality sampling will be performed four (4) times per year (March, June, September, and December).

The purpose of the surface water monitoring program is to assure stormwater discharges from the subject property meet all applicable requirements of Chapter 62-302, F.A.C., Surface Water Quality Standards, before discharging surface water from the stormwater management system.

Additionally, monitoring will verify the efficacy of the BMP's described above. Please note that if there is no flow observed from the outfalls at the time of sample collection, the "no-flow" condition will be noted, and no surface water sample will be taken. If flow has occurred in the last 30 days, a sample shall be collected just upstream of the control structure to represent the discharged water.

### 8.2 SURFACE WATER QUALITY MONITORING

As shown in **Figure 10**, baseline water quality samples will be collected from both lakes. Both locations will then be sampled four times per year (March, June, September, and December). Surface water quality grab samples will be collected per FDEP SOP protocol and analyzed by a National Environmental Laboratories Accreditation Conference (NELAC/TNI)-certified laboratory. The surface water quality parameters to be tested, as well as the laboratory's Accuracy, Precision, and Minimum Method Detection Limit (MDL), are summarized in **Table 1**. Please note that the Practical Quantitation Limit (PQL) for each parameter varies between laboratories; however, the PQL typically equates to four times the MDL.

**Field Parameters** – Depth of Water, DO, pH, Temperature, Specific Conductance, and Turbidity

**Lab Parameters** –Ammonia, Biological Oxygen Demand, Chloride, Copper, Iron, Nitrate + Nitrite, Ortho-phosphate, Total Kjeldahl Nitrogen, Total Phosphorus, and Zinc

Quarterly surface water quality monitoring shall be continued for a minimum of five (5) years after operational completion of the stormwater management system. After five (5) consecutive years of testing, a request for modification in the monitoring requirements may be proposed to the Lee County Natural Resources Department if it can be demonstrated that surface water quality is being maintained within applicable State standards. All surface water quality data will be supplied to Lee County as described below.

### 8.3 WATER QUALITY DATA REPORTING AND ANALYSIS

Surface water quality data will be submitted to Lee County Natural Resources Department staff in an approved electronic format within 30 days of receiving the water quality results from the contract laboratory. The submittal will include all field notes and field and laboratory water quality results, as well as all previously collected water quality data (i.e. the period of record). The submittals will also include a brief narrative on the most recent sample collection, sample chain of custody,

descriptions of any re-testing of erroneous values, and any water quality exceedances. Water levels will be provided in tabular and graphical forms.

By March 1 of each year, a Water Resource Summary Report for the preceding calendar year shall be supplied to Lee County Natural Resources staff that summarizes the surface and groundwater monitoring results for the development. The results will include a summary table that lists all the field and laboratory parameters for surface water, consistent with requirements of F.A.C. 62-160. Laboratory parameter concentrations that fall below the PQL for that parameter will be reported with no value; however, a value qualifier of "I" (between the MDL and PQL) or "U" (below the MDL) will be included in the summary table.

All water quality data for the analytes listed in **Table 1** that are detected in concentrations above the laboratory PQL will be reviewed, graphed and statistically analyzed for trends and exceedances above two (2) standard deviations of the mean of all values above the MDL. Any reported concentrations above the MDL will be clearly identified as well as remedial actions that were used to timely reduce that particular analyte's concentration.

#### **8.4 REMEDIAL ACTIONS**

In the event of significant surface water impact from hydrocarbon spills, pesticide or herbicide applications, or other releases, the Developer or their successor will notify the Lee County Natural Resources Division within 12 hours (or the next business day) and FDEP Office of Emergency Response within 24 hours if there is an immediate threat to human health or the environment. The Developer or their successor will coordinate assessment and remediation with Lee County and comply with all local, state, and federal permitting requirements, including installation of temporary monitoring wells or more comprehensive investigations if needed.

#### **9.0 EXISTING ONSITE WELLS**

According to Lee County's Permitted Well database, four of the five parcels within the subject property are shown to contain a single well located near the parcel centroid and classified for "Single Family" use. Two of these reported wells are mapped within existing water-filled pits, and two are mapped on upland portions of the site. Review of the associated well construction permits and available records indicates that these features represent shallow geotechnical or hydrogeologic test borings rather than active or production water supply wells. The borings appear to have been installed for site investigation purposes, are not equipped with permanent pumping infrastructure, and are not utilized for potable or irrigation supply. As such, these test borings are not expected to adversely affect groundwater resources, interfere with proposed site development, or require abandonment or protection measures beyond standard construction practices.

#### **10.0 CONCLUSIONS**

The White Willow project presents a unique opportunity to restore and enhance a highly disturbed and hydrologically impacted property. As detailed above, the proposed development demonstrates a high level of protection, preservation, and enhancement of groundwater, surface water, and

environmental resources. The project is fully consistent with the Lee Plan, including Goal 63, which protects potable water sources and safeguards wellfield areas; and Goals 60 and 61, which preserve natural drainage systems and ensure stormwater management and water quality standards are met.

Additionally, the project complies with applicable Lee County LDC requirements, including Sections 14-208 and 14-214 governing Wellfield Protection Zones, as well as stormwater, erosion control, and lake management provisions. By incorporating these measures, the White Willow development not only supports compatible residential land use but also provides measurable improvements to site-specific hydrologic and ecological conditions, ensuring long-term protection and enhancement of critical water resources in southern Lee County.

**Table 1 - Surface Water Quality Analytes and Proposed Schedule for Sampling**

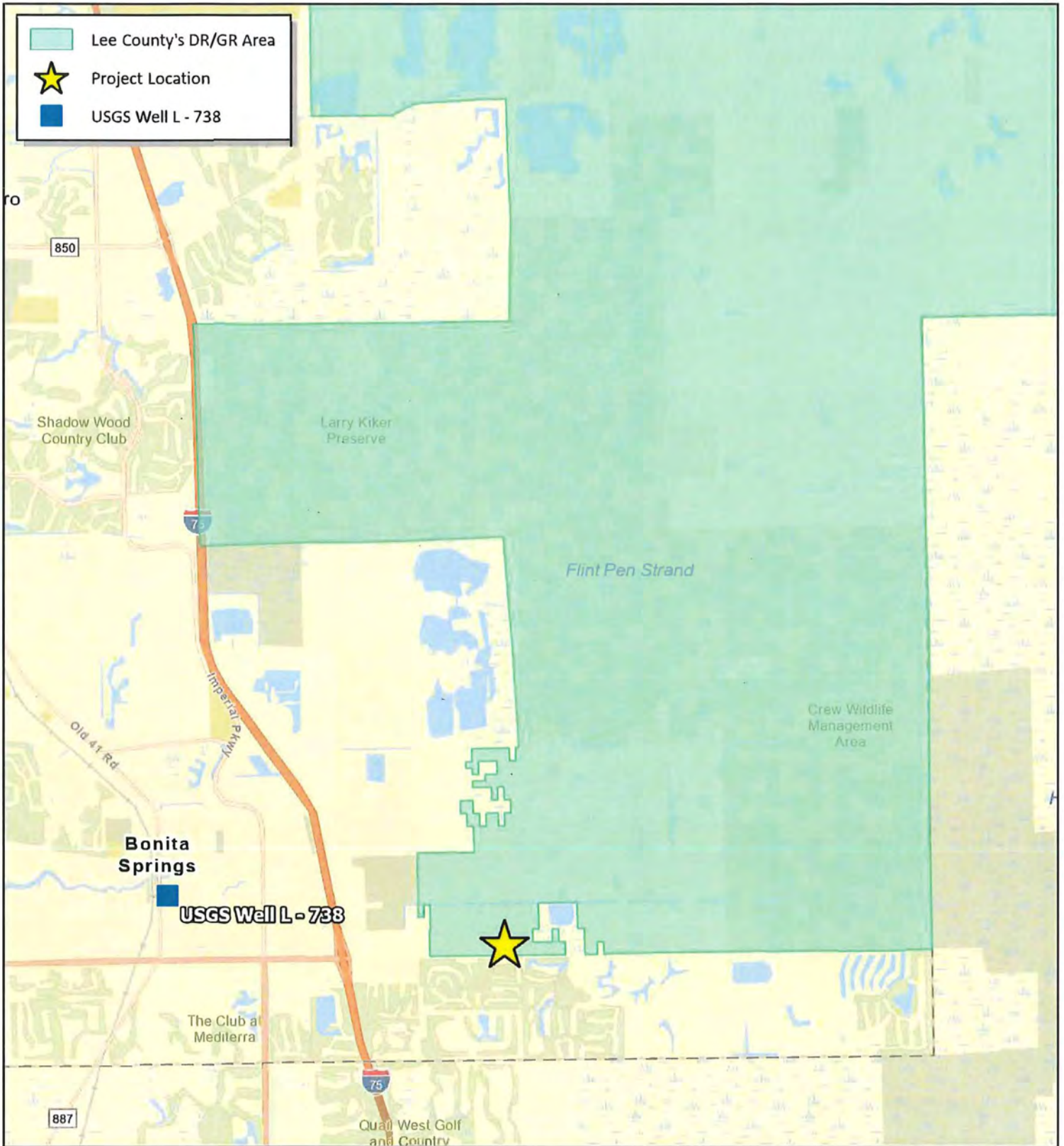
<b>Field Parameters</b>					
Parameter	Units	Precision (%RPD)	Accuracy (%Recovery)	MDL	Sampling Frequency
Depth of Water	Feet	0.01	NA	NA	Quarterly
Dissolved Oxygen	mg/L	FT 1000-1	FT 1000-1	NA	Quarterly
pH	SU	FT 1000-1	FT 1000-1	NA	Quarterly
Specific Conductance	µS/cm	FT 1000-1	FT 1000-1	NA	Quarterly
Temperature	Deg C	FT 1000-1	FT 1000-1	NA	Quarterly
Turbidity	NTU	FT 1000-1	FT 1000-1	NA	Quarterly
<b>Laboratory Parameters</b>					
Ammonia	mg/L	*17	90-110	0.008	Quarterly
Biological Oxygen Demand	mg/L	*28	84.6-115	1	Quarterly
Chloride	mg/L	*5	90-110	0.353	Quarterly
Copper	ug/L	*10	70-130	0.346	Quarterly
Hardness	mg/L	CALC	CALC	0.682	Quarterly
Iron	mg/L	*10	70-130	29	Quarterly
Lead	ug/L	*10	70-130	0.67	Quarterly
Nitrate + Nitrite	mg/L	*5	90-110	0.004	Quarterly
Ortho-phosphate	mg/L	*10	88-118	0.002	Quarterly
Total Kjeldahl Nitrogen	mg/L	*10	90-110	0.05	Quarterly
Total Phosphorus	mg/L	*10	90-110	0.008	Quarterly
Zinc	mg/L	*10	70-130	0.0014	Quarterly




\*Value represents percent (%) relative standard deviation (RSD).

\*\*All values within the table above were supplied by Benchmark Enviroanalytical Laboratory and are specific to the water quality laboratory that performs the analyses.

# Figures



---



	Lee County's DR/GR Area
	Project Location
	USGS Well L - 738



**Figure 1**  
 Density Reduction/Groundwater Resource Area  
 White Willow  
 Lee County, Florida

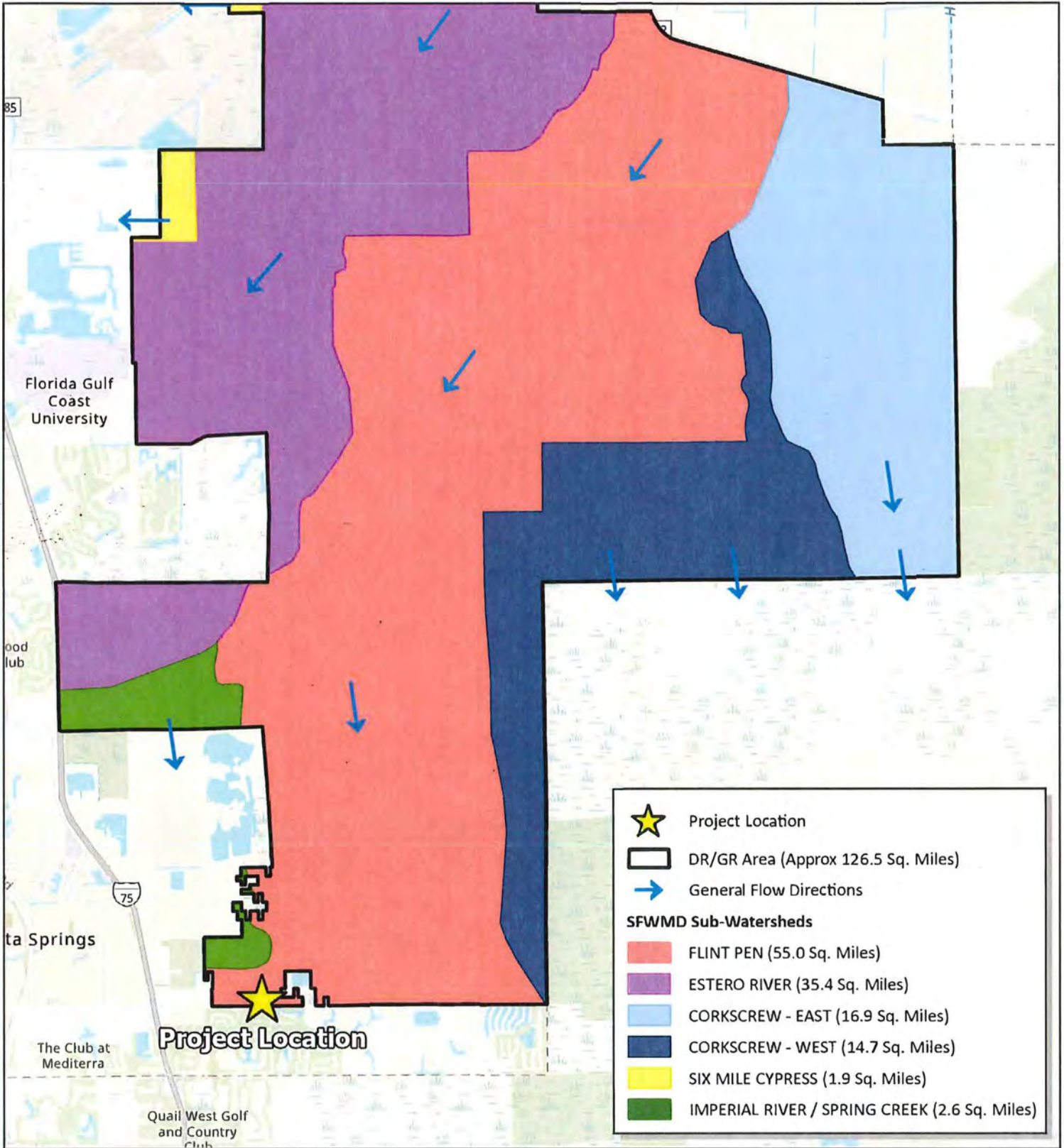

  
 Scale: 1:80,000

RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

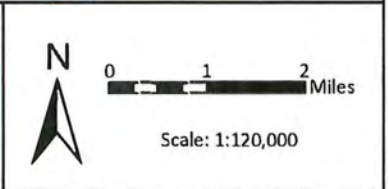
Image: Esri, Lee County

12/9/2025





**Figure 2**  
**DR/GR Sub-Watersheds**  
**White Willow**  
**Lee County, Florida**



RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

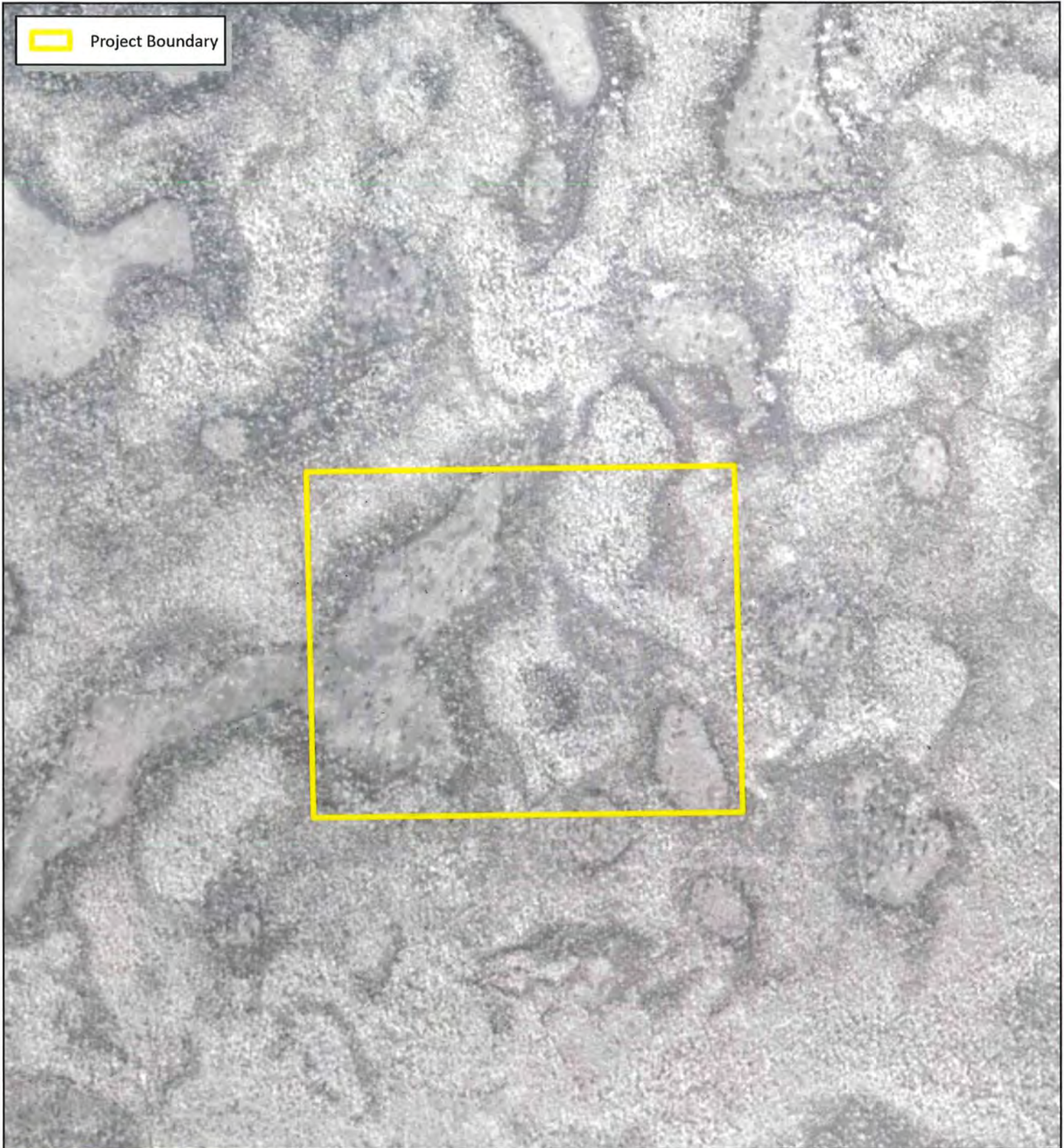
Image: Esri

12/9/2025





Project Boundary



**Figure 3**  
1958 Historic Aerial Imagery  
White Willow  
Lee County, Florida



0 500 US Feet

Scale: 1:6,000

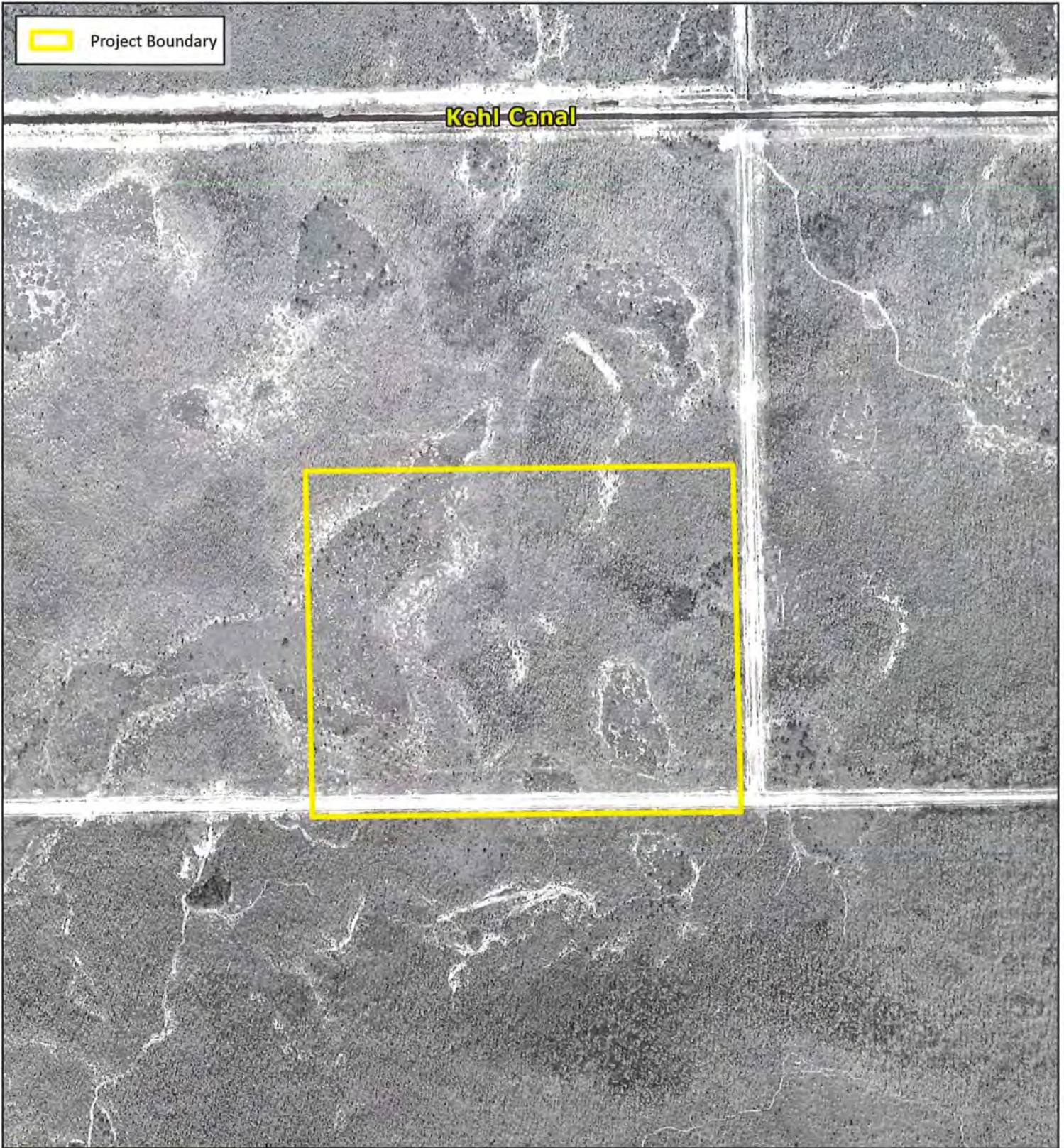
RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

