August 22, 2025

Nate Senn, Environmental Consultant
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, Florida 32399-2400

Re: DEF DeLand West – Dona Vista 230 kV Transmission Line Project
Application for Transmission Line Siting Act Certification

Dear Mr. Senn:

Pursuant to the Florida Transmission Line Siting Act (TLSA), Section 403.52 *et seq*., Florida Statutes (F.S.) and Section 62-17.540, Florida Administrative Code (F.A.C.), Duke Energy Florida (DEF) is pleased to submit to the Florida Department of Environmental Protection (Department) its application for certification of the proposed DeLand West – Dona West 230 kV Transmission Line Project (Project). The Project involves the construction, operation, and maintenance of a 230 kV electric transmission line that will traverse portions of Volusia County, Lake County, the City of Umatilla, and the City of Eustis. A wire transfer in the amount of $126,187.50 was executed on August 12, 2025, made payable to the Department as DEF's application fee pursuant to Section 403.5365(1), F.S.

DEF's application presents the information required under the TLSA, in accordance with the Department's draft "Application Instruction Guide: Electrical Transmission Lines (TLSA)" dated September 28, 2009. Today DEF is providing copies of the TLSA application to the other agencies identified in Section 403.526(2), F.S., pursuant to Section 403.5251(1)(a), F.S., and as shown in the attached distribution list. For your convenience, DEF has prepared an Executive Summary (attached), which highlights the key features of DEF's Project and application.

DEF looks forward to working with the Department and affected agencies in the TLSA certification process. If you have any questions regarding this TLSA application, please do not hesitate to call me at (407) 942-9433 or via email at jason.rust@duke-energy.com.

Sincerely,

Jason Rust

DUKE ENERGY FLORIDA
Lead Siting Manager, Siting, Permitting & Environmental Oversight, Power Grid Operations

Attachments: TLSA Application

# DeLand West - Dona Vista TLSA Distribution List

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| Public Libraries | |
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| Eustis Memorial Library (Eustis, FL)<br>120 N Center Street<br>Eustis, Florida 32726<br>(352) 357-5686<br>Hours: Mon–Fri, 10:00 AM – 5:00 PM (Tues & Thurs open until 8:00 PM)<br>https://eustismemoriallibrary.org/<br>***1 paper copy and 1 electronic copy***<br><br>Umatilla Public Library (Umatilla, FL)<br>412 Hatfield Drive<br>Umatilla, Florida 32784<br>(352) 669-3284<br>Hours: Mon–Wed, 9:00 AM – 6:00 PM (Thu-Fri open until 5:00 PM, Sat open until 12 PM, Sun Closed)<br>mylakelibrary.org<br>***1 paper copy and 1 electronic copy*** | DeLand Regional Library (Volusia County Public Library System)<br>130 E Howry Avenue<br>DeLand, Florida 32724<br>(386) 822-6430<br>Hours: Mon-Thu, 9:00 AM – 7:00 PM<br>(Fri-Sat open until 5:00 PM,<br>Sunday 12:00 PM – 5:00 PM)<br>https://www.volusialibrary.org/hours-and-locations/<br>***1 paper copy and 1 electronic copy*** |

# EXECUTIVE SUMMARY

Duke Energy Florida (DEF) proposes to construct a new 230 kilovolt (kV) transmission line, DeLand West to Dona Vista (DWDV), which is scheduled to be in service by January 2030. This transmission line is needed to ensure the reliability of the electrical grid in the areas in western Volusia County and eastern Lake County.

**Regulatory Framework and Certification**

DEF is filing an application with the Florida Department for Environmental Protection (FDEP) pursuant to the Florida Electric Transmission Line Siting Act (TLSA), Sections 403.52 through 403.5365 Florida Statutes (F.S.), and Chapter 62-17, Part II, Florida Administrative Code (F.A.C.), for certification of the proposed DWDV transmission line corridor (Project). Certification under the TLSA is the sole license of the state of Florida and non-federal agencies for the approval of the location of the transmission line corridor and the construction and maintenance of the transmission line. Certification under the TLSA does not convey any property interest to DEF.

On June 9, 2025, a petition for determination of need for the DWDV Project was submitted to the Florida Public Service Commission (FPSC) pursuant to Section 403.537, F.S. On July 29, 2025, the FPSC issued a Final Order granting DEF's petition for the determination of need finding that: (1) there is a need for the DWDV Project and (2) the DeLand West and Dona Vista substations are appropriate starting and ending points for the DWDV Project.

**Corridor Description**

Given the need for the project, DEF assembled a team of subject matter experts to help select and define the DWDV corridor. DEF conducted an evaluation of alternative routes in a study area that included portions of Volusia County, Lake County, the City of Umatilla, and the City of Eustis. The DWDV corridor described in this application is approximately 26.26 miles from the existing DEF-owned DeLand West substation in Volusia County to the existing DEF-owned Dona Vista substation in Lake County (Figure ES-1), largely following DEF's existing transmission lines.

While the DWDV corridor largely follows existing transmission line right-of-way, the DWDV corridor, in most areas, is wider than the existing DEF right-of-way to allow for flexibility, particularly near the Paisley, DeLand West, and Dona Vista substations. Generally, the DWDV corridor includes 100 feet of existing DEF easement and an additional 100 feet on each side for flexibility in engineering design and construction, thus creating a 300-foot wide corridor. This is particularly the case for cross-country routes that do not have adjacent roads or other existing infrastructure. For other route configurations, the corridor width varies based on DEF easement width, desired flexibility buffer, road right-of-way width (when including both sides of the road), and in routing around existing substations. At its narrowest location, the DWDV corridor is 100 feet wide as it traverses the Ocala National Forest. At its widest near the Dona Vista substation, the DWDV corridor is approximately 1,700 feet wide, as there are multiple substation entry points being considered. Once the necessary additional property interests for the project have been acquired, the corridor boundaries will narrow to the final existing and acquired right-of-way and the remaining certified corridor will have no further legal significance. DEF plans to commence construction on the DWDV Project in early 2027 and energize the new transmission line in 2030.

It is DEF's intent that the new 230 kV transmission line would be co-located with existing transmission lines. At the time of construction, DEF's intent is to rebuild/upgrade an existing 69 kV transmission line in Volusia and Lake

Counties along the same route anticipated for the DWDV Project. This application, however, applies only to the proposed new 230 kV transmission line. DEF is still in the planning and design stages relative to any expansions or upgrades that may be needed for existing substations; any necessary expansions or upgrades are likewise not included for certification in this application. DEF is not aware of any variance, exception, or exemption from any applicable non-procedural requirements that will be needed for the Project. Specifically, Section 403.531(1), F.S. preempts local permitting authority: "*The certification shall constitute the sole license of the state and any agency as to the approval of the location of the transmission line corridors and the construction, operation, and maintenance of transmission lines.*" The need for a potential federal authorization has not yet been determined and will be evaluated after completion of the DWDV Project certified corridor.

**Transmission Line Design**

The DWDV Project will be constructed using primarily single-pole engineered steel and concrete structures directly embedded into the ground. While sections of the proposed DWDV transmission line will be single circuit, it is DEF's intent that most of the new 230 kV circuit would be co-located with the existing 69 kV transmission lines, thus DEF would rebuild structures where necessary to support double circuit construction. The typical aboveground structure heights will range from approximately 90 feet to 110 feet, depending on the structure design used and site-specific conditions. Actual structure heights may vary outside this range to accommodate specific regulatory constraints such as FAA airspace limitations near airports or to safely span existing infrastructure like roadways, railways, or other utility lines. Pole structures can reach up to 140 feet in some locations, such as when crossing roads or other existing facilities. Some structures may require guys and anchors where the transmission line turns at angles or crosses other major linear facilities. In some instances, the transmission line may also provide for other attachments such as electric distribution lines, communication facilities, or other utility companies' equipment.

The transmission line will comply with the National Electrical Safety Code (NESC) (Institute of Electrical and Electronics Engineers, Incorporated, 2023 Edition) as required by Section 366.04, F.S. and FPSC regulations. Clearance will also be provided for operational requirements of regulatory agencies, such as over county and Florida Department of Transportation roads. Right-of-way preparation and transmission line construction will be conducted in a manner to minimize effects on human populations, waterbodies, archaeological and historic sites, vegetation, and wildlife.

Once the design for the DWDV transmission line is finalized, detailed design information will be submitted to reviewing agencies for post-certification monitoring and compliance with the conditions of certification, as authorized by Rule 62-17.191, F.A.C.

**Environmental and Cultural Considerations**

Changes to vegetation, wildlife, and aquatic life are expected to be minimal as most of the existing transmission line right-of-way has historically been cleared of canopy species. Impacts to vegetation include selective clearing within the right-of-way, removal of woody vegetation, danger tree removal, easement stabilization, and access road and structure pad construction. Unavoidable wetland impacts will be compensated through purchase of credits from one or more agency-approved mitigation banks. Impacts to wildlife are expected to be minimal as individual species that may be temporarily displaced from the right-of-way during construction are likely to return following construction as a regularly mowed and maintained easement condition provides the herbaceous habitat these species prefer. Further evaluation will be undertaken once the final transmission line design has been determined. If any individual species are observed or if potential habitat exists within or directly adjacent to the

route, DEF will coordinate with the Florida Fish and Wildlife Conservation Commission (FWC) and/or U.S. Fish and Wildlife Service (USFWS) regarding avoidance and minimization of impacts as required.

In general, because of the temporary nature of the construction activities and the relatively short duration of the construction process at any given location, potential impacts experienced by the human populations residing or working adjacent to the transmission line right-of-way are anticipated to be minor.

The DWDV corridor crosses:

- Ocala National Forest (Lake County);
- Lower Wekiva River Preserve State Park (Lake County);
- Seminole State Forest (Lake County);
- St. Johns River (Lake and Volusia County);
- Wekiva River System (Lake County);
- Holman and Maxwell Conservation Easements (Lake County);
- Ed Stone Park (Volusia County)
- North Lake Community Park (Lake County)Tanner Preserve (Lake County).

Because the DWDV Project follows DEF's existing transmission line right-of-way through these areas, and is anticipated to remain within DEF's existing transmission line right-of-way where practicable, no adverse impacts to scenic, cultural, or natural landmarks are anticipated.

Following the certification of the DWDV corridor and selection of the right-of-way, a cultural resource assessment survey will be conducted that meets the requirements of Chapter 267, F.S., Chapter 1A-46 (Archaeological and Historical Report Standards and Guidelines), F.A.C., and applicable local government regulations. DEF will coordinate with the Florida Department of State, Division of Historical Resources (DHR) / State Historic Preservation Office (SHPO), to avoid these resources. If avoidance is not feasible, then DEF will coordinate with the DHR/SHPO to develop a strategy to minimize or mitigate impacts.

**Compliance with EMF and Noise Standards**

Safe and reliable operation of the new transmission line will be maintained through regular inspection of the structures, conductors, insulators, hardware, access areas, and vegetation in proximity to the facilities. The anticipated electric and magnetic fields produced by the DWDV transmission line will comply with the standards set forth in the Florida EMF Rule, Section 62-814.460, F.A.C. The DWDV transmission line design, construction, and operation will comply with applicable noise limits, as outlined in the following jurisdiction-specific requirements with relevant noise data to be reviewed prior to construction to confirm anticipated compliance. DEF will ensure full compliance with the Volusia County, Lake County, and the Cities of Umatilla and Eustis regulatory requirements outlined below.

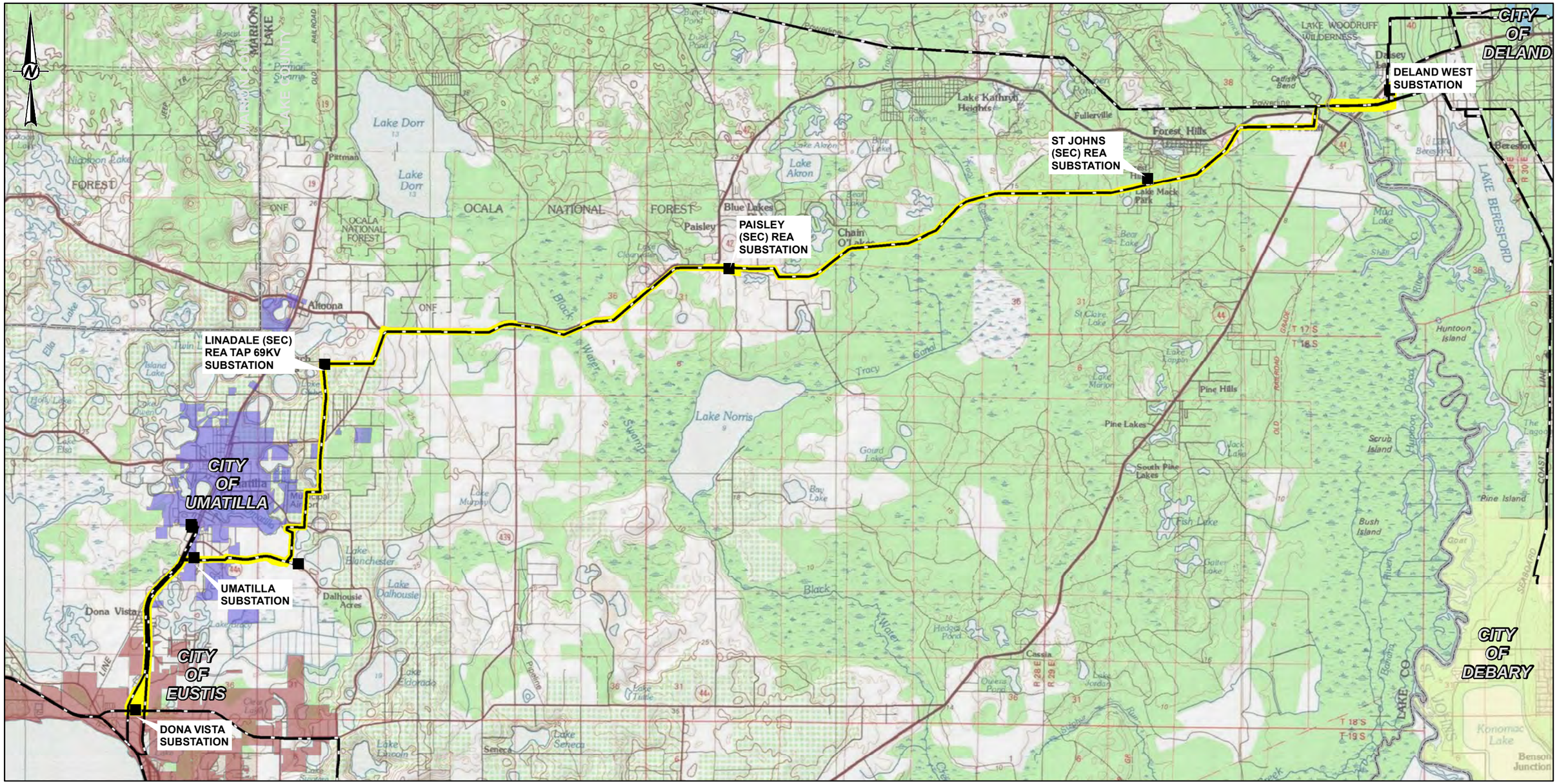
- Volusia County enforces its noise ordinance under Chapter 50, Article VI, Section 50-476 of the County Code of Ordinances. The ordinance applies to unincorporated areas and prohibits any "loud, disturbing, or unnecessary noises" that would disrupt a reasonable person of normal sensitivity. The County sets

specific decibel limits for residential zones: 60 dBA from 7:00 AM to 10:00 PM, and 55 dBA from 10:00 PM to 6:59 AM, reflecting a clear effort to preserve quiet during nighttime hours.