12/12/2025

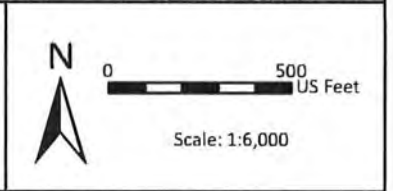
Image: Esri, UFDC



**RESPEC**



**Figure 4**  
 1968 Historic Aerial Imagery  
 White Willow  
 Lee County, Florida

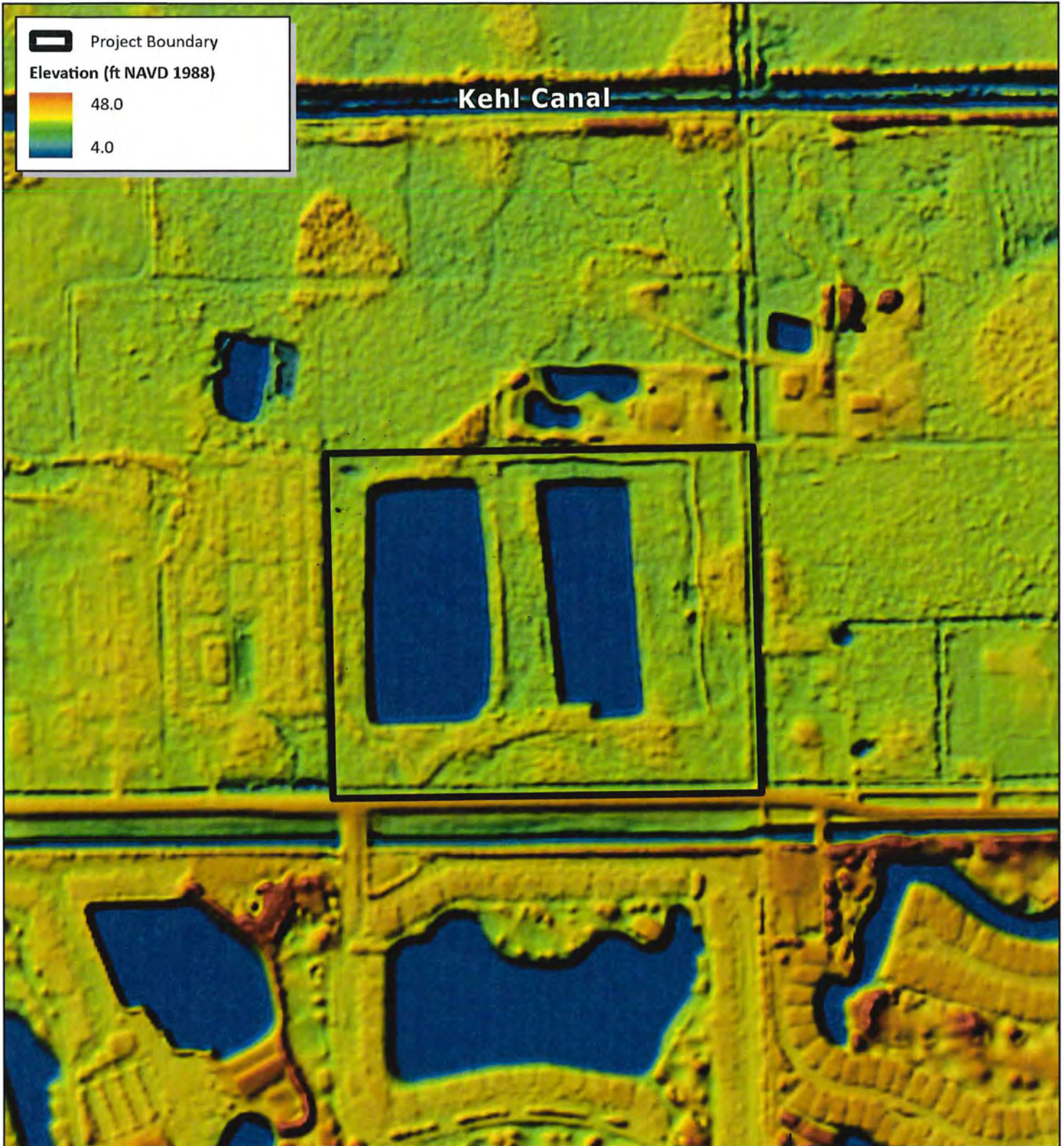


RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

Image: Esri, FDOT

12/12/2025





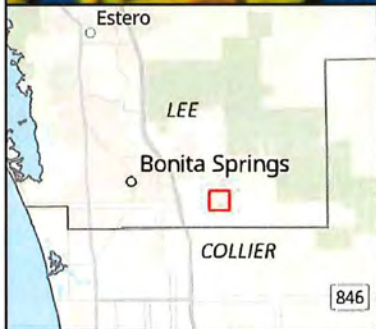
**Project Boundary**

**Elevation (ft NAVD 1988)**

48.0

4.0

**Kehl Canal**



**Figure 5**  
**LiDAR**  
**White Willow**  
**Lee County, Florida**

N

0 500 US Feet

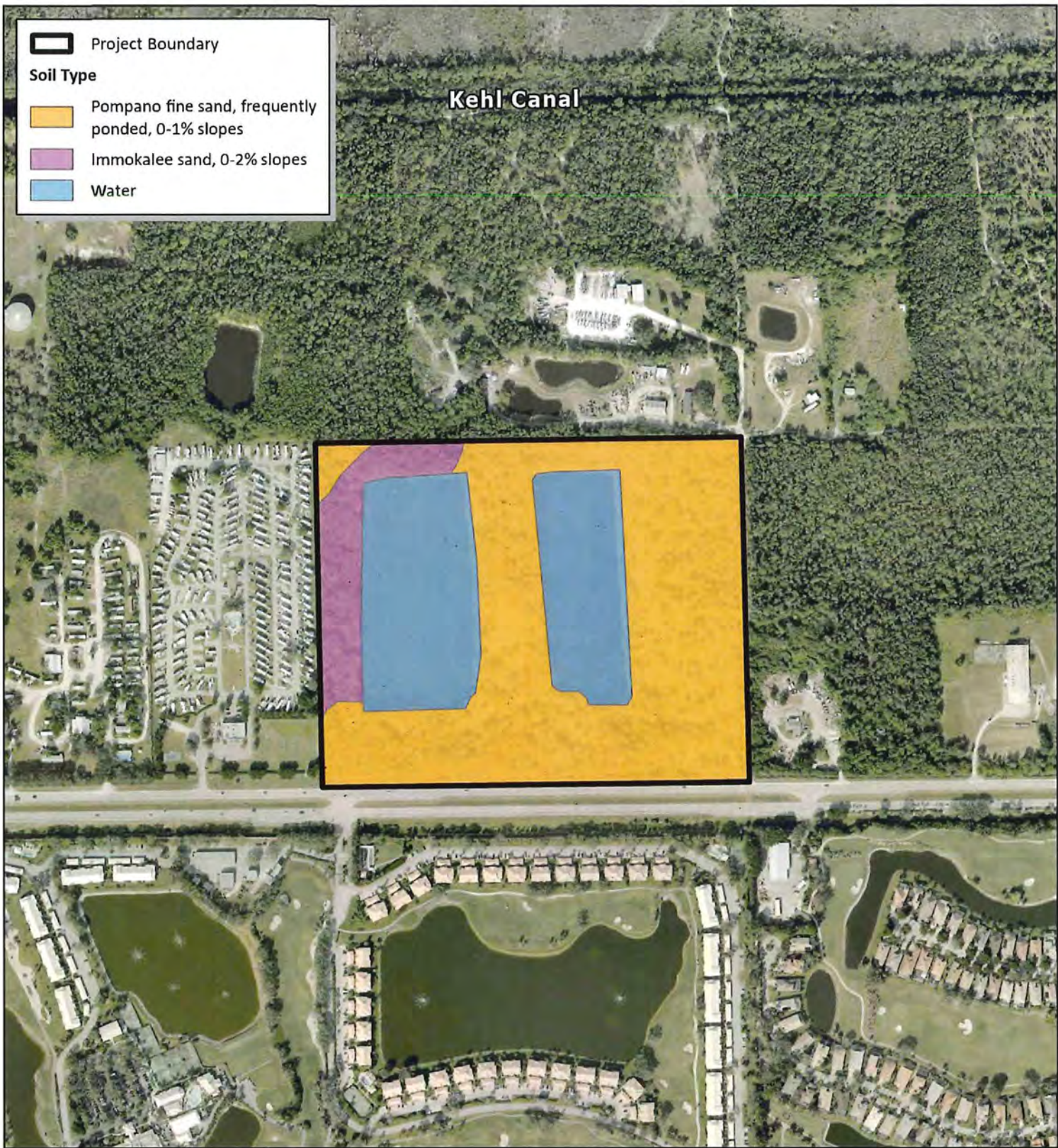
Scale: 1:6,000

RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

Image: Esri, Lee County 10-ft DEM (ft NAVD88)


12/9/2025


**RESPEC**



 Project Boundary

**Soil Type**

 Pompano fine sand, frequently ponded, 0-1% slopes

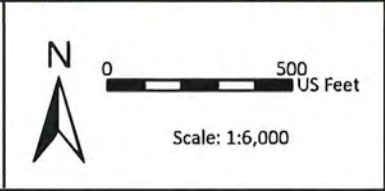
 Immokalee sand, 0-2% slopes

 Water

**Kehl Canal**



**Figure 6**  
 NRCS Soil Types  
 White Willow  
 Lee County, Florida

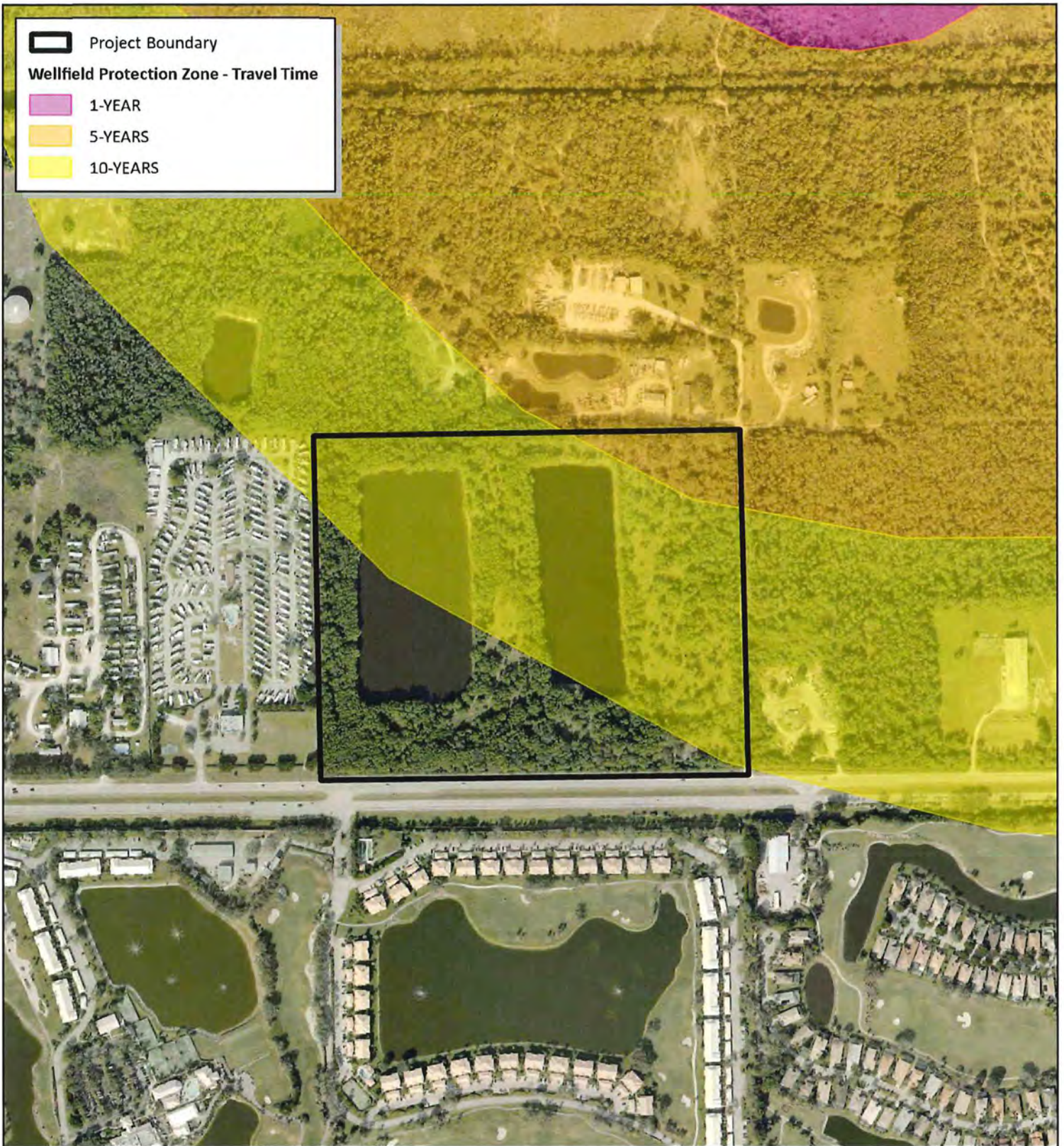


RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

12/9/2025



Image: Esri, NRCS



**Project Boundary**

**Wellfield Protection Zone - Travel Time**

- 1-YEAR
- 5-YEARS
- 10-YEARS



**Figure 7**  
**Wellfield Protection Zones**  
**White Willow**  
*Lee County, Florida*

N

0 500 US Feet





Scale: 1:6,000

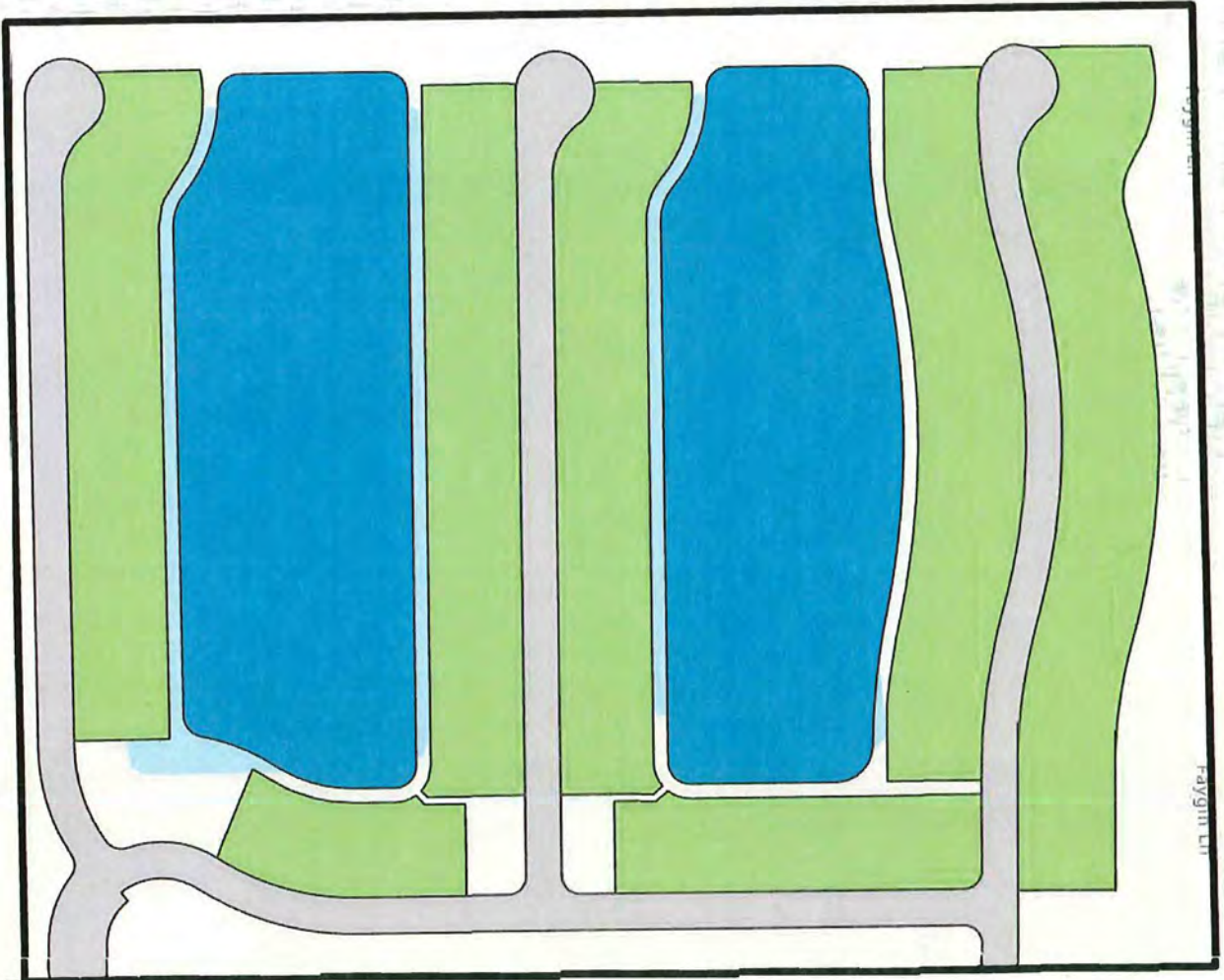
RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

Image: Esri

12/15/2025



-  Project Boundary
-  Lots - 40% Irrigated (7.24 Acres)
-  Right-of-Ways
-  Lakes





Box Turtle

Bonita Beach Rd SE

Cavendish Ct



**Figure 8**  
**Conceptual Plan**  
**White Willow**  
*Lee County, Florida*


  
 Scale: 1:3,000

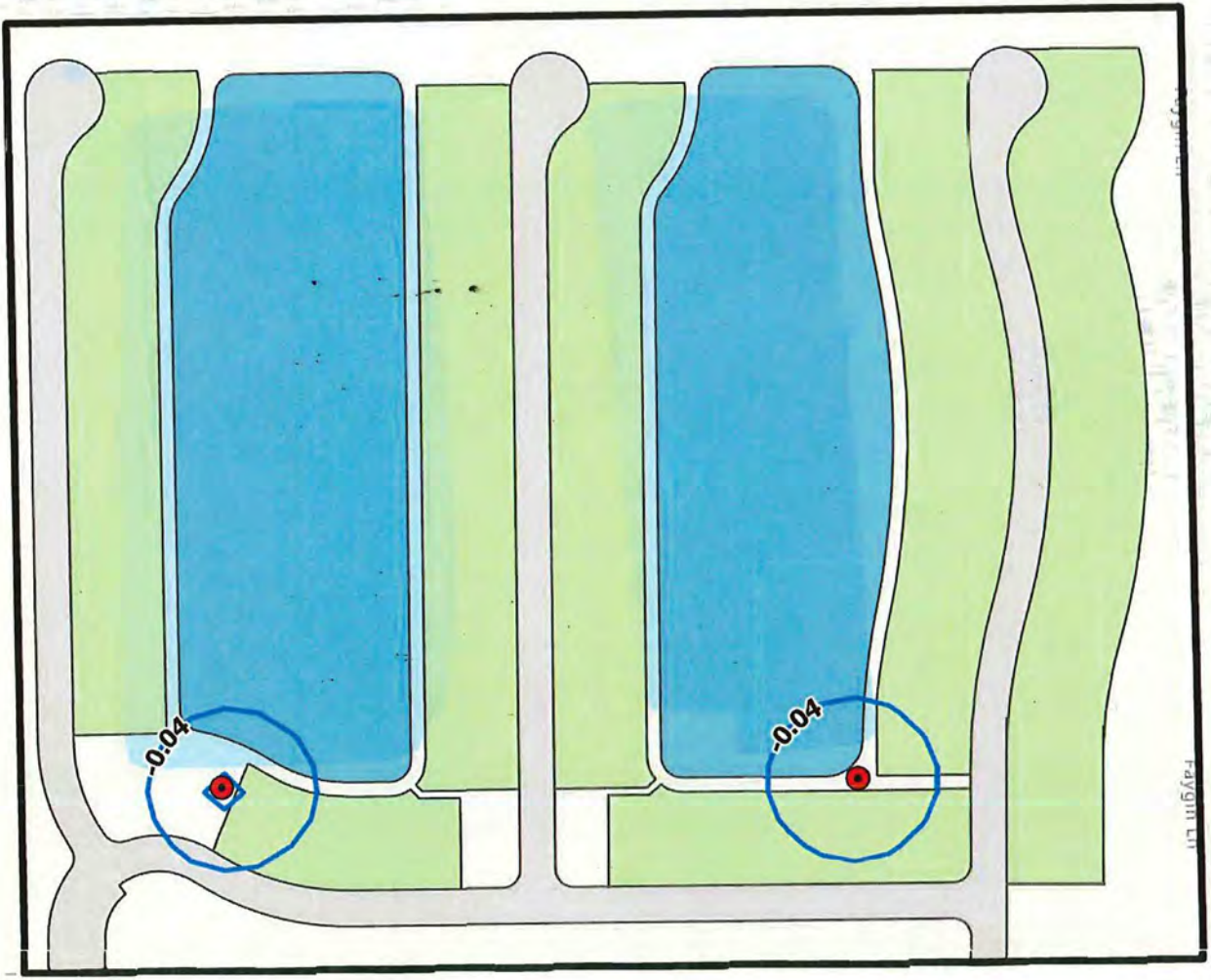
RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

12/10/2025

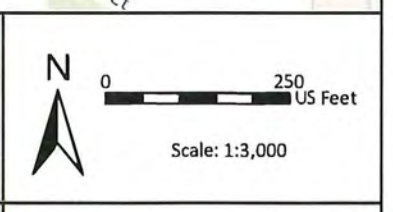


Image: Esri

-  Project Boundary
-  Lots - 40% Irrigated (7.24 Acres)
-  Right-of-Ways
-  Lakes
-  Lower Tamiami Aquifer Drawdown (ft)
-  Proposed Lower Tamiami Aquifer Well



**Figure 9**  
**Predicted Lower Tamiami Aquifer Drawdown**  
**Maximum Monthly Modeling Scenario**  
**White Willow**  
**Lee County, Florida**






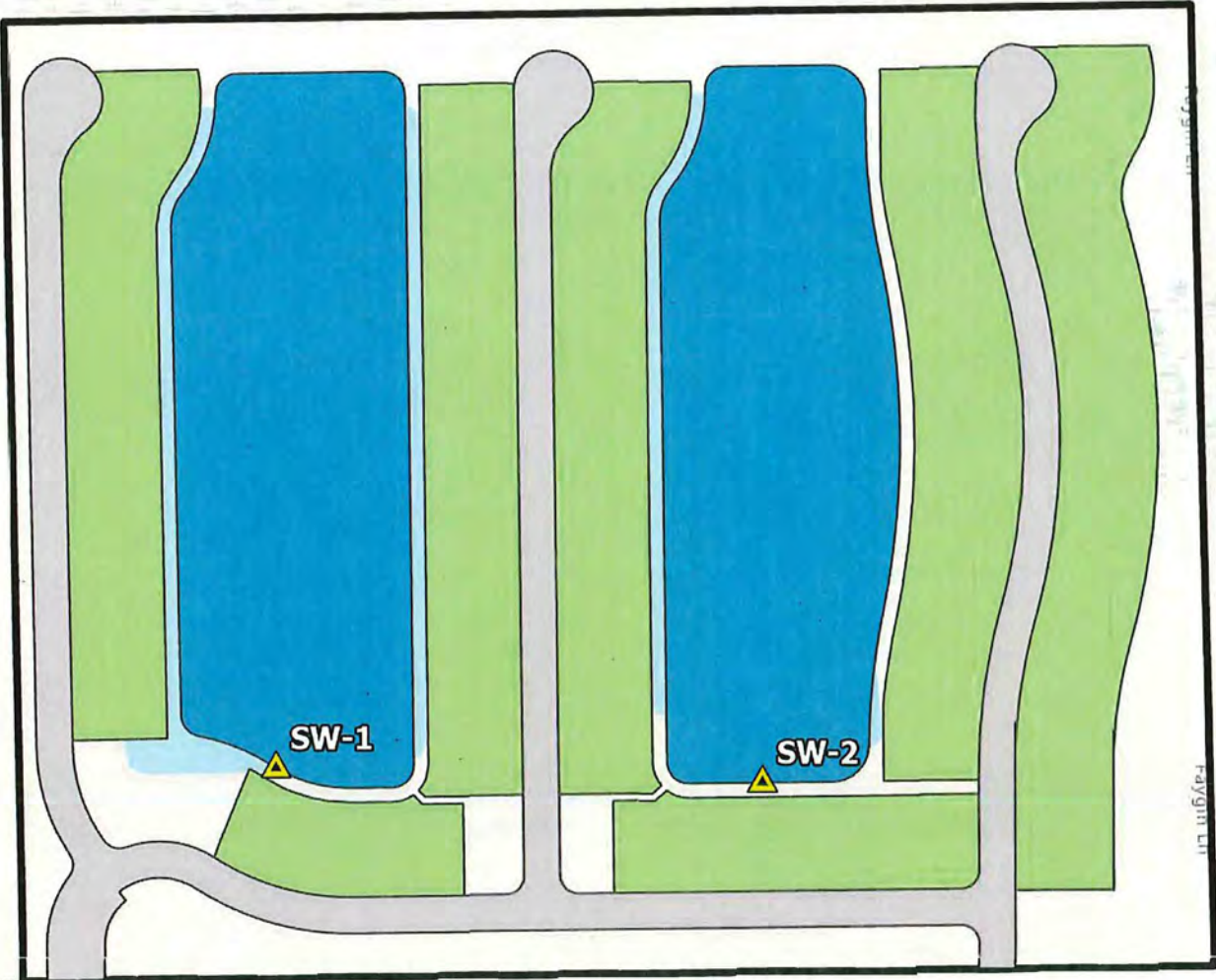
RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

Image: Esri

12/15/2025



-  Project Boundary
-  Lots
-  Right-of-Ways
-  Lakes
-  Baseline/Future Monitoring Location



Bonita Beach Rd SE

Cavendish Ct



**Figure 10**  
**Water Quality Monitoring Locations**  
**White Willow**  
**Lee County, Florida**



0 250 US Feet

Scale: 1:3,000

RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

12/10/2025



**RESPEC**

Image: Esri

# Blaney-Criddle Irrigation Demands

---

Attachment A

---



## Calculations Of Irrigation Requirements

(1-in-10)

**Rainfall Station:** Naples 1-in-10  
**Irrigation System:** Sprinkler  
**Irrigated Acreage:** 7.24  
**Crop:** Turf Grass  
**Soil Type:** 0.80  
**Multiplier** 1.30  
**Efficiency** 0.77

Calculations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Average Rainfall (inches)	1.88	1.93	0.96	2.05	4.42	8.17	8.36	8.18	8.69	4.09	1.56	1.32	51.61
Evapotranspiration (inches)	1.93	2.21	3.76	5.09	6.66	7.44	7.88	7.51	6.47	5.00	3.22	2.26	59.43
Average Effective Rainfall (inches)	0.88	0.92	0.52	1.14	2.44	4.32	4.51	4.34	4.31	2.08	0.80	0.65	26.91
1-in-10 Effective Rainfall (inches)	0.73	0.76	0.43	0.94	2.03	3.58	3.75	3.60	3.58	1.73	0.66	0.54	22.33
Average Irrigation (inches)	1.05	1.29	3.24	3.95	4.22	3.12	3.37	3.17	2.16	2.92	2.42	1.61	32.52
1-in-10 Irrigation (inches)	1.20	1.45	3.33	4.15	4.63	3.86	4.13	3.91	2.89	3.27	2.56	1.72	37.10

1-in-10 Annual Supplemental Crop Requirement = 37.10 inches

Annual Supplemental Crop Water Use:

$$37.1 \text{ inches} \times 7.24 \text{ Acres} \times 1.3 \times 0.02715 \text{ MG/AC-IN} = 9.48 \text{ MG}$$

1-in-10 Maximum Monthly Supplemental Crop Requirement = 4.63 inches

Maximum Monthly Supplemental Crop Water Use:

$$4.63 \text{ inches} \times 7.24 \text{ Acres} \times 1.3 \times 0.02715 \text{ MG/AC-IN} = 1.18 \text{ MG}$$

### Notes:

Evapotranspiration was calculated using a modified Blaney-Criddle method. Average effective rainfall is the amount that is useful to crops in an average year.

Drought rainfall is the rainfall minimum representative of a 1-in-10 year drought

Drought effective rainfall is the amount that is useful to crops in a 1-in-10 year drought event.

Average irrigation is the net amount that should be required for maximum yields during an average year.

Drought irrigation is the net amount that should be required for maximum yields during a 1-in-10 year drought.

# Professional Geologist Certification

---

**Attachment B**

---





6561 PALMER PARK CIRCLE  
SUITE D  
SARASOTA, FL 34238  
941.552.5657

### **Professional Geologist Certification**

The groundwater flow modeling impact analysis included as part of this document titled "Characterization of Ground and Surface Water Resources" for the White Willow property in Lee County, Florida, was completed based on sound geologic principals and the hydrogeologic data available at the time this modeling analysis was performed. The parameters and discretization of simulated withdrawals from the aquifer system are considered to be reasonably accurate; therefore, the Professional Geologist below certifies the results of the model as they pertain to the predicted groundwater impacts. All the preceding geological analysis and interpretation(s) were evaluated and supervised by Devin Lemke, P.G., a Registered Professional Geologist pursuant to Chapter 492, Florida Statutes, (F.S.) and Chapter 61G16, Florida Administrative Code, F.A.C.



---

**Devin Lemke, P.G. No. 3270**  
**RESPEC Company, LLC**  
**Professional Geologist**

12/10/2025

---

**Date**



# WHITE WILLOW

## INTEGRATED MODEL ANALYSIS FOR SURFACE AND GROUNDWATER RESOURCES



### PREPARED BY

PETER A. BROWN, P.E.

RESPEC

6561 Palmer Park Circle, Suite D

Sarasota, FL 34238

### PREPARED FOR

PULTE HOME CORPORATION

24311 Walden Center Drive, Suite 300

Bonita Springs, FL 34134

DECEMBER 2025

Project Number W0084.25006

[RESPEC.COM](http://RESPEC.COM)





# TABLE OF CONTENTS

## Supporting Narrative

- 1.0 Background
- 2.0 Existing Conditions
- 3.0 Proposed Conditions
- 4.0 Results

## Figures

- 1. Location Map
- 2. Aerial Site Map
- 3. Existing FLUCCS Map
- 4. Existing NRCS Soils Map
- 5. Existing LIDAR DEM Topography
- 6. ECM Schematic and Mesh Network
- 7. Proposed FLUCCS Map
- 8. Proposed LIDAR DEM Topography
- 9. PCM Schematic and Mesh Network

## Appendix A

Green-Ampt Soil Parameters

## Appendix B

ECM Input/Output Reports

## Appendix C

PCM Input/Output Reports



# WHITE WILLOW

## 1.0 BACKGROUND

RESPEC Company, LLC was engaged by Pulte Home Corporation (Client) to prepare an integrated groundwater / surface water model to assess pre- and post- development groundwater recharge relating to the proposed White Willow project in Lee County, FL. The integrated model is a requirement of The Lee Plan Policy 33.1.7 which states that impacts of proposed land use disturbances within the Density Reduction-Groundwater Resource (DR/GR) area will be analyzed by means of an integrated surface and groundwater model that utilizes site-specific data to assess potential adverse impacts on water resources and natural systems. The Project Area is located along Bonita Beach Road and encompasses a total of 47 acres (AC) as shown on **Figures 1 and 2**. Please note that where appropriate, input data used in the integrated model is consistent with the stormwater design parameters utilized by the Engineer of Record (Barraco and Associates, Inc.).