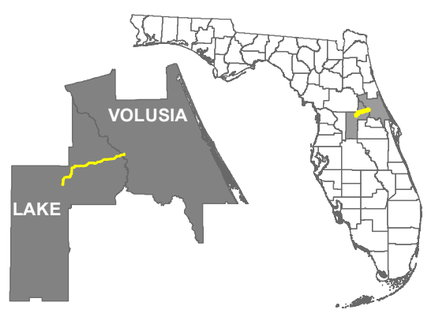
- Lake County's approach, outlined in Chapter 14, Article II, Section 14-34 of its Code of Ordinances, is broader and more qualitative. It prohibits excessive noise based on characteristics such as duration, frequency, and intensity, particularly when such noise may harm humans, animals, or property, or interfere with health, comfort, or business operations. While Lake County does not specify decibel thresholds, it restricts the use of outdoor tools and construction equipment in residential zones between 7:00 PM and 7:00 AM, except in emergencies (Section 14-35(1)).
- The City of Umatilla defines a noise disturbance under Chapter 34, Article IV, Section 34-43 of its Code of Ordinances. A disturbance is recognized when two or more conditions are met: the noise occurs during night hours, involves amplification, or is plainly audible from an adjoining unit. Additionally, vehicle-related noise is regulated under Chapter 34, Article IV, Section 34-44(9), which prohibits amplified audio that is plainly audible at a distance of 50 feet or more, or any noise that would disturb a reasonably prudent person. The City of Umatilla does not establish specific decibel limits.
- The City of Eustis adopts a performance-based standard under Chapter 34, Article V, Section 34-129(a). The ordinance requires that noise levels not exceed the ambient background level by more than 10 dBA at the receiving property between 7:00 AM and 10:00 PM Sunday through Thursday and 7:00 AM until 11:00 PM Friday and Saturday; and not to exceed 5 dBA above background noise between 10:00 PM and 7:00 AM the following weekday, or 11:00 PM until 7:00 AM the following day if the following day is a Saturday or a Sunday. This approach emphasizes contextual measurement and aims to minimize disruptions based on existing environmental conditions.

**Public Engagement**

DEF is committed to ensuring an open and transparent process throughout the design, licensing, and construction of the DWDV Project. To that end, DEF developed a public engagement program with the primary goals of providing accurate, clear, and timely information to the public on the DWDV Project. The Project was publicly announced by DEF in March 2025. DEF sent direct mail letters inviting approximately 1,000 property owners within 0.25 miles of the DWDV corridor to an open house meeting held on May 29, 2025, where approximately 200 people attended. All property owners who received the announcement, others who attended the open house, visitors to the website, and interested members of the public were given the opportunity to complete questionnaires and provide comments on the DWDV Project through interactive maps, email, telephone, and hardcopy forms. DEF has also reached out to and met with local community officials and leaders; maintains a website with information regarding the Project, a phone number and email address for any questions, an interactive map, and a virtual open house. DEF will continue to work to ensure that members of the public are informed regarding the DWDV Project.




- Existing Substation
- Duke Transmission Line
- DWDV Corridor
- County Boundary
- City of Debary Extent
- City of Deland Extent
- City of Eustis Extent
- City of Umatilla Extent

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PROJECT LOCATION**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

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# DELAND WEST – DONA VISTA

## 230 KV TRANSMISSION LINE CERTIFICATION APPLICATION

DUKE ENERGY®

**August 2025**

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## APPENDICES

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**APPENDIX B**
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## ACRONYMS

| | |
|---|---|
| ACLF | adult congregate living facility |
| ACSS/TW | aluminum conductor steel supported trapwire |
| AM | amplitude modulation |
| BMP | best management practice |
| CFA | core foraging area |
| CR | County Road |
| dBA | A-weighted decibel |
| DHR | Florida Department of State, Division of Historical Resources |
| DEF | Duke Energy Florida |
| DWDV | DeLand West to Dona Vista |
| ECO | Environmental Core Overlay |
| E | Endangered |
| EIA | Environmental Impact Assessment |
| EM | electromagnetic |
| EMF | electromagnetic field |
| EO | Element Occurrence |
| ERP | environmental resource permit |
| ESA | Endangered Species Act |
| F.A.C. | Florida Administrative Code |
| F.S. | Florida Statutes |
| FAA | Federal Aviation Administration |
| FDACS | Florida Department of Agriculture and Consumer Services |
| FDEP | Florida Department of Environmental Protection |
| FDOT | Florida Department of Transportation |
| FEMA | Federal Emergency Management Agency |
| FL | Florida |
| FLU | Future Land Use |
| FLUCFCS | Florida Land Use, Cover, and Forms Classification System |
| FM | frequency-modulated |
| FMSF | Florida Master Site File |
| FNAI | Florida Natural Areas Inventory |
| FPSC | Florida Public Service Commission |
| ft | Foot / Feet |
| FWC | Florida Fish and Wildlife Conservation Commission |
| GIS | geographic information system |
| km | Kilometers |
| kV | Kilovolt |
| LCA | Least Constraint Area |
| LCP | Least Constraint Path |
| LDC | Land Development Code |
| LDR | Land Development Regulations |

## ACRONYMS

| | |
|---|---|
| M | Meter |
| MCR | maximum current rating |
| MBTA | Migratory Bird Treaty Act |
| MMPA | Marine Mammal Protection Act |
| MS | Mini-study |
| NESC | National Electrical Safety Code |
| NRHP | National Register of Historic Places |
| NWI | National Wetland Inventory |
| OHGW | overhead ground wire |
| OFW | Outstanding Florida Water |
| REA | Rural Electric Association |
| ROW | Right-of-way |
| SAT | Threatened due to Similarity of Appearance to a Federally Listed Species |
| SEC | Seminole Electric Cooperative Inc. |
| SFETSR | State of Florida Endangered and Threatened Species Rule |
| SHPO | State Historic Preservation Office |
| SJRWMD | St. Johns River Water Management District |
| SME | subject matter expert |
| SR | State Road |
| SSC | Species of Special Concern |
| T | Threatened |
| TIITF | Board of Trustees of the Internal Improvement Trust Fund |
| TLSA | Florida Transmission Line Siting Act |
| UHF | ultra-high frequency |
| UMAM | Uniform Mitigation Assessment Method |
| USACE | U.S. Army Corps of Engineers |
| USFWS | U.S. Fish and Wildlife Service |
| VHF | very-high frequency |

# 1.0 PROJECT OVERVIEW

## 1.1 Project Introduction

Duke Energy Florida (DEF) proposes to construct a new 230 kilovolt (kV) transmission line, DeLand West to Dona Vista (DWDV) Project, which is scheduled to be in service by January 2030. The Florida Transmission Line Siting Act (TLSA) provides for the centralized and coordinated permitting of 230 kV and larger transmission lines that cross county boundaries and are longer than 15 miles in length. Certification under the TLSA is the sole license of the state of Florida and non-federal agency for the approval of the location of the transmission line corridor and the construction and maintenance of the transmission line. Certification under the TLSA does not convey any property interest to DEF.

The DWDV transmission line ("Project" or "DWDV Project") will consist of a single circuit 230 kV transmission line extending from the existing DEF-owned DeLand West substation located in Volusia County approximately 26.26 miles to the existing DEF-owned Dona Vista substation in Lake County (Figure 1-1). DEF does not propose to certify intermediate or terminal substations. The proposed corridor for the DWDV transmission line traverses through Volusia County, Lake County, and the Cities of Umatilla and Eustis. The proposed corridor predominantly follows DEF's existing transmission lines.

While the DWDV corridor largely follows existing transmission line right-of-way, the DWDV corridor, in most areas, is wider than the existing DEF right-of-way to allow for flexibility, particularly near the Paisley, DeLand West, and Dona Vista substations. Generally, the DWDV corridor includes 100 feet of existing DEF easement and an additional 100 feet on each side for flexibility in engineering design and construction, thus creating a 300-foot wide corridor. This is particularly the case for cross-country routes that do not have adjacent roads or other existing infrastructure. For other route configurations, the corridor width varies based on DEF easement width, desired flexibility buffer, road right-of-way width (when including both sides of the road), and in routing around existing substations. At its narrowest location, the DWDV corridor is 100 feet wide as it traverses the Ocala National Forest. At its widest near the Dona Vista substation, the DWDV corridor is approximately 1,700 feet wide, as there are multiple substation entry points being considered. Approximately 95% of the preferred corridor is located within or adjacent to DEF's existing right-of-way, except for areas near the DeLand West, Paisley, and Dona Vista substations. The existence of this existing right-of-way with linear facilities and the potential for co-location were important factors in the selection of the preferred corridor. The final width of additional acquired right-of-way will be dependent upon adjacent land uses, structures, and span lengths utilized. Once necessary additional property interests for the Project have been acquired, the corridor boundaries will narrow to the final existing and acquired right-of-way and the remaining certified corridor will have no further legal significance.

The format and content of this application follows the Florida Department of Environmental Protection (FDEP) draft *"Application Instruction Guide: Electrical Transmission Lines,"* dated September 28, 2009, and provides information concerning the Project, the corridor proposed for certification, and the impacts associated with the construction, operation, and maintenance of the proposed transmission line. Chapter 1 of the Application discusses the Florida Public Service Commission's determination of need for the Project, provides information about DEF, and gives an overview of the Project. Figure 1-2 identifies the study area evaluated for this Project, along with existing transmission lines and substations.

### 1.1.1 Need for the Project

Pursuant to Section 403.537, F.S., a petition for determination of need for the DWDV Project was submitted to the Florida Public Service Commission (FPSC) on June 9, 2025. The FPSC held a public hearing on the submitted petition on July 22, 2025 and issued a Final Order granting DEF's petition for the determination of need on July 29, 2025. A copy of the Final Order is provided in Appendix A. The DWDV Project is needed in 2030 to: (a) improve reliability for DEF customers served from the existing 69 kV circuits between the Haines Creek and Piedmont substations; (b) increase north-to-south power transfer capabilities, providing an additional transmission path and redistributing the power flows in Volusia and North Orlando; (c) maintain regulatory compliance; (d) relieve potential overloads and low voltage conditions under contingency events; and (e) reduce line loading on existing transmission circuits.

### 1.1.2 The Applicant

DEF, a subsidiary of Duke Energy, owns approximately 13,000 megawatts of energy capacity, supplying electricity to 2 million residential, commercial, and industrial customers across a 20,000-square-mile service area in Florida (DEF 2024). DEF's bulk transmission system is comprised of approximately 5,400 miles of transmission lines. Integration of the generation, transmission, and distribution systems is achieved through DEF's approximately 715 substations (DEF 2025) (Figure 1-3).

The following information provides the applicant identification requirements.

| | |
|---|---|
| Applicant's Official Name: | Duke Energy Florida, LLC (DEF) |
| | |
| Address: | 299 1st Avenue North Street, Petersburg, Florida 33701 |
| | |
| Address of Official Headquarters: | 526 South Tryon Street, Charlotte, North Carolina 28202 |
| | |
| Business Entity (corporation, partnership, co-operative): | Corporation |
| | |
| Name and Title of Chief Executive Officer: | Harry Sideris, President |
| | |
| Name, Address, and Phone Number of Official Representative responsible for obtaining certification: | Jason Rust, Lead Siting Manager<br>3300 Exchange Place, Lake Mary, Florida 32746<br>(407) 942-9433 |
| | |
| Counties Crossed: | Portions of Lake and Volusia counties |
| | |
| Incorporated Cities: | City of Eustis and City of Umatilla |
| | |
| Termination Points: | DeLand West substation and Dona Vista substation |
| | |
| Intermediate Substation: | None |
| | |
| Voltage: | 230 kV |
| | |
| Line Type (AC or DC): | AC |
| | |
| Length of Line and Number of Circuits: | Approximately 26.26 miles single circuit |

### 1.1.3 Maps

Figures depicting the proposed corridor are presented based on the format set forth in Sections 403.52 through 403.539, F.S., and outlined in the FDEP draft "*Application Instruction Guide: Electrical Power Plant Sites and Associated Facilities Electrical Transmission Lines,*" dated September 1, 2009—specifically, Sections 1.3.6 and 9.1 and the "*Application Instruction Guide: Electrical Transmission Lines (TLSA)*" dated September 28, 2009.

## 1.2 Project Description

The DWDV Project will consist of a single-circuit 230 kV transmission line extending approximately 26.26 miles from the existing DEF-owned DeLand West substation in Volusia County to the existing DEF-owned Dona Vista substation in Lake County (Figure 1-2). The proposed corridor predominantly follows DEF's existing 69 kV and 230 kV transmission lines. In most areas, the DWDV corridor is wider than the existing DEF right-of-way to allow for flexibility, particularly near the Paisley, DeLand West, and Dona Vista substations. For cross-country route configurations, the DWDV corridor includes 100 feet of existing DEF easement and an additional 100 feet on each side for flexibility in engineering design and construction, thus creating a 300-foot wide corridor. For route configurations adjacent to roads or other existing infrastructure, the corridor width varies based on DEF easement width, desired flexibility buffer, road right-of-way width (when including both sides of the road), and in routing around existing substations. At its narrowest location, the DWDV corridor is 100 feet wide as it traverses the Ocala National Forest. At its widest near the Dona Vista substation, the DWDV corridor is approximately 1,700 feet wide as there are multiple substation entry points being considered. The corridor traverses two counties (Volusia and Lake) and two municipal jurisdictions (Umatilla and Eustis). It is DEF's intent that most of the new 230 kV transmission line would be co-located with existing transmission lines. At the time of construction, DEF will also rebuild/upgrade an existing 69 kV transmission line in Volusia and Lake Counties along the same route anticipated for the DWDV Project. This application, however, applies only to the proposed new 230 kV transmission line. DEF is still in the planning and design stages relative to any expansions or upgrades that may be needed for existing substations, and any necessary expansions or upgrades are likewise not included for certification in this application.

## 1.3 Transmission Line Design and Characteristics

The DWDV Project will be constructed using primarily single-pole engineered steel or concrete structures directly embedded into the ground. While sections of the proposed DWDV transmission line will be single circuit, it is DEF's intent that most of the new 230 kV circuit be co-located with the existing 69 kV transmission line on a double-circuit (ED and EU; discussed in Section 2.2.1), thus DEF would rebuild structures where necessary to support double-circuit construction. Poles will be configured with back-to-back or vertically stacked framing, with braced post in a vertical configuration. The typical aboveground structure heights will range from approximately 90 feet to 110 feet, depending on the structure design used and site-specific conditions. Typical cross-section configurations, both where double-circuit and single-circuit structures are anticipated to be used for the DWDV Project, are included in Figures 1-4 through 1-11. Figure 1-4 shows the anticipated locations of each typical cross-section along the DWDV corridor, and Figure 1-5 through Figure 1-11 depict the typical cross-sections. Special structures and conductor configurations other than those shown may be required at specific locations, such as the crossings of major roads, intersections, railroads, waterbodies, and restricted airspace. Pole structures can reach up to 140 feet in some locations, such as when crossing roads or other existing facilities. Some structures may require guys and anchors where the transmission line turns at angles or crosses other major linear facilities. In some instances, the transmission line may also provide for other attachments such as electric distribution lines, communication facilities, or other utility companies' equipment.

The proposed conductor for the 230 kV transmission line is to be a single conductor 1622 thousand-circular mil aluminum conductor steel supported trapwire 39/19 (ACSS/TW) (Pecos). The maximum current rating is 2,510.1 amperes for 1622 (Pecos). The Maintained Continuous Rating is the nominal value that would be expected to cause the conductor to reach its design temperature limit of 180°C (356°F).

The typical structure configurations are depicted in Figure 1-12 through Figure 1-14. The typical span lengths between structures will range from approximately 300 feet to 800 feet, but will be based on the topography of the specific route, the width of the right-of-way, and other transmission engineering design parameters. The conductors will be attached to the structure using braced post insulators. Transmission line conductor vertical clearances will vary along the length of the transmission line. In all instances, the transmission line will comply with the National Electrical Safety Code (NESC) (Institute of Electrical and Electronics Engineers, Incorporated, 2023 Edition) as required by Section 366.04, F.S. and FPSC regulations. Figure 1-15 through Figure 1-17 show typical conductor profiles and clearances for the DWDV Project. Clearance will also be provided for operational requirements of regulatory agencies, such as over county and Florida Department of Transportation (FDOT) roads.

### 1.3.1 Access Roads and Structure Pads

Access roads, easement stabilization, and structure pads are required to provide efficient and safe ingress and egress to the transmission line structures for construction and long-term maintenance of the DWDV Project.

Unpaved access roads are available within the existing DEF right-of-way in areas without established roadways, and will be used for the construction and maintenance of the DWDV Project. Based on their condition, some improvements to these existing access roads may be required. Where needed, structure pads will be constructed adjacent to the existing access roads to facilitate construction and maintenance of the new transmission line.

DEF plans to maximize the use of existing access roads that are currently used for DEF's existing transmission lines. Where adequate access roads or structure pads do not exist, new roads and pads will need to be constructed.

DEF may consider the construction of at-grade access roads where new access roads are required in either uplands or wetlands. Above-grade access roads may be constructed in areas prone to flooding, erosion, or structural failure. Based on review of desktop data and field observations of wetlands within the existing DEF right-of-way and the DWDV corridor, additional wetland fill and canopy clearing may be required during construction. However, many of the wetlands within the existing DEF right-of-way were previously impacted. Where construction of access roads and structure pads is required in wetlands, DEF will use erosion control best management practices (BMPs) such as silt fencing, staked turbidity barriers, or floating turbidity screens to minimize any secondary impacts to wetlands and waterbodies and ensure that state water quality standards for turbidity are met. Where applicable, specific locations and design of access roads or pads within wetlands will be part of the final design of the transmission line to be submitted to agencies as a post-certification submittal in compliance with the conditions of certification. Design details such as top of grade, high water table levels, and specific BMPs will be determined once the final route is identified and designed. Figure 1-18 shows a cross-section view of a typical structure pad and access road.  No new bridges are anticipated to be constructed for the DWDV transmission line.

## 1.4 Cost Projections

Cost projections for the DeLand West to Dona Vista transmission line are based on preliminary design data and estimate costs. The actual costs for the transmission line will depend upon the final location within the corridor, line length, structure configuration, the number and type of structures, mitigation costs, costs of right-of-way, encroachment removals, and other site-specific conditions. The exact location, number, and types of structures needed will be determined following certification of the corridor and selection of the right-of-way.

The estimated total construction cost is $164.8 million or $6.3 million per mile, which includes the DWDV 230 kV transmission line proposed for certification as well as the rebuild of the existing 69 kV line. The actual cost per mile will vary based on site-specific conditions.

| **Project Components** | **Estimated Cost** |
|---|---|
| DeLand West to Dona Vista 230 kV Transmission Line | $158.9 million |
| DeLand West Substation: New Line Terminal | $2.3 million |
| Dona Vista Substation: New Line Terminal | $3.6 million |
| **Total** | $164.8 million |

# 2.0 DESCRIPTION OF CORRIDOR

The following sections describe the methodology used to identify alternative routes, conduct comparative evaluations, and identify a route that was subsequently used for corridor development and description (Sections 2.1 through 2.3). The following sections also provide descriptions of the social and political environment (Section 2.4) and the biological and physical environment (Section 2.5) of the corridor being submitted for TLSA certification (DWDV corridor).

The goal was to develop a corridor for the placement of a new 230 kV transmission line between the existing DeLand West and Dona Vista substations that would minimize overall impacts to the surrounding area. The process included a study area characterization, alternative route evaluations, and corridor development. The identified corridor maximizes co-location with existing DEF transmission lines while minimizing adverse impacts, new right-of-way acquisition, and engineering challenges. The evaluation includes information gathered through desktop studies, field reconnaissance, public engagement, and state and local government agency discussions.

As shown in the Figure 2-1 map series, the DWDV corridor originates at the existing DEF-owned DeLand West substation located in Volusia County and terminates at the DEF-owned Dona Vista substation in Lake County. Approximately 95% of the proposed DWDV corridor follows DEF's existing right-of-way, which includes portions of seven existing transmission lines and six existing substations. The existing substations along the corridor include DeLand West, St. Johns Seminole Electric Cooperative Inc. (SEC) Rural Electric Association (REA), Paisley (SEC) REA, Linadale (SEC) REA, Umatilla, and Dona Vista. Areas in proximity to the DeLand West, Paisley, and Dona Vista substations will require new transmission line rights-of-way.

The DWDV corridor varies in width between 100 feet and approximately 1,700 feet and predominantly follows DEF's existing transmission lines. The extent of the DWDV corridor, in most areas, is wider than the existing DEF right-of-way boundaries to allow for flexibility in engineering design and construction. In the portion of the DWDV corridor that traverses government-managed lands, the corridor is limited to the width of the existing 100-foot DEF right-of-way. The corridor east of the St. Johns River is widened beyond the existing DEF right-of-way to approximately 900 feet to allow for flexibility when evaluating ways to cross the river and reconnect with the existing DEF right-of-way. The corridor east and south of the Paisley substation is widened beyond the existing DEF right-of-way and the substation extent to approximately 700 feet due to the need for additional right-of-way in this area based on potential physical constraints. Likewise, the DWDV corridor near the Dona Vista substation is widened beyond the existing DEF right-of-way and surrounding road right-of-way to approximately 1,700 feet to allow for flexibility in entering the substation from different directions.

DEF's existing transmission lines are co-located adjacent to State Route (SR) 44, County Road (CR) 42, SR 19, and CR 19A. The DWDV proposed corridor width along these major roads varies from approximately 220 feet to 540 feet to allow for flexibility in engineering design and construction.

Following certification and detailed design, the typical DWDV right-of-way width to be located within the corridor will range from 100 feet where the route will be cross-country and 55 feet where the route will be adjacent to road right-of-way. New or additional right-of-way is anticipated to be limited to where DEF's existing transmission lines are located within or adjacent to road right-of-way, near the Paisley substation, and near the Dona Vista substation. The areas where new or additional right-of-way may be needed are where the existing DEF right-of-way is not adequate to accommodate the new DWDV transmission line.

## 2.1 Corridor Selection

The objective of the DWDV corridor selection study was to evaluate alternative routes from the DeLand West substation to the Dona Vista substation within the study area, and to develop a certifiable corridor that would appropriately balance land use, socioeconomic, environmental, engineering, cost, public input, reliability, safety, and constructability considerations.

The corridor selection study began with extensive data collection to establish and characterize the study area based on a set of evaluation criteria grouped into Social, Land Use, Environmental, and Engineering categories. A geographic information system (GIS) was used to run a constraint and opportunity (suitability) analysis on the study area to help identify areas suitable for the development of the DWDV Project. The study was supplemented with field reconnaissance to gain a first-hand account of the suitability within the study area. DEF established a multidisciplinary Project team consisting of subject matter experts in transmission line engineering, environmental science and permitting, land use planning, construction, operations, system planning, asset protection, real estate, government and community relations, and public engagement. This team focused on identifying and evaluating alternative routes and ultimately developing a corridor that appropriately balances safety, reliability, environmental and land use considerations, public input and concerns, regulatory requirements, and constructability criteria. The corridor selection study process includes the following:

- Establishment of study area, evaluation criteria, and GIS database
- Constraint and opportunity (suitability) analysis
- Identification and evaluation of alternative routes
- Field reconnaissance
- Public involvement
- Corridor development

### 2.1.1 Establishment of Study Area, Evaluation Criteria, and GIS Database

The Project team established a study area that would allow for the evaluation of an area large enough to include existing DEF infrastructure and alternatives to existing infrastructure with the goal of minimizing impacts on the existing and planned development of the surrounding community. Desktop data was collected from publicly available sources and stored in a geospatial database. Environmental, land use, engineering, safety, and cost criteria were developed to evaluate alternative routes.

#### *2.1.1.1 Establishment of Study Area*

The Project team established a study area boundary that would allow for adequate evaluation of areas in proximity to existing DEF infrastructure and alternatives to existing infrastructure, with the goal of meeting DEF's need for the transmission line from the DeLand West substation to the Dona Vista substation, while minimizing impacts on the public and environment. The study area, shown in Figure 1-2, is an irregular-shaped area centered on the existing DEF right-of-way between the DeLand West and Dona Vista substations and extends northward to include CR 42 and southward to include CR 44.

**Northern Boundary** — The northern study area boundary is, at its closest point, 0.8 miles north of and parallel to CR 42. The boundary is north enough to include portions of the DeLand West to Silver Springs 230 kV transmission line.

**Eastern Boundary** — The eastern study area boundary is approximately 1.0 mile east of where CR 44 crosses the St. Johns River. From this point, the boundary is approximately 1.0 mile east of and parallel to CR 44 in a southwesterly direction.

**Western Boundary** — The western study area boundary is approximately 0.4 miles west of and parallel to SR 19 between Umatilla and the northern part of the City of Eustis at the SR 19 and CR 44 intersection.

**Southern Boundary** — The southern study area boundary is approximately 0.6 miles south of and parallel to CR 44 and includes the existing Haines Creek to Sorrento 230 kV transmission line.

The study area includes portions of seven DEF 230 kV transmission lines and six substations. Five of the transmission lines run between the DeLand West and Dona Vista substations. The study area includes portions of Volusia County and Lake County, as well as the City of Umatilla and City of Eustis.

#### *2.1.1.2 Establishment of Evaluation Criteria*

Environmental, land use, engineering, safety, and cost criteria were developed to evaluate alternative routes. Criteria were evaluated in two phases: (1) suitability and (2) alternative route evaluation. The suitability study identified areas within the project study area that were favorable for the DWDV 230 kV transmission line. The alternative route evaluation focused on the quantitative and qualitative evaluation of criteria associated with alternative routes in the study area. The evaluation criteria for both the suitability and the alternative route evaluation are presented in Table 1. The suitability criteria are included in Table 2 and the quantitative evaluation criteria are included in Table 3. Quantitative evaluation criteria were developed by identifying measurable criteria in terms of counts, length, and area. Additionally, qualitative evaluation criteria were developed based on non-quantifiable project considerations that included information gathered through state and local agency discussions, field reconnaissance, and engineering considerations.

#### *2.1.1.3 Establishment of GIS Database*

The evaluation criteria were selected by the Project team to assess a wide range of factors influencing a suitable location for a new transmission line. The evaluation criteria were divided into four categories: Social, Land Use, Environmental, and Engineering considerations. The evaluation criteria, described in Table 1, were populated using the following data sources:

- Volusia County and Lake County Property Appraiser parcel boundaries and tax roll data
- Microsoft Bing building footprints
- Information from Volusia County and Lake County regarding existing and proposed schools, community facilities, parks, roadway improvements, scenic roadway designations, and planned developments
- Volusia County, Lake County, City of Eustis, and City of Umatilla comprehensive plans, future land use maps, zoning maps, and land development regulations
- Florida Department of State, Division of Historical Resources Master Site File (FMSF)
- Cultural resource data review of the Florida Master Site File and the National Register of Historic Places (NRHP). This task included an evaluation of documented cultural resources and a desktop evaluation of cultural resource potential within the study area.
- Florida Department of Health, Well Surveillance Program

- DEF existing transmission line right-of-way, structure locations, planned substation layouts, and fee-owned property boundaries
- Florida Department of Revenue land use codes to determine primary use types for each parcel property
- Florida Department of Transportation data including road centerlines, functional class attributes, and aerial imagery
- Florida Geographic Data Committee geospatial data clearinghouse for various Florida statewide data such as federal lands, railroads, military lands, Indian reservations, and city and county boundaries
- Florida Natural Areas Inventory's (FNAI) Florida Managed Areas to identify conservation areas and other lands managed by the state of Florida
- Federal Emergency Management Agency (FEMA) Flood Hazard Areas
- FNAI element occurrence data for plant and animal species information
- Florida Fish and Wildlife Conservation Commission (FWC) protected wildlife species and habitat data
- FWC and Audubon Society Bald Eagle Nest Database for known bald eagle nest locations
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data
- St. Johns River Water Management District (SJRWMD) land use/land cover data
- U.S. Geological Survey sinkhole observations and karst area data
- Eris Radius Report (environmental records search) to identify potentially contaminated land and environmental risks

Spatial data associated with the evaluation criteria were loaded into the spatial data model and used during the suitability and quantitative data analyses.

Additionally, the Project team visited portions of the study area accessible to the public. The project database was updated based on the field observations. Estimated cost discussions were a collaborative effort among transmission line engineers, real estate specialists, and environmental permitting specialists.

### 2.1.2 Route Identification and Evaluation

The study area was evaluated using a geospatial-based suitability analysis to further characterize the study area and identify suitable alternative routes between the two substations.

The suitability criteria were grouped into Social, Land Use, Environmental, and Engineering categories. Weights were assigned to each category criterion, while equal weights were applied to the four main categories. Favorable criteria were assigned weight values that represented high, medium, or low favorability (opportunities). Similarly, unfavorable criteria were assigned weight values that represented high, medium, or low unfavorably (constraints). Those criteria assigned as background were included as an overlay but not considered in the weighting component of the analysis. Exclusion areas, indicated by exclusion criteria, were removed from the suitability study, thereby removing these areas from consideration. For example, federal and tribal lands were excluded from consideration, except for areas where existing DEF right-of-way intersects federal land. DEF right-of-way was given precedence over constraints and exclusions as DEF has existing infrastructure and right-of-way in

these areas. This created a direct opportunity path between the DeLand West and Dona Vista substations. The suitability indicators and assigned weights are presented in Table 2 and Figure 2-2 depicts the results of the suitability mapping.

The suitability raster surface was used to identify a Least Constraint Path (LCP) and Least Constraint Area (LCA) between the DeLand West and Dona Vista substations. The LCP represents the path with the least constraints between the two substations. The LCA represents an area of suitability within a given percentage of the values associated with the LCP.

Two scenarios were run to identify alternative paths between the DeLand West and Dona Vista substations. The first using the unobstructed DEF right-of-way. The result of this analysis is a path that generally follows the existing DEF right-of-way between the DeLand West and Dona Vista substations. The second scenario excluded the 0.3 miles of existing DEF right-of-way that traverses the Ocala National Forest (federal land), to identify alternative routes outside of the existing DEF right-of-way. The result of the second scenario was primarily a cross-country route that traversed undeveloped land as those areas had fewer encumbrances. Although being adjacent to linear facilities such as roads and pipelines was an opportunity, the length of those routes coupled with constraints made them less favorable when compared to a more direct cross-country route.

#### *2.1.2.1 Identification of Alternative Routes*

Alternative routes were identified using the suitability analysis results as well as incorporating alternative routes with adjacency to existing linear facilities such as existing transmission lines and major roads. The following principles were taken into consideration in making that decision:

- Maximization of co-location with existing DEF transmission lines
- Maximization of co-location with other linear features, including arterial and collector roads and railroads
- Minimization of the need to acquire new right-of-way
- Minimization of locations close to existing residences
- Minimization of need to acquire and remove structures located within the proposed right-of-way area
- Minimization of locations close to schools and other community facilities
- Minimization of locations close to known listed species of flora and fauna
- Minimization of locations close to sites listed in the National Register of Historic Places (NRHP)
- Minimization of locations in state lands or other conservation areas or parks
- Minimization of impacts to wetlands
- Minimization of traffic congestion and business access during construction and maintenance of the transmission line
- Minimization of the severance of land under common ownership

The evaluation of alternative routes was an iterative process in which several comparisons and combinations of route segments were evaluated using the criteria listed in Table 1.

#### 2.1.2.2 Route Evaluation

A route segment is the smallest component of a full route. The route segments were assigned profile dimensions corresponding to right-of-way requirements and were connected end-to-end to create full alternative routes between the end points. There were 133 route segments created during the alternative route evaluation. There were 27 route segments removed from further consideration based on Project team discussions and field visit observations. The remaining route segment centerlines and right-of-way extents were drawn according to engineering requirements for the DWDV Project and used in the alternative route and mini-study evaluations (Figure 2-3).