## 2.0 EXISTING CONDITIONS

ICPR Version 4.07.08 software was used to compare existing and proposed conditions for the project to demonstrate that no adverse impacts on water resources are anticipated to occur. As described below, the Existing Conditions Model (ECM) utilizes soil and landuse parameters obtained from the Southern Lee County (SLC) ICPR regional model developed by Streamline Technologies.

### 2.1 EXISTING LANDUSE

RESPEC utilized the Florida Land Use Cover and Classification System to characterize the existing land use conditions for the site. As shown in **Figure 3**, the site consists primarily of Herbaceous (Dry Prairie) (3100), Reservoirs (5300), and Wetland Hardwood Forest (617). Impervious coverages associated with each land use type were obtained from the SLC regional model and are provided in **Table 1** below. Review of historic aerial imagery indicates that the onsite reservoir features were constructed prior to 1984.

**Table 1. ECM Impervious Coverage**

Land Cover Zone	% Impervious	%DCIA	%Direct
Residential, Low Density	38	20	0
Residential, High Density	72	55	0
Commercial and Services	85	70	0
Recreational	10	0	0
Herbaceous (Dry Prairie)	0	0	0
Reservoirs	0	0	0
Wetland Hardwood Forests	0	0	0
Wetland Coniferous Forests	0	0	0

### 2.2 EXISTING SOILS

Natural Resources Conservation Service (NRCS) soils are depicted on **Figure 4**. As shown, the predominant soils within the project area are *Pompano fine sand, frequently ponded, 0 to 1 percent slopes* and *Immokalee sand, 0 to 2 percent slopes*, both of which are described by the NRCS as being poorly drained soils with a high runoff potential. Corresponding Green-Ampt soil parameters were obtained from the SLC regional model and incorporated into RESPEC's ECM. The parameters are provided in **Appendix A**.

### 2.3 EXISTING TOPOGRAPHY AND DRAINAGE

Lee County's 2018 LIDAR Digital Elevation Model (DEM) was used for topographic characterization of the site. Land surface elevations within the Project Area generally range from approximately 11.5-ft to 14.5-ft NAVD88. In addition, bathymetry of the existing reservoirs indicates an average bottom elevation of approximately 3-ft NAVD88.

The site is within WBID No. 3258EE (Kehl Canal) which is part of the Estero Bay Planning Unit. WBID 3258EE is not identified as an impaired water body by the Florida Department of Environmental Protection (FDEP). The Kehl Canal is located approximately 1,400-ft north of the Project Area.

### 2.4 RAINFALL AND EVAPOTRANSPIRATION

Consistent with the SLC model, RESPEC's ECM performs a continuous simulation of rainfall for 2017. Daily rainfall is based on historic NEXRAD data (Pixel 55336) obtained from the SLC regional model and includes precipitation associated with Hurricane Irma which significantly impacted Lee County in early September of 2017. The ECM also utilizes reference evapotranspiration (ET) data previously included in the SLC model. The corresponding lookup table for ET Crop Coefficients for each landuse type is provided in **Table 2**.

**Table 2. ECM Evapotranspiration Crop Coefficients**

Land Cover Zone	Crop Coefficient	Root Depth (ft)
Residential, Low Density	1	1.5
Residential, High Density	1	1.5
Commercial and Services	1	1.5
Recreational	1	1.5
Herbaceous (Dry Prairie)	0.7	2
Reservoirs	1	1.5
Wetland Hardwood Forests	0.7	3
Wetland Coniferous Forests	0.7	3

### 2.5 BOUNDARY CONDITION

RESPEC relied on 2017 time-stage data for Kehl Canal Node NF00102017 taken from the SLC regional model prepared by Streamline Technologies.

### 2.6 ECM SCHEMATIC

2D Overland Flow and Groundwater Flow Regions serve as the basis for the ECM and are driven by triangulation, diamond, and honeycomb mesh networks that enable the accumulation and conveyance of stormwater runoff. A Mapped Basin Feature was included in the Overland Flow Region to integrate traditional hydrology within the Project Area with the 2D Groundwater Flow Region. In addition, Pond Control Volumes containing overland and groundwater breakpoint patterns were created for the onsite reservoirs to facilitate interaction of surface water and groundwater at these locations.

Overland Weirs were created that allow the site to discharge to the offsite boundary condition (Kehl Canal). Corresponding weir cross sections are based on the 2018 Lee County LIDAR DEM. A schematic map for the ECM is depicted on **Figure 6** and ICPR model input/output reports are provided in **Appendix B**.



### 3.0 PROPOSED CONDITIONS

The proposed improvements are depicted in the Preliminary Site Plan prepared by the EOR and include the development of 94 residential lots served by a series of local and connector roads. As shown, some filling of the existing reservoir perimeters will occur to accommodate the buildout of the lots. Stormwater runoff generated by the proposed development will be conveyed to the existing reservoir features which will provide full stormwater retention.

To evaluate the effects of the Preliminary Site Plan, RESPEC prepared a Proposed Conditions Model (PCM) that incorporates the improvements into the ECM. The results of the PCM were then compared against the baseline conditions simulated in the ECM to assess impacts on water resources, specifically relating to groundwater recharge. In preparing the PCM, no changes were made to the soil types, rainfall/ET distributions, or boundary conditions and the PCM was also utilized to simulate weather conditions for 2017.

#### 3.1 PROPOSED LANDUSE

The landuse layer utilized in the PCM was updated to reflect the proposed Site Plan including build-out of residential lots and streets and reconfiguration of existing reservoirs. The proposed landuse layer shown in **Figure 7** was imported into the PCM and utilized for roughness, impervious, and ET parameterization. Please note that an impervious coverage of 45% was utilized for the residential tracts as shown in **Table 3**. In addition, onsite roadways were assumed to be 100% directly connected impervious area (DCIA). The total impervious area associated with the Project equates to 18.3 AC.

**Table 3. PCM Impervious Coverage**

Land Cover Zone	% Impervious	%DCIA	%Direct
Residential, Low Density	38	20	0
Residential, High Density	72	55	0
Commercial and Services	85	70	0
Recreational	10	0	0
Herbaceous (Dry Prairie)	0	0	0
Reservoirs	0	0	0
Wetland Hardwood Forests	0	0	0
Wetland Coniferous Forests	0	0	0
Project Lake	0	0	0
Project Road	100	100	0
Project Tract	45	0	0

#### 3.2 PROPOSED TOPOGRAPHY

The 2018 Lee County LIDAR DEM was modified by RESPEC to include the proposed lake configuration and approximate onsite finished grade for terrain characterization. The proposed DEM is depicted in **Figure 8**.

#### 3.3 PROPOSED IRRIGATION

Irrigation requirements for the proposed lawn and landscape areas were determined by the South Florida Water Management District's Blaney Criddle calculator and are shown in **Table 4** below. Please note that daily irrigation depths (inch per day) were calculated by dividing the monthly supplemental irrigation requirements (see 1-in-10 Irrigation row) by the number of days in the corresponding month as demonstrated in **Table 5**.

**Table 4. Blaney Criddle Irrigation Requirements for Sprinklered Turf Grass**

Calculations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Average Rainfall (inches)	1.90	2.00	1.50	1.90	4.10	9.40	8.70	8.60	8.40	3.50	1.50	1.50	53.00
Evapotranspiration (inches)	1.86	2.14	3.70	5.11	6.83	7.60	8.05	7.72	6.48	4.92	3.07	2.15	59.63
Average Effective Rainfall (inches)	0.88	0.94	0.79	1.06	2.31	4.91	4.71	4.58	4.19	1.81	0.76	0.72	27.66
1-in-10 Effective Rainfall (inches)	0.74	0.79	0.66	0.89	1.94	4.12	3.96	3.85	3.52	1.52	0.64	0.61	23.24
Average Irrigation (inches)	0.98	1.20	2.91	4.05	4.52	2.69	3.34	3.14	2.29	3.11	2.31	1.43	31.97
1-in-10 Irrigation (inches)	1.12	1.35	3.04	4.22	4.89	3.48	4.09	3.87	2.96	3.40	2.43	1.54	36.39

**Table 5. Irrigation Rate Summary**

Month	Monthly Irrigation Inch Application Rate	Days	Daily Irrigation Inch Application Rate
January	1.12	31	0.036
February	1.35	28	0.048
March	3.04	31	0.098
April	4.22	30	0.141
May	4.89	31	0.158
June	3.48	30	0.116
July	4.09	31	0.132
August	3.87	31	0.125
September	2.96	30	0.099
October	3.4	31	0.110
November	2.43	30	0.081
December	1.54	31	0.050

Please note that because irrigation quantities will be withdrawn from the confined Sandstone aquifer, the irrigation source in ICPR was set to external as there is minimal interaction between the Water Table Aquifer and the Sandstone.

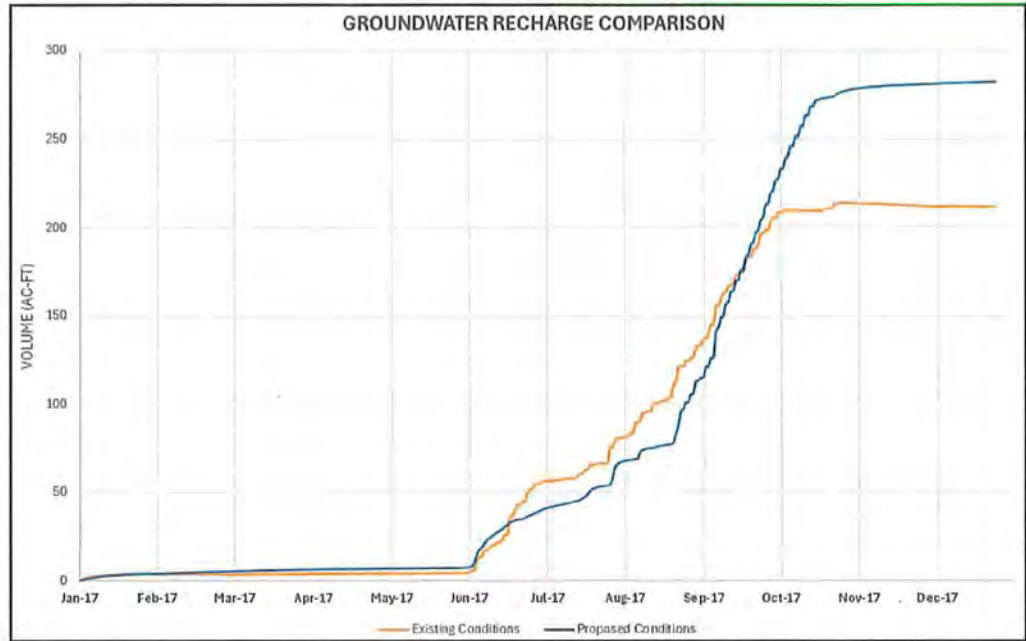
### 3.4 PROPOSED SCHEMATIC

As previously stated, drainage associated with the residential lots will be conveyed to the two (2) equalized reservoirs via a stormwater collection system. A Mapped Basin Feature was created for the Project Area and two (2) Pond Control Volumes associated with each reservoir were embedded in the Overland Flow Region. Break point patterns were generated internal to each Pond Control Volume to facilitate surface water and groundwater interactions within each of these features. As the reservoirs are intended to provide full retention, no outfall structure was included in the PCM. However, a pipe link was provided between the two ponds for equilibration of water levels. The PCM schematic is depicted on **Figure 9** and model input/output reports are provided in **Appendix C**.

## 4.0 RESULTS

Based on the results of the ICPR4 integrated analysis for a continuous simulation of 2017 weather conditions, the groundwater recharge volume simulated in the PCM is greater than existing conditions. This result indicates a beneficial increase in recharge to the underlying Water Table Aquifer. The ECM simulates approximately 211.4 ac-ft of groundwater recharge while the PCM simulates 281.9 ac-ft of recharge. The increase in volume equates to 70.5 ac-ft.

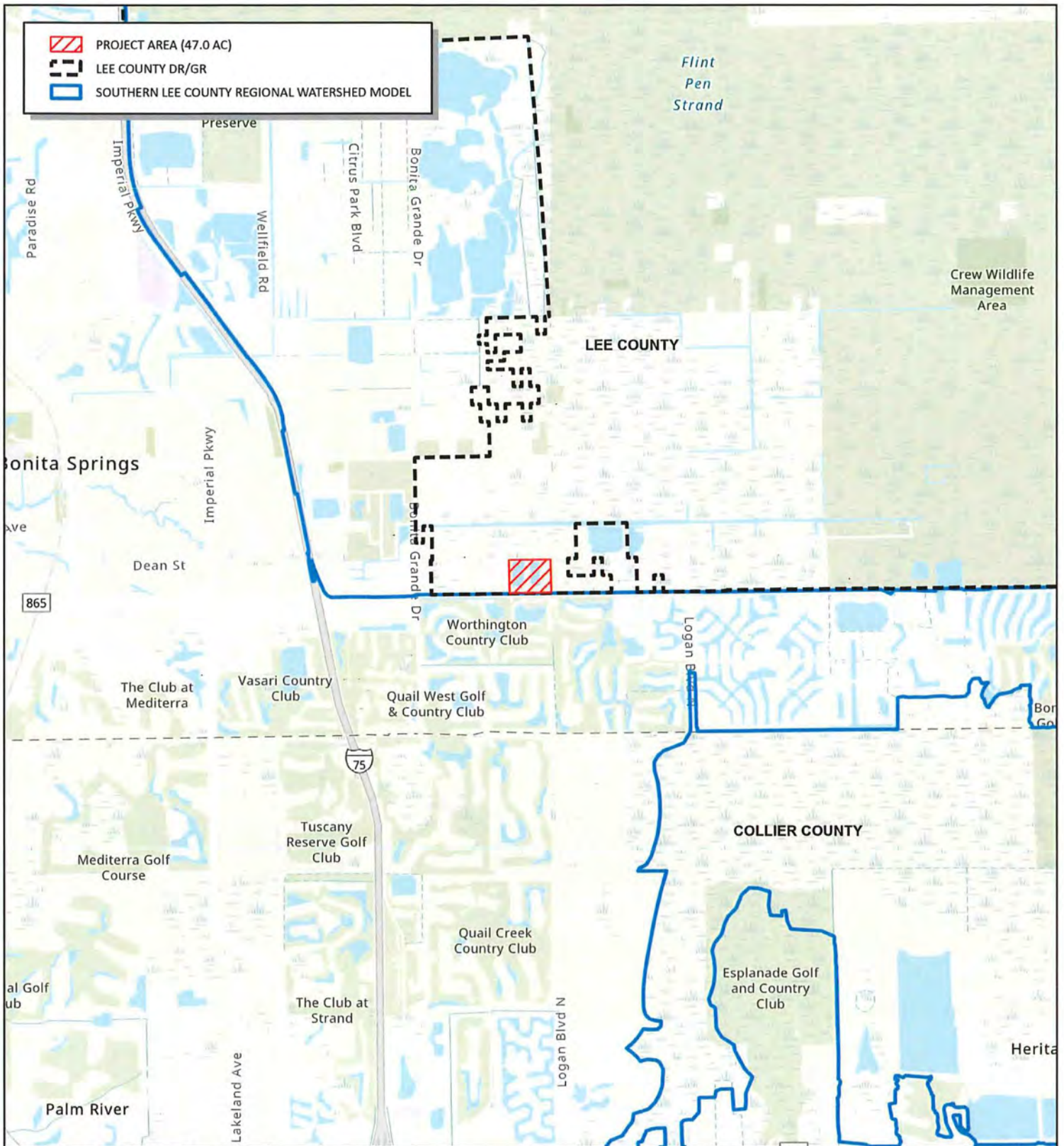
A comparison hydrograph is provided below. The results of this integrated analysis demonstrate that over time, the proposed project will enhance water resources by providing a net benefit in groundwater recharge.








# FIGURES





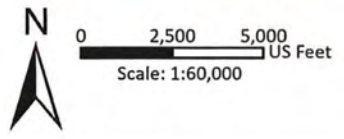
	PROJECT AREA (47.0 AC)
	LEE COUNTY DR/GR
	SOUTHERN LEE COUNTY REGIONAL WATERSHED MODEL




**FIGURE 1  
GENERAL LOCATION MAP  
LEE COUNTY, FL**

RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida	12/08/2025
Image: ESRI WORLD TOPOGRAPHIC MAP	

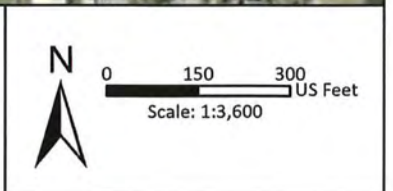
N  
0 2,500 5,000 US Feet  
Scale: 1:60,000







**FIGURE 2  
AERIAL SITE MAP  
LEE COUNTY, FL**

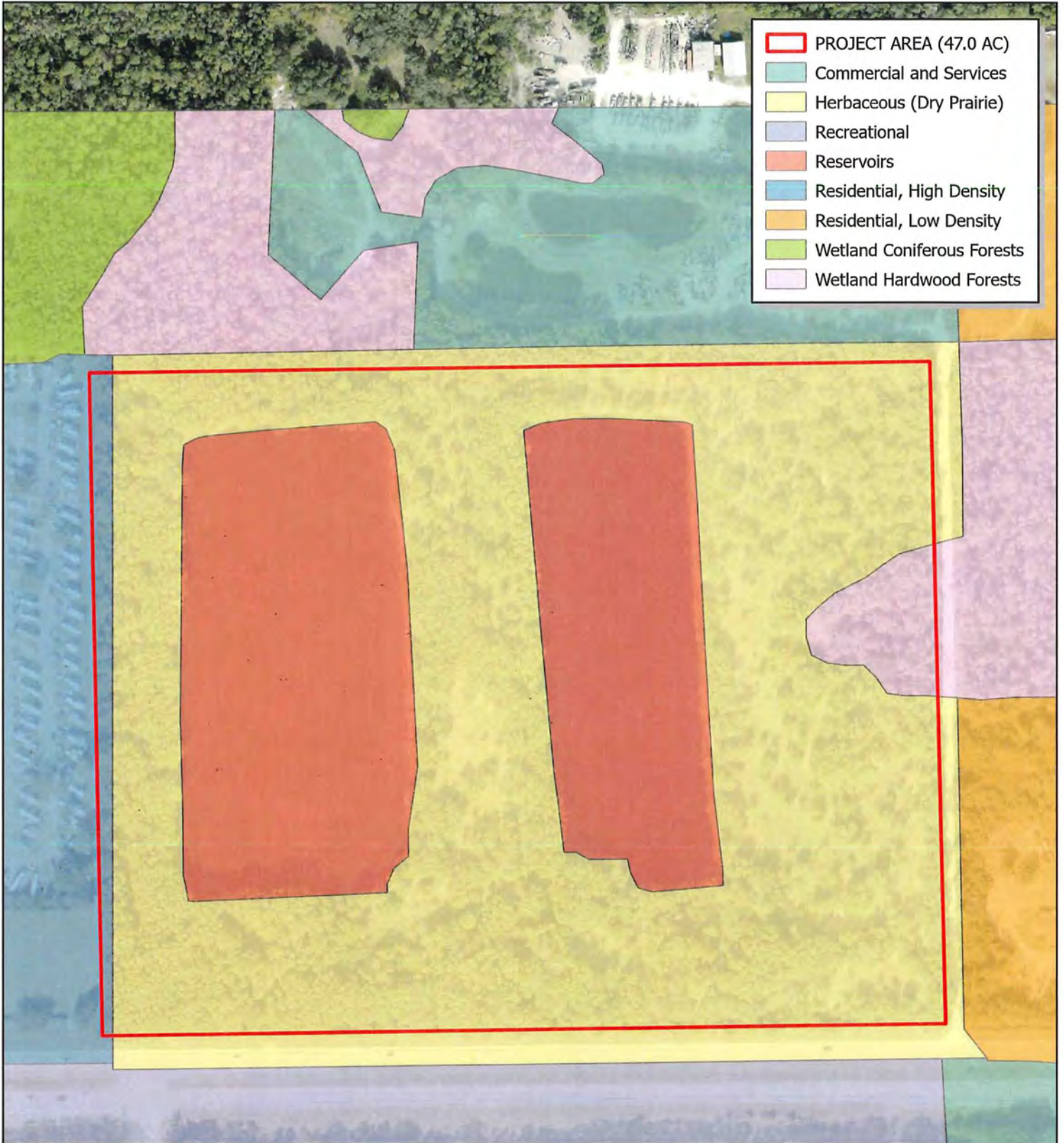


RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

Image: ESRI WORLD IMAGERY HYBRID

12/08/2025

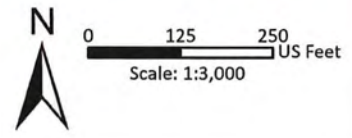




- PROJECT AREA (47.0 AC)
- Commercial and Services
- Herbaceous (Dry Prairie)
- Recreational
- Reservoirs
- Residential, High Density
- Residential, Low Density
- Wetland Coniferous Forests
- Wetland Hardwood Forests



**FIGURE 3  
EXISTING LANDUSE MAP  
LEE COUNTY, FL**

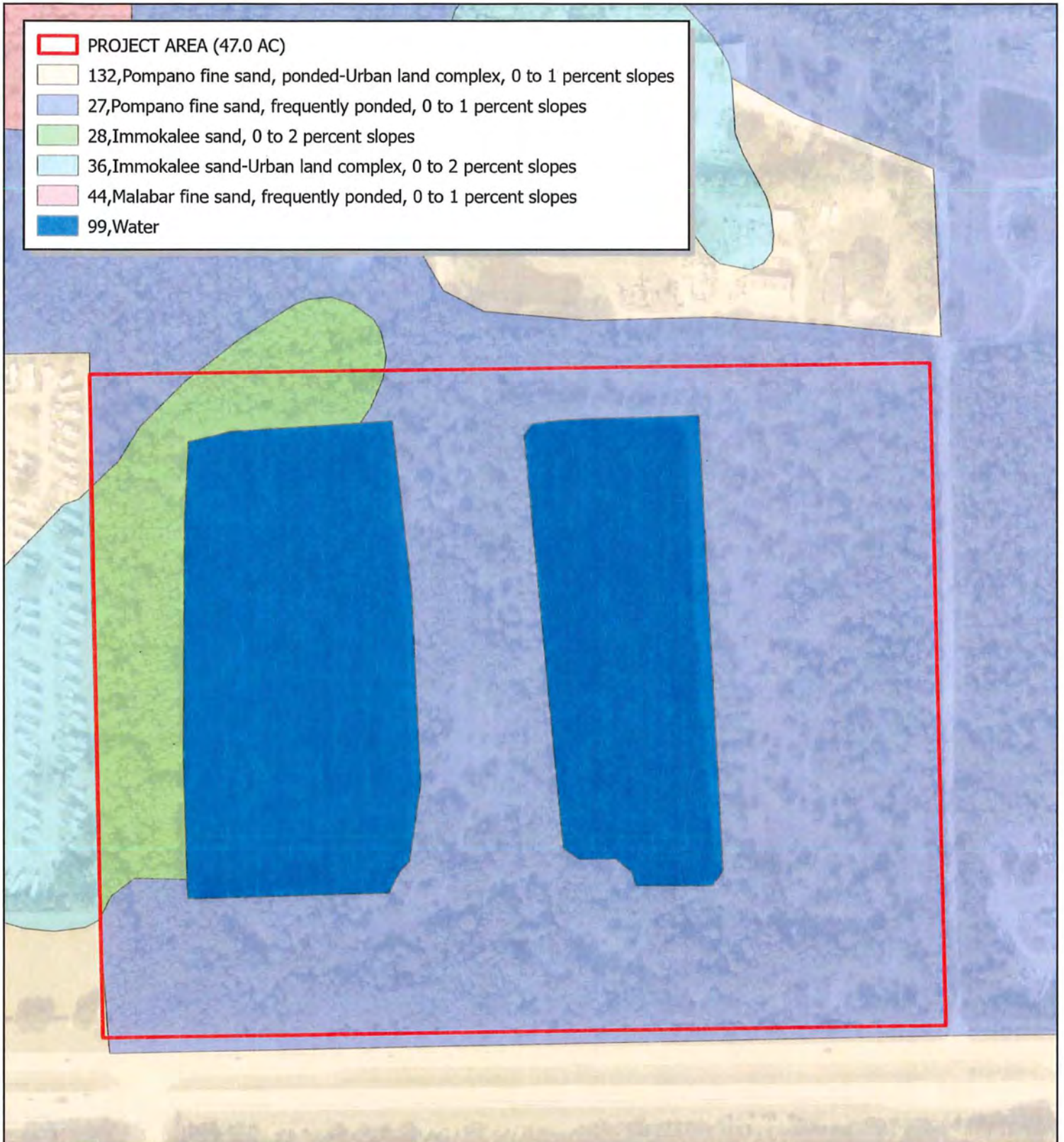


RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

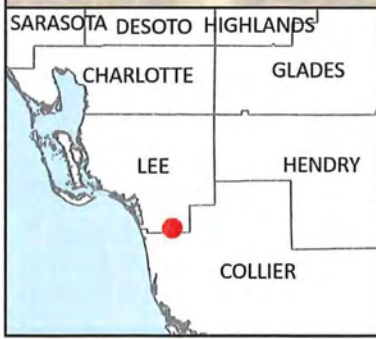
12/08/2025

Image: ESRI WORLD IMAGERY HYBRID





- PROJECT AREA (47.0 AC)
- 132, Pompano fine sand, ponded-Urban land complex, 0 to 1 percent slopes
- 27, Pompano fine sand, frequently ponded, 0 to 1 percent slopes
- 28, Immokalee sand, 0 to 2 percent slopes
- 36, Immokalee sand-Urban land complex, 0 to 2 percent slopes
- 44, Malabar fine sand, frequently ponded, 0 to 1 percent slopes
- 99, Water