The route segments were connected to form full routes that represent the alignments of new transmission lines. Alternative routes were created by varying which route segments were used to form the alignments. The alternative routes were loaded into a geospatial data model along with spatial and tabular data from the Social, Land Use, Environmental, and Engineering categories. The data model was used to provide consistent and repeatable quantitative results that were used as input for an options analysis framework where quantitative data are weighted and alternative routes are scored. The quantitative criteria considered in the options analysis are presented in Table 3.

Due to the diversity of constraints across the study area, localized studies, called mini-studies, were used to evaluate specific route segments to minimize the number of full route options in the study. Mini-study routes and full routes were evaluated using the same criteria and weights referenced above. The location of the mini-studies and full route alternatives are shown in Figure 2-3.

The goal of each mini-study is to identify the route segments with fewer constraints to narrow down the number of alternative routes to continue further in the evaluation. There were two mini-study areas identified in this study:

- MS01 — Existing DEF Right-of-Way vs. CR 42 Adjacency: The purpose of this mini-study was to compare the existing DEF right-of-way (MS01-01) to being adjacent to CR 42 (MS01-02). The routes have common end points. The routes begin along the existing DeLand West to St. Johns 69 kV transmission line approximately 1.2 miles east of the St. Johns substation, where the existing line exits the Lower Wekiva River Preserve State Park and ends near the CR 42 intersection with Maggie Jones Road just west of the Paisley substation. The existing DEF right-of-way route (MS01-01) was more favorable than the CR 42 (MS01-02) route because it had fewer residential property impacts and maximized co-location within existing DEF right-of-way. The route segments associated with MS01-02 were made inactive as well as any connecting segments used to divert around the unincorporated towns of Forest Hills and Paisley. The segments associated with MS01-01 remained active and moved forward into the full route evaluation.
- MS02 — CR 44 Adjacency vs. a new Cross-country Route: The purpose of this mini-study was to compare adjacency to CR 44 (MS02-01) and a cross-country route (MS02-02) that navigated along property lines through the center of the study area. The cross-country route area was identified during the suitability mapping and refined by the Project team as an alternative to road adjacency. The routes begin along CR 44 near Pine Forest Park and end at the intersection of CR 44 and Lake Norris Road. MS02-01 was more favorable than MS02-02 because it maximized road adjacency and impacted fewer residential communities, airfields, and conservation lands. The route segments associated with MS02-02 were made inactive as well as any segments that branched off from Lake Norris Road to connect to

active segments on the west side of the study area. The segments associated with MS02-01 remained active and moved forward into the full route evaluation.

The remaining active route segments were connected to form four alternative routes with each connecting the DeLand West substation to the Dona Vista substation. The four routes are identified and described as follows:

- R001 (26.27 Miles) — This route maximizes the use of existing DEF right-of-way between the DeLand West and Dona Vista substations. The route utilizes a portion of the Enola to Haines Creek 69 kV transmission line along SR 19A to enter the Dona Vista substation at the northwest corner.
- R002 (25.39 Miles) — This route maximizes road adjacency. It follows CR 44 to CR 44A and co-locates within the DEF existing Haines Creek to Sorrento 230 kV transmission line right-of-way to enter the Dona Vista substation at the southeast corner.
- R003 (26.92 Miles) — This route follows the R002 alignment but continues along CR 44 (past CR 44A) to co-locate within the DEF existing Haines Creek to Sorrento 230 kV transmission line right-of-way.
- R004 (26.35 Miles) — This route follows the R001 alignment but uses a portion of the DEF existing Eustis to Umatilla 69 kV transmission line to enter the Dona Vista substation at the northeast corner.

The quantitative results were input into an options analysis framework where the quantitative data were weighted, and alternative routes were scored.

Each route is scored in each of the four criteria categories: Social, Land Use, Environmental, and Engineering. The four scores attributed to each alternative route are averaged into a Single Score, which represents the route's overall score. The alternative route with the best Single Score (71%) was R001. The scores for R001 were well balanced across the categories with the highest score in the Engineering category and above-average scores in the other categories. R004 was in a close second place (69%) but had a lower Social score due to its proximity to residential properties along SR 19. Routes R002 and R003 performed poorly (33% and 32%, respectively) due to crossing numerous roads, conservation lands, residential properties, a school, and two community facilities. The quantitative results are tabulated in Table 4.

The Project team concluded that routes R001 and R004, which maximize the use of existing DEF right-of-way, provided the most opportunity and minimized overall impacts to the surrounding area. The Project team also determined that permitting, rebuilding, and new construction would be feasible within the existing DEF right-of-way. For these reasons, the DWDV corridor was delineated around routes R001 and R004 and widened in the areas around the DeLand West, Paisley, and Dona Vista substations due to constraints. A large-scale map series showing the DWDV corridor in more detail is included as Figure 2-4.

### 2.1.3 Public Involvement

DEF developed a public engagement program with the primary goals of providing accurate, clear, and timely information to the public on the DWDV Project.

DEF hosted an information session/open house in Lake County to provide project information and solicit comments. Letters of invitation were mailed to approximately 1,000 property owners with addresses within 0.25 miles of the DWDV corridor. The letters were used to provide project information and encourage attendance at the open house. DEF also created a project website, email address, and toll-free telephone number where members of the public could find more information and submit comments and questions.

The Project team shared the project information with state and local governmental agencies during the DWDV corridor selection study. The information provided during the public involvement program included the need for the DeLand West to Dona Vista Project, a description of the DWDV corridor, the siting and regulatory approval process, and opportunities for public involvement.

#### *2.1.3.1 Stakeholders List*

A list of stakeholders was developed that included elected and appointed officials, regulatory agencies, and property owners within 0.25 miles of the DWDV corridor.

#### *2.1.3.2 Information Distribution*

The following methods were used to distribute information to stakeholders:

- Direct contact with elected and appointed officials and agency representatives
- Community notification letter distributed to property owners
- Public open house session with distribution of a project questionnaire

**Elected and Appointed Officials and Agency Representatives**

Representatives of the DWDV Project team met with county and municipal representatives to describe the proposed project and licensing process, to identify potential areas and issues of concern, and to obtain comments concerning ongoing government projects within the project study area. The Project team described the TLSA process, the need for the project, and the DWDV corridor selection process. In return, representatives provided valuable information regarding existing and future projects and community issues. Affected agencies' planned role in the TLSA certification process was also discussed. Information obtained from discussions with officials and agency representatives was taken into consideration during the evaluation process.

**Community Notification Letter**

Approximately 1,000 property owners within 0.25 miles of the DWDV corridor were sent a community notification letter with a map depicting the DWDV corridor. The letter provided a description of the DWDV Project and notification of the public open house session, as well as the contact information for the DEF public engagement director.

**Public Open House Session**

On 29 May 2025, an open house was held at the First Baptist Church of Umatilla at 550 Hatfield Drive, Umatilla, Florida in Lake County. Representatives of the DWDV Project team were available during the session to discuss the project. Attendees were encouraged to sign in (providing name, address, and general contact information) and were provided a project questionnaire to share opinions and make comments about the DWDV Project.

Stations were set up with subject matter experts to allow members of the public to walk through the open house session and gather information about the DWDV Project and the TLSA siting process. Exhibits included:

- A map of the DWDV corridor
- Typical 230 kV transmission line structure profiles planned for the DWDV Project
- Mapping stations where attendees could search for their property and view it in proximity to the DWDV corridor

- Stations staffed with subject matter experts such as siting, legal, real estate, transmission line engineering, construction, environmental permitting, health and safety, and transmission line planning

Approximately 200 people attended the open house. A total of fourteen questionnaires were filled out and returned to the DWDV Project team. Appendix B contains the community notification letter and information that was distributed to the public at the open house.

To support public engagement and transparency, Duke Energy developed and published a virtual open house application for the DeLand West to Dona Vista Reliability Project. This publicly accessible platform allows community members to explore project details and learn about the transmission line study through interactive maps, documents, and contact resources.

## 2.2 Corridor Development

The DWDV corridor was developed to include route segments that follow DEF's existing transmission lines between the DeLand West and Dona Vista substations. As shown in the Figure 2-1 map series, the DWDV corridor is irregularly shaped as it varies in width from a minimum of 100 feet to a maximum of approximately 1,700 feet. The width of the DWDV corridor is based on the potential need for flexibility outside of existing transmission line right-of-way. While the DWDV corridor largely follows existing transmission line right-of-way, in most areas, the DWDV corridor is wider than the existing DEF right-of-way boundaries to allow for flexibility in engineering design and construction. The portion of the DWDV corridor that traverses national land is limited to the width of the existing 100-foot-wide DEF right-of-way. The corridor east of the St. Johns River is widened beyond the existing DEF right-of-way to approximately 900 feet to allow for flexibility when evaluating ways to cross the river and reconnect with the existing DEF right-of-way. The area east and south of the Paisley substation is wider (approximately 700 feet) due to the need for additional right-of-way in this area based on potential physical constraints. Likewise, the DWDV corridor near the Dona Vista substation is wider (approximately 1,700 feet) to allow for flexibility in entering the substation from different directions. DEF's existing transmission lines are collocated with State Route (SR) 44, County Road (CR) 42, SR 19, and CR 19A. Therefore, these major roads are within the DWDV corridor to allow for flexibility in engineering design and construction. The approximate corridor width along major roads varies in width between 220 feet to 540 feet.

### 2.2.1 Corridor Description

The DWDV corridor is approximately 26.26 miles long, ranges from 100 feet to approximately 1,700 feet wide, and largely follows existing DEF transmission lines between the DeLand West and Dona Vista substations. The eastern 1.24 miles of the DWDV corridor is in unincorporated Volusia County and the western 25.03 miles of the DWDV corridor is in Lake County, with sections of the DWDV corridor intersecting the cities of Umatilla and Eustis.

Refer to Figure 2-4 for a detailed map series showing the DWDV corridor.

The DWDV corridor includes portions of the following overhead transmission lines: DeLand West to Silver Springs 230 kV; DeLand West to St. Johns (SEC) 69 kV; St. Johns (SEC) to Umatilla (SEC) 69 kV; Umatilla to Umatilla (SEC) 69 kV; Eustis to Umatilla 69 kV; Enola to Haines Creek 69 kV; and the Haines Creek to Sorrento 230 kV transmission line. Co-location with existing DEF transmission lines and roads is maximized to the extent practicable to minimize impacts to the surrounding area.

Following certification and detailed design, the typical right-of-way width to be located within the corridor will range from 100 feet where the route will be cross-country to 55 feet where the route will be adjacent to road right-of-way.

New or additional right-of-way is expected to be limited to where DEF's existing transmission lines are located within or adjacent to road right-of-way, near the Paisley substation and near the Dona Vista substation. The areas where new or additional right-of-way may be needed are where the existing DEF right-of-way is not adequate to accommodate the new DWDV transmission line.

## Volusia County

The Volusia County portion of the DWDV corridor is 1.23 miles long. Of that length, 0.25 miles is on or adjacent to the DeLand West substation parcel owned in fee by DEF. The DWDV corridor extends from the southwest corner of the DeLand West substation property and runs west along and adjacent to the existing DEF right-of-way that includes the DeLand West to St. Johns 69 kV SEC (ED) and DeLand West to Silver Springs 230 kV (SDW) transmission lines. The corridor runs adjacent to both the north and south sides of the existing DEF transmission lines for 0.98 miles across SR 44 and passes through the St. Johns Marina and Resort located on the east side of the St. Johns River. The DWDV corridor through this area is comprised of the existing DEF right-of-way (100 feet wide) and approximately 400 feet on both the north and south sides of the existing DEF right-of-way to allow for flexibility during design and construction. Making the total width of the DWDV corridor between the DeLand West substation and the St. Johns River approximately 900 feet. See Figure 2-4.

## Lake County

### *St. Johns River to Umatilla (SEC) REA Substation*

The Lake County portion of the DWDV corridor is 25.03 miles long. After crossing the St. Johns River into Lake County, the DWDV corridor continues west following the DEF ED line for approximately 22.3 miles. At the west bank of the river, the DWDV corridor narrows from 900 feet to 100 feet to match the existing DEF right-of-way width traversing through approximately 800 feet of the Ocala National Forest. While traversing the National Forest, approximately 0.14 miles from the river crossing, the DWDV corridor turns south following the existing ED transmission line. After exiting the National Forest, the DWDV corridor continues to follow the existing ED transmission line and widens to approximately 300 feet. The 300-foot-wide corridor continues along the ED transmission line 1.8 miles through the Lower Wekiva River Preserve State Park and continues another 1.2 miles to the St. Johns (SEC) REA substation. At this point, the DeLand West to St. Johns 69 kV SEC line enters the substation while the St. Johns to Umatilla 69 kV SEC exits into the ED right-of-way. The 300-foot-wide corridor continues west centered on the ED line to the Paisley substation. Along this stretch, the corridor traverses portions of the Seminole State Forest. In the area of the Paisley substation, the DWDV corridor widens from approximately 400 feet to 700 feet to provide flexibility to go around the substation due to the physical constraints. West of the Paisley substation, the DWDV corridor continues to follow the ED transmission line, which runs adjacent to the southside of CR 42, east side of CR 450, southside of Baker Road, and east side of Roger Giles Road. While adjacent to CR 42 road right-of-way, the DWDV corridor widens to 366 feet and traverses portions of the Seminole State Forest, Holman Conservation Easement, and Maxwell Conservation Easement. However, it excludes the areas intersecting the Ocala National Forest and the Ponceannah Cemetery located along CR 42. At this point, the DWDV corridor is still following the ED line as it stair-steps along CR 450, Baker Road, Roger Giles Road, and along a cross-country route that continues to CR 450A near the Umatilla (SEC) REA substation. A 0.6-mile portion of the corridor traverses the east side of North Lake Community Park. While cross-country, the corridor is generally 300 feet wide. At CR 450A, the St. Johns to Umatilla 69 kV SEC portion of the ED line turns east into the Umatilla (SEC) REA substation and the Umatilla to Umatilla SEC 69 kV exits into the ED right-of-way toward the Umatilla substation. See Figure 2-4.

### *Umatilla (SEC) REA Substation to Dona Vista Substation*

At this point, the DWDV corridor turns west and continues to follow the ED line with a width of 300 feet to the Umatilla substation. The DWDV corridor was widened from approximately 450 feet to 600 feet wide south of CR 450A to include the natural gas transmission pipeline that is adjacent to the south side of CR 450A. In this area, the corridor also traverses a portion of the Tanner Preserve. The DWDV corridor continues past the Umatilla substation to follow the Eustis to Umatilla 69 kV (EU) line, which exits west along Mills Street from the Umatilla substation. The DWDV corridor follows the EU line along SR 19 for approximately 2.3 miles with a width of 300 feet. For the remaining 0.43 mile, the corridor widens to a maximum of approximately 1,700 feet to include the triangular area around the Dona Vista substation to include an approximately 200-foot-wide margin around SR 19, CR 19A, and CR 44. This area is widened due to physical constraints surrounding the Dona Vista substation, which is the terminus of the DWDV Project. See Figure 2-4.

## 2.3 Alternative Corridors and Proposed Intermediate Substations

DEF is not proposing alternative corridors or intermediate substations for the DWDV Project.

## 2.4 Social and Political Environment of the Corridor

### 2.4.1 Governmental Jurisdictions

The DWDV corridor crosses through portions of Lake County, Volusia County, the City of Umatilla (Lake County), and the City of Eustis (Lake County). Figure 2-5 depicts the governmental jurisdictions crossed by or located within 0.5 miles of the corridor.

The DWDV corridor crosses one national forest: Ocala National Forest (Lake County); one state park: Lower Wekiva River Preserve State Park (Lake County); one state forest: Seminole State Forest (Lake County); one river: St. Johns (Lake and Volusia County); one Outstanding Waters River: Wekiva River System (Lake County); two conservation easements: Holman and Maxwell (Lake County); and three local parks: Ed Stone Park (Volusia County), North Lake Community Park (Lake County), and Tanner Preserve (Lake County).