**FIGURE 4  
NRCS SOILS MAP  
LEE COUNTY, FL**

N

0 125 250 US Feet

Scale: 1:3,000

RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

Image: ESRI WORLD IMAGERY

12/08/2025



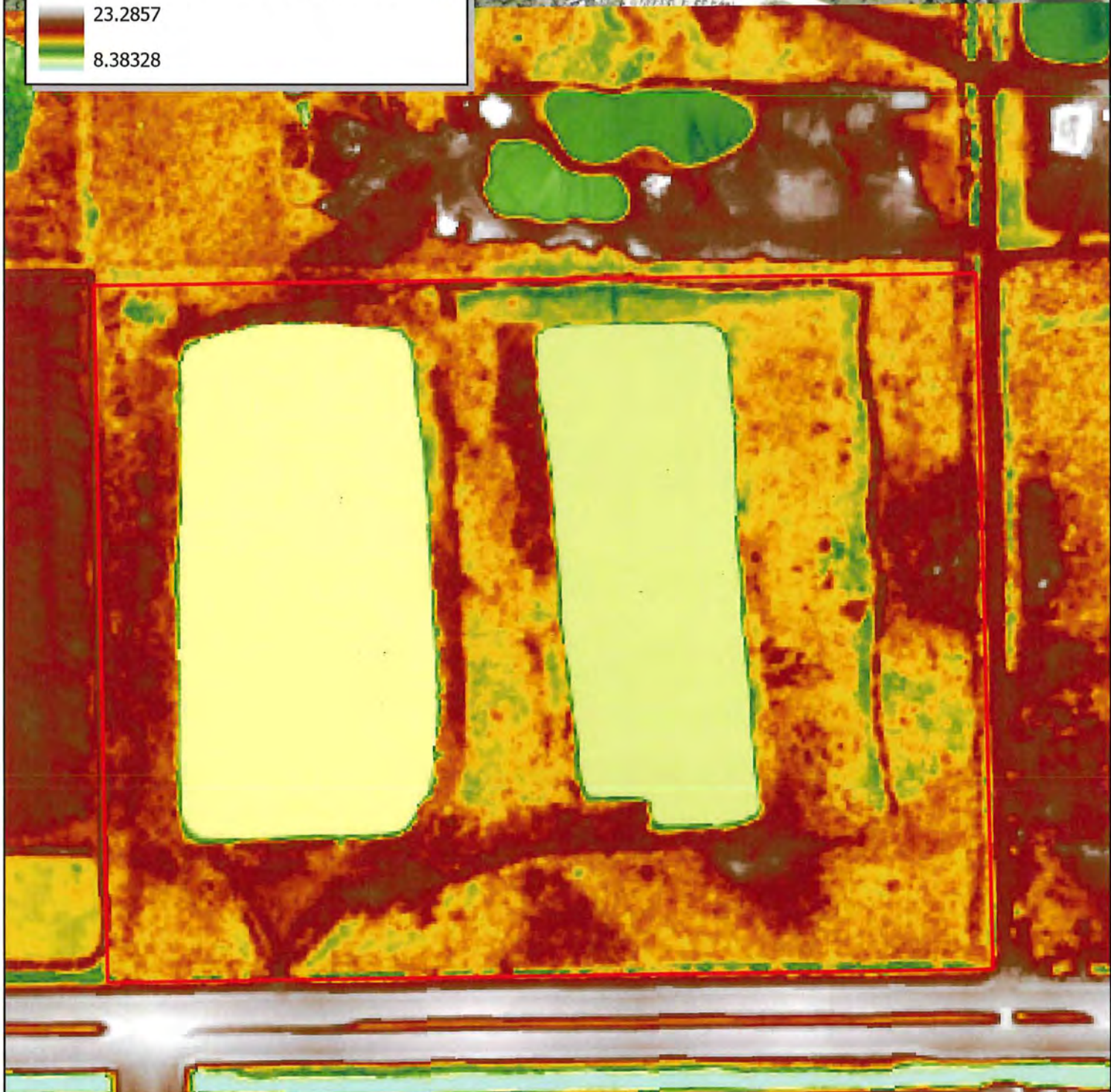


PROJECT AREA (47.0 AC)

### LEE COUNTY LIDAR DEM (NAVD88)

23.2857

8.38328



**FIGURE 5**  
**LEE COUNTY LIDAR DEM MAP**  
**LEE COUNTY, FL**



0 125 250 US Feet  
Scale: 1:3,000

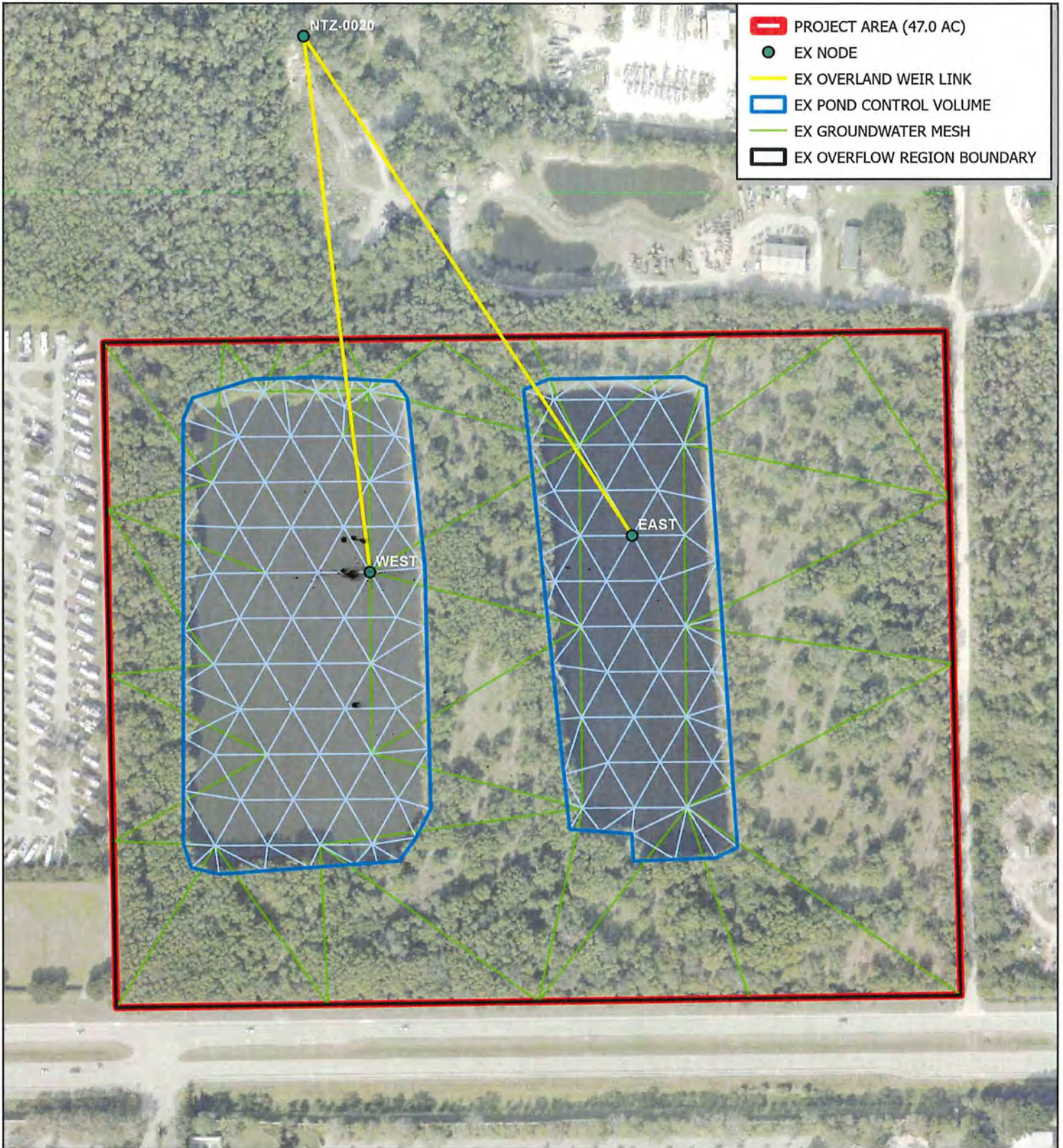
RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

12/08/2025

Image: ESRI WORLD IMAGERY



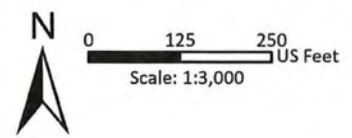
**RESPEC**



- ▭ PROJECT AREA (47.0 AC)
- EX NODE
- EX OVERLAND WEIR LINK
- ▭ EX POND CONTROL VOLUME
- EX GROUNDWATER MESH
- EX OVERFLOW REGION BOUNDARY



**FIGURE 6  
ECM SCHEMATIC  
LEE COUNTY, FL**

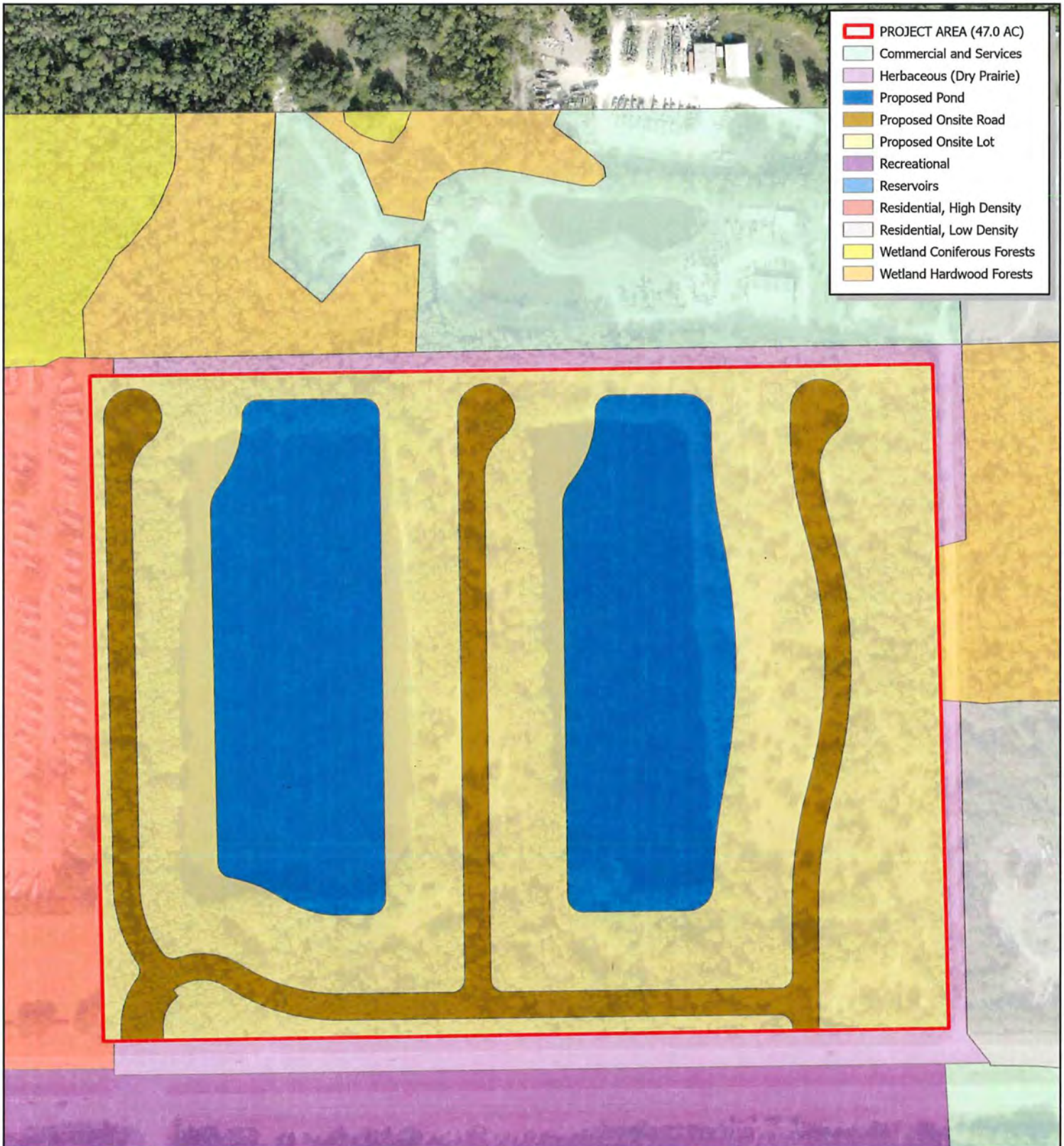


RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

12/08/2025



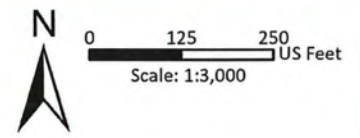
Image: ESRI WORLD IMAGERY



- PROJECT AREA (47.0 AC)
- Commercial and Services
- Herbaceous (Dry Prairie)
- Proposed Pond
- Proposed Onsite Road
- Proposed Onsite Lot
- Recreational
- Reservoirs
- Residential, High Density
- Residential, Low Density
- Wetland Coniferous Forests
- Wetland Hardwood Forests



**FIGURE 7  
PROPOSED LANDUSE MAP  
LEE COUNTY, FL**

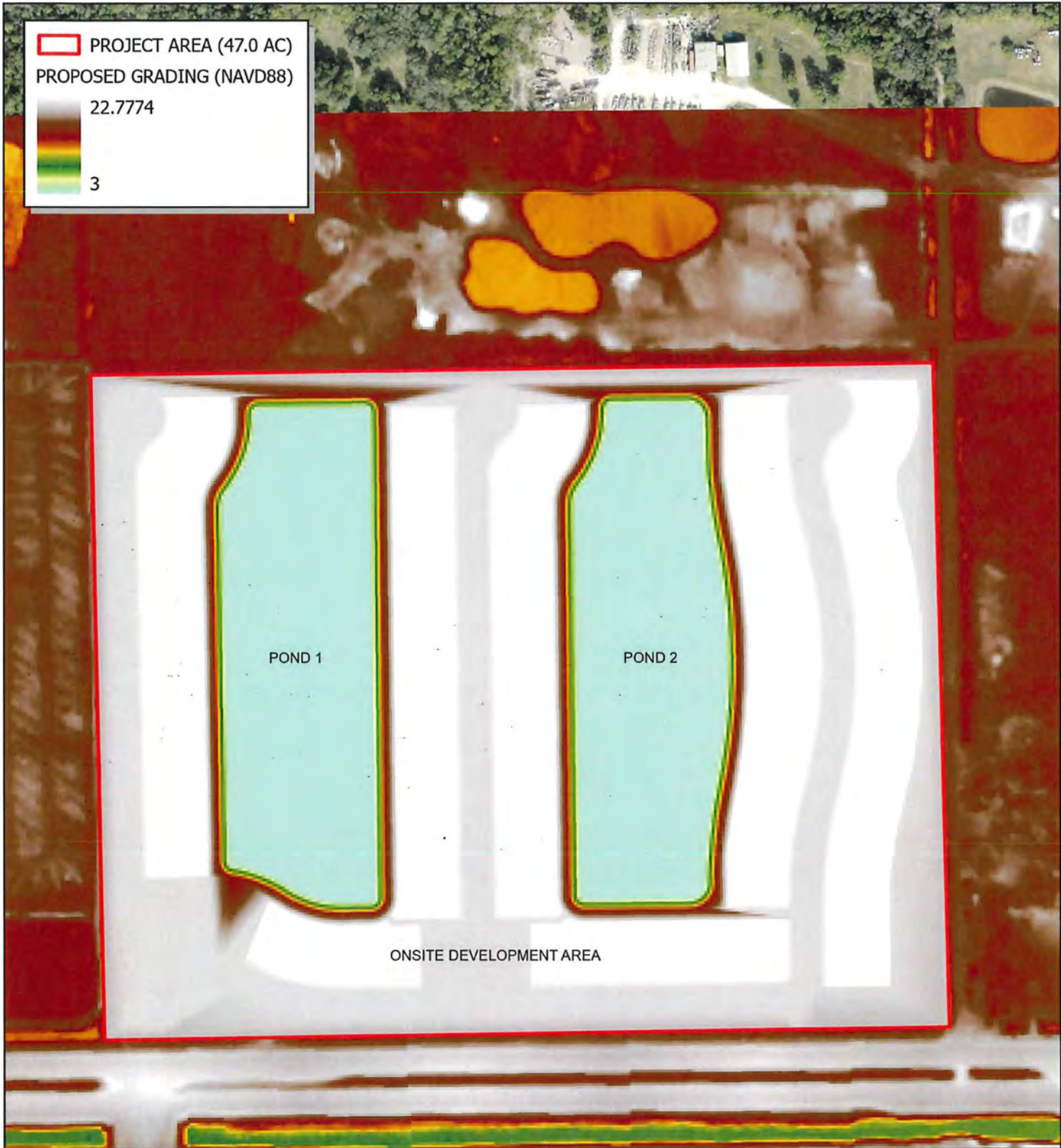


RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

12/08/2025



Image: ESRI WORLD IMAGERY HYBRID



PROJECT AREA (47.0 AC)  
 PROPOSED GRADING (NAVD88)  
 22.7774  
 3

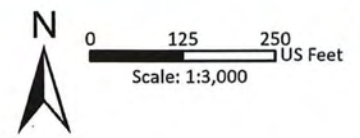
POND 1

POND 2

ONSITE DEVELOPMENT AREA



**FIGURE 8**  
**PROPOSED LIDAR DEM TOPOGRAPHY**  
**LEE COUNTY, FL**

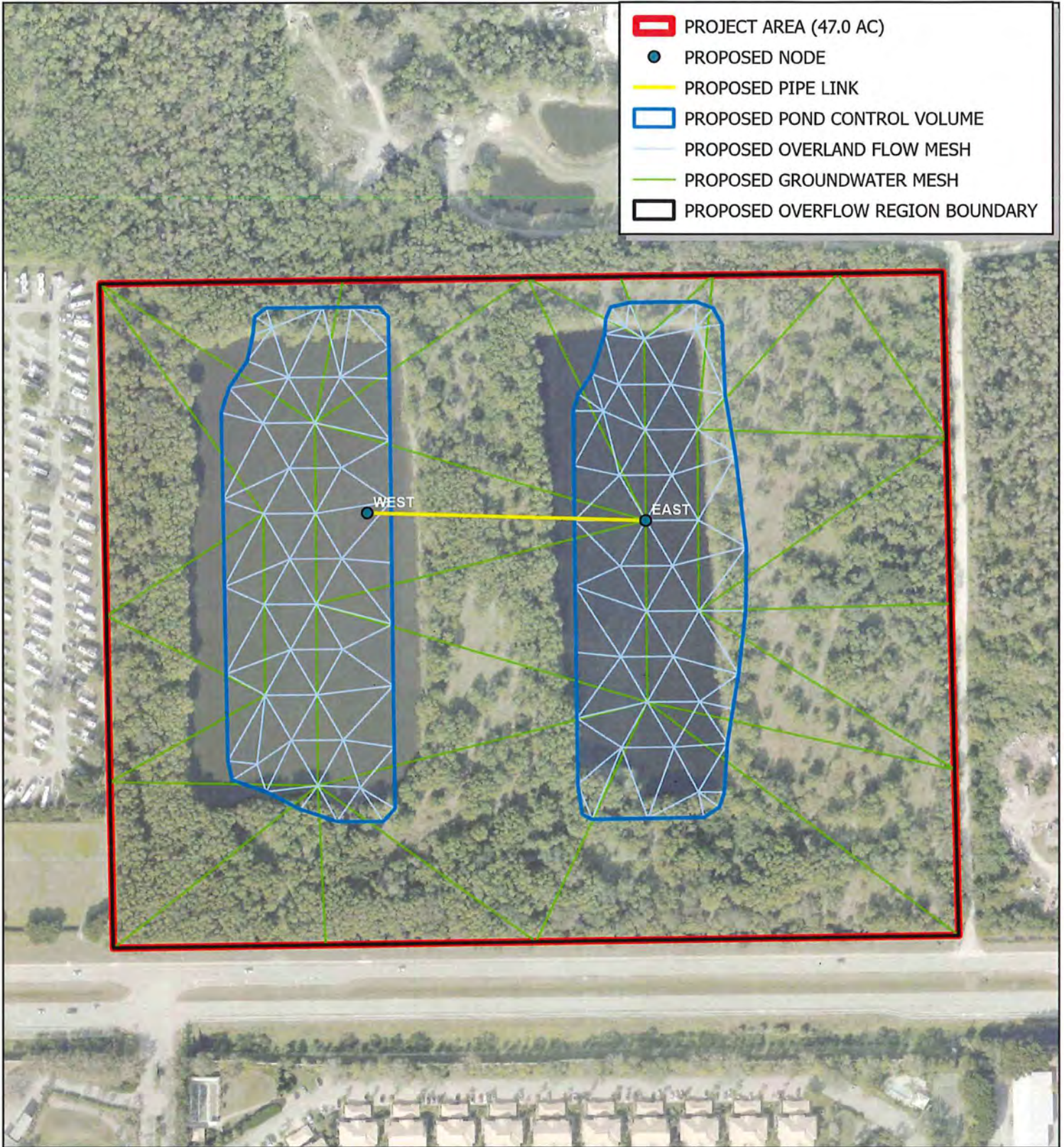


RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

12/08/2025



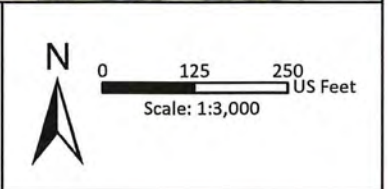
Image: ESRI WORLD IMAGERY



- PROJECT AREA (47.0 AC)
- PROPOSED NODE
- PROPOSED PIPE LINK
- PROPOSED POND CONTROL VOLUME
- PROPOSED OVERLAND FLOW MESH
- PROPOSED GROUNDWATER MESH
- PROPOSED OVERFLOW REGION BOUNDARY



**FIGURE 9  
PCM SCHEMATIC  
LEE COUNTY, FL**



RESPEC Company, LLC has provided the images or data presented in this map for informational purposes only. This data is not intended to be used in lieu of official survey data provided by a Professional Surveyor licensed by the State of Florida

Image: ESRI WORLD IMAGERY

12/08/2025



---

# APPENDIX A GREEN-AMPT SOIL PARAMETERS

---



Soil Zone	Name	Kv Saturated (fpd)	MC Saturated	MC Residual	MC Initial	MC Field	MC Wilting	Pore Size Index	Bubble Pressure (in)	Allow Recharge	WT Initial (ft)
1483424	Pompano fine sand, frequently ponded, 0 to 1 percent slopes	13.04	0.383	0.0086	0.14825	0.14825	0.0304	0.6029	1.7599	Groundwater Only	1.51
1483425	Immokalee sand, 0 to 2 percent slopes	10.2	0.366	0.0164	0.1587	0.1587	0.047	0.5938	1.9563	Groundwater Only	2
1483439	Malabar fine sand, frequently ponded, 0 to 1 percent slopes	11.096	0.3552	0.0271	0.18615	0.18615	0.0731	0.5295	2.5552	Groundwater Only	1.51
1483470	Water	11.131	0.4251	0.0304	0.21225	0.21225	0.080925	0.527	1.69	Groundwater Only	0.01
3102899	Pompano fine sand, ponded-Urban land complex, 0 to 1 percent slopes	13.04	0.383	0.0086	0.14825	0.14825	0.0304	0.6029	1.7599	Groundwater Only	1.51
3102952	Immokalee sand-Urban land complex, 0 to 2 percent slopes	10.2	0.366	0.0164	0.1587	0.1587	0.047	0.5938	1.9563	Groundwater Only	2

---

# APPENDIX B

## ECM INPUT/OUTPUT REPORTS

---



ECM Input Report

Node: EAST

Scenario: Scenario1  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 8.80 ft  
 Warning Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
3.00	5.5378	241225
3.50	5.6216	244875
4.00	5.7283	249525
4.50	5.8138	253250
5.00	5.9045	257200
5.50	6.0067	261650
6.00	6.0939	265450
6.50	6.1892	269600
7.00	6.2919	274075
7.50	6.3797	277900
8.00	6.4790	282225
8.50	6.5783	286550
9.00	6.6678	290450
9.50	6.7430	293725
10.00	6.7924	295879
10.50	6.8199	297075
11.00	6.8381	297867
11.50	6.8515	298450
12.00	6.8570	298689
12.50	6.8620	298911
13.00	6.8678	299161
13.50	6.8678	299161

Comment:

Node: NTZ-0020

Scenario: Scenario1  
 Type: Time/Stage  
 Base Flow: 0.00 cfs  
 Initial Stage: 8.80 ft  
 Warning Stage: 0.00 ft  
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
2017	1	1	0.0000	8.80
2017	1	1	6.0000	8.80
2017	1	1	12.0000	8.80
2017	1	1	18.0000	8.80
2017	1	2	0.0000	8.80
2017	1	2	6.0000	8.80
2017	1	2	12.0000	8.80
2017	1	2	18.0000	8.80
2017	1	3	0.0000	8.80
2017	1	3	6.0000	8.80
2017	1	3	12.0000	8.80
2017	1	3	18.0000	8.80
2017	1	4	0.0000	8.80

Year	Month	Day	Hour	Stage [ft]
2017	1	4	6.0000	8.80
2017	1	4	12.0000	8.80
2017	1	4	18.0000	8.80
2017	1	5	0.0000	8.80
2017	1	5	6.0000	8.80
2017	1	5	12.0000	8.80
2017	1	5	18.0000	8.80
2017	1	6	0.0000	8.80
2017	1	6	6.0000	8.80
2017	1	6	12.0000	8.80
2017	1	6	18.0000	8.80
2017	1	7	0.0000	8.80
2017	1	7	6.0000	8.80
2017	1	7	12.0000	8.80
2017	1	7	18.0000	8.80
2017	1	8	0.0000	8.80
2017	1	8	6.0000	8.80
2017	1	8	12.0000	8.80
2017	1	8	18.0000	8.80
2017	1	9	0.0000	8.80
2017	1	9	6.0000	8.80
2017	1	9	12.0000	8.80
2017	1	9	18.0000	8.80
2017	1	10	0.0000	8.80
2017	1	10	6.0000	8.80
2017	1	10	12.0000	8.80
2017	1	10	18.0000	8.80
2017	1	11	0.0000	8.80
2017	1	11	6.0000	8.80
2017	1	11	12.0000	8.80
2017	1	11	18.0000	8.80
2017	1	12	0.0000	8.80
2017	1	12	6.0000	8.80
2017	1	12	12.0000	8.80
2017	1	12	18.0000	8.80
2017	1	13	0.0000	8.80
2017	1	13	6.0000	8.80
2017	1	13	12.0000	8.80
2017	1	13	18.0000	8.80
2017	1	14	0.0000	8.80
2017	1	14	6.0000	8.80
2017	1	14	12.0000	8.79
2017	1	14	18.0000	8.79
2017	1	15	0.0000	8.79
2017	1	15	6.0000	8.79
2017	1	15	12.0000	8.79
2017	1	15	18.0000	8.79
2017	1	16	0.0000	8.79
2017	1	16	6.0000	8.79
2017	1	16	12.0000	8.79
2017	1	16	18.0000	8.79
2017	1	17	0.0000	8.79
2017	1	17	6.0000	8.79
2017	1	17	12.0000	8.79
2017	1	17	18.0000	8.79
2017	1	18	0.0000	8.79