The following are within 0.5 mile of the DWDV corridor, but do not intersect it: one national wildlife refuge: Lake Woodruff National Wildlife Refuge (Lake County); one conservation easement: Promise Ranch (Lake County); and five local areas: Volusia Small Lot Acquisitions (Volusia County), South Umatilla Park (City of Umatilla), Paisley Community Park (Lake County), Lake Mack Park (Lake County), and Trout Lake Nature Center (Lake County).

None of the following governmental jurisdictions are located within the DWDV Corridor or within 0.5 miles of the corridor.

- National Parks
- National Seashores
- National Wilderness Areas
- National Memorials or Monuments
- National Historic Landmarks
- Marine Sanctuaries

- Estuarine Sanctuaries
- Roadless Area Review and Evaluation Areas
- National Wild and Scenic Rivers
- State Marine Sanctuaries
- State Wildlife Refuges
- State Wilderness Areas
- Areas of Critical State Concern
- Save Our Rivers Lands
- State Archaeological Landmarks or Landmark Zones
- Aquatic Preserves
- Florida Springs
- Florida Wild and Scenic Rivers
- Indian Reservations
- Military Reservations

### 2.4.2 Zoning and Land Use Plans

The following sections describe the comprehensive plans and zoning provisions of the local governmental jurisdictions traversed by the DWDV corridor for informational purposes in accordance with Section 9.3.6.2 of the TLSA Application Guide. However, local comprehensive plans and land development are not applicable to transmission lines. Local government authority to regulate land use and development is governed by the Community Planning Act, Section 163.3161, *et seq*., F.S. Section 163.3167, F.S., grants local governments the power to, among other things, "adopt . . . comprehensive plans . . . to guide their future development and growth" and to implement comprehensive plans "by the adoption of appropriate land development regulations . . . ." "Development" for purposes of the Community Planning Act is defined in Section 163.3164(14), F.S., by reference to Section 380.04, F.S. Section 380.04(3), F.S. identifies numerous activities that "shall not" be considered "development," including "[t]he creation or termination of rights of access, riparian rights, easements, distribution or transmission corridors, covenants concerning development of land, or other rights in land" and "[w]ork by any utility and other persons engaged in the distribution or transmission of . . . electricity . . . for the purpose of inspecting, repairing, or renewing on established rights-of-way or corridors, or constructing on established or to-be-established rights-of-way or corridors, any . . . power lines, towers, poles, . . . or the like." Section 380.04(3)(b), (3)(h), F.S. These statutes exclude transmission lines from the definition of "development" and therefore development approval procedural requirements and land development substantive requirements are inapplicable. In addition, all local government procedural requirements are superseded by the TLSA under Section 403.536(1), F.S.

#### 2.4.2.1 State Community Planning Act

Under the Community Planning Act, each county and municipality in Florida is required to adopt a local comprehensive plan that complies with Florida Statutes. The comprehensive plan must be implemented, in part, by the adoption and enforcement of local land development regulations.

The State Community Planning Act (Chapter 163, F.S., as amended) provides long-range policy guidance for orderly social, economic, and physical development within the state. The State Community Planning Act does not create regulatory authority that is not otherwise authorized by state law.

#### 2.4.2.2 Comprehensive Plans

The DWDV Project will extend approximately 26.26 miles, through two counties (Lake and Volusia) and two municipal jurisdictions (City of Umatilla and City of Eustis). Each of the counties and municipalities has adopted comprehensive plans in accordance with the requirements of the Community Planning Act (Chapter 163, F.S., as amended) and the minimum criteria rule for local government comprehensive plans (Chapter 9J-5, F.A.C., as amended). The DWDV corridor and an area extending 0.5 miles on either side are shown on aerials at a scale of 1:12,000 in Figure 2-4. Figure 2-5 shows the entirety of the DWDV corridor in relation to the identified counties and municipalities. Figure 2-6A shows the DWDV corridor over future land use data as published by the respective county and municipal GIS departments. Figure 2-6B shows the comprehensive plan overlays along the DWDV corridor. Appendix C contains reproductions of relevant future land use and overlay maps. The future land use designations that are within the DWDV corridor are identified and described below for informational purposes only.

**Volusia County** — Future land use designations are identified on the Future Land Use (FLU) Map and defined in the FLU Element of the Volusia County Comprehensive Plan (June 9, 2025). FLU Policy 1.3.1.20 states "*Public utilities and uses which provide essential service to existing and future land uses authorized by this plan shall be permitted in all the future land use designations and shall conform to appropriate location criteria*." "Public Utility" is defined as "*an enterprise providing an essential service authorized and regulated by state or federal public utility commissions, or services owned, franchised, or permitted by Volusia County. Included are facilities necessary to provide the service such as . . . utility poles, transmission towers, substations, . . . ..*" (Volusia County Comprehensive Plan, Chapter 20 Definitions, 118). FLU Element Section E Land Use Location Criteria: 7 Public Facilities and Utilities outlines the following general criteria:

- Maximize the efficiency of services provided;
- Minimize their cost;
- Minimize their impacts on the natural environment;
- Provide the designated level of service; and
- Be compatible with surrounding land uses.

The portion of the DWDV corridor that traverses Volusia County goes through the following future land use designations: Natural Resource Management Area Overlay, Environmental Core Overlay, Environmental Systems Corridor, Rural, Rural Recreation, and Urban Low Intensity.

Natural Resource Management Area (NRMA) Overlay – This overlay is intended to ensure that development does not adversely impact the quality and quantity of existing resources in environmentally sensitive areas, which need to be managed as part of a system (FLU Element (B)(1)(a)).

Environmental Core Overlay (ECO) – This overlay is to implement Smart Growth policies (FLU Element (H)(SG 1.2)) to move development to compact areas, conserving the remainder of the land. The ECO on the Future Land Use Map depicts an area of interconnected natural systems of environmentally sensitive lands, including public and private conservation areas and lands linking these areas (including but not limited to agricultural/rural lands, scenic vistas, habitat buffers, and other open space connections) where possible to achieve wildlife and habitat connectivity (FLU Element (B)(1)(b)).

Environmental Systems Corridor (ESC) – This designation consists of important ecological corridors comprised of environmental sensitive and ecologically significant lands. Land use activities within this designation should not degrade natural functions and connections. The intent is to provide protected, natural pathways that connect to other protected areas such as parks, conservation lands, and water bodies (FLU Element (B)(2)(b)).

Rural (R) – This designation consists of areas that are a mixture of agriculture and low-density residential development. These areas provide two functions, the first is being a transitional use between the agricultural and urban uses and the second would be a rural community that serves as the economical focal point of a small region. Lands designated as Rural shall be developed at a maximum density of one (1) dwelling unit per five (5) acres unless it meets criteria to increase density (FLU Element (B)(2)(f)).

Rural Recreation (RLR) – This designation is for limited area of intense use located in remote rural areas along the St. Johns River. These areas are used for launching and/or storing boats with areas available for camping (RV sites are included). These areas may also contain single and multi-family dwelling units, hotels, bait shops, restaurants, and gas stations. Many of them are commonly referred to as fish camps (FLU Element (B)(2)(f)(2)(b).

Urban Low Intensity (ULI) – This designation represents areas for low-density residential dwelling units of up to four (4) dwelling units per acre. This residential designation is generally characterized by single-family type housing (e.g., single-family detached and attached, cluster, and zero lot line). This designation will allow existing agricultural zoning and uses to continue (FLU Element (B)(2)(h)).

**Lake County** — The Lake County Comprehensive Plan was last updated in March 2025. In the FLU Element of the Comprehensive Plan, Policy 1-7.12.1 Provision of Utilities states "*Private or public utilities needed to support adopted Future Land Use and zoning may be permitted in all land use designations, except as expressly prohibited or restricted elsewhere within the Comprehensive Plan*."

Future land use categories are identified on the FLU Map and defined in the FLU Element of the Lake County Comprehensive Plan. The portion of the DWDV corridor that traverses Lake County goes through the following future land use categories: Wekiva-Ocala Rural Protection Area, Conservation, Rural, Rural Transition, Recreation, Urban Low Density, Urban Medium Density, and Industrial.

Wekiva-Ocala Rural Protection Area – This area includes lands outside of the designated Wekiva River Protection Area and is intended to preserve rural density, character, and lifestyles, and to protect the ecological integrity of public and private lands associated with the Ocala National Forest, Wekiva-Ocala Greenway, and St. Johns River (FLU Element Objective I-5.2).

Conservation – This category's intent is to manage for the permanent protection of natural resources, including federal, state, and locally managed parks, reserves, preserves, forests, and wildlife management areas. This area may also include privately-owned property if the land is protected in perpetuity by conservation easements (FLU Element Policy I-1.5.1).

Rural – This category is intended to protect rural lifestyles that are represented by single-family homes on large lots and to accommodate agricultural uses. It allows residential development at densities equal to or less than one (1) dwelling unit per five (5) net buildable acres, agricultural and attendant uses (FLU Element Policy 1-1.4.4).

Rural Transition – This category is intended to address conditions where Rural Future Land Use categories abut Urban Future Land Use categories and represent areas where lower rural densities may be increased for Rural Conservation subdivisions (FLU Element Policy I-1.4.5).

Recreation – This category consists of County wide public or private recreational facilities, park lands, and open space preservation areas. This includes active or passive uses (FLU Element Policy I-1.5.2).

Urban Low Density – This category provides for a range of residential development at a maximum density of four (4) dwelling units per net buildable acre in addition to civic, commercial, and office uses and limited light industrial uses. This category should be located on or in proximity to collector or arterial roadways (FLU Element Policy I-1.3.2).

Urban Medium Density – This category provides for a range of residential development at a maximum density of seven (7) dwelling units per net buildable acre in addition to civic, commercial, and office uses and limited light industrial uses. This category should be located on or in proximity to major collector or arterial roadways (FLU Element Policy I-1.3.3).

Industrial – This category is intended for industrial uses with nuisance or hazardous characteristics that, by the nature of their normal operations and activities as well as for reasons of health, safety, environmental effects, or welfare, are best segregated from other uses (FLU Element Policy I-1.3.8).

**City of Umatilla** — The City of Umatilla Comprehensive Plan was updated in November 2022. Future land use designations are identified on the FLU Map and defined in the FLU Element of the City of Umatilla Comprehensive Plan. The DWDV corridor traverses the following future land use categories: Agricultural, Institutional, Single-Family Low Density Residential, Single-Family Medium Density Residential, Transportation/Aviation, Utility, Industrial, and Commercial General.

Agricultural – This category consists of scattered citrus acreage and general agriculture (FLU Policy 1-2.8). Additionally, the City of Umatilla has incorporated within the Land Development Regulation provisions for an Agricultural Residential zoning district. This district shall allow limited agricultural pursuits and residential development (FLU Element Policy 1-2.8.1).

Institutional – This category accommodates land resource needs of existing public and semi-public services, including among other things, utilities, essential public services, and facilities (FLU Element Policy 1-2.5.1).

Single-Family Low Density Residential – This category is limited to detached single-family dwelling units and densities cannot exceed three (3) dwelling units/acre (FLU Element Policy 1-2.2.5).

Single-Family Medium Density Residential – This category is limited to detached single-family dwelling units and densities cannot exceed five (5) dwelling units/acre (FLU Element Policy 1-2.2.6).

Transportation/Aviation – This category is for airport facilities and ancillary uses (FLU Future Land Use Needs (1)(Q)).

Utility – This category is intended to accommodate necessary major public or semi-public utility plant operations and related facilities required to service urban development. Plants and facilities for which this designation is reserved include potable water treatment plants, pumping facilities, water wells, and wastewater treatment plants and lift stations (FLU Element Policy 1-2.6.1).

Industrial – This category accommodates for land uses for the industrial trades (FLU Element Objective 1-2.9). The City of Umatilla designates industrial land use on the FLU map where existing industrial uses are located. The City shall also designate land adjacent to these existing industrial areas where future industrial land uses are most appropriate and compatible (FLU Element Policy 1-2.9.1).

Commercial General – This category accommodates for land uses that are generally limited to retail sales and services, which is defined as establishments engaged in the selling of products and services to the public for personal or household consumption, including but not limited to beauty/barber shops, laundries and dry cleaning stores, clothing stores, drug stores, home electronic equipment, food/grocery stores, professional services, and sporting goods (FLU Element Policy 1-2.3.1 (1)).

The City's Comprehensive Plan does not specifically identify electric transmission lines, and it does not discuss future land use designations relative to same.

**City of Eustis** — The City of Eustis Comprehensive Plan was updated in October 2021. Future land use designations are identified on the FLU Map and defined in the FLU Element of the City of Eustis Comprehensive Plan (Definitions of Future Land Use Designations). The DWDV corridor traverses the following future land use designations: Public/Institutional, General Industrial, General Commercial, Mixed Commercial/Industrial, Mixed Commercial/Residential, Mobile Home Community, Rural Residential, Suburban Residential, and Urban Residential.

Public/Institutional (PI) – This designation is for public and quasi-public properties and other facilities that provide a community service. It includes school, recreation, and public utility properties, and other governmental facilities as well as cemeteries (FLU Element Definitions of Future Land Use Designations).

General Industrial (GI) – This designation is for those businesses that have one or more objectionable uses such as noise, dust, or odor which include existing industrial development of light-to-heavy nature along the rail line both north and south of downtown. In addition, outdoor recreation, schools, and public and utility services and facilities that are five (5) acres or less in size are also permitted (FLU Element Definitions of Future Land Use Designations).

General Commercial (GC) – This designation is to provide an area consisting of primarily free-standing commercial land uses serving both motorists and local residents. It may include a variety of free-standing retail and service uses and small strip centers including automotive-oriented uses such as service stations and auto sales, as well as outdoor recreation, and schools. In addition, public and utility services and facilities that are five (5) acres or less in size are also permitted (FLU Element Definitions of Future Land Use Designations).

Mixed Commercial/Industrial (MCI) – This designation is to provide for the development of light manufacturing, distribution, corporate office, and related commercial and industrial facilities in select high profile locations and in well-planned environments (FLU Element Definitions of Future Land Use Designations).

Mixed Commercial/Residential (MCR) – This designation is to regulate the character and scale of commercial uses so as to minimize their impacts on adjacent roadways and to promote their compatibility with adjacent or nearby residential uses (FLU Element Definitions of Future Land Use Designations).

Mobile Home Community (MH/RV) – This designation is specific to existing mobile home and recreational vehicle developments, which are predominantly located north of Trout Lake and is to provide for a mobile home urban environment in a rental park (FLU Element Definitions of Future Land Use Designations).

Rural Residential – This designation provides for large lot development near or on the periphery of the Eustis urbanized area and residential densities are not to exceed one (1) dwelling unit per net buildable acre (FLU Element Policy FLU 4.1.1).

Suburban Residential (SR) – This designation is intended to accommodate the majority of residential development within the City and provides for a mix of single family detached, patio home, and townhouse dwellings in a suburban atmosphere and may also include adult congregate living facilities (ACLF), parks and recreation facilities, and schools (FLU Element Definitions of Future Land Use Designations).

Urban Residential (UR) – This designation provides for higher density residential options for the area near the downtown core of the City and includes single family detached, patio home, townhouse dwellings, and apartments as well as ACLF, other group housing facilities, manufactured residential dwelling units, limited neighborhood commercial uses, parks and recreation facilities, and schools. In addition, public and utility services and facilities that are two (2) acres or less in size are also permitted (FLU Element Definitions of Future Land Use Designations).

The City's Comprehensive Plan does not specifically identify electric transmission lines, and it does not discuss future land use designations relative to same.

The methodology that was used to select and develop the DWDV corridor was based on a comprehensive set of criteria that balances environmental, social, land use, and technical considerations. Similarly, local governments are required to address many of the same considerations in developing their zoning regulations and/or code of ordinances.

#### *2.4.2.3 Zoning and Land Use Regulations*

The zoning districts of the two counties and two municipalities that are traversed by the DWDV corridor and an area extending 0.5 miles on either side of the corridor are shown on aerials at a scale of 1:12,000 in Figure 2-7. Appendix D contains reproductions of relevant zoning maps. Provisions of the local government land development regulations or code of ordinances are summarized and discussed in the following paragraphs.

**Volusia County** — Within the Volusia County limits, the DWDV corridor traverses the following zoning districts: Public (P), Transitional Agriculture (A-3), Resource Corridor (RC), General Commercial (B-4), and Commercial Marina (B-7). "Essential utility services," defined to include electrical transmission lines of 230 kV or less, are expressly permitted uses in all of these zoning districts (Section 72-241, Volusia County Code; Section 72-2, Volusia County Code). A portion of the DWDV corridor is also within the NRMA (Section 72-300, Volusia Code of Ordinances). The DWDV corridor is likely in the Thoroughfare Overlay Zone associated with SR 44, which imposes special development regulations to preserve traffic flow, safety, and multimodal access along key transportation corridors (Section 72-297, Volusia Code of Ordinances). This overlay may require additional review for access management, right-of-way impacts, and compliance with corridor design standards, potentially affecting route alignment and permitting.

Chapter 50 of the Volusia County Code of Ordinances includes various provisions related to pollution control (Chapter 50, Article II), stormwater management (Chapter 50, Article III, Division 2), tree protection (Chapter 50, Article III, Division 4), wetlands impacts (Chapter 50, Article III, Division 5), wellfield protection (Chapter 50, Article III, Division 7), noise and light (Chapter 50, Article VI), and stormwater discharge (Chapter 50, Article VII), among others. Chapter 72, Volusia County's Land Development Code (LDC), likewise includes environmental standards (Section 72-288), standards related to use of County right-of-way and property (Chapter 72, Article III, Division 6), flood hazard management requirements (Chapter 72, Article III, Division 7), stormwater management standards (Chapter 72, Article III, Division 8), tree preservation requirements (Chapter 72, Article III, Division 10), wetland alteration requirements (Chapter 72, Article III, Division 11), potable water well field protection requirements (Chapter 72, Article III, Division 13), and gopher tortoise protection measures (Chapter 72, Article III, Division 17), among others. Many of these codes require separate permits or approvals prior to development. The LDC includes a requirement for an environmental impact assessment (EIA) for development activities within the NRMA (Section 72-300; see also Section 72-505(i)). "Overhead utility crossings" are expressly exempted from the County's LDC wetland alteration regulations, provided however, associated access roads" are subject to the requirements (Section 72-883(4)).

Chapter 62 of the Volusia County Code of Ordinances includes a process for designation of historic resources by the County Historic Preservation Board and requires a certificate for earth-disturbing activities that will have an adverse impact on historic resources designated as archaeologically significant.

**Lake County** — Within the Lake County limits, the DWDV corridor traverses the following zoning districts: Agricultural Residential (AR), Agriculture (A), Community Commercial (C-2), Community Facility District (CFD), Estate Residential (R-2), Heavy Industrial (HM), Light Industrial (LM), Medium Residential (R-3), Mixed Home Residential (RM), Mixed Residential (R-7), Mobile Home Rental Park (RMRP), Neighborhood Commercial (C-1), Planned Commercial (CP), Planned Industrial (MP), Planned Unit Development (PUD), Ranchette District (RA), Rural Residential (R-1), and Urban Residential (R-6). A portion of the corridor is also in the Lake County/City of Eustis Joint Planning Area (JPA) and the Lake County/City of Umatilla JPA.

Lake County's Land Development Regulations (LDRs) in Appendix E of the County's Code of Ordinances, includes various provisions related to resource protection, including wetlands (Section 6.01.00), wellfields (Section 6.02.00), natural upland communities and habitat (Section 6.03.00), groundwater (Section 6.09.00), water quality (Section 6.10.00), trees (Section 9.02.00), stormwater (Section 9.06.00), and floodplains (Section 9.07.00). The LDRs also include provisions related to noise protection (Section 9.09.00). Many of these regulations require separate permits or approvals prior to development. The LDRs specify, however, that they only apply to "Development Activity" in unincorporated areas of the County. "Development or Development Activity" is defined in Lake County LDR Appendix E Chapter 2 Definitions (3)(b) as "*Work by a utility and other Persons engaged in the distribution or transmission of gas or water, for the purpose of inspecting, repairing, renewing, or constructing on established Rights-of-Way any sewers, mains, pipes, cables, utility tunnels, powerlines, towers, poles, tracks, or the like*."

Section 4.01.00, *et. seq*. of the Lake County LDRs includes airport zoning requirements, specifically airport zones and height limitations for the Umatilla Municipal Airport (FAA X23), located at 1 Umatilla Airport Way. The Umatilla Municipal Airport is located adjacent to the DWDV corridor.

Section 14-6 of the County Code includes protections for historical and archaeological resources. The County Code also includes provisions related to noise abatement (Chapter 14, Article II).

**City of Umatilla** — Within the City of Umatilla limits, the DWDV corridor traverses through the following zoning districts: Agriculture Residential (AR-1), General Commercial & Warehouse (C-2), Industrial PUD (IPUD), Low Density Residential (R-3), Neighborhood Commercial (C-1), Planned Unit Development (PUD), Public Facilities District (PFD), Residential Professional (RP), Single Family Medium Density Residential District (R-5), and Right of Way (R/W).

The City's LDRs include various provisions related to stormwater management (Chapter 10), tree protection (Chapter 15), environmental protection (Chapter 17), wellfield and aquifer protection (Chapter 18), and historic and archaeological resource protection (Chapter 19). Transmission lines are an "essential service" under the City's LDRs (Chapter 2, Definitions).

Chapter 5 of the Umatilla LDRs includes airport zoning requirements related to airport height limitations and land use requirements for the Umatilla Municipal Airport (FAA X23), located at 1 Umatilla Airport Way. The Umatilla Municipal Airport is located adjacent to the DWDV corridor. The City of Umatilla has also enacted a Floodplain Management Ordinance (Chapter 28, Code of Ordinances) and includes noise abatement requirements in the Code of Ordinances (Chapter 34, Article IV).

**City of Eustis** — The City of Eustis does not have zoning districts and regulates land use activities through LDR land use districts corresponding to the future land use designations. The City regulates specific uses that are permitted and prohibited within each land use district through the Land Development Regulations, which regulates uses, intensity, and minimum design standards (Chapter 109, City of Eustis LDR). The City's LDRs include various provisions related to stormwater management (Section 115-4.9), tree protection (Section 115-10), floodplain management and protection (Sections 118-17 and 121-25), wetlands protection (Section 121-2, *et seq*.), groundwater and wellhead protection (Section 121-24), and wildlife protection (Section 121-26). The LDRs also include provisions related to noise (Section 127-3), vibration (Section 127-4), and electromagnetic interference (Section 127-7). The purpose of the City's Code of Land Development Regulations (LDRs) "*is to establish procedures and standards for the development of land . . . .*" (City of Eustis LDRs, Sec. 98-2). "*Work by any utility and other persons engaged in the distribution or transmission of . . . electric . . . on utility easements of record, or established rights-of-way, above or underground, for the purpose of inspecting, repairing, renewing, or constructing on such utility easements of record or on established rights-of-way any . . . cables, poles, or the like*" are not considered "development" under the City's Code of LDRs (City of Eustis LDRs Chapter 100-1 Definitions (2)(b)).

Chapter 46 of the City of Eustis Code of Ordinances includes provisions related to the designation of historic resources and historic preservation.

The methodology that was used to select and develop the DWDV corridor was based on a comprehensive set of criteria that balances environmental, social, land use, and technical considerations. Similarly, local governments are required to address many of the same considerations in developing their zoning regulations and/or code of ordinances.

The DWDV corridor intersects or lies adjacent to areas identified as JPAs among Lake County, the City of Eustis, and the City of Umatilla. JPAs serve as important tools for intergovernmental coordination. DEF will consider the applicable planning objectives and engage with local governments to ensure that the DWDV Project is consistent with shared land use and infrastructure goals.

### 2.4.3 Easement, Title, Agency Works

Supplemental easements may be necessary to cross lands under the jurisdiction of the Board of Trustees of the Internal Improvement Trust Fund (TIITF) before construction of the Project begins. As noted in Sections 2.4.1 above and 2.4.4 below, the DWDV corridor crosses the Ocala National Forest and St. Johns River; however, the DWDV corridor in these areas is limited to the existing DEF right-of-way and additional land acquisition will not be necessary. Supplemental easements may be required for the construction and operation of a new 230 kV transmission line within the existing right-of-way. Additionally, supplemental easements may also be necessary to cross state lands and waterways under the jurisdiction of the Board of Trustees of the Internal Improvement Trust Fund (TIITF), who own the state forest and state park crossed by the DWDV Project. The scope of any supplemental easements, if necessary, will be determined during detailed design post-certification. Other entities that would normally be contacted for permits or approvals to cross existing facilities include county and municipal governments for owned and maintained roads and gas pipelines. The DWDV corridor crosses two state routes that include SR 44 (Volusia County) and SR 19 (Lake County) as well as approximately seven county roads (CR). No federal roads are crossed by the DWDV corridor. Table 5 lists the facilities anticipated to be crossed by the DWDV Project, the affected agency, the type of potential approval, and potential changes to be made to the facility or lands. Notification and coordination are usually sufficient when crossing facilities owned by other utilities.

### 2.4.4 Vicinity Scenic, Cultural, and Natural Landmarks

As identified in Section 2.4.1 above, the DWDV corridor crosses one national forest: Ocala National Forest (Lake County); one state park: Lower Wekiva River Preserve State Park (Lake County); one state forest: Seminole State Forest (Lake County); one river: St. Johns (Lake and Volusia County); one Outstanding Waters River: Wekiva River System (Lake County); two conservation easements: Holman and Maxwell (Lake County); and three local parks: Ed Stone Park (Volusia County), North Lake Community Park (Lake County), and Tanner Preserve (Lake County).

- Ocala National Forest —The Ocala National Forest is one of three nationally protected forests in Florida. It is owned by the U.S. Department of Agriculture, Forest Service and managed by the National Forests in Florida. The Ocala National Forest features more than 600 lakes and rivers and is a travel destination for outdoor enthusiasts.
- Lower Wekiva River Preserve State Park — This is a Florida state park owned by the Trustees of Internal Improvement Trust Fund (TIITF) and managed by the Florida Department of Environmental Protection, Division of Recreation and Parks. The Lower Wekiva River State Park is comprised of almost 18,000 acres of environmentally significant land bordering the St. Johns River, Wekiva River, and Blackwater Creek. It attracts outdoor enthusiasts and includes amenities such as equestrian trails, canoe/kayak launches, and camping.
- Seminole State Forest — A Florida state forest owned by TIITF and managed by the Florida Department of Agriculture and Consumer Services, Florida Forest Service. The Seminole State Forest is a public property in the scenic Wekiva River Basin. Protection and maintenance of the forest's native biological diversity is paramount while integrating public use of the resource. Management promotes recreation, timber, wildlife, endangered species, and environmental education.
- St. Johns River – The St. Johns River is the longest river in Florida, flowing 310 miles south to north. The river's headwaters are at Blue Cypress Lake in Indian River County to its mouth where it empties into the Atlantic Ocean east of Jacksonville.

- Wekiva River System – The Wekiva River System is located within Central Florida, including parts of Lake, Orange, and Seminole counties. The system has second magnitude springs, blackwater streams, and creeks and is considered an Outstanding Florida Water (OFW).
- Holman Conservation Easement — A privately-owned property used as a nature reserve. It is managed by the St. Johns River Water Management District (SJRWMD). The conservation area attracts outdoor enthusiasts seeking hiking, natural scenery, and wildlife encounters.
- Maxwell Conservation Easement — A privately-owned property used as a nature reserve. It is managed by the Florida Department of Environmental Protection, Division of State Lands. The conservation area attracts outdoor enthusiasts seeking hiking and birdwatching opportunities.
- Ed Stone Park — A Volusia County park that offers a free public boat ramp park with access to the St. Johns River. It is a popular fishing park with benches, a picnic pavilion, grills, and restrooms. Manatees and other wildlife are observed here.
- North Lake Community Park — A Lake County community park that includes tennis courts, basketball courts, baseball fields, beach volleyball courts, walking paths, and playgrounds. North Lake Community Park provides the ideal setting for outdoor activity in Umatilla.
- Tanner Preserve — A 36.85-acre parcel owned and managed by the Lake County Water Authority. This preserve includes a shallow marsh with small islands that provide excellent habitat for nesting water birds.

As stated in Section 2.4.3, in Volusia County, the DWDV corridor crosses SR 44, which is part of the River of Lakes Heritage Corridor.

- River of Lakes Heritage Corridor — A 156-mile Florida Scenic Highway that follows the historic St. Johns River through Volusia and Seminole counties, showcasing a blend of natural beauty, cultural heritage, and recreational opportunities. It connects travelers to towns, springs, parks, and trails, offering access to hiking, biking, and paddling experiences.

Additionally, the DWDV corridor crosses the following trails and water systems:

- St. Johns River Blueway — Paddling Trail in the St. Johns River
- St. Francis Dead River Run — Paddling Trail in the St. Johns River, Lake County Blueways
- Boy Scout Road Connector — Trail used for hiking between the Central Florida Council Boy Scouts of America Inc., the Ocala East Trail, and Seminole State Forest Trail
- CR 42 Roadwalk — A trail used for hiking as a connector between the Ocala East Trail and the Seminole State Forest Trail
- Ocala East — Destination for hiking in the Ocala National Forest
- Seminole State Forest Trail — A hiking trail through the Seminole State Forest used as a connector to Ocala East Trail

The following are within 0.5 miles of the DWDV corridor, but do not intersect it: one national wildlife refuge: Lake Woodruff National Wildlife Refuge (Lake County); one conservation easement: Promise Ranch (Lake County); and five local areas: Volusia Small Lot Acquisitions (Volusia County), South Umatilla Park (City of Umatilla), Paisley Community Park (Lake County), Lake Mack Park (Lake County), and Trout Lake Nature Center (City of Eustis).

The Lake Woodruff National Wildlife Refuge is located 0.4 miles northeast of the DeLand West substation in Volusia County. The Promise Ranch Conservation Easement is located outside of but nearly adjacent to the DWDV corridor just north of the City of Eustis and west of the City of Umatilla in Lake County. The Volusia County Small Lot Acquisition are small lots located adjacent to the DWDV corridor where it traverses land owned by the St. Johns Marina and Resort east of the St. Johns River. The South Umatilla Park is located approximately 0.3 miles north of the DWDV corridor. The Paisley Community Park is located on the east side of SR 42 and is approximately 0.5 miles north of the DWDV corridor. Lake Mack Park is located approximately 0.09 miles south of the DWDV corridor. The Trout Lake Nature Center is located approximately 0.2 miles southeast of the Dona Vista substation in the City of Eustis. See Figure 2-8.

### 2.4.5 Archaeological and Historic Sites

An evaluation of the DWDV Project including a review of the Florida Master Site File (FMSF), the National Register of Historic Places (NRHP), and a desktop evaluation was conducted of cultural resource potential within the study area. The desktop cultural resource review and probability model was based on soil drainage, the location of freshwater sources, FMSF, and historical data. This was to indicate areas with well-drained soil near ponds and wetlands that have the highest probability for the presence of cultural resources. These findings were considered during the evaluation and development of the DWDV corridor. Once the DWDV corridor was delineated, a more detailed, in-person, cultural resource review that consisted of reviewing the DWDV corridor from public right-of-way and documenting desktop findings, as well as resources identified during the field reconnaissance was conducted. The desktop review and DWDV corridor review reports are included in Appendix E.

The FMSF database, updated January 2025, identified 23 cultural resource surveys that were previously completed within the DWDV corridor. Eighteen surveys intersect the DWDV corridor and include five road improvement surveys, three transmission line rebuilds, three development surveys, two historic and architectural surveys, two bridge replacement surveys, one pipeline survey, one archaeological inventory survey, and one cell tower survey.