Year	Month	Day	Hour	Stage [ft]
2017	1	18	6.0000	8.79
2017	1	18	12.0000	8.79
2017	1	18	18.0000	8.79
2017	1	19	0.0000	8.79
2017	1	19	6.0000	8.79
2017	1	19	12.0000	8.79
2017	1	19	18.0000	8.79
2017	1	20	0.0000	8.79
2017	1	20	6.0000	8.79
2017	1	20	12.0000	8.79
2017	1	20	18.0000	8.79
2017	1	21	0.0000	8.79
2017	1	21	6.0000	8.79
2017	1	21	12.0000	8.79
2017	1	21	18.0000	8.79
2017	1	22	0.0000	8.79
2017	1	22	6.0000	8.79
2017	1	22	12.0000	8.79
2017	1	22	18.0000	8.79
2017	1	23	0.0000	8.79
2017	1	23	6.0000	8.79
2017	1	23	12.0000	8.80
2017	1	23	18.0000	8.80
2017	1	24	0.0000	8.80
2017	1	24	6.0000	8.80
2017	1	24	12.0000	8.80
2017	1	24	18.0000	8.80
2017	1	25	0.0000	8.80
2017	1	25	6.0000	8.80
2017	1	25	12.0000	8.80
2017	1	25	18.0000	8.80
2017	1	26	0.0000	8.80
2017	1	26	6.0000	8.79
2017	1	26	12.0000	8.79
2017	1	26	18.0000	8.79
2017	1	27	0.0000	8.79
2017	1	27	6.0000	8.79
2017	1	27	12.0000	8.79
2017	1	27	18.0000	8.79
2017	1	28	0.0000	8.79
2017	1	28	6.0000	8.79
2017	1	28	12.0000	8.79
2017	1	28	18.0000	8.79
2017	1	29	0.0000	8.79
2017	1	29	6.0000	8.79
2017	1	29	12.0000	8.79
2017	1	29	18.0000	8.80
2017	1	30	0.0000	8.80
2017	1	30	6.0000	8.80
2017	1	30	12.0000	8.80
2017	1	30	18.0000	8.80
2017	1	31	0.0000	8.80
2017	1	31	6.0000	8.80
2017	1	31	12.0000	8.80
2017	1	31	18.0000	8.80
2017	2	1	0.0000	8.80

ECM Input Report

Year	Month	Day	Hour	Stage [ft]
2017	2	1	6.0000	8.80
2017	2	1	12.0000	8.80
2017	2	1	18.0000	8.80
2017	2	2	0.0000	8.80
2017	2	2	6.0000	8.80
2017	2	2	12.0000	8.80
2017	2	2	18.0000	8.79
2017	2	3	0.0000	8.79
2017	2	3	6.0000	8.79
2017	2	3	12.0000	8.79
2017	2	3	18.0000	8.79
2017	2	4	0.0000	8.79
2017	2	4	6.0000	8.79
2017	2	4	12.0000	8.79
2017	2	4	18.0000	8.79
2017	2	5	0.0000	8.79
2017	2	5	6.0000	8.79
2017	2	5	12.0000	8.79
2017	2	5	18.0000	8.79
2017	2	6	0.0000	8.79
2017	2	6	6.0000	8.79
2017	2	6	12.0000	8.79
2017	2	6	18.0000	8.79
2017	2	7	0.0000	8.79
2017	2	7	6.0000	8.79
2017	2	7	12.0000	8.79
2017	2	7	18.0000	8.79
2017	2	8	0.0000	8.79
2017	2	8	6.0000	8.79
2017	2	8	12.0000	8.79
2017	2	8	18.0000	8.79
2017	2	9	0.0000	8.79
2017	2	9	6.0000	8.79
2017	2	9	12.0000	8.79
2017	2	9	18.0000	8.79
2017	2	10	0.0000	8.79
2017	2	10	6.0000	8.79
2017	2	10	12.0000	8.79
2017	2	10	18.0000	8.79
2017	2	11	0.0000	8.79
2017	2	11	6.0000	8.79
2017	2	11	12.0000	8.79
2017	2	11	18.0000	8.79
2017	2	12	0.0000	8.79
2017	2	12	6.0000	8.79
2017	2	12	12.0000	8.79
2017	2	12	18.0000	8.79
2017	2	13	0.0000	8.79
2017	2	13	6.0000	8.79
2017	2	13	12.0000	8.79
2017	2	13	18.0000	8.79
2017	2	14	0.0000	8.79
2017	2	14	6.0000	8.79
2017	2	14	12.0000	8.79
2017	2	14	18.0000	8.79
2017	2	15	0.0000	8.79

Year	Month	Day	Hour	Stage [ft.]
2017	2	15	6.0000	8.79
2017	2	15	12.0000	8.79
2017	2	15	18.0000	8.79
2017	2	16	0.0000	8.79
2017	2	16	6.0000	8.79
2017	2	16	12.0000	8.79
2017	2	16	18.0000	8.79
2017	2	17	0.0000	8.79
2017	2	17	6.0000	8.79
2017	2	17	12.0000	8.79
2017	2	17	18.0000	8.79
2017	2	18	0.0000	8.79
2017	2	18	6.0000	8.79
2017	2	18	12.0000	8.79
2017	2	18	18.0000	8.79
2017	2	19	0.0000	8.79
2017	2	19	6.0000	8.79
2017	2	19	12.0000	8.79
2017	2	19	18.0000	8.79
2017	2	20	0.0000	8.79
2017	2	20	6.0000	8.79
2017	2	20	12.0000	8.79
2017	2	20	18.0000	8.79
2017	2	21	0.0000	8.79
2017	2	21	6.0000	8.79
2017	2	21	12.0000	8.79
2017	2	21	18.0000	8.79
2017	2	22	0.0000	8.79
2017	2	22	6.0000	8.79
2017	2	22	12.0000	8.79
2017	2	22	18.0000	8.79
2017	2	23	0.0000	8.79
2017	2	23	6.0000	8.79
2017	2	23	12.0000	8.79
2017	2	23	18.0000	8.79
2017	2	24	0.0000	8.79
2017	2	24	6.0000	8.79
2017	2	24	12.0000	8.79
2017	2	24	18.0000	8.79
2017	2	25	0.0000	8.79
2017	2	25	6.0000	8.79
2017	2	25	12.0000	8.79
2017	2	25	18.0000	8.79
2017	2	26	0.0000	8.79
2017	2	26	6.0000	8.79
2017	2	26	12.0000	8.79
2017	2	26	18.0000	8.79
2017	2	27	0.0000	8.79
2017	2	27	6.0000	8.79
2017	2	27	12.0000	8.79
2017	2	27	18.0000	8.79
2017	2	28	0.0000	8.79
2017	2	28	6.0000	8.79
2017	2	28	12.0000	8.79
2017	2	28	18.0000	8.79
2017	3	1	0.0000	8.79

Year	Month	Day	Hour	Stage [ft]
2017	3	1	6.0000	8.79
2017	3	1	12.0000	8.79
2017	3	1	18.0000	8.79
2017	3	2	0.0000	8.79
2017	3	2	6.0000	8.79
2017	3	2	12.0000	8.79
2017	3	2	18.0000	8.79
2017	3	3	0.0000	8.79
2017	3	3	6.0000	8.79
2017	3	3	12.0000	8.79
2017	3	3	18.0000	8.79
2017	3	4	0.0000	8.79
2017	3	4	6.0000	8.79
2017	3	4	12.0000	8.79
2017	3	4	18.0000	8.79
2017	3	5	0.0000	8.79
2017	3	5	6.0000	8.79
2017	3	5	12.0000	8.79
2017	3	5	18.0000	8.79
2017	3	6	0.0000	8.79
2017	3	6	6.0000	8.79
2017	3	6	12.0000	8.79
2017	3	6	18.0000	8.79
2017	3	7	0.0000	8.79
2017	3	7	6.0000	8.79
2017	3	7	12.0000	8.79
2017	3	7	18.0000	8.79
2017	3	8	0.0000	8.79
2017	3	8	6.0000	8.79
2017	3	8	12.0000	8.79
2017	3	8	18.0000	8.79
2017	3	9	0.0000	8.79
2017	3	9	6.0000	8.79
2017	3	9	12.0000	8.79
2017	3	9	18.0000	8.79
2017	3	10	0.0000	8.79
2017	3	10	6.0000	8.79
2017	3	10	12.0000	8.79
2017	3	10	18.0000	8.79
2017	3	11	0.0000	8.79
2017	3	11	6.0000	8.79
2017	3	11	12.0000	8.79
2017	3	11	18.0000	8.79
2017	3	12	0.0000	8.79
2017	3	12	6.0000	8.79
2017	3	12	12.0000	8.79
2017	3	12	18.0000	8.79
2017	3	13	0.0000	8.79
2017	3	13	6.0000	8.79
2017	3	13	12.0000	8.79
2017	3	13	18.0000	8.79
2017	3	14	0.0000	8.79
2017	3	14	6.0000	8.79
2017	3	14	12.0000	8.79
2017	3	14	18.0000	8.79
2017	3	15	0.0000	8.79

Year	Month	Day	Hour	Stage [ft]
2017	3	15	6.0000	8.79
2017	3	15	12.0000	8.79
2017	3	15	18.0000	8.79
2017	3	16	0.0000	8.79
2017	3	16	6.0000	8.79
2017	3	16	12.0000	8.79
2017	3	16	18.0000	8.79
2017	3	17	0.0000	8.79
2017	3	17	6.0000	8.79
2017	3	17	12.0000	8.79
2017	3	17	18.0000	8.79
2017	3	18	0.0000	8.79
2017	3	18	6.0000	8.79
2017	3	18	12.0000	8.79
2017	3	18	18.0000	8.79
2017	3	19	0.0000	8.79
2017	3	19	6.0000	8.79
2017	3	19	12.0000	8.79
2017	3	19	18.0000	8.79
2017	3	20	0.0000	8.79
2017	3	20	6.0000	8.79
2017	3	20	12.0000	8.79
2017	3	20	18.0000	8.79
2017	3	21	0.0000	8.79
2017	3	21	6.0000	8.79
2017	3	21	12.0000	8.79
2017	3	21	18.0000	8.79
2017	3	22	0.0000	8.79
2017	3	22	6.0000	8.79
2017	3	22	12.0000	8.79
2017	3	22	18.0000	8.79
2017	3	23	0.0000	8.79
2017	3	23	6.0000	8.79
2017	3	23	12.0000	8.79
2017	3	23	18.0000	8.79
2017	3	24	0.0000	8.79
2017	3	24	6.0000	8.79
2017	3	24	12.0000	8.79
2017	3	24	18.0000	8.79
2017	3	25	0.0000	8.79
2017	3	25	6.0000	8.79
2017	3	25	12.0000	8.79
2017	3	25	18.0000	8.79
2017	3	26	0.0000	8.79
2017	3	26	6.0000	8.79
2017	3	26	12.0000	8.79
2017	3	26	18.0000	8.79
2017	3	27	0.0000	8.79
2017	3	27	6.0000	8.79
2017	3	27	12.0000	8.79
2017	3	27	18.0000	8.79
2017	3	28	0.0000	8.79
2017	3	28	6.0000	8.79
2017	3	28	12.0000	8.79
2017	3	28	18.0000	8.79
2017	3	29	0.0000	8.79

Year	Month	Day	Hour	Stage [ft]
2017	3	29	6.0000	8.79
2017	3	29	12.0000	8.79
2017	3	29	18.0000	8.79
2017	3	30	0.0000	8.79
2017	3	30	6.0000	8.79
2017	3	30	12.0000	8.79
2017	3	30	18.0000	8.79
2017	3	31	0.0000	8.79
2017	3	31	6.0000	8.79
2017	3	31	12.0000	8.79
2017	3	31	18.0000	8.79
2017	4	1	0.0000	8.79
2017	4	1	6.0000	8.79
2017	4	1	12.0000	8.79
2017	4	1	18.0000	8.79
2017	4	2	0.0000	8.79
2017	4	2	6.0000	8.79
2017	4	2	12.0000	8.79
2017	4	2	18.0000	8.79
2017	4	3	0.0000	8.79
2017	4	3	6.0000	8.79
2017	4	3	12.0000	8.79
2017	4	3	18.0000	8.79
2017	4	4	0.0000	8.79
2017	4	4	6.0000	8.79
2017	4	4	12.0000	8.79
2017	4	4	18.0000	8.79
2017	4	5	0.0000	8.79
2017	4	5	6.0000	8.79
2017	4	5	12.0000	8.79
2017	4	5	18.0000	8.79
2017	4	6	0.0000	8.79
2017	4	6	6.0000	8.79
2017	4	6	12.0000	8.79
2017	4	6	18.0000	8.79
2017	4	7	0.0000	8.79
2017	4	7	6.0000	8.79
2017	4	7	12.0000	8.79
2017	4	7	18.0000	8.79
2017	4	8	0.0000	8.79
2017	4	8	6.0000	8.79
2017	4	8	12.0000	8.79
2017	4	8	18.0000	8.79
2017	4	9	0.0000	8.79
2017	4	9	6.0000	8.79
2017	4	9	12.0000	8.79
2017	4	9	18.0000	8.79
2017	4	10	0.0000	8.79
2017	4	10	6.0000	8.79
2017	4	10	12.0000	8.79
2017	4	10	18.0000	8.79
2017	4	11	0.0000	8.79
2017	4	11	6.0000	8.79
2017	4	11	12.0000	8.79
2017	4	11	18.0000	8.79
2017	4	12	0.0000	8.79

Year	Month	Day	Hour	Stage [ft]
2017	4	12	6.0000	8.79
2017	4	12	12.0000	8.79
2017	4	12	18.0000	8.79
2017	4	13	0.0000	8.79
2017	4	13	6.0000	8.79
2017	4	13	12.0000	8.79
2017	4	13	18.0000	8.79
2017	4	14	0.0000	8.79
2017	4	14	6.0000	8.79
2017	4	14	12.0000	8.79
2017	4	14	18.0000	8.79
2017	4	15	0.0000	8.79
2017	4	15	6.0000	8.79
2017	4	15	12.0000	8.79
2017	4	15	18.0000	8.79
2017	4	16	0.0000	8.79
2017	4	16	6.0000	8.79
2017	4	16	12.0000	8.79
2017	4	16	18.0000	8.79
2017	4	17	0.0000	8.79
2017	4	17	6.0000	8.79
2017	4	17	12.0000	8.79
2017	4	17	18.0000	8.79
2017	4	18	0.0000	8.79
2017	4	18	6.0000	8.79
2017	4	18	12.0000	8.79
2017	4	18	18.0000	8.79
2017	4	19	0.0000	8.79
2017	4	19	6.0000	8.79
2017	4	19	12.0000	8.79
2017	4	19	18.0000	8.79
2017	4	20	0.0000	8.79
2017	4	20	6.0000	8.79
2017	4	20	12.0000	8.79
2017	4	20	18.0000	8.79
2017	4	21	0.0000	8.79
2017	4	21	6.0000	8.79
2017	4	21	12.0000	8.79
2017	4	21	18.0000	8.79
2017	4	22	0.0000	8.79
2017	4	22	6.0000	8.79
2017	4	22	12.0000	8.79
2017	4	22	18.0000	8.79
2017	4	23	0.0000	8.79
2017	4	23	6.0000	8.79
2017	4	23	12.0000	8.79
2017	4	23	18.0000	8.79
2017	4	24	0.0000	8.79
2017	4	24	6.0000	8.79
2017	4	24	12.0000	8.79
2017	4	24	18.0000	8.79
2017	4	25	0.0000	8.79
2017	4	25	6.0000	8.79
2017	4	25	12.0000	8.79
2017	4	25	18.0000	8.79
2017	4	26	0.0000	8.79

Year	Month	Day	Hour	Stage [ft]
2017	4	26	6.0000	8.79
2017	4	26	12.0000	8.79
2017	4	26	18.0000	8.79
2017	4	27	0.0000	8.79
2017	4	27	6.0000	8.79
2017	4	27	12.0000	8.79
2017	4	27	18.0000	8.79
2017	4	28	0.0000	8.79
2017	4	28	6.0000	8.79
2017	4	28	12.0000	8.79
2017	4	28	18.0000	8.79
2017	4	29	0.0000	8.79
2017	4	29	6.0000	8.79
2017	4	29	12.0000	8.79
2017	4	29	18.0000	8.79
2017	4	30	0.0000	8.79
2017	4	30	6.0000	8.79
2017	4	30	12.0000	8.79
2017	4	30	18.0000	8.79
2017	5	1	0.0000	8.79
2017	5	1	6.0000	8.79
2017	5	1	12.0000	8.79
2017	5	1	18.0000	8.79
2017	5	2	0.0000	8.79
2017	5	2	6.0000	8.79
2017	5	2	12.0000	8.79
2017	5	2	18.0000	8.79
2017	5	3	0.0000	8.79
2017	5	3	6.0000	8.79
2017	5	3	12.0000	8.79
2017	5	3	18.0000	8.79
2017	5	4	0.0000	8.79
2017	5	4	6.0000	8.79
2017	5	4	12.0000	8.79
2017	5	4	18.0000	8.79
2017	5	5	0.0000	8.79
2017	5	5	6.0000	8.79
2017	5	5	12.0000	8.79
2017	5	5	18.0000	8.79
2017	5	6	0.0000	8.79
2017	5	6	6.0000	8.79
2017	5	6	12.0000	8.79
2017	5	6	18.0000	8.79
2017	5	7	0.0000	8.79
2017	5	7	6.0000	8.79
2017	5	7	12.0000	8.79
2017	5	7	18.0000	8.79
2017	5	8	0.0000	8.79
2017	5	8	6.0000	8.79
2017	5	8	12.0000	8.79
2017	5	8	18.0000	8.79
2017	5	9	0.0000	8.79
2017	5	9	6.0000	8.79
2017	5	9	12.0000	8.79
2017	5	9	18.0000	8.79
2017	5	10	0.0000	8.79

Year	Month	Day	Hour	Stage [ft]
2017	5	10	6.0000	8.79
2017	5	10	12.0000	8.79
2017	5	10	18.0000	8.79
2017	5	11	0.0000	8.79
2017	5	11	6.0000	8.79
2017	5	11	12.0000	8.79
2017	5	11	18.0000	8.79
2017	5	12	0.0000	8.79
2017	5	12	6.0000	8.79
2017	5	12	12.0000	8.79
2017	5	12	18.0000	8.79
2017	5	13	0.0000	8.79
2017	5	13	6.0000	8.79
2017	5	13	12.0000	8.79
2017	5	13	18.0000	8.79
2017	5	14	0.0000	8.79
2017	5	14	6.0000	8.79
2017	5	14	12.0000	8.79
2017	5	14	18.0000	8.79
2017	5	15	0.0000	8.79
2017	5	15	6.0000	8.79
2017	5	15	12.0000	8.79
2017	5	15	18.0000	8.79
2017	5	16	0.0000	8.79
2017	5	16	6.0000	8.79
2017	5	16	12.0000	8.79
2017	5	16	18.0000	8.79
2017	5	17	0.0000	8.79
2017	5	17	6.0000	8.79
2017	5	17	12.0000	8.79
2017	5	17	18.0000	8.79
2017	5	18	0.0000	8.79
2017	5	18	6.0000	8.79
2017	5	18	12.0000	8.79
2017	5	18	18.0000	8.79
2017	5	19	0.0000	8.79
2017	5	19	6.0000	8.79
2017	5	19	12.0000	8.79
2017	5	19	18.0000	8.79
2017	5	20	0.0000	8.79
2017	5	20	6.0000	8.79
2017	5	20	12.0000	8.79
2017	5	20	18.0000	8.79
2017	5	21	0.0000	8.79
2017	5	21	6.0000	8.79
2017	5	21	12.0000	8.79
2017	5	21	18.0000	8.79
2017	5	22	0.0000	8.79
2017	5	22	6.0000	8.79
2017	5	22	12.0000	8.79
2017	5	22	18.0000	8.79
2017	5	23	0.0000	8.79
2017	5	23	6.0000	8.79
2017	5	23	12.0000	8.79
2017	5	23	18.0000	8.79
2017	5	24	0.0000	8.79

Year	Month	Day	Hour	Stage [ft]
2017	5	24	6.0000	8.79
2017	5	24	12.0000	8.79
2017	5	24	18.0000	8.79
2017	5	25	0.0000	8.79
2017	5	25	6.0000	8.79
2017	5	25	12.0000	8.79
2017	5	25	18.0000	8.79
2017	5	26	0.0000	8.79
2017	5	26	6.0000	8.79
2017	5	26	12.0000	8.79
2017	5	26	18.0000	8.79
2017	5	27	0.0000	8.79
2017	5	27	6.0000	8.79
2017	5	27	12.0000	8.79
2017	5	27	18.0000	8.79
2017	5	28	0.0000	8.79
2017	5	28	6.0000	8.79
2017	5	28	12.0000	8.79
2017	5	28	18.0000	8.79
2017	5	29	0.0000	8.79
2017	5	29	6.0000	8.79
2017	5	29	12.0000	8.79
2017	5	29	18.0000	8.79
2017	5	30	0.0000	8.79
2017	5	30	6.0000	8.79
2017	5	30	12.0000	8.79
2017	5	30	18.0000	8.79
2017	5	31	0.0000	8.79
2017	5	31	6.0000	7.28
2017	5	31	12.0000	4.21
2017	5	31	18.0000	3.23
2017	6	1	0.0000	3.03
2017	6	1	6.0000	2.93
2017	6	1	12.0000	2.85
2017	6	1	18.0000	2.79
2017	6	2	0.0000	2.75
2017	6	2	6.0000	2.71
2017	6	2	12.0000	2.68
2017	6	2	18.0000	2.65
2017	6	3	0.0000	2.63
2017	6	3	6.0000	2.61
2017	6	3	12.0000	2.60
2017	6	3	18.0000	2.59
2017	6	4	0.0000	2.58
2017	6	4	6.0000	2.57
2017	6	4	12.0000	2.57
2017	6	4	18.0000	2.56
2017	6	5	0.0000	2.56
2017	6	5	6.0000	2.55
2017	6	5	12.0000	2.55
2017	6	5	18.0000	2.55
2017	6	6	0.0000	2.55
2017	6	6	6.0000	2.68
2017	6	6	12.0000	4.78
2017	6	6	18.0000	5.71
2017	6	7	0.0000	7.47

Year	Month	Day	Hour	Stage [ft]
2017	6	7	6.0000	7.94
2017	6	7	12.0000	7.74
2017	6	7	18.0000	8.92
2017	6	8	0.0000	9.22
2017	6	8	6.0000	8.94
2017	6	8	12.0000	8.63
2017	6	8	18.0000	8.43
2017	6	9	0.0000	8.22
2017	6	9	6.0000	8.04
2017	6	9	12.0000	7.93
2017	6	9	18.0000	7.84
2017	6	10	0.0000	7.74
2017	6	10	6.0000	7.68
2017	6	10	12.0000	9.97
2017	6	10	18.0000	10.25
2017	6	11	0.0000	10.25
2017	6	11	6.0000	10.24
2017	6	11	12.0000	10.23
2017	6	11	18.0000	10.24
2017	6	12	0.0000	10.24
2017	6	12	6.0000	10.24
2017	6	12	12.0000	10.24
2017	6	12	18.0000	10.25
2017	6	13	0.0000	10.25
2017	6	13	6.0000	10.25
2017	6	13	12.0000	10.26
2017	6	13	18.0000	10.35
2017	6	14	0.0000	10.36
2017	6	14	6.0000	10.37
2017	6	14	12.0000	10.71
2017	6	14	18.0000	10.92
2017	6	15	0.0000	11.02
2017	6	15	6.0000	11.09
2017	6	15	12.0000	11.16
2017	6	15	18.0000	11.42
2017	6	16	0.0000	11.54
2017	6	16	6.0000	11.64
2017	6	16	12.0000	11.74
2017	6	16	18.0000	11.83
2017	6	17	0.0000	11.92
2017	6	17	6.0000	12.01
2017	6	17	12.0000	12.14
2017	6	17	18.0000	12.54
2017	6	18	0.0000	12.63
2017	6	18	6.0000	12.67
2017	6	18	12.0000	12.69
2017	6	18	18.0000	12.76
2017	6	19	0.0000	12.78
2017	6	19	6.0000	12.79
2017	6	19	12.0000	12.96
2017	6	19	18.0000	13.21
2017	6	20	0.0000	13.26
2017	6	20	6.0000	13.27
2017	6	20	12.0000	13.26
2017	6	20	18.0000	13.25
2017	6	21	0.0000	13.23

Year	Month	Day	Hour	Stage [ft]
2017	6	21	6.0000	13.20
2017	6	21	12.0000	13.17
2017	6	21	18.0000	13.14
2017	6	22	0.0000	13.11
2017	6	22	6.0000	13.08
2017	6	22	12.0000	13.04
2017	6	22	18.0000	13.01
2017	6	23	0.0000	12.98
2017	6	23	6.0000	12.95
2017	6	23	12.0000	12.92
2017	6	23	18.0000	12.93
2017	6	24	0.0000	12.91
2017	6	24	6.0000	12.87
2017	6	24	12.0000	12.84
2017	6	24	18.0000	12.81
2017	6	25	0.0000	12.77
2017	6	25	6.0000	12.73
2017	6	25	12.0000	12.69
2017	6	25	18.0000	12.65
2017	6	26	0.0000	12.61
2017	6	26	6.0000	12.57
2017	6	26	12.0000	12.53
2017	6	26	18.0000	12.65
2017	6	27	0.0000	12.87
2017	6	27	6.0000	12.92
2017	6	27	12.0000	12.89
2017	6	27	18.0000	12.84
2017	6	28	0.0000	12.77
2017	6	28	6.0000	12.69
2017	6	28	12.0000	12.61
2017	6	28	18.0000	12.57
2017	6	29	0.0000	12.58
2017	6	29	6.0000	12.56
2017	6	29	12.0000	12.54
2017	6	29	18.0000	12.74
2017	6	30	0.0000	12.76
2017	6	30	6.0000	12.73
2017	6	30	12.0000	12.67
2017	6	30	18.0000	12.68
2017	7	1	0.0000	12.62
2017	7	1	6.0000	12.54
2017	7	1	12.0000	12.46
2017	7	1	18.0000	12.40
2017	7	2	0.0000	12.35
2017	7	2	6.0000	12.28
2017	7	2	12.0000	12.21
2017	7	2	18.0000	12.26
2017	7	3	0.0000	12.18
2017	7	3	6.0000	12.11
2017	7	3	12.0000	12.03
2017	7	3	18.0000	11.99
2017	7	4	0.0000	11.96
2017	7	4	6.0000	11.90
2017	7	4	12.0000	11.84
2017	7	4	18.0000	11.81
2017	7	5	0.0000	11.77

Year	Month	Day	Hour	Stage [ft]
2017	7	5	6.0000	11.72
2017	7	5	12.0000	11.67
2017	7	5	18.0000	11.65
2017	7	6	0.0000	11.62
2017	7	6	6.0000	11.57
2017	7	6	12.0000	11.52
2017	7	6	18.0000	11.54
2017	7	7	0.0000	11.48
2017	7	7	6.0000	11.43
2017	7	7	12.0000	11.37
2017	7	7	18.0000	11.33
2017	7	8	0.0000	11.28
2017	7	8	6.0000	11.23
2017	7	8	12.0000	11.18
2017	7	8	18.0000	11.19
2017	7	9	0.0000	11.16
2017	7	9	6.0000	11.13
2017	7	9	12.0000	11.10
2017	7	9	18.0000	11.09
2017	7	10	0.0000	11.05
2017	7	10	6.0000	11.02
2017	7	10	12.0000	10.99
2017	7	10	18.0000	10.96
2017	7	11	0.0000	10.93
2017	7	11	6.0000	10.90
2017	7	11	12.0000	10.86
2017	7	11	18.0000	10.99
2017	7	12	0.0000	10.98
2017	7	12	6.0000	10.96
2017	7	12	12.0000	10.94
2017	7	12	18.0000	10.97
2017	7	13	0.0000	10.99
2017	7	13	6.0000	10.97
2017	7	13	12.0000	10.95
2017	7	13	18.0000	10.93
2017	7	14	0.0000	10.90
2017	7	14	6.0000	10.87
2017	7	14	12.0000	10.85
2017	7	14	18.0000	11.03
2017	7	15	0.0000	11.02
2017	7	15	6.0000	10.98
2017	7	15	12.0000	10.94
2017	7	15	18.0000	10.90
2017	7	16	0.0000	10.86
2017	7	16	6.0000	10.82
2017	7	16	12.0000	10.78
2017	7	16	18.0000	10.74
2017	7	17	0.0000	10.71
2017	7	17	6.0000	10.67
2017	7	17	12.0000	10.71
2017	7	17	18.0000	10.90
2017	7	18	0.0000	10.90
2017	7	18	6.0000	10.88
2017	7	18	12.0000	10.91
2017	7	18	18.0000	11.32
2017	7	19	0.0000	11.37

Year	Month	Day	Hour	Stage [ft]
2017	7	19	6.0000	11.34
2017	7	19	12.0000	11.43
2017	7	19	18.0000	11.44
2017	7	20	0.0000	11.40
2017	7	20	6.0000	11.36
2017	7	20	12.0000	11.37
2017	7	20	18.0000	11.34
2017	7	21	0.0000	11.30
2017	7	21	6.0000	11.26
2017	7	21	12.0000	11.65
2017	7	21	18.0000	11.62
2017	7	22	0.0000	11.57
2017	7	22	6.0000	11.52
2017	7	22	12.0000	11.67
2017	7	22	18.0000	11.72
2017	7	23	0.0000	11.67
2017	7	23	6.0000	11.60
2017	7	23	12.0000	11.54
2017	7	23	18.0000	11.49
2017	7	24	0.0000	11.44
2017	7	24	6.0000	11.39
2017	7	24	12.0000	11.34
2017	7	24	18.0000	11.29
2017	7	25	0.0000	11.24
2017	7	25	6.0000	11.19
2017	7	25	12.0000	11.14
2017	7	25	18.0000	11.13
2017	7	26	0.0000	11.13
2017	7	26	6.0000	11.12
2017	7	26	12.0000	11.11
2017	7	26	18.0000	11.12
2017	7	27	0.0000	11.10
2017	7	27	6.0000	11.09
2017	7	27	12.0000	11.06
2017	7	27	18.0000	11.02
2017	7	28	0.0000	10.99
2017	7	28	6.0000	10.96
2017	7	28	12.0000	10.93
2017	7	28	18.0000	10.90
2017	7	29	0.0000	10.87
2017	7	29	6.0000	10.83
2017	7	29	12.0000	10.85
2017	7	29	18.0000	10.83
2017	7	30	0.0000	10.80
2017	7	30	6.0000	10.77
2017	7	30	12.0000	10.78
2017	7	30	18.0000	10.81
2017	7	31	0.0000	10.86
2017	7	31	6.0000	11.22
2017	7	31	12.0000	12.04
2017	7	31	18.0000	12.15
2017	8	1	0.0000	12.55
2017	8	1	6.0000	12.91
2017	8	1	12.0000	13.46
2017	8	1	18.0000	13.63
2017	8	2	0.0000	13.79

Year	Month	Day	Hour	Stage [ft]
2017	8	2	6.0000	13.78
2017	8	2	12.0000	13.75
2017	8	2	18.0000	13.71
2017	8	3	0.0000	13.67
2017	8	3	6.0000	13.61
2017	8	3	12.0000	13.54
2017	8	3	18.0000	13.54
2017	8	4	0.0000	13.51
2017	8	4	6.0000	13.47
2017	8	4	12.0000	13.42
2017	8	4	18.0000	13.36
2017	8	5	0.0000	13.29
2017	8	5	6.0000	13.26
2017	8	5	12.0000	13.20
2017	8	5	18.0000	13.21
2017	8	6	0.0000	13.21
2017	8	6	6.0000	13.18
2017	8	6	12.0000	13.13
2017	8	6	18.0000	13.18
2017	8	7	0.0000	13.14
2017	8	7	6.0000	13.07
2017	8	7	12.0000	13.00
2017	8	7	18.0000	12.94
2017	8	8	0.0000	12.88
2017	8	8	6.0000	12.81
2017	8	8	12.0000	12.74
2017	8	8	18.0000	12.71
2017	8	9	0.0000	12.64
2017	8	9	6.0000	12.55
2017	8	9	12.0000	12.46
2017	8	9	18.0000	12.37
2017	8	10	0.0000	12.29
2017	8	10	6.0000	12.21
2017	8	10	12.0000	12.14
2017	8	10	18.0000	12.07
2017	8	11	0.0000	12.27
2017	8	11	6.0000	13.29
2017	8	11	12.0000	13.51
2017	8	11	18.0000	13.50
2017	8	12	0.0000	13.45
2017	8	12	6.0000	13.40
2017	8	12	12.0000	13.33
2017	8	12	18.0000	13.25
2017	8	13	0.0000	13.16
2017	8	13	6.0000	13.07
2017	8	13	12.0000	12.97
2017	8	13	18.0000	12.87
2017	8	14	0.0000	12.77
2017	8	14	6.0000	12.67
2017	8	14	12.0000	12.58
2017	8	14	18.0000	12.53
2017	8	15	0.0000	12.47
2017	8	15	6.0000	12.40
2017	8	15	12.0000	12.33
2017	8	15	18.0000	12.25
2017	8	16	0.0000	12.19

Year	Month	Day	Hour	Stage [ft]
2017	8	16	6.0000	12.13
2017	8	16	12.0000	12.07
2017	8	16	18.0000	12.04
2017	8	17	0.0000	11.97
2017	8	17	6.0000	11.92
2017	8	17	12.0000	11.85
2017	8	17	18.0000	11.92
2017	8	18	0.0000	12.07
2017	8	18	6.0000	12.03
2017	8	18	12.0000	11.96
2017	8	18	18.0000	11.88
2017	8	19	0.0000	11.82
2017	8	19	6.0000	11.75
2017	8	19	12.0000	11.68
2017	8	19	18.0000	11.62
2017	8	20	0.0000	11.55
2017	8	20	6.0000	11.49
2017	8	20	12.0000	11.43
2017	8	20	18.0000	11.44
2017	8	21	0.0000	11.42
2017	8	21	6.0000	11.37
2017	8	21	12.0000	11.32
2017	8	21	18.0000	11.27
2017	8	22	0.0000	11.21
2017	8	22	6.0000	11.16
2017	8	22	12.0000	11.11
2017	8	22	18.0000	11.07
2017	8	23	0.0000	11.02
2017	8	23	6.0000	10.98
2017	8	23	12.0000	10.93
2017	8	23	18.0000	10.99
2017	8	24	0.0000	10.96
2017	8	24	6.0000	10.93
2017	8	24	12.0000	10.97
2017	8	24	18.0000	11.31
2017	8	25	0.0000	11.36
2017	8	25	6.0000	11.90
2017	8	25	12.0000	12.31
2017	8	25	18.0000	12.29
2017	8	26	0.0000	12.61
2017	8	26	6.0000	12.88
2017	8	26	12.0000	13.20
2017	8	26	18.0000	13.22
2017	8	27	0.0000	13.67
2017	8	27	6.0000	14.08
2017	8	27	12.0000	14.26
2017	8	27	18.0000	14.36
2017	8	28	0.0000	14.44
2017	8	28	6.0000	14.46
2017	8	28	12.0000	14.49
2017	8	28	18.0000	14.48
2017	8	29	0.0000	14.49
2017	8	29	6.0000	14.47
2017	8	29	12.0000	14.44
2017	8	29	18.0000	14.41
2017	8	30	0.0000	14.38

Year	Month	Day	Hour	Stage [ft]
2017	8	30	6.0000	14.34
2017	8	30	12.0000	14.29
2017	8	30	18.0000	14.25
2017	8	31	0.0000	14.20
2017	8	31	6.0000	14.15
2017	8	31	12.0000	14.09
2017	8	31	18.0000	14.02
2017	9	1	0.0000	13.95
2017	9	1	6.0000	13.88
2017	9	1	12.0000	13.80
2017	9	1	18.0000	13.91
2017	9	2	0.0000	13.90
2017	9	2	6.0000	13.99
2017	9	2	12.0000	14.00
2017	9	2	18.0000	13.97
2017	9	3	0.0000	13.94
2017	9	3	6.0000	13.89
2017	9	3	12.0000	13.84
2017	9	3	18.0000	13.79
2017	9	4	0.0000	13.71
2017	9	4	6.0000	13.63
2017	9	4	12.0000	13.54
2017	9	4	18.0000	13.44
2017	9	5	0.0000	13.34
2017	9	5	6.0000	13.23
2017	9	5	12.0000	13.12
2017	9	5	18.0000	13.06
2017	9	6	0.0000	13.05
2017	9	6	6.0000	13.00
2017	9	6	12.0000	12.94
2017	9	6	18.0000	12.87
2017	9	7	0.0000	12.81
2017	9	7	6.0000	12.74
2017	9	7	12.0000	12.67
2017	9	7	18.0000	12.68
2017	9	8	0.0000	12.77
2017	9	8	6.0000	12.73
2017	9	8	12.0000	12.67
2017	9	8	18.0000	12.60
2017	9	9	0.0000	12.53
2017	9	9	6.0000	12.46
2017	9	9	12.0000	12.39
2017	9	9	18.0000	12.49
2017	9	10	0.0000	13.13
2017	9	10	6.0000	13.38
2017	9	10	12.0000	13.89
2017	9	10	18.0000	14.65
2017	9	11	0.0000	14.82
2017	9	11	6.0000	14.90
2017	9	11	12.0000	14.96
2017	9	11	18.0000	14.98
2017	9	12	0.0000	15.00
2017	9	12	6.0000	15.00
2017	9	12	12.0000	15.00
2017	9	12	18.0000	14.99
2017	9	13	0.0000	14.98

Year	Month	Day	Hour	Stage [ft]
2017	9	13	6.0000	14.97
2017	9	13	12.0000	14.97
2017	9	13	18.0000	14.98
2017	9	14	0.0000	14.98
2017	9	14	6.0000	14.98
2017	9	14	12.0000	14.98
2017	9	14	18.0000	15.00
2017	9	15	0.0000	15.16
2017	9	15	6.0000	15.16
2017	9	15	12.0000	15.16
2017	9	15	18.0000	15.15
2017	9	16	0.0000	15.14
2017	9	16	6.0000	15.13
2017	9	16	12.0000	15.12
2017	9	16	18.0000	15.11
2017	9	17	0.0000	15.10
2017	9	17	6.0000	15.09
2017	9	17	12.0000	15.08
2017	9	17	18.0000	15.06
2017	9	18	0.0000	15.05
2017	9	18	6.0000	15.04
2017	9	18	12.0000	15.02
2017	9	18	18.0000	15.01
2017	9	19	0.0000	14.99
2017	9	19	6.0000	14.98
2017	9	19	12.0000	14.96
2017	9	19	18.0000	14.94
2017	9	20	0.0000	14.93
2017	9	20	6.0000	14.90
2017	9	20	12.0000	14.88
2017	9	20	18.0000	14.86
2017	9	21	0.0000	14.84
2017	9	21	6.0000	14.82
2017	9	21	12.0000	14.79
2017	9	21	18.0000	14.77
2017	9	22	0.0000	14.75
2017	9	22	6.0000	14.73
2017	9	22	12.0000	14.70
2017	9	22	18.0000	14.86
2017	9	23	0.0000	14.84
2017	9	23	6.0000	14.82
2017	9	23	12.0000	14.79
2017	9	23	18.0000	14.78
2017	9	24	0.0000	14.77
2017	9	24	6.0000	14.74
2017	9	24	12.0000	14.71
2017	9	24	18.0000	14.68
2017	9	25	0.0000	14.64
2017	9	25	6.0000	14.60
2017	9	25	12.0000	14.56
2017	9	25	18.0000	14.52
2017	9	26	0.0000	14.48
2017	9	26	6.0000	14.43
2017	9	26	12.0000	14.38
2017	9	26	18.0000	14.33
2017	9	27	0.0000	14.28

Year	Month	Day	Hour	Stage [ft]
2017	9	27	6.0000	14.22
2017	9	27	12.0000	14.16
2017	9	27	18.0000	14.10
2017	9	28	0.0000	14.02
2017	9	28	6.0000	13.94
2017	9	28	12.0000	13.86
2017	9	28	18.0000	13.76
2017	9	29	0.0000	13.81
2017	9	29	6.0000	13.75
2017	9	29	12.0000	13.71
2017	9	29	18.0000	13.88
2017	9	30	0.0000	14.03
2017	9	30	6.0000	14.03
2017	9	30	12.0000	14.01
2017	9	30	18.0000	13.99
2017	10	1	0.0000	13.95
2017	10	1	6.0000	13.90
2017	10	1	12.0000	13.84
2017	10	1	18.0000	13.76
2017	10	2	0.0000	13.67
2017	10	2	6.0000	13.57
2017	10	2	12.0000	13.47
2017	10	2	18.0000	13.43
2017	10	3	0.0000	13.34
2017	10	3	6.0000	13.24
2017	10	3	12.0000	13.15
2017	10	3	18.0000	13.10
2017	10	4	0.0000	13.02
2017	10	4	6.0000	12.94
2017	10	4	12.0000	12.85
2017	10	4	18.0000	12.78
2017	10	5	0.0000	12.70
2017	10	5	6.0000	12.63
2017	10	5	12.0000	12.55
2017	10	5	18.0000	12.49
2017	10	6	0.0000	12.43
2017	10	6	6.0000	12.37
2017	10	6	12.0000	12.30
2017	10	6	18.0000	12.23
2017	10	7	0.0000	12.17
2017	10	7	6.0000	12.10
2017	10	7	12.0000	12.04
2017	10	7	18.0000	11.98
2017	10	8	0.0000	11.92
2017	10	8	6.0000	11.87
2017	10	8	12.0000	11.81
2017	10	8	18.0000	11.75
2017	10	9	0.0000	11.70
2017	10	9	6.0000	11.65
2017	10	9	12.0000	11.59
2017	10	9	18.0000	11.53
2017	10	10	0.0000	11.48
2017	10	10	6.0000	11.43
2017	10	10	12.0000	11.38
2017	10	10	18.0000	11.33
2017	10	11	0.0000	11.28

Year	Month	Day	Hour	Stage [ft]
2017	10	11	6.0000	11.24
2017	10	11	12.0000	11.19
2017	10	11	18.0000	11.14
2017	10	12	0.0000	11.10
2017	10	12	6.0000	11.05
2017	10	12	12.0000	11.01
2017	10	12	18.0000	10.97
2017	10	13	0.0000	10.93
2017	10	13	6.0000	10.89
2017	10	13	12.0000	10.85
2017	10	13	18.0000	10.81
2017	10	14	0.0000	10.77
2017	10	14	6.0000	10.75
2017	10	14	12.0000	10.75
2017	10	14	18.0000	10.76
2017	10	15	0.0000	10.77
2017	10	15	6.0000	10.74
2017	10	15	12.0000	10.71
2017	10	15	18.0000	10.69
2017	10	16	0.0000	10.66
2017	10	16	6.0000	10.62
2017	10	16	12.0000	10.59
2017	10	16	18.0000	10.56
2017	10	17	0.0000	10.69
2017	10	17	6.0000	10.73
2017	10	17	12.0000	10.72
2017	10	17	18.0000	10.70
2017	10	18	0.0000	10.67
2017	10	18	6.0000	10.65
2017	10	18	12.0000	10.62
2017	10	18	18.0000	10.59
2017	10	19	0.0000	10.56
2017	10	19	6.0000	10.52
2017	10	19	12.0000	10.48
2017	10	19	18.0000	10.44
2017	10	20	0.0000	10.39
2017	10	20	6.0000	10.34
2017	10	20	12.0000	10.29
2017	10	20	18.0000	10.24
2017	10	21	0.0000	10.19
2017	10	21	6.0000	10.15
2017	10	21	12.0000	10.11
2017	10	21	18.0000	10.13
2017	10	22	0.0000	10.12
2017	10	22	6.0000	10.10
2017	10	22	12.0000	10.07
2017	10	22	18.0000	10.05
2017	10	23	0.0000	10.02
2017	10	23	6.0000	10.00
2017	10	23	12.0000	9.97
2017	10	23	18.0000	9.96
2017	10	24	0.0000	9.94
2017	10	24	6.0000	9.98
2017	10	24	12.0000	10.28
2017	10	24	18.0000	10.34
2017	10	25	0.0000	10.56

Year	Month	Day	Hour	Stage [ft]
2017	10	25	6.0000	10.59
2017	10	25	12.0000	10.59
2017	10	25	18.0000	10.59
2017	10	26	0.0000	10.57
2017	10	26	6.0000	10.54
2017	10	26	12.0000	10.51
2017	10	26	18.0000	10.48
2017	10	27	0.0000	10.43
2017	10	27	6.0000	10.38
2017	10	27	12.0000	10.32
2017	10	27	18.0000	10.26
2017	10	28	0.0000	10.22
2017	10	28	6.0000	10.18
2017	10	28	12.0000	10.22
2017	10	28	18.0000	10.73
2017	10	29	0.0000	11.02
2017	10	29	6.0000	11.07
2017	10	29	12.0000	11.06
2017	10	29	18.0000	11.04
2017	10	30	0.0000	11.02
2017	10	30	6.0000	10.99
2017	10	30	12.0000	10.96
2017	10	30	18.0000	10.93
2017	10	31	0.0000	10.90
2017	10	31	6.0000	10.86
2017	10	31	12.0000	10.83
2017	10	31	18.0000	10.80
2017	11	1	0.0000	10.76
2017	11	1	6.0000	10.72
2017	11	1	12.0000	10.68
2017	11	1	18.0000	10.64
2017	11	2	0.0000	10.60
2017	11	2	6.0000	10.56
2017	11	2	12.0000	10.51
2017	11	2	18.0000	10.47
2017	11	3	0.0000	10.42
2017	11	3	6.0000	10.37
2017	11	3	12.0000	10.32
2017	11	3	18.0000	10.28
2017	11	4	0.0000	10.25
2017	11	4	6.0000	10.22
2017	11	4	12.0000	10.19
2017	11	4	18.0000	10.17
2017	11	5	0.0000	10.14
2017	11	5	6.0000	10.12
2017	11	5	12.0000	10.10
2017	11	5	18.0000	10.08
2017	11	6	0.0000	10.06
2017	11	6	6.0000	10.04
2017	11	6	12.0000	10.02
2017	11	6	18.0000	10.01
2017	11	7	0.0000	9.99
2017	11	7	6.0000	9.97
2017	11	7	12.0000	9.95
2017	11	7	18.0000	9.94
2017	11	8	0.0000	9.92

Year	Month	Day	Hour	Stage [ft]
2017	11	8	6.0000	9.90
2017	11	8	12.0000	9.89
2017	11	8	18.0000	9.87
2017	11	9	0.0000	9.86
2017	11	9	6.0000	9.84
2017	11	9	12.0000	9.83
2017	11	9	18.0000	9.81
2017	11	10	0.0000	9.80
2017	11	10	6.0000	9.78
2017	11	10	12.0000	9.77
2017	11	10	18.0000	9.75
2017	11	11	0.0000	9.74
2017	11	11	6.0000	9.73
2017	11	11	12.0000	9.71
2017	11	11	18.0000	9.70
2017	11	12	0.0000	9.69
2017	11	12	6.0000	9.67
2017	11	12	12.0000	9.66
2017	11	12	18.0000	9.65
2017	11	13	0.0000	9.66
2017	11	13	6.0000	9.65
2017	11	13	12.0000	9.64
2017	11	13	18.0000	9.63
2017	11	14	0.0000	9.61
2017	11	14	6.0000	9.60
2017	11	14	12.0000	9.59
2017	11	14	18.0000	9.58
2017	11	15	0.0000	9.57
2017	11	15	6.0000	9.56
2017	11	15	12.0000	9.56
2017	11	15	18.0000	9.55
2017	11	16	0.0000	9.54
2017	11	16	6.0000	9.53
2017	11	16	12.0000	9.52
2017	11	16	18.0000	9.51
2017	11	17	0.0000	9.50
2017	11	17	6.0000	9.49
2017	11	17	12.0000	9.48
2017	11	17	18.0000	9.48
2017	11	18	0.0000	9.47
2017	11	18	6.0000	9.46
2017	11	18	12.0000	9.45
2017	11	18	18.0000	9.44
2017	11	19	0.0000	9.43
2017	11	19	6.0000	9.42
2017	11	19	12.0000	9.42
2017	11	19	18.0000	9.41
2017	11	20	0.0000	9.40
2017	11	20	6.0000	9.39
2017	11	20	12.0000	9.38
2017	11	20	18.0000	9.38
2017	11	21	0.0000	9.37
2017	11	21	6.0000	9.36
2017	11	21	12.0000	9.35
2017	11	21	18.0000	9.34
2017	11	22	0.0000	9.34

Year	Month	Day	Hour	Stage [ft]
2017	11	22	6.0000	9.33
2017	11	22	12.0000	9.32
2017	11	22	18.0000	9.32
2017	11	23	0.0000	9.31
2017	11	23	6.0000	9.31
2017	11	23	12.0000	9.30
2017	11	23	18.0000	9.30
2017	11	24	0.0000	9.30
2017	11	24	6.0000	9.30
2017	11	24	12.0000	9.29
2017	11	24	18.0000	9.29
2017	11	25	0.0000	9.28
2017	11	25	6.0000	9.27
2017	11	25	12.0000	9.27
2017	11	25	18.0000	9.26
2017	11	26	0.0000	9.25
2017	11	26	6.0000	9.25
2017	11	26	12.0000	9.24
2017	11	26	18.0000	9.24
2017	11	27	0.0000	9.23
2017	11	27	6.0000	9.23
2017	11	27	12.0000	9.22
2017	11	27	18.0000	9.22
2017	11	28	0.0000	9.21
2017	11	28	6.0000	9.21
2017	11	28	12.0000	9.20
2017	11	28	18.0000	9.19
2017	11	29	0.0000	9.19
2017	11	29	6.0000	9.18
2017	11	29	12.0000	9.18
2017	11	29	18.0000	9.17
2017	11	30	0.0000	9.17
2017	11	30	6.0000	9.16
2017	11	30	12.0000	9.16
2017	11	30	18.0000	9.15
2017	12	1	0.0000	9.15
2017	12	1	6.0000	9.14
2017	12	1	12.0000	9.14
2017	12	1	18.0000	9.13
2017	12	2	0.0000	9.13
2017	12	2	6.0000	9.12
2017	12	2	12.0000	9.12
2017	12	2	18.0000	9.12
2017	12	3	0.0000	9.11
2017	12	3	6.0000	9.11
2017	12	3	12.0000	9.10
2017	12	3	18.0000	9.10
2017	12	4	0.0000	9.10
2017	12	4	6.0000	9.09
2017	12	4	12.0000	9.09
2017	12	4	18.0000	9.09
2017	12	5	0.0000	9.09
2017	12	5	6.0000	9.08
2017	12	5	12.0000	9.08
2017	12	5	18.0000	9.08
2017	12	6	0.0000	9.07

Year	Month	Day	Hour	Stage [ft]
2017	12	6	6.0000	9.07
2017	12	6	12.0000	9.07
2017	12	6	18.0000	9.07
2017	12	7	0.0000	9.06
2017	12	7	6.0000	9.06
2017	12	7	12.0000	9.06
2017	12	7	18.0000	9.06
2017	12	8	0.0000	9.05
2017	12	8	6.0000	9.05
2017	12	8	12.0000	9.05
2017	12	8	18.0000	9.05
2017	12	9	0.0000	9.04
2017	12	9	6.0000	9.05
2017	12	9	12.0000	9.16
2017	12	9	18.0000	9.17
2017	12	10	0.0000	9.17
2017	12	10	6.0000	9.17
2017	12	10	12.0000	9.16
2017	12	10	18.0000	9.15
2017	12	11	0.0000	9.15
2017	12	11	6.0000	9.15
2017	12	11	12.0000	9.14
2017	12	11	18.0000	9.14
2017	12	12	0.0000	9.13
2017	12	12	6.0000	9.13
2017	12	12	12.0000	9.13
2017	12	12	18.0000	9.12
2017	12	13	0.0000	9.12
2017	12	13	6.0000	9.11
2017	12	13	12.0000	9.11
2017	12	13	18.0000	9.11
2017	12	14	0.0000	9.10
2017	12	14	6.0000	9.10
2017	12	14	12.0000	9.10
2017	12	14	18.0000	9.09
2017	12	15	0.0000	9.09
2017	12	15	6.0000	9.09
2017	12	15	12.0000	9.08
2017	12	15	18.0000	9.08
2017	12	16	0.0000	9.08
2017	12	16	6.0000	9.08
2017	12	16	12.0000	9.07
2017	12	16	18.0000	9.07
2017	12	17	0.0000	9.07
2017	12	17	6.0000	9.06
2017	12	17	12.0000	9.06
2017	12	17	18.0000	9.06
2017	12	18	0.0000	9.06
2017	12	18	6.0000	9.05
2017	12	18	12.0000	9.05
2017	12	18	18.0000	9.05
2017	12	19	0.0000	9.05
2017	12	19	6.0000	9.05
2017	12	19	12.0000	9.04
2017	12	19	18.0000	9.04
2017	12	20	0.0000	9.04