The FMSF database identifies 45 previously recorded cultural resources within or within the vicinity of the DWDV corridor, including 12 archaeological sites, 28 buildings, one historic bridge divided across the county boundary, one historic district, and three resource groups (Appendix E Tables 1 and 2). The term “vicinity” refers to findings that are within a quarter mile of the DWDV corridor.

- Of the 12 cultural resources that were identified during previous surveys, seven are within the DWDV corridor and five are within the vicinity of the DWDV corridor (see Appendix E Table 1).
- Of the 28 structures listed in the FMSF (see Appendix E Table 2), seventeen historic structures are within the DWDV corridor and the State Historic Preservation Office (SHPO) has determined that all of these are ineligible for listing in the NRHP. Eleven historic structures are within the vicinity of the DWDV corridor, two of which residences indicated as being “abandoned or vacant”. The eleven have been recommended as ineligible for listing in the NRHP by the SHPO.

A summary of the cultural resource evaluation was submitted to the Florida Department of State, Division of Historical Resources (DHR) on May 2, 2025. See Appendix E.

## 2.5 Biological and Physical Environment of the Corridor

The DWDV corridor follows DEF's existing transmission lines. Most of the existing transmission line right-of-way has historically been cleared of canopy species, and where previously necessary, fill was placed for construction of elevated access roads and pads for installation and maintenance of transmission structures.

### 2.5.1 Land Use/Vegetation

The existing land use and vegetation cover types within the DWDV corridor as well as within 0.5 miles are shown on Figure 2-9 at a 1:12,000 scale. Existing land use and vegetation coverage are classified in accordance with the FDOT's Florida Land Use, Cover and Forms Classification System (FLUCFCS) utilizing St. Johns River Water Management District (SJRWMD) land use/land cover data (2020). Land uses within the DWDV corridor and within 0.5 miles include silviculture, agriculture, recreation, roadways, and residential and commercial development. Table 6 identifies the acreage of dominant vegetative communities and land uses within the DWDV corridor.

Vegetative communities within the DWDV corridor and within 0.5 miles are dominated by areas of pastures and open shrub and brushland (FLUCFCS 211, 212, 213, 310, 320, 330), upland forest (FLUCFCS 411, 412, 413, 420, 434), planted pine and silviculture (FLUCFCS 220, 221, 440, 441, 443), forested wetlands (FLUCFCS 617, 625, 630), and herbaceous/shrub wetlands (FLUCFCS 641, 646). The vegetative community composition and ecological characteristics for each dominant habitat type within the DWDV corridor are described below. The locations of these vegetative communities are shown on Figure 2-9.

*Pastures (FLUCFCS 211 and 213)* — Approximately 258.2 acres of improved and woodland pasture occur within the DWDV corridor. These areas have been historically cleared of native vegetation and replanted with Bahia grass (*Paspalum notatum*) to support cattle grazing, while areas classified as woodland pastures contain a greater density of the remaining canopy species. Scattered trees and shrubs occur within the pastures, including slash pine (*Pinus elliottii*), live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), cabbage palm (*Sabal palmetto*), wax myrtle (*Myrica cerifera*), saw palmetto (*Serenoa repens*), and groundsel tree (*Baccharis halimioflia*), as well as a variety of common herbaceous species, such as broomsedge bluestem (*Andropogon virginicus*), dogfennel (*Eupatorium capillifolium*), slender flattop goldenrod (*Euthamia caroliniana*), carpet grass (*Axonopus* sp.), and blackberry (*Rubus cuneifolius*).

*Pine Plantation (FLUCFCS 441 and 443)* — Areas of pine plantation and forest regeneration (previously harvested pine plantation) comprise approximately 28.2 acres within the DWDV corridor. These areas have been cleared of native vegetation and graded to support right-of-way of planted slash pine. Common shrub and herbaceous species also occur within the pine plantation and forest regeneration areas, including saw palmetto, wax myrtle, blackberry, and dogfennel.

*Pine Flatwoods (FLUCFCS 411)* — Pine flatwoods comprise approximately 30.5 acres within the DWDV corridor. The canopy is dominated by slash pine with occasional laurel oak and an understory dominated by saw palmetto. Additional shrub species include wax myrtle, gallberry (*Ilex glabra*), titi (*Cyrilla racemiflora*), fetterbush (*Lyonia lucida*), blueberry (*Vaccinium* spp.), and rusty staggerbush (*Lyonia ferruginea*).

*Upland Hardwood and Hardwood-Conifer Mixed Forest (FLUCFCS 420 and 434)* — Approximately 133.3 acres of upland hardwood and hardwood-conifer forest occur within the DWDV corridor. The upland hardwood forested communities include a variety of canopy species such as live oak, laurel oak, pignut hickory (*Carya glabra*), and

water oak (*Quercus nigra*) with an understory of saw palmetto, wax myrtle, American beautyberry (*Callicarpa americana*), gallberry, and blackberry. Areas of upland hardwood-conifer forest are comprised of a mixture of slash pine, laurel oak, live oak, cabbage palm, and water oak, while the understory includes saw palmetto, American beautyberry, wax myrtle, rusty staggerbush, gallberry, and various grasses.

*Mixed Wetland Hardwoods (FLUCFCS 617)* — Approximately 59.1 acres of mixed wetland hardwoods occur within the DWDV corridor. These forested wetlands are dominated by a canopy of red maple (*Acer rubrum*), sweet bay (*Magnolia virginiana*), blackgum (*Nyssa sylvatica*), sweetgum (*Liquidambar styraciflua*), laurel oak, dahoon holly (*Ilex cassine*), loblolly bay (*Gordonia lasianthus*), and cabbage palm. Shrub and herbaceous species include titi, buttonbush (*Cephalanthus occidentalis*), coastal plain willow (*Salix caroliniana*), wax myrtle, Virginia chain fern (*Woodwardia virginica*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), arrowhead (*Sagittaria lancifolia*), sedges (*Cyperus* spp.), and pickerelweed (*Pontederia cordata*).

*Hydric Pine Flatwoods (FLUCFCS 625)* — Approximately 14.1 acres of hydric pine flatwoods occur within the DWDV corridor. The community composition is similar to pine flatwoods, with the addition of red maple, dahoon holly, and a variety of plants adapted to hydric soils such as redroot *(Lachnanthes caroliniana*), hooded pitcherplant (*Sarracenia minor*), bogbuttons (*Lachnocaulon sp.*), St. John's wort (*Hypericum fasciculatum*), sundew (*Drosera capillaris*), meadowbeauty (*Rhexia sp.*), and candyroot (*Polygala spp.*).

*Mixed Wetland Forest (FLUCFCS 630)* — Mixed wetland forest comprises approximately 61.3 acres within the DWDV corridor. This wetland type contains a similar composition as described above for mixed wetland hardwoods, but with the addition of slash pine as a common canopy component, as well as cabbage palm and live oak.

*Freshwater Marsh (FLUCFCS 641)* — Freshwater marshes comprise approximately 38 acres within the DWDV corridor. The marshes have been ditched and connect to the drainage ditch network within the surrounding improved pastures. The vegetative community composition is dominated by native species, such as soft rush (*Juncus effusus*), smartweed (*Polygonum spp.*), bushy broomsedge *(Andropogon, spp.),* yellow-eyed grass (*Xyris* spp.), maidencane (*Panicum hemitomon*), buttonbush, sedges (*Rhynchospora* spp.), arrowhead, pickerelweed, Virginia chain fern, capeweed (*Phyla nodiflora*), marsh pennywort (*Hydrocotyle umbellata*), lemon bacopa (*Bacopa caroliniana*), and goldenrod (*Solidago* sp.).

*Wetland Shrubs (FLUCFCS 646)* — Approximately 19 acres of wetland shrubs occur within the DWDV corridor. This vegetative community is dominated by a mixture of shrub and groundcover species with a scattered overstory of wetland trees. Common species include saw palmetto, fetterbush, wax myrtle, St. John's wort, gallberry, redroot, camphorweed (*Pluchea odorata*), maidencane, candyroot, bogbuttons, red maple, blackgum, dahoon holly, cabbage palm, slash pine, and live oak.

### 2.5.2 Affected Waters and Wetlands

Surface waters and wetlands within 0.25 miles of the DWDV corridor are shown on Figure 2-10. Descriptions of wetlands are included in Section 2.5.1 above.

The DWDV corridor crosses the St. Johns River and portions of the Wekiva River watershed and associated wetland areas. These features are identified as U.S. Army Corps of Engineers (USACE) Section 10 (navigable) waters. The portion of the St. Johns River located upstream (south) of the SR 44 bridge is a designated Outstanding Florida Water (OFW). The DWDV corridor crosses the river north of this designated area. The DWDV corridor and the existing DEF right-of-way also traverse wetlands associated with the Wekiva River System OFW.

Additionally, a change in existing transmission line height greater than one foot, or a new crossing of any USACE-designated Section 10 waters, would require USACE review under the grounds of navigability. Impacts to these water features are anticipated to be minimal by utilizing existing cleared transmission right-of-way and being located adjacent to existing linear facilities located in upland areas. According to Section 62-302.400, F.A.C., there are no designated Florida Class I or II waters within the DWDV corridor. Waters crossed by the DWDV corridor are considered Class III waters, meaning they are of sufficient quality to support fish and wildlife populations.

Many of the wetlands within the DWDV corridor were previously impacted through construction of access roads associated with existing DEF right-of-way. Additional wetland fill and canopy clearing may be required for easement stabilization, work pads, and should additional DEF right-of-way be needed for the DWDV Project. The existing access roads include culverts to maintain wetland hydrology and sheet flow. Should new access road sections be constructed, the appropriate number and size culverts will be installed where necessary to maintain wetland and surface water hydrology.

As described in Section 3.2 below, detailed design information including location and extent of all wetland impacts and appropriate mitigation to offset wetland functional loss, will be provided to the appropriate agencies prior to construction once field-verification of wetland data may occur. Initial quantification of potential wetland impacts within the corridor utilizing digital data is summarized below.

According to National Wetland Inventory (NWI) data, much of the study area is wetland. Most of the wetlands found within the study area are categorized as palustrine, which are non-tidal, vegetated wetlands defined by dominant plant species, such as trees, shrubs, and emergents (herbaceous plants) (Cowardin *et al*., 1979). The study area contains three main groups of palustrine wetlands: emergent, forested, and scrub-shrub. Approximately 17 percent (212.68 acres) of the proposed corridor contains NWI wetlands.

Florida Land Use, Cover and Forms Classification System (FLUCFCS) land use/land cover data was also reviewed to determine the location of wetlands within the study area, as detailed in Section 2.5.1 above. Approximately 18 percent (214.98 acres) of the study area contains FLUCFCS wetlands, including approximately 136.69 acres of forested wetlands and approximately 78.29 acres of herbaceous wetlands.

### 2.5.3 Ecology

Ecological resources within the DWDV corridor and within 0.25 miles were evaluated utilizing a combination of field reconnaissance, database queries, aerial maps, and literature review. These resources are shown on Figure 2-11. Prior to field reconnaissance, county-specific lists of threatened and endangered species and element occurrence data were obtained from the FNAI (FNAI 2024). FNAI maintains a database of known occurrences of threatened and endangered (listed) species throughout the state of Florida. Listed plant species are those plants that are listed by the U.S. Fish and Wildlife Service (USFWS) or the Florida Department of Agriculture and Consumer Services as endangered, threatened, of special concern, or commercially exploited. Listed animal species are those animals that are listed as endangered, threatened, or of special concern by the USFWS or the FWC. The FNAI database identifies documented locations of listed species within the DWDV corridor and within 0.25 miles of the corridor. Listed and non-listed wildlife species were observed and recorded during field reconnaissance conducted between January and March 2024. The observed species were supplemented with an evaluation of habitat conditions suitable for listed species to help identify species that were not observed but are likely to occur.

The DWDV corridor predominantly follows DEF's existing right-of-way, traversing areas of freshwater herbaceous and forested wetland habitats as well as upland habitats, primarily in the form of pine plantations. A variety of non-listed wildlife species typically found in upland forest and wetland habitats of Central Florida are likely to occur within the DWDV corridor. A description of non-listed wildlife species observed or expected to occur within the various habitat types is provided below.

*Pastures (FLUCFCS 211, 212, 213)* — Pastures provide limited foraging and breeding/nesting opportunities for many wildlife species, due to a variety of factors such as low diversity of native vegetative forage and insect prey, lack of protection from predators, and frequent disturbances from agricultural operations. Non-listed wildlife likely to occur in pastures within the DWDV corridor include common avian species such as Eastern meadowlark (*Sturnella magna*), cattle egret (*Bubulcus ibis*), killdeer (*Charadrius vociferus*), northern bobwhite (*Colinus virginianus*), wild turkey (*Meleagris gallopavo*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), American crow (*Corvus brachyrhynchos*), fish crow (*Corvus ossifragus*), barn swallow (*Hirundo rustica*), tree swallow (*Tachycineta bicolor*), Eastern phoebe (*Sayornis phoebe*), loggerhead shrike (*Lanius ludovicianus*), savannah sparrow (*Passerculus sandwichensis*), brown-headed cowbird (*Molothrus ater*), and northern mockingbird (*Mimus polyglottos*). Common mammalian wildlife observed within these areas include nine-banded armadillo (*Dasypus novemcinctus*), coyote (*Canis latrans*), feral hog (*Sus scrofa*), and white-tailed deer (*Odocoileus virginianus*).

*Upland Forest (FLUCFCS 411, 412, 413, 420, 434, 441, 443)* — Areas of upland forest within the DWDV corridor provide suitable foraging and/or breeding/nesting habitat for non-listed avian species such as wild turkey, swallow-tailed kite (*Elanoides forficatus*), Mississippi kite (*Ictinia mississippiensis*), Cooper's hawk (*Accipter cooperii*), red-shouldered hawk, eastern screech owl (*Megascops asio*), barred owl (*Strix varia*), downy woodpecker (*Picoides pubescens*), red-bellied woodpecker (*Melanerpes caroliniana*), pileated woodpecker (*Hylatomus pileatus*), yellow-bellied sapsucker (*Sphyrapicus varius*), great-crested flycatcher (*Myiarchus crinitus*), white-eyed vireo (*Vireo griseus*), yellow-throated vireo (*Vireo flavifrons*), red-eyed vireo (*Vireo olivaceous*), blue-headed vireo (*Vireo solitarius*), blue jay (*Cyanocitta cristata*), Carolina chickadee (*Poecile carolinensis*), tufted titmouse (*Baeolophus bicolor*), Carolina wren (*Thryothorus ludovicianus*), blue-gray gnatcatcher (*Polioptila caerulea*), ruby-crowned kinglet (*Regulus calendula*), veery (*Catharus*), Swainson's thrush (*Catharus ustulatus*), gray-cheeked thrush (*Catharus minimus*), hermit thrush (*Catharus guttatus*), American robin (*Turdus migratorius*), gray catbird (*Dumatella carolinensis*), ovenbird (*Seiurus aurocapilla*), worm-eating warbler (*Helmitheros vermivorum*), Tennessee warbler (*Oerothlypis peregrina*), American redstart (*Setophaga ruticilla*), blackburnian warbler (*Setophaga fusca*), yellow-throated warbler (*Setophaga dominica*), chestnut-sided warbler (*Setophaga pensylvanica*), magnolia warbler (*Setophaga magnolia*), black-throated blue warbler (*Setophaga caerulescens*), black-and-white warbler (*Mniotilta varia*), pine warbler (*Setophaga pinus*), yellow-rumped warbler (*Setophaga coronata*), northern parula (*Setophaga americana*), northern cardinal (*Cardinalis cardinalis*), and summer tanager (*Piranga rubra*). Common mammalian species observed or likely to occur include striped skunk (*Mephitis mephitis*), gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), feral hog, white-tailed deer, and nine-banded armadillo. A variety of herpetofauna are also likely to occur within upland forests within the DWDV corridor, including yellow rat snake (*Pantherophis alleghaniensis*), southern black racer (*Coluber constrictor priapus*), Florida rough green snake (*Opheodrys aestivus carinatus*), dusky pygmy rattlesnake (*Sistrurus miliarius barbouri*), ring-necked snake (*Diadophis punctatus*), southern toad (*Anaxyrus terrestris*), oak toad (*Anaxyrus quercicus*), Cuban brown anole (*Anolis sagrei*), and green anole (*Anolis caroliniana*).