Year	Month	Day	Hour	Stage [ft]
2017	12	20	6.0000	9.04
2017	12	20	12.0000	9.03
2017	12	20	18.0000	9.03
2017	12	21	0.0000	9.03
2017	12	21	6.0000	9.03
2017	12	21	12.0000	9.03
2017	12	21	18.0000	9.02
2017	12	22	0.0000	9.02
2017	12	22	6.0000	9.02
2017	12	22	12.0000	9.02
2017	12	22	18.0000	9.02
2017	12	23	0.0000	9.01
2017	12	23	6.0000	9.01
2017	12	23	12.0000	9.01
2017	12	23	18.0000	9.01
2017	12	24	0.0000	9.01
2017	12	24	6.0000	9.00
2017	12	24	12.0000	9.00
2017	12	24	18.0000	9.00
2017	12	25	0.0000	9.00
2017	12	25	6.0000	9.00
2017	12	25	12.0000	8.99
2017	12	25	18.0000	8.99
2017	12	26	0.0000	8.99
2017	12	26	6.0000	8.99
2017	12	26	12.0000	8.99
2017	12	26	18.0000	8.98
2017	12	27	0.0000	8.98
2017	12	27	6.0000	8.98
2017	12	27	12.0000	8.98
2017	12	27	18.0000	8.98
2017	12	28	0.0000	8.97
2017	12	28	6.0000	8.97
2017	12	28	12.0000	8.97
2017	12	28	18.0000	8.97
2017	12	29	0.0000	8.97
2017	12	29	6.0000	8.96
2017	12	29	12.0000	8.96
2017	12	29	18.0000	8.96
2017	12	30	0.0000	8.96
2017	12	30	6.0000	8.96
2017	12	30	12.0000	8.96
2017	12	30	18.0000	8.96
2017	12	31	0.0000	8.95

Comment:

Node: WEST

Scenario: Scenario1  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 8.80 ft  
 Warning Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
3.00	8.2467	359225
3.50	8.3351	363075
4.00	8.4487	368025
4.50	8.5463	372275
5.00	8.6358	376175
5.50	8.7534	381300
6.00	8.8481	385425
6.50	8.9400	389425
7.00	9.0605	394675
7.50	9.1552	398800
8.00	9.2522	403025
8.50	9.3721	408250
9.00	9.4674	412400
9.50	9.5512	416050
10.00	9.6103	418625
10.50	9.6218	419125
11.00	9.6430	420050
11.50	9.6499	420350
12.00	9.6579	420700
12.50	9.6648	421000
13.00	9.6722	421322
13.50	9.6790	421619
14.00	9.6790	421619

Comment:

Weir Link: L-0010W	
Scenario: Scenario1	Bottom Clip
From Node: WEST	Default: 0.00 ft
To Node: NTZ-0020	Op Table:
Link Count: 1	Ref Node:
Flow Direction: Both	Top Clip
Damping: 0.0000 ft	Default: 0.00 ft
Weir Type: Broad Crested Vertical	Op Table:
Geometry Type: Irregular	Ref Node:
Invert: 12.65 ft	Discharge Coefficients
Control Elevation: 12.65 ft	Weir Default: 2.800
Cross Section: X-0010W	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Comment:

Weir Link: L-0020W	
Scenario: Scenario1	Bottom Clip
From Node: EAST	Default: 0.00 ft
To Node: NTZ-0020	Op Table:
Link Count: 1	Ref Node:
Flow Direction: Both	Top Clip
Damping: 0.0000 ft	Default: 0.00 ft
Weir Type: Broad Crested Vertical	Op Table:
Geometry Type: Irregular	Ref Node:

Invert: 12.65 ft  
 Control Elevation: 12.65 ft  
 Cross Section: X-0010W

Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Simulation: 2017 SAOR

Scenario: Scenario1  
 Run Date/Time: 12/9/2025 4:37:52 PM  
 Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	2017	1	1	0.0000
End Time:	2017	12	31	0.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	900.0000	0.1000	86400.0000
Max Calculation Time:		300.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1440.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1440.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1440.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: NEXRAD  
 Reference ET Folder: ET  
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 2017  
 Extern Hydrograph Set:  
 Curve Number Set:  
 Green-Ampt Set: GREEN-AMPT  
 Vertical Layers Set:  
 Impervious Set: IMPERVIOUS  
 Roughness Set: ROUGHNESS  
 Crop Coef Set: EXISTING ET

Fillable Porosity Set: POROSITY  
Conductivity Set: CONDUCTIVITY  
Leakage Set: LEAKAGE

**Tolerances & Options**

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	4	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec	Smp/Man Basin Rain Opt:	Basin Specification
dZ Tolerance:	0.0050 ft	OF Region Rain Opt:	Region Specification
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0005 ft		
Edge Length Option:	Automatic		
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

ECM Recharge Report

Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017:1:1:0.0000	0.0000	0
2017:1:2:0.0000	24.0000	30859
2017:1:3:0.0000	48.0000	55081
2017:1:4:0.0000	72.0000	73884
2017:1:5:0.0000	96.0000	88872
2017:1:6:0.0000	120.0000	101070
2017:1:7:0.0000	144.0000	111158
2017:1:8:0.0000	168.0000	119759
2017:1:9:0.0000	192.0000	127391
2017:1:10:0.0000	216.0000	133987
2017:1:11:0.0000	240.0000	139731
2017:1:12:0.0000	264.0000	144730
2017:1:13:0.0000	288.0000	148821
2017:1:14:0.0000	312.0000	152282
2017:1:15:0.0000	336.0000	155368
2017:1:16:0.0000	360.0000	158075
2017:1:17:0.0000	384.0000	160247
2017:1:18:0.0000	408.0000	161997
2017:1:19:0.0000	432.0000	163537
2017:1:20:0.0000	456.0000	164800
2017:1:21:0.0000	480.0000	165736
2017:1:22:0.0000	504.0000	166232
2017:1:23:0.0000	528.0000	166360
2017:1:24:0.0000	552.0000	166667
2017:1:25:0.0000	576.0000	167036
2017:1:26:0.0000	600.0000	167383
2017:1:27:0.0000	624.0000	167533
2017:1:28:0.0000	648.0000	167711
2017:1:29:0.0000	672.0000	167827
2017:1:30:0.0000	696.0000	168470
2017:1:31:0.0000	720.0000	168825
2017:2:1:0.0000	744.0000	168869
2017:2:2:0.0000	768.0000	168776
2017:2:3:0.0000	792.0000	168543
2017:2:4:0.0000	816.0000	168180
2017:2:5:0.0000	840.0000	167623
2017:2:6:0.0000	864.0000	167135
2017:2:7:0.0000	888.0000	166609
2017:2:8:0.0000	912.0000	166478
2017:2:9:0.0000	936.0000	166537
2017:2:10:0.0000	960.0000	166487
2017:2:11:0.0000	984.0000	166175
2017:2:12:0.0000	1008.0000	166002
2017:2:13:0.0000	1032.0000	165877
2017:2:14:0.0000	1056.0000	165780
2017:2:15:0.0000	1080.0000	165593
2017:2:16:0.0000	1104.0000	165198
2017:2:17:0.0000	1128.0000	164793
2017:2:18:0.0000	1152.0000	164434

ECM Recharge Report

Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017:2:19:0.0000	1176.0000	164170
2017:2:20:0.0000	1200.0000	163694
2017:2:21:0.0000	1224.0000	163146
2017:2:22:0.0000	1248.0000	162765
2017:2:23:0.0000	1272.0000	162713
2017:2:24:0.0000	1296.0000	162620
2017:2:25:0.0000	1320.0000	162298
2017:2:26:0.0000	1344.0000	161780
2017:2:27:0.0000	1368.0000	161104
2017:2:28:0.0000	1392.0000	160333
2017:3:1:0.0000	1416.0000	159600
2017:3:2:0.0000	1440.0000	158982
2017:3:3:0.0000	1464.0000	158224
2017:3:4:0.0000	1488.0000	157508
2017:3:5:0.0000	1512.0000	156755
2017:3:6:0.0000	1536.0000	157009
2017:3:7:0.0000	1560.0000	157639
2017:3:8:0.0000	1584.0000	158266
2017:3:9:0.0000	1608.0000	158883
2017:3:10:0.0000	1632.0000	159489
2017:3:11:0.0000	1656.0000	160073
2017:3:12:0.0000	1680.0000	160638
2017:3:13:0.0000	1704.0000	161227
2017:3:14:0.0000	1728.0000	161798
2017:3:15:0.0000	1752.0000	162467
2017:3:16:0.0000	1776.0000	163030
2017:3:17:0.0000	1800.0000	163573
2017:3:18:0.0000	1824.0000	164100
2017:3:19:0.0000	1848.0000	164616
2017:3:20:0.0000	1872.0000	165114
2017:3:21:0.0000	1896.0000	165604
2017:3:22:0.0000	1920.0000	166094
2017:3:23:0.0000	1944.0000	166573
2017:3:24:0.0000	1968.0000	167042
2017:3:25:0.0000	1992.0000	167504
2017:3:26:0.0000	2016.0000	167968
2017:3:27:0.0000	2040.0000	168433
2017:3:28:0.0000	2064.0000	168883
2017:3:29:0.0000	2088.0000	169325
2017:3:30:0.0000	2112.0000	169759
2017:3:31:0.0000	2136.0000	170189
2017:4:1:0.0000	2160.0000	170714
2017:4:2:0.0000	2184.0000	171279
2017:4:3:0.0000	2208.0000	171813
2017:4:4:0.0000	2232.0000	172328
2017:4:5:0.0000	2256.0000	172724
2017:4:6:0.0000	2280.0000	173128
2017:4:7:0.0000	2304.0000	173528
2017:4:8:0.0000	2328.0000	173903

## ECM Recharge Report

Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017:4:9:0.0000	2352.0000	174286
2017:4:10:0.0000	2376.0000	174663
2017:4:11:0.0000	2400.0000	175035
2017:4:12:0.0000	2424.0000	175407
2017:4:13:0.0000	2448.0000	175793
2017:4:14:0.0000	2472.0000	176161
2017:4:15:0.0000	2496.0000	176519
2017:4:16:0.0000	2520.0000	176865
2017:4:17:0.0000	2544.0000	177257
2017:4:18:0.0000	2568.0000	177641
2017:4:19:0.0000	2592.0000	178015
2017:4:20:0.0000	2616.0000	178364
2017:4:21:0.0000	2640.0000	178704
2017:4:22:0.0000	2664.0000	179043
2017:4:23:0.0000	2688.0000	179471
2017:4:24:0.0000	2712.0000	179966
2017:4:25:0.0000	2736.0000	180456
2017:4:26:0.0000	2760.0000	180940
2017:4:27:0.0000	2784.0000	181347
2017:4:28:0.0000	2808.0000	181692
2017:4:29:0.0000	2832.0000	182005
2017:4:30:0.0000	2856.0000	182300
2017:5:1:0.0000	2880.0000	182601
2017:5:2:0.0000	2904.0000	182893
2017:5:3:0.0000	2928.0000	183200
2017:5:4:0.0000	2952.0000	183506
2017:5:5:0.0000	2976.0000	183795
2017:5:6:0.0000	3000.0000	184231
2017:5:7:0.0000	3024.0000	184628
2017:5:8:0.0000	3048.0000	184905
2017:5:9:0.0000	3072.0000	185206
2017:5:10:0.0000	3096.0000	185486
2017:5:11:0.0000	3120.0000	185763
2017:5:12:0.0000	3144.0000	186031
2017:5:13:0.0000	3168.0000	186298
2017:5:14:0.0000	3192.0000	186566
2017:5:15:0.0000	3216.0000	186831
2017:5:16:0.0000	3240.0000	187094
2017:5:17:0.0000	3264.0000	187425
2017:5:18:0.0000	3288.0000	187711
2017:5:19:0.0000	3312.0000	187975
2017:5:20:0.0000	3336.0000	188279
2017:5:21:0.0000	3360.0000	188525
2017:5:22:0.0000	3384.0000	188808
2017:5:23:0.0000	3408.0000	189247
2017:5:24:0.0000	3432.0000	189681
2017:5:25:0.0000	3456.0000	190096
2017:5:26:0.0000	3480.0000	190536
2017:5:27:0.0000	3504.0000	190971

ECM Recharge Report

Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017:5:28:0.0000	3528.0000	191392
2017:5:29:0.0000	3552.0000	191725
2017:5:30:0.0000	3576.0000	192064
2017:5:31:0.0000	3600.0000	192332
2017:6:1:0.0000	3624.0000	192592
2017:6:2:0.0000	3648.0000	193445
2017:6:3:0.0000	3672.0000	194879
2017:6:4:0.0000	3696.0000	196534
2017:6:5:0.0000	3720.0000	198488
2017:6:6:0.0000	3744.0000	200672
2017:6:7:0.0000	3768.0000	239584
2017:6:8:0.0000	3792.0000	398604
2017:6:9:0.0000	3816.0000	513328
2017:6:10:0.0000	3840.0000	570451
2017:6:11:0.0000	3864.0000	655753
2017:6:12:0.0000	3888.0000	738307
2017:6:13:0.0000	3912.0000	783926
2017:6:14:0.0000	3936.0000	814740
2017:6:15:0.0000	3960.0000	853053
2017:6:16:0.0000	3984.0000	899186
2017:6:17:0.0000	4008.0000	931797
2017:6:18:0.0000	4032.0000	966116
2017:6:19:0.0000	4056.0000	1007308
2017:6:20:0.0000	4080.0000	1053052
2017:6:21:0.0000	4104.0000	1361862
2017:6:22:0.0000	4128.0000	1494429
2017:6:23:0.0000	4152.0000	1626974
2017:6:24:0.0000	4176.0000	1673732
2017:6:25:0.0000	4200.0000	1766745
2017:6:26:0.0000	4224.0000	1815298
2017:6:27:0.0000	4248.0000	1922115
2017:6:28:0.0000	4272.0000	2066646
2017:6:29:0.0000	4296.0000	2166015
2017:6:30:0.0000	4320.0000	2221157
2017:7:1:0.0000	4344.0000	2325308
2017:7:2:0.0000	4368.0000	2354574
2017:7:3:0.0000	4392.0000	2404991
2017:7:4:0.0000	4416.0000	2419574
2017:7:5:0.0000	4440.0000	2434385
2017:7:6:0.0000	4464.0000	2440971
2017:7:7:0.0000	4488.0000	2449179
2017:7:8:0.0000	4512.0000	2455939
2017:7:9:0.0000	4536.0000	2459934
2017:7:10:0.0000	4560.0000	2462668
2017:7:11:0.0000	4584.0000	2464044
2017:7:12:0.0000	4608.0000	2468213
2017:7:13:0.0000	4632.0000	2477612
2017:7:14:0.0000	4656.0000	2484626
2017:7:15:0.0000	4680.0000	2496279

ECM Recharge Report

Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017:7:16:0.0000	4704.0000	2504100
2017:7:17:0.0000	4728.0000	2506611
2017:7:18:0.0000	4752.0000	2513257
2017:7:19:0.0000	4776.0000	2550730
2017:7:20:0.0000	4800.0000	2589410
2017:7:21:0.0000	4824.0000	2610409
2017:7:22:0.0000	4848.0000	2717450
2017:7:23:0.0000	4872.0000	2782791
2017:7:24:0.0000	4896.0000	2822863
2017:7:25:0.0000	4920.0000	2825247
2017:7:26:0.0000	4944.0000	2827832
2017:7:27:0.0000	4968.0000	2828355
2017:7:28:0.0000	4992.0000	2831642
2017:7:29:0.0000	5016.0000	2829598
2017:7:30:0.0000	5040.0000	2830524
2017:7:31:0.0000	5064.0000	2839288
2017:8:1:0.0000	5088.0000	3139139
2017:8:2:0.0000	5112.0000	3328423
2017:8:3:0.0000	5136.0000	3360145
2017:8:4:0.0000	5160.0000	3389012
2017:8:5:0.0000	5184.0000	3431939
2017:8:6:0.0000	5208.0000	3485967
2017:8:7:0.0000	5232.0000	3596986
2017:8:8:0.0000	5256.0000	3645158
2017:8:9:0.0000	5280.0000	3735057
2017:8:10:0.0000	5304.0000	3766262
2017:8:11:0.0000	5328.0000	3874615
2017:8:12:0.0000	5352.0000	4105006
2017:8:13:0.0000	5376.0000	4194345
2017:8:14:0.0000	5400.0000	4243313
2017:8:15:0.0000	5424.0000	4329928
2017:8:16:0.0000	5448.0000	4354537
2017:8:17:0.0000	5472.0000	4429670
2017:8:18:0.0000	5496.0000	4471114
2017:8:19:0.0000	5520.0000	4538253
2017:8:20:0.0000	5544.0000	4541002
2017:8:21:0.0000	5568.0000	4577751
2017:8:22:0.0000	5592.0000	4578247
2017:8:23:0.0000	5616.0000	4582552
2017:8:24:0.0000	5640.0000	4592899
2017:8:25:0.0000	5664.0000	4662852
2017:8:26:0.0000	5688.0000	4924720
2017:8:27:0.0000	5712.0000	5088049
2017:8:28:0.0000	5736.0000	5315513
2017:8:29:0.0000	5760.0000	5380804
2017:8:30:0.0000	5784.0000	5494497
2017:8:31:0.0000	5808.0000	5540453
2017:9:1:0.0000	5832.0000	5650963
2017:9:2:0.0000	5856.0000	5718839

## ECM Recharge Report

Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017:9:3:0.0000	5880.0000	5872923
2017:9:4:0.0000	5904.0000	5929555
2017:9:5:0.0000	5928.0000	6047159
2017:9:6:0.0000	5952.0000	6096628
2017:9:7:0.0000	5976.0000	6187817
2017:9:8:0.0000	6000.0000	6243813
2017:9:9:0.0000	6024.0000	6330922
2017:9:10:0.0000	6048.0000	6430118
2017:9:11:0.0000	6072.0000	6941204
2017:9:12:0.0000	6096.0000	7001757
2017:9:13:0.0000	6120.0000	7118913
2017:9:14:0.0000	6144.0000	7168494
2017:9:15:0.0000	6168.0000	7345990
2017:9:16:0.0000	6192.0000	7401409
2017:9:17:0.0000	6216.0000	7517203
2017:9:18:0.0000	6240.0000	7563391
2017:9:19:0.0000	6264.0000	7678146
2017:9:20:0.0000	6288.0000	7725297
2017:9:21:0.0000	6312.0000	7841753
2017:9:22:0.0000	6336.0000	7887988
2017:9:23:0.0000	6360.0000	8069778
2017:9:24:0.0000	6384.0000	8127709
2017:9:25:0.0000	6408.0000	8253095
2017:9:26:0.0000	6432.0000	8302083
2017:9:27:0.0000	6456.0000	8424588
2017:9:28:0.0000	6480.0000	8472994
2017:9:29:0.0000	6504.0000	8595370
2017:9:30:0.0000	6528.0000	8711611
2017:10:1:0.0000	6552.0000	8840554
2017:10:2:0.0000	6576.0000	8892199
2017:10:3:0.0000	6600.0000	9017979
2017:10:4:0.0000	6624.0000	9071781
2017:10:5:0.0000	6648.0000	9161777
2017:10:6:0.0000	6672.0000	9213825
2017:10:7:0.0000	6696.0000	9297661
2017:10:8:0.0000	6720.0000	9324827
2017:10:9:0.0000	6744.0000	9355537
2017:10:10:0.0000	6768.0000	9353988
2017:10:11:0.0000	6792.0000	9361662
2017:10:12:0.0000	6816.0000	9358354
2017:10:13:0.0000	6840.0000	9357167
2017:10:14:0.0000	6864.0000	9354023
2017:10:15:0.0000	6888.0000	9351733
2017:10:16:0.0000	6912.0000	9348280
2017:10:17:0.0000	6936.0000	9349017
2017:10:18:0.0000	6960.0000	9349044
2017:10:19:0.0000	6984.0000	9349023
2017:10:20:0.0000	7008.0000	9347432
2017:10:21:0.0000	7032.0000	9344730

## ECM Recharge Report

Absolute Time	Relative Time [hrs]	Recharge Volume [ft <sup>3</sup> ]
2017:10:22:0.0000	7056.0000	9344377
2017:10:23:0.0000	7080.0000	9344647
2017:10:24:0.0000	7104.0000	9344880
2017:10:25:0.0000	7128.0000	9377071
2017:10:26:0.0000	7152.0000	9385142
2017:10:27:0.0000	7176.0000	9388148
2017:10:28:0.0000	7200.0000	9388372
2017:10:29:0.0000	7224.0000	9506865
2017:10:30:0.0000	7248.0000	9532351
2017:10:31:0.0000	7272.0000	9542098
2017:11:1:0.0000	7296.0000	9544491
2017:11:2:0.0000	7320.0000	9545242
2017:11:3:0.0000	7344.0000	9544705
2017:11:4:0.0000	7368.0000	9543867
2017:11:5:0.0000	7392.0000	9542366
2017:11:6:0.0000	7416.0000	9540591
2017:11:7:0.0000	7440.0000	9538607
2017:11:8:0.0000	7464.0000	9536568
2017:11:9:0.0000	7488.0000	9534341
2017:11:10:0.0000	7512.0000	9532064
2017:11:11:0.0000	7536.0000	9529676
2017:11:12:0.0000	7560.0000	9526822
2017:11:13:0.0000	7584.0000	9525409
2017:11:14:0.0000	7608.0000	9525575
2017:11:15:0.0000	7632.0000	9522534
2017:11:16:0.0000	7656.0000	9519787
2017:11:17:0.0000	7680.0000	9516828
2017:11:18:0.0000	7704.0000	9513752
2017:11:19:0.0000	7728.0000	9510684
2017:11:20:0.0000	7752.0000	9507188
2017:11:21:0.0000	7776.0000	9503559
2017:11:22:0.0000	7800.0000	9500145
2017:11:23:0.0000	7824.0000	9497446
2017:11:24:0.0000	7848.0000	9496405
2017:11:25:0.0000	7872.0000	9496742
2017:11:26:0.0000	7896.0000	9496281
2017:11:27:0.0000	7920.0000	9493141
2017:11:28:0.0000	7944.0000	9490351
2017:11:29:0.0000	7968.0000	9486696
2017:11:30:0.0000	7992.0000	9483146
2017:12:1:0.0000	8016.0000	9479526
2017:12:2:0.0000	8040.0000	9476075
2017:12:3:0.0000	8064.0000	9472869
2017:12:4:0.0000	8088.0000	9469803
2017:12:5:0.0000	8112.0000	9466635
2017:12:6:0.0000	8136.0000	9463728
2017:12:7:0.0000	8160.0000	9460877
2017:12:8:0.0000	8184.0000	9458056
2017:12:9:0.0000	8208.0000	9455135

## ECM Recharge Report

Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017:12:10:0.0000	8232.0000	9462124
2017:12:11:0.0000	8256.0000	9464949
2017:12:12:0.0000	8280.0000	9466410
2017:12:13:0.0000	8304.0000	9467313
2017:12:14:0.0000	8328.0000	9467934
2017:12:15:0.0000	8352.0000	9468415
2017:12:16:0.0000	8376.0000	9468784
2017:12:17:0.0000	8400.0000	9469032
2017:12:18:0.0000	8424.0000	9469072
2017:12:19:0.0000	8448.0000	9468989
2017:12:20:0.0000	8472.0000	9468803
2017:12:21:0.0000	8496.0000	9468545
2017:12:22:0.0000	8520.0000	9468160
2017:12:23:0.0000	8544.0000	9467688
2017:12:24:0.0000	8568.0000	9467107
2017:12:25:0.0000	8592.0000	9466279
2017:12:26:0.0000	8616.0000	9465036
2017:12:27:0.0000	8640.0000	9463421
2017:12:28:0.0000	8664.0000	9461612
2017:12:29:0.0000	8688.0000	9459541
2017:12:30:0.0000	8712.0000	9457845
2017:12:31:0.0000	8736.0000	9456042



# APPENDIX C

## PCM INPUT/OUTPUT REPORTS



PCM Input Report

Node: EAST

Scenario: Scenario1  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 8.80 ft  
 Warning Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
3.00	5.2261	227650
3.50	5.2726	229675
4.00	5.3444	232800
4.50	5.4488	237350
5.00	5.5228	240575
5.50	5.5785	243000
6.00	5.6732	247125
6.50	5.7751	251562
7.00	5.8144	253275
7.50	5.9062	257275
8.00	6.0193	262200
8.50	6.0709	264450
9.00	6.1433	267600
9.50	6.2546	272450
10.00	6.3303	275750
10.50	6.3832	278050
11.00	6.4721	281925
11.50	6.5504	285338
12.00	6.5622	285850
12.50	6.6219	288450
13.00	6.6346	289003
13.50	6.6346	289003
18.50	8.1500	355014

Comment:

Node: WEST

Scenario: Scenario1  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 8.80 ft  
 Warning Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
3.00	5.4190	236050
3.50	5.4890	239100
4.00	5.5917	243575
4.50	5.6600	246550
5.00	5.7306	249625
5.50	5.8247	253725
6.00	5.8982	256925
6.50	5.9762	260325
7.00	6.0503	263550
7.50	6.1473	267775
8.00	6.2242	271125
8.50	6.2948	274200
9.00	6.4004	278800

PCM Input Report

Stage [ft]	Area [ac]	Area [ft2]
9.50	6.4738	282000
10.00	6.5467	285175
10.50	6.6426	289350
11.00	6.7195	292700
11.50	6.7545	294225
12.00	6.7898	295763
12.50	6.8518	298462
13.00	6.8518	298464
13.50	6.8518	298464
18.50	8.4000	365904

Comment:

Pipe Link: EQUALIZER	Upstream	Downstream
Scenario: Scenario1	Invert: 8.00 ft	Invert: 8.00 ft
From Node: WEST	Manning's N: 0.0120	Manning's N: 0.0120
To Node: EAST	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 360.00 ft	Op Table:	Op Table:
FHWA Code: 1	Ref Node:	Ref Node:
Entr Loss Coef: 0.70	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Energy	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment:

Simulation: 2017 SAOR  
 Scenario: Scenario1  
 Run Date/Time: 12/9/2025 4:45:29 PM  
 Program Version: ICPR4 4.07.08

General				
Run Mode:	Normal			
	Year	Month	Day	Hour [hr]
Start Time:	2017	1	1	0.0000
End Time:	2017	12	31	0.0000
	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]	
Min Calculation Time:	900.0000	0.1000	86400.0000	
Max Calculation Time:	300.0000			

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
------	-------	-----	-----------	----------------------

PCM Input Report

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1440.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1440.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1440.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: NEXRAD  
 Reference ET Folder: ET  
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 2017  
 Extern Hydrograph Set:  
 Curve Number Set:  
 Green-Ampt Set: GREEN-AMPT  
 Vertical Layers Set:  
 Impervious Set: PROPOSED IMPERVIOUS  
 Roughness Set: PROPOSED ROUGHNESS  
 Crop Coef Set: PROPOSED ET  
 Fillable Porosity Set: POROSITY  
 Conductivity Set: CONDUCTIVITY  
 Leakage Set: LEAKAGE

Tolerances & Options

Time Marching: SAOR  
 Max Iterations: 4  
 Over-Relax Weight Fact: 0.5 dec  
 dZ Tolerance: 0.0050 ft  
 Max dZ: 1.0000 ft  
 Link Optimizer Tol: 0.0005 ft  
 Edge Length Option: Automatic  
 Dflt Damping (2D): 0.0050 ft  
 Min Node Srf Area (2D): 100 ft2  
 Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr  
 ET for Manual Basins: False  
 Smp/Man Basin Rain Opt: Basin Specification  
 OF Region Rain Opt: Region Specification  
 Dflt Damping (1D): 0.0050 ft  
 Min Node Srf Area (1D): 100 ft2  
 Energy Switch (1D): Energy

Comment:

PCM Recharge Report

Sim	Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017 SAOR	2017:1:1:0.0000	0.0000	0
2017 SAOR	2017:1:2:0.0000	24.0000	21608
2017 SAOR	2017:1:3:0.0000	48.0000	39460
2017 SAOR	2017:1:4:0.0000	72.0000	54493
2017 SAOR	2017:1:5:0.0000	96.0000	67440
2017 SAOR	2017:1:6:0.0000	120.0000	78705
2017 SAOR	2017:1:7:0.0000	144.0000	88635
2017 SAOR	2017:1:8:0.0000	168.0000	97555
2017 SAOR	2017:1:9:0.0000	192.0000	105780
2017 SAOR	2017:1:10:0.0000	216.0000	113225
2017 SAOR	2017:1:11:0.0000	240.0000	120017
2017 SAOR	2017:1:12:0.0000	264.0000	126224
2017 SAOR	2017:1:13:0.0000	288.0000	131670
2017 SAOR	2017:1:14:0.0000	312.0000	136565
2017 SAOR	2017:1:15:0.0000	336.0000	141124
2017 SAOR	2017:1:16:0.0000	360.0000	145336
2017 SAOR	2017:1:17:0.0000	384.0000	149065
2017 SAOR	2017:1:18:0.0000	408.0000	152378
2017 SAOR	2017:1:19:0.0000	432.0000	155468
2017 SAOR	2017:1:20:0.0000	456.0000	158272
2017 SAOR	2017:1:21:0.0000	480.0000	160741
2017 SAOR	2017:1:22:0.0000	504.0000	162772
2017 SAOR	2017:1:23:0.0000	528.0000	164413
2017 SAOR	2017:1:24:0.0000	552.0000	166103
2017 SAOR	2017:1:25:0.0000	576.0000	168010
2017 SAOR	2017:1:26:0.0000	600.0000	169957
2017 SAOR	2017:1:27:0.0000	624.0000	171728
2017 SAOR	2017:1:28:0.0000	648.0000	173504
2017 SAOR	2017:1:29:0.0000	672.0000	175197
2017 SAOR	2017:1:30:0.0000	696.0000	177368
2017 SAOR	2017:1:31:0.0000	720.0000	179476
2017 SAOR	2017:2:1:0.0000	744.0000	181418
2017 SAOR	2017:2:2:0.0000	768.0000	183268
2017 SAOR	2017:2:3:0.0000	792.0000	184988
2017 SAOR	2017:2:4:0.0000	816.0000	186569
2017 SAOR	2017:2:5:0.0000	840.0000	187916
2017 SAOR	2017:2:6:0.0000	864.0000	189442
2017 SAOR	2017:2:7:0.0000	888.0000	191291
2017 SAOR	2017:2:8:0.0000	912.0000	193537
2017 SAOR	2017:2:9:0.0000	936.0000	196041
2017 SAOR	2017:2:10:0.0000	960.0000	198464
2017 SAOR	2017:2:11:0.0000	984.0000	200739
2017 SAOR	2017:2:12:0.0000	1008.0000	202985
2017 SAOR	2017:2:13:0.0000	1032.0000	205178
2017 SAOR	2017:2:14:0.0000	1056.0000	207311
2017 SAOR	2017:2:15:0.0000	1080.0000	209352
2017 SAOR	2017:2:16:0.0000	1104.0000	211257
2017 SAOR	2017:2:17:0.0000	1128.0000	213096
2017 SAOR	2017:2:18:0.0000	1152.0000	214912

PCM Recharge Report

Sim	Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017 SAOR	2017:2:19:0.0000	1176.0000	216702
2017 SAOR	2017:2:20:0.0000	1200.0000	218396
2017 SAOR	2017:2:21:0.0000	1224.0000	220059
2017 SAOR	2017:2:22:0.0000	1248.0000	221762
2017 SAOR	2017:2:23:0.0000	1272.0000	223507
2017 SAOR	2017:2:24:0.0000	1296.0000	225432
2017 SAOR	2017:2:25:0.0000	1320.0000	227454
2017 SAOR	2017:2:26:0.0000	1344.0000	229506
2017 SAOR	2017:2:27:0.0000	1368.0000	231553
2017 SAOR	2017:2:28:0.0000	1392.0000	233573
2017 SAOR	2017:3:1:0.0000	1416.0000	235553
2017 SAOR	2017:3:2:0.0000	1440.0000	237487
2017 SAOR	2017:3:3:0.0000	1464.0000	239376
2017 SAOR	2017:3:4:0.0000	1488.0000	241219
2017 SAOR	2017:3:5:0.0000	1512.0000	243015
2017 SAOR	2017:3:6:0.0000	1536.0000	244764
2017 SAOR	2017:3:7:0.0000	1560.0000	246467
2017 SAOR	2017:3:8:0.0000	1584.0000	248124
2017 SAOR	2017:3:9:0.0000	1608.0000	249739
2017 SAOR	2017:3:10:0.0000	1632.0000	251313
2017 SAOR	2017:3:11:0.0000	1656.0000	252848
2017 SAOR	2017:3:12:0.0000	1680.0000	254346
2017 SAOR	2017:3:13:0.0000	1704.0000	255809
2017 SAOR	2017:3:14:0.0000	1728.0000	257238
2017 SAOR	2017:3:15:0.0000	1752.0000	258635
2017 SAOR	2017:3:16:0.0000	1776.0000	260000
2017 SAOR	2017:3:17:0.0000	1800.0000	261337
2017 SAOR	2017:3:18:0.0000	1824.0000	262645
2017 SAOR	2017:3:19:0.0000	1848.0000	263927
2017 SAOR	2017:3:20:0.0000	1872.0000	265182
2017 SAOR	2017:3:21:0.0000	1896.0000	266413
2017 SAOR	2017:3:22:0.0000	1920.0000	267621
2017 SAOR	2017:3:23:0.0000	1944.0000	268805
2017 SAOR	2017:3:24:0.0000	1968.0000	269968
2017 SAOR	2017:3:25:0.0000	1992.0000	271110
2017 SAOR	2017:3:26:0.0000	2016.0000	272232
2017 SAOR	2017:3:27:0.0000	2040.0000	273334
2017 SAOR	2017:3:28:0.0000	2064.0000	274417
2017 SAOR	2017:3:29:0.0000	2088.0000	275483
2017 SAOR	2017:3:30:0.0000	2112.0000	276531
2017 SAOR	2017:3:31:0.0000	2136.0000	277562
2017 SAOR	2017:4:1:0.0000	2160.0000	278577
2017 SAOR	2017:4:2:0.0000	2184.0000	279578
2017 SAOR	2017:4:3:0.0000	2208.0000	280564
2017 SAOR	2017:4:4:0.0000	2232.0000	281536
2017 SAOR	2017:4:5:0.0000	2256.0000	282495
2017 SAOR	2017:4:6:0.0000	2280.0000	283441
2017 SAOR	2017:4:7:0.0000	2304.0000	284373
2017 SAOR	2017:4:8:0.0000	2328.0000	285292

PCM Recharge Report

Sim	Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017 SAOR	2017:4:9:0.0000	2352.0000	286198
2017 SAOR	2017:4:10:0.0000	2376.0000	287092
2017 SAOR	2017:4:11:0.0000	2400.0000	287973
2017 SAOR	2017:4:12:0.0000	2424.0000	288842
2017 SAOR	2017:4:13:0.0000	2448.0000	289700
2017 SAOR	2017:4:14:0.0000	2472.0000	290547
2017 SAOR	2017:4:15:0.0000	2496.0000	291383
2017 SAOR	2017:4:16:0.0000	2520.0000	292209
2017 SAOR	2017:4:17:0.0000	2544.0000	293024
2017 SAOR	2017:4:18:0.0000	2568.0000	293830
2017 SAOR	2017:4:19:0.0000	2592.0000	294625
2017 SAOR	2017:4:20:0.0000	2616.0000	295412
2017 SAOR	2017:4:21:0.0000	2640.0000	296189
2017 SAOR	2017:4:22:0.0000	2664.0000	296957
2017 SAOR	2017:4:23:0.0000	2688.0000	297717
2017 SAOR	2017:4:24:0.0000	2712.0000	298474
2017 SAOR	2017:4:25:0.0000	2736.0000	299235
2017 SAOR	2017:4:26:0.0000	2760.0000	299995
2017 SAOR	2017:4:27:0.0000	2784.0000	300751
2017 SAOR	2017:4:28:0.0000	2808.0000	301503
2017 SAOR	2017:4:29:0.0000	2832.0000	302247
2017 SAOR	2017:4:30:0.0000	2856.0000	302985
2017 SAOR	2017:5:1:0.0000	2880.0000	303714
2017 SAOR	2017:5:2:0.0000	2904.0000	304436
2017 SAOR	2017:5:3:0.0000	2928.0000	305150
2017 SAOR	2017:5:4:0.0000	2952.0000	305857
2017 SAOR	2017:5:5:0.0000	2976.0000	306556
2017 SAOR	2017:5:6:0.0000	3000.0000	307248
2017 SAOR	2017:5:7:0.0000	3024.0000	307933
2017 SAOR	2017:5:8:0.0000	3048.0000	308610
2017 SAOR	2017:5:9:0.0000	3072.0000	309281
2017 SAOR	2017:5:10:0.0000	3096.0000	309945
2017 SAOR	2017:5:11:0.0000	3120.0000	310603
2017 SAOR	2017:5:12:0.0000	3144.0000	311254
2017 SAOR	2017:5:13:0.0000	3168.0000	311899
2017 SAOR	2017:5:14:0.0000	3192.0000	312539
2017 SAOR	2017:5:15:0.0000	3216.0000	313172
2017 SAOR	2017:5:16:0.0000	3240.0000	313800
2017 SAOR	2017:5:17:0.0000	3264.0000	314422
2017 SAOR	2017:5:18:0.0000	3288.0000	315038
2017 SAOR	2017:5:19:0.0000	3312.0000	315649
2017 SAOR	2017:5:20:0.0000	3336.0000	316255
2017 SAOR	2017:5:21:0.0000	3360.0000	316856
2017 SAOR	2017:5:22:0.0000	3384.0000	317452
2017 SAOR	2017:5:23:0.0000	3408.0000	318048
2017 SAOR	2017:5:24:0.0000	3432.0000	318645
2017 SAOR	2017:5:25:0.0000	3456.0000	319241
2017 SAOR	2017:5:26:0.0000	3480.0000	319880
2017 SAOR	2017:5:27:0.0000	3504.0000	320628

PCM Recharge Report

Sim	Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017 SAOR	2017:5:28:0.0000	3528.0000	321436
2017 SAOR	2017:5:29:0.0000	3552.0000	322268
2017 SAOR	2017:5:30:0.0000	3576.0000	323105
2017 SAOR	2017:5:31:0.0000	3600.0000	323939
2017 SAOR	2017:6:1:0.0000	3624.0000	324766
2017 SAOR	2017:6:2:0.0000	3648.0000	325826
2017 SAOR	2017:6:3:0.0000	3672.0000	327321
2017 SAOR	2017:6:4:0.0000	3696.0000	330468
2017 SAOR	2017:6:5:0.0000	3720.0000	339251
2017 SAOR	2017:6:6:0.0000	3744.0000	350927
2017 SAOR	2017:6:7:0.0000	3768.0000	459063
2017 SAOR	2017:6:8:0.0000	3792.0000	641889
2017 SAOR	2017:6:9:0.0000	3816.0000	760693
2017 SAOR	2017:6:10:0.0000	3840.0000	822867
2017 SAOR	2017:6:11:0.0000	3864.0000	921224
2017 SAOR	2017:6:12:0.0000	3888.0000	1006789
2017 SAOR	2017:6:13:0.0000	3912.0000	1057941
2017 SAOR	2017:6:14:0.0000	3936.0000	1094638
2017 SAOR	2017:6:15:0.0000	3960.0000	1142170
2017 SAOR	2017:6:16:0.0000	3984.0000	1195816
2017 SAOR	2017:6:17:0.0000	4008.0000	1235719
2017 SAOR	2017:6:18:0.0000	4032.0000	1277060
2017 SAOR	2017:6:19:0.0000	4056.0000	1326734
2017 SAOR	2017:6:20:0.0000	4080.0000	1377513
2017 SAOR	2017:6:21:0.0000	4104.0000	1427638
2017 SAOR	2017:6:22:0.0000	4128.0000	1460423
2017 SAOR	2017:6:23:0.0000	4152.0000	1483563
2017 SAOR	2017:6:24:0.0000	4176.0000	1501127
2017 SAOR	2017:6:25:0.0000	4200.0000	1515845
2017 SAOR	2017:6:26:0.0000	4224.0000	1528319
2017 SAOR	2017:6:27:0.0000	4248.0000	1543327
2017 SAOR	2017:6:28:0.0000	4272.0000	1582558
2017 SAOR	2017:6:29:0.0000	4296.0000	1610610
2017 SAOR	2017:6:30:0.0000	4320.0000	1638685
2017 SAOR	2017:7:1:0.0000	4344.0000	1673838
2017 SAOR	2017:7:2:0.0000	4368.0000	1702517
2017 SAOR	2017:7:3:0.0000	4392.0000	1727654
2017 SAOR	2017:7:4:0.0000	4416.0000	1753672
2017 SAOR	2017:7:5:0.0000	4440.0000	1776699
2017 SAOR	2017:7:6:0.0000	4464.0000	1795523
2017 SAOR	2017:7:7:0.0000	4488.0000	1812553
2017 SAOR	2017:7:8:0.0000	4512.0000	1829056
2017 SAOR	2017:7:9:0.0000	4536.0000	1843283
2017 SAOR	2017:7:10:0.0000	4560.0000	1855708
2017 SAOR	2017:7:11:0.0000	4584.0000	1866424
2017 SAOR	2017:7:12:0.0000	4608.0000	1877516
2017 SAOR	2017:7:13:0.0000	4632.0000	1891187
2017 SAOR	2017:7:14:0.0000	4656.0000	1906400
2017 SAOR	2017:7:15:0.0000	4680.0000	1922746

PCM Recharge Report

Sim	Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017 SAOR	2017:7:16:0.0000	4704.0000	1940249
2017 SAOR	2017:7:17:0.0000	4728.0000	1954743
2017 SAOR	2017:7:18:0.0000	4752.0000	1968732
2017 SAOR	2017:7:19:0.0000	4776.0000	1993965
2017 SAOR	2017:7:20:0.0000	4800.0000	2032475
2017 SAOR	2017:7:21:0.0000	4824.0000	2067753
2017 SAOR	2017:7:22:0.0000	4848.0000	2133033
2017 SAOR	2017:7:23:0.0000	4872.0000	2201640
2017 SAOR	2017:7:24:0.0000	4896.0000	2252115
2017 SAOR	2017:7:25:0.0000	4920.0000	2281774
2017 SAOR	2017:7:26:0.0000	4944.0000	2301839
2017 SAOR	2017:7:27:0.0000	4968.0000	2316860
2017 SAOR	2017:7:28:0.0000	4992.0000	2330208
2017 SAOR	2017:7:29:0.0000	5016.0000	2341448
2017 SAOR	2017:7:30:0.0000	5040.0000	2351236
2017 SAOR	2017:7:31:0.0000	5064.0000	2361060
2017 SAOR	2017:8:1:0.0000	5088.0000	2525490
2017 SAOR	2017:8:2:0.0000	5112.0000	2795553
2017 SAOR	2017:8:3:0.0000	5136.0000	2883810
2017 SAOR	2017:8:4:0.0000	5160.0000	2917986
2017 SAOR	2017:8:5:0.0000	5184.0000	2938249
2017 SAOR	2017:8:6:0.0000	5208.0000	2953134
2017 SAOR	2017:8:7:0.0000	5232.0000	2966314
2017 SAOR	2017:8:8:0.0000	5256.0000	2978956
2017 SAOR	2017:8:9:0.0000	5280.0000	2989637
2017 SAOR	2017:8:10:0.0000	5304.0000	2999683
2017 SAOR	2017:8:11:0.0000	5328.0000	3010963
2017 SAOR	2017:8:12:0.0000	5352.0000	3182469
2017 SAOR	2017:8:13:0.0000	5376.0000	3227110
2017 SAOR	2017:8:14:0.0000	5400.0000	3247947
2017 SAOR	2017:8:15:0.0000	5424.0000	3261383
2017 SAOR	2017:8:16:0.0000	5448.0000	3271080
2017 SAOR	2017:8:17:0.0000	5472.0000	3278697
2017 SAOR	2017:8:18:0.0000	5496.0000	3292771
2017 SAOR	2017:8:19:0.0000	5520.0000	3310750
2017 SAOR	2017:8:20:0.0000	5544.0000	3323823
2017 SAOR	2017:8:21:0.0000	5568.0000	3335074
2017 SAOR	2017:8:22:0.0000	5592.0000	3345867
2017 SAOR	2017:8:23:0.0000	5616.0000	3354176
2017 SAOR	2017:8:24:0.0000	5640.0000	3362275
2017 SAOR	2017:8:25:0.0000	5664.0000	3396427
2017 SAOR	2017:8:26:0.0000	5688.0000	3604717
2017 SAOR	2017:8:27:0.0000	5712.0000	3812517
2017 SAOR	2017:8:28:0.0000	5736.0000	4168302
2017 SAOR	2017:8:29:0.0000	5760.0000	4229430
2017 SAOR	2017:8:30:0.0000	5784.0000	4394538
2017 SAOR	2017:8:31:0.0000	5808.0000	4405334
2017 SAOR	2017:9:1:0.0000	5832.0000	4588461
2017 SAOR	2017:9:2:0.0000	5856.0000	4604245

## PCM Recharge Report

Sim	Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017 SAOR	2017:9:3:0.0000	5880.0000	4905785
2017 SAOR	2017:9:4:0.0000	5904.0000	4928872
2017 SAOR	2017:9:5:0.0000	5928.0000	4998133
2017 SAOR	2017:9:6:0.0000	5952.0000	5008074
2017 SAOR	2017:9:7:0.0000	5976.0000	5267807
2017 SAOR	2017:9:8:0.0000	6000.0000	5276537
2017 SAOR	2017:9:9:0.0000	6024.0000	5463171
2017 SAOR	2017:9:10:0.0000	6048.0000	5492826
2017 SAOR	2017:9:11:0.0000	6072.0000	6144965
2017 SAOR	2017:9:12:0.0000	6096.0000	6220958
2017 SAOR	2017:9:13:0.0000	6120.0000	6496008
2017 SAOR	2017:9:14:0.0000	6144.0000	6510792
2017 SAOR	2017:9:15:0.0000	6168.0000	6811758
2017 SAOR	2017:9:16:0.0000	6192.0000	6861951
2017 SAOR	2017:9:17:0.0000	6216.0000	7128028
2017 SAOR	2017:9:18:0.0000	6240.0000	7138172
2017 SAOR	2017:9:19:0.0000	6264.0000	7393289
2017 SAOR	2017:9:20:0.0000	6288.0000	7400640
2017 SAOR	2017:9:21:0.0000	6312.0000	7654720
2017 SAOR	2017:9:22:0.0000	6336.0000	7662276
2017 SAOR	2017:9:23:0.0000	6360.0000	7971579
2017 SAOR	2017:9:24:0.0000	6384.0000	8016588
2017 SAOR	2017:9:25:0.0000	6408.0000	8291819
2017 SAOR	2017:9:26:0.0000	6432.0000	8314066
2017 SAOR	2017:9:27:0.0000	6456.0000	8582630
2017 SAOR	2017:9:28:0.0000	6480.0000	8604012
2017 SAOR	2017:9:29:0.0000	6504.0000	8871469
2017 SAOR	2017:9:30:0.0000	6528.0000	8945505
2017 SAOR	2017:10:1:0.0000	6552.0000	9254898
2017 SAOR	2017:10:2:0.0000	6576.0000	9288614
2017 SAOR	2017:10:3:0.0000	6600.0000	9562332
2017 SAOR	2017:10:4:0.0000	6624.0000	9586169
2017 SAOR	2017:10:5:0.0000	6648.0000	9852738
2017 SAOR	2017:10:6:0.0000	6672.0000	9876395
2017 SAOR	2017:10:7:0.0000	6696.0000	10141903
2017 SAOR	2017:10:8:0.0000	6720.0000	10160232
2017 SAOR	2017:10:9:0.0000	6744.0000	10420664
2017 SAOR	2017:10:10:0.0000	6768.0000	10433158
2017 SAOR	2017:10:11:0.0000	6792.0000	10687836
2017 SAOR	2017:10:12:0.0000	6816.0000	10694650
2017 SAOR	2017:10:13:0.0000	6840.0000	10945650
2017 SAOR	2017:10:14:0.0000	6864.0000	10950324
2017 SAOR	2017:10:15:0.0000	6888.0000	11198859
2017 SAOR	2017:10:16:0.0000	6912.0000	11203007
2017 SAOR	2017:10:17:0.0000	6936.0000	11451334
2017 SAOR	2017:10:18:0.0000	6960.0000	11455470
2017 SAOR	2017:10:19:0.0000	6984.0000	11687769
2017 SAOR	2017:10:20:0.0000	7008.0000	11691762
2017 SAOR	2017:10:21:0.0000	7032.0000	11827818

PCM Recharge Report

Sim	Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017 SAOR	2017:10:22:0.0000	7056.0000	11831990
2017 SAOR	2017:10:23:0.0000	7080.0000	11862958
2017 SAOR	2017:10:24:0.0000	7104.0000	11869124
2017 SAOR	2017:10:25:0.0000	7128.0000	11879224
2017 SAOR	2017:10:26:0.0000	7152.0000	11894834
2017 SAOR	2017:10:27:0.0000	7176.0000	11908509
2017 SAOR	2017:10:28:0.0000	7200.0000	11920176
2017 SAOR	2017:10:29:0.0000	7224.0000	11951993
2017 SAOR	2017:10:30:0.0000	7248.0000	12002430
2017 SAOR	2017:10:31:0.0000	7272.0000	12032090
2017 SAOR	2017:11:1:0.0000	7296.0000	12053341
2017 SAOR	2017:11:2:0.0000	7320.0000	12069997
2017 SAOR	2017:11:3:0.0000	7344.0000	12083741
2017 SAOR	2017:11:4:0.0000	7368.0000	12095463
2017 SAOR	2017:11:5:0.0000	7392.0000	12105683
2017 SAOR	2017:11:6:0.0000	7416.0000	12114742
2017 SAOR	2017:11:7:0.0000	7440.0000	12122869
2017 SAOR	2017:11:8:0.0000	7464.0000	12130219
2017 SAOR	2017:11:9:0.0000	7488.0000	12136931
2017 SAOR	2017:11:10:0.0000	7512.0000	12143104
2017 SAOR	2017:11:11:0.0000	7536.0000	12148812
2017 SAOR	2017:11:12:0.0000	7560.0000	12154113
2017 SAOR	2017:11:13:0.0000	7584.0000	12159092
2017 SAOR	2017:11:14:0.0000	7608.0000	12163756
2017 SAOR	2017:11:15:0.0000	7632.0000	12168138
2017 SAOR	2017:11:16:0.0000	7656.0000	12172276
2017 SAOR	2017:11:17:0.0000	7680.0000	12176193
2017 SAOR	2017:11:18:0.0000	7704.0000	12179910
2017 SAOR	2017:11:19:0.0000	7728.0000	12183446
2017 SAOR	2017:11:20:0.0000	7752.0000	12186815
2017 SAOR	2017:11:21:0.0000	7776.0000	12190047
2017 SAOR	2017:11:22:0.0000	7800.0000	12193147
2017 SAOR	2017:11:23:0.0000	7824.0000	12196130
2017 SAOR	2017:11:24:0.0000	7848.0000	12199021
2017 SAOR	2017:11:25:0.0000	7872.0000	12201808
2017 SAOR	2017:11:26:0.0000	7896.0000	12204486
2017 SAOR	2017:11:27:0.0000	7920.0000	12207064
2017 SAOR	2017:11:28:0.0000	7944.0000	12209553
2017 SAOR	2017:11:29:0.0000	7968.0000	12211944
2017 SAOR	2017:11:30:0.0000	7992.0000	12214254
2017 SAOR	2017:12:1:0.0000	8016.0000	12216489
2017 SAOR	2017:12:2:0.0000	8040.0000	12218663
2017 SAOR	2017:12:3:0.0000	8064.0000	12220790
2017 SAOR	2017:12:4:0.0000	8088.0000	12223082
2017 SAOR	2017:12:5:0.0000	8112.0000	12225232
2017 SAOR	2017:12:6:0.0000	8136.0000	12227323
2017 SAOR	2017:12:7:0.0000	8160.0000	12229354
2017 SAOR	2017:12:8:0.0000	8184.0000	12231323
2017 SAOR	2017:12:9:0.0000	8208.0000	12233234

## PCM Recharge Report

Sim	Absolute Time	Relative Time [hrs]	Recharge Volume [ft3]
2017 SAOR	2017:12:10:0.0000	8232.0000	12237955
2017 SAOR	2017:12:11:0.0000	8256.0000	12240321
2017 SAOR	2017:12:12:0.0000	8280.0000	12242713
2017 SAOR	2017:12:13:0.0000	8304.0000	12245090
2017 SAOR	2017:12:14:0.0000	8328.0000	12247434
2017 SAOR	2017:12:15:0.0000	8352.0000	12249734
2017 SAOR	2017:12:16:0.0000	8376.0000	12251983
2017 SAOR	2017:12:17:0.0000	8400.0000	12254176
2017 SAOR	2017:12:18:0.0000	8424.0000	12256311
2017 SAOR	2017:12:19:0.0000	8448.0000	12258387
2017 SAOR	2017:12:20:0.0000	8472.0000	12260393
2017 SAOR	2017:12:21:0.0000	8496.0000	12262306
2017 SAOR	2017:12:22:0.0000	8520.0000	12264168
2017 SAOR	2017:12:23:0.0000	8544.0000	12265971
2017 SAOR	2017:12:24:0.0000	8568.0000	12267728
2017 SAOR	2017:12:25:0.0000	8592.0000	12269438
2017 SAOR	2017:12:26:0.0000	8616.0000	12271092
2017 SAOR	2017:12:27:0.0000	8640.0000	12272697
2017 SAOR	2017:12:28:0.0000	8664.0000	12274261
2017 SAOR	2017:12:29:0.0000	8688.0000	12275792
2017 SAOR	2017:12:30:0.0000	8712.0000	12277300
2017 SAOR	2017:12:31:0.0000	8736.0000	12278773