*Forested Wetlands (FLUCFCS 617, 625, 630)* — Forested wetlands within the DWDV corridor provide suitable forage and breeding/nesting habitat for avian species, mammals, and herpetofauna. Non-listed terrestrial species likely to occur with these habitats include a variety of avian species, such as swallow-tailed kite, red-shouldered hawk, eastern screech owl, barred owl, red-bellied woodpecker, pileated woodpecker, yellow-bellied sapsucker, Acadian flycatcher (*Empidonax virescens*), blue jay, tufted titmouse, Carolina chickadee, Carolina wren, blue-gray gnatcatcher, ruby-crowned kinglet, black-and-white warbler, yellow-rumped warbler, Louisiana waterthrush (*Parkesia motacilla*), northern waterthrush (*Parkesia noveboracensis*), prothonotary warbler (*Protonotaria citrea*), yellow-throated warbler, northern parula, northern cardinal, red-winged blackbird (*Agelaius phoeniceus*), and common grackle (*Quiscalus quiscula*). Non-listed mammalian species include raccoon (*Procyon lotor*), gray squirrel, white-tailed deer, and feral hog. A variety of herpetofauna utilize forested wetlands, including water moccasin (*Agkistrodon piscivorus*), squirrel tree frog (*Hyla squirella*), leopard frog (*Lithobates pipiens*), southern cricket frog (*Acris gryllus*), banded water snake (*Nerodia fasciata*), green tree frog (*Hyla cinerea*), Cuban brown anole, and green anole.

*Non-forested Wetlands (FLUCFCS 641, 646)* — A variety of non-listed wildlife species are likely to occur within non-forested wetland areas of the DWDV corridor. These include wetland-dependent avian species such as great egret (*Ardea alba*), green heron (*Butorides virescens*), great blue heron (*Ardea herodias*), glossy ibis (*Plegadis falcinellus*), black-crowned night heron (*Nycticorax nycticorax*), Wilson's snipe (*Gallinago delicata*), lesser yellowlegs (*Tringa flavipes*), greater yellowlegs (*Tringa melanoleuca*), least sandpiper (*Calidris minutilla*), solitary sandpiper (*Tringa solitaria*), sora (*Porzana carolina*), common gallinule (*Gallinula galeata*), belted kingfisher (*Megaceryle alcyon*), red-winged blackbird, common grackle, and boat-tailed grackle (*Quiscalus major*). Other avian species likely to occur in non-forested wetlands within the DWDV corridor include red-shouldered hawk, sedge wren (*Cistothorus stellaris*), Carolina wren, northern house wren (*Troglodytes aedon*), marsh wren (*Cistothorus palustris*), indigo bunting (*Passerina cyanea*), common yellowthroat (*Geothlypis trichas*), Louisiana waterthrush, and northern waterthrush. Mammalian species such as white-tailed deer, feral pig, and raccoon are likely to occur, along with herpetofauna such as water moccasin, pig frog (*Lithobates grylio*), leopard frog, southern cricket frog, banded water snake, green tree frog, squirrel tree frog, Cuban brown anole, and green anole.

#### 2.5.3.1 Threatened and Endangered Species

The DWDV corridor is within USFWS Wildlife Consultation Areas for the Red-Cockaded Woodpecker (*Dryobates borealis*), Florida Scrub-Jay (*Aphelocoma coerulescens*), Sand Skink (*Plestiodon reynoldsi*), West Indian Manatee (Florida Manatee)(*Trichechus manatus latirostris*), and the Everglades Snail Kite (*Rostrhamus sociabilis plumbeus*). The FNAI Element Occurrence data indicated that the Red-Cockaded Woodpecker, Florida Pine Snake (*Pituophis melanoleucus*), Florida Sandhill Crane (*Antigone canadensis pratensis*), Florida Scrub-Jay, Gopher Tortoise (*Gopherus polyphemus*), and American Alligator (*Alligator mississippiensis*) have been documented within 1,500 feet of the DWDV corridor. Florida Sandhill Cranes and Sandhill Crane Crossing signs were observed near the City of Umatilla during the field reconnaissance. No protected flora species have been identified within 1,500 feet of the DWDV corridor.

Listed species occurrences are shown in Figure 2-11. A review of the FNAI Biodiversity Matrix indicated the species listed above as 'documented' and/or 'likely' to occur (i.e., the highest likelihood designation provided for species in FNAI), with the exception of the Everglades Snail Kite, West Indian Manatee, and Sand Skink, which are listed in the matrix as 'potential' to occur (i.e., a slightly less likely designation) within the DWDV corridor. Additional federal and state-listed fauna species identified as 'potential' to occur include the Bluenose Shiner

(*Pteronotropis welaka*), Eastern Indigo Snake (*Drymarchon couperi*), Florida Burrowing Owl (*Athene cunicularia floridana*), Short-tailed Snake (*Lampropeltis extenuata*), and the Striped Newt (*Notophthalmus perstriatus*). There were several federal and state-listed flora species described as having the 'potential' to occur within the DWDV corridor. Listed species known to occur within Lake and Volusia Counties and their likelihood of occurrence within 1,500 feet of the DWDV corridor are summarized in Table 7.

As part of the desktop review, listed species designated at least as 'potential' to occur within 1,500 feet of the DWDV corridor are discussed in more detail below, and are organized by potential likeliness to occur based on FNAI results and field observations. Further evaluation will be undertaken once the final transmission line design has been determined. If any individual species are observed or if potential habitat exists within or directly adjacent to the route, coordination with the FWC and/or USFWS will likely be required. The following species were listed with as 'documented,' 'likely,' or 'potential' to occur within 1,500 feet of the DWDV corridor:

*Red-Cockaded Woodpecker (Endangered [E])* — The red-cockaded woodpecker is listed as endangered on the state and federal levels. Their habitat is commonly found amongst mature longleaf pines or other southern pine species suffering from red heart disease, which causes the inner wood to soften allowing the red-cockaded woodpecker to excavate cavities in the wood. No individuals or suitable nesting habitat was observed within the DWDV corridor.

*Eastern Indigo Snake (Threatened [T])* — The Eastern indigo snake is classified as a threatened species by both the USFWS and the FWC. In peninsular Florida, the Eastern indigo snake may be found in a variety of habitats ranging from swamps to xeric pinelands and scrub (Moler 1992). In its northern range, it is often commensal with gopher tortoises, using their burrows for shelter during the winter (FNAI 2001). No individuals were observed within the DWDV corridor, but they may occur based on the presence of suitable habitat. According to the FNAI database, potential habitat for the species is likely present within or directly adjacent to the DWDV corridor; however, no occurrences of the species have been documented within the DWDV corridor.

*Florida Burrowing Owl (T)* — The Florida burrowing owl is listed as threatened on the state level. It is afforded state protection under the State of Florida Endangered and Threatened Species Rule (SFETSR) and on the federal level under the Migratory Bird Treaty Act (MBTA). The FNAI review did not report an occurrence of the species within the DWDV corridor. The Florida burrowing owl is a small owl that is mainly active during the day but can be active at night especially during certain portions of the year. They typically inhabit well-maintained grasslands, prairie, and pasture where they excavate shallow burrows in the ground for nesting and protection. They prefer these open environments as it affords them large unobstructed vistas from which to observe both prey and predators. No individuals or burrows were observed within the DWDV corridor, and it is unlikely that they may occur.

*Florida Pine Snake (T)* — The Florida pine snake is listed as threatened at the state level. It is afforded state protection under the SFETSR. A review of the FNAI Element Occurrences indicated an occurrence of the species within the DWDV corridor. Potential habitat for the species is present within the DWDV corridor; however no individuals were observed.

*Florida Sandhill Crane (T)* — The Florida sandhill crane is classified as threatened by the FWC but is not listed by the USFWS. The Florida sandhill crane is a subspecies that is indistinguishable from the greater sandhill crane (*Antigone canadensis*), which winters in Florida. Greater sandhill cranes generally arrive in Florida in October and leave in March. Florida sandhill cranes typically start nesting in late December and continue through June, creating nest mounds of plant material in herbaceous wetlands. The female will lay two eggs, which incubate for

28 to 32 days. Fledging occurs at about 67 days (FWC 2003). Several sandhill cranes were observed within the DWDV corridor.

*Florida Scrub-Jay (T)* — The Florida scrub-jay is listed as threatened on the state and federal levels. It is afforded state protection under the SFETSR and federal protection under the Endangered Species Act (ESA). The Florida scrub-jay is a relatively large passerine that feeds primarily on insects and small reptiles but also feeds on acorns. It is the only endemic species-level bird in Florida. It has highly specific habitat requirements, preferring fire-maintained, open xeric oak scrub communities that occur on excessively well-drained sandy soils. No individuals were observed within the DWDV corridor, but it is likely that they occur based on the presence of suitable habitat.

*Gopher Tortoise (T)* — Gopher tortoises are classified as a threatened species in the state of Florida due to loss of preferred habitat and are a candidate species for listing by the USFWS. They are medium-sized terrestrial turtles that dig burrows for shelter, typically in dry sandy areas where the depth to the seasonal high-water table is greater than 45 centimeters (FWC 2009). Gopher tortoises are commonly found in dry upland habitats, such as sandhills, scrub, xeric oak hammock, and dry pine flatwoods. They are also found in pastures and old fields (FNAI 2001). The breeding season for gopher tortoises is generally considered to be spring, but males may attempt to mate from April through December. During May and June, females deposit 3 to 12 eggs in sand mounds or in other nearby open sandy sites. Incubation depends upon climate and takes from 80 to 110 days. Other listed species such as the Eastern indigo snake, gopher frog (*Lithobates capito*), Florida mouse (*Podomys floridanus*), and Florida pine snake may utilize gopher tortoise burrows. No individuals or gopher tortoise burrows were observed within the DWDV corridor; although it is likely that they occur based on the presence of suitable upland habitat.

*Sand Skink (T)* — The sand skink is classified as threatened on the state and federal levels. They are afforded state protection under the SFETSR and federal protection under the ESA. Although the FNAI database review did not document the species within one mile of the DWDV corridor, it is located within the USFWS Wildlife Consultation Area. Sand skinks are cryptic, fossorial lizards. They spend almost the entirety of their lives underground within the top few inches of well-drained, sandy soils, preying on macroinvertebrates. They are found at relatively high elevations throughout the ancient sand dune ridges running throughout the central portion of peninsular Florida. No individuals or suitable habitat was observed within the DWDV corridor.

*West Indian Manatee / Florida Manatee (T)* — The West Indian manatee was federally listed as endangered in 1967 and reclassified as threatened in 2017. The manatee is also protected under the Marine Mammal Protection Act (MMPA). West Indian manatees occur in marine, brackish, and freshwater systems. West Indian manatees occur primarily within shallow, slow-moving estuaries, bays, rivers, and lakes within coastal regions where they inhabit water that typically ranges between 3 and 15 feet deep. Manatees forage on submerged, emergent, and floating vegetation (USFWS 2024). The DWDV corridor is within the USFWS Wildlife Consultation Area of the West Indian manatee and crosses the St. Johns River, which is listed as critical habitat for the species. No individuals were observed, but it is likely they may occur within the section of the St. Johns River crossed by the DWDV corridor.

*Wood Stork (T)* — The wood stork (*Mycteria americana*) is classified as threatened by the USFWS and the FWC. Wood storks utilize a variety of habitats, including cypress/gum ponds, forested wetlands, river swamps, marshes (freshwater and saltwater), and bays. The wood stork is highly gregarious in its nesting and feeding behavior. They are tactile feeders (vision is seldom used to locate or catch prey) and usually forage in shallow water (6 to 20 inches). Small fish are the primary food items, but wood storks also consume crustaceans, salamanders, tadpoles, and insects. The distance between nesting colonies and feeding areas can range up to 60 miles or

more; although the average distance is typically 12 to 15 kilometers (km) (7 to 9 miles) (Ogden 1996a). Colonies are typically located on coastal islands and on willow islands in swamps, cypress swamps, impoundments, and other inundated areas. Nesting has been reported throughout the year, with nests consisting of platforms of sticks formed in tall cypress trees and, less often, mangroves. Typically, three to five eggs are laid and incubate for 28 to 32 days before hatching, while the young fledge in 50 to 55 days. In Central Florida, the area within 13 miles of a wood stork colony is considered a core foraging area. The closest wood stork colony is located approximately 2 miles south of the DWDV corridor where it crosses the St. Johns River. No individuals were observed within the DWDV corridor, but they are likely to occur based on the presence of suitable habitat.

*American Alligator (Threatened due to Similarity of Appearance to a Federally Listed Species [SAT])* — American alligators are treated as threatened by the USFWS due to their similarity in appearance to the endangered American crocodile (*Crocodylus acutus*). The FWC also regulates the harvesting of alligators and their eggs. Alligators nest in late spring and young hatch in the summer. Females nest along the water edge, creating a nest mound of herbaceous vegetation. Approximately 30 to 60 eggs will be laid and will incubate for two months in the decomposing vegetation. About half of these eggs will survive to maturity, with young typically hatching in mid-August through September (FNAI 2001). Alligators occur within wetlands and open water ditch habitats within the DWDV corridor; however, no individuals were observed.

*Bald Eagle (SAT)* — Although the bald eagle (*Haliaeetus leucocephalus*) is not currently listed by the USFWS or the FWC as threatened or endangered, it is protected at the federal level under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA), as well as on the state level under the FWC Bald Eagle Management Plan. Activities are federally regulated within 660 feet of any active or alternate bald eagle nest. Building multiple nests allows eagles to move to an alternate nest while remaining in their territory. The FWC documents the known locations of nests throughout the state and maintains a bald eagle nest database. A review of the FWC database and Audubon EagleWatch Program data indicated the closest eagle nest (LA233) to be located approximately 0.3 miles east of the Dona Vista substation. This nest is listed as ‘occupied’ for the 2023 season. There is a potentially active nest (LA222) located 1.1 miles to the east of the Dona Vista substation that is listed as being ‘occupied’ in the 2023 season. Other nests located in the vicinity of the DWDV corridor include LA142, LA148, and LA029 which are 0.5, 0.5, and 1.0 miles from the DWDV corridor, respectively. Nest LA142 is listed as being ‘inactive’ for the 2023 season, while the others are listed as having unknown activity for 2023. No individuals were observed within the DWDV corridor, but it is likely that they may occur based on the location of active nests.

*Everglades Snail Kite (SAT)* — The Everglades snail kite is protected under the SFETSR and under the federal ESA. The FNAI review did not report an occurrence of the species within the DWDV corridor. However, the DWDV corridor is within the USFWS Everglades Snail Kite Wildlife Consultation Area indicating the potential for species habitat within or directly adjacent to the DWDV corridor. The USFWS recommends staying at least 500 feet from any active snail kite nest. No individuals or nests were observed within the DWDV corridor; although it is possible that they may occur.

*Little Blue Heron (Species of Special Concern [SSC])* — The little blue heron (*Egretta caerulea*) is classified as a species of special concern by the FWC but is not listed by the USFWS. The little blue heron is a medium-sized heron, with a purplish to maroon-brown head and neck, a small white patch on the throat and upper neck, and a slate-blue body. The little blue heron feeds in shallow freshwater, brackish, and saltwater habitats. The largest nesting colonies of little blue herons occur in coastal areas, but they prefer to forage in freshwater lakes, marshes, swamps, and streams. Little blue herons nest in a variety of woody vegetation types, including cypress, willow,

maple, black mangrove, and cabbage palm. They usually breed in mixed-species colonies in flooded vegetation or on islands. Little blue herons are mostly resident throughout the year, but numbers in Central Florida during the winter are lower than numbers during spring, summer, and fall (FNAI 2001). Little blue herons were observed within ditch and freshwater marsh habitats within the DWDV corridor.

*Limpkin (SSC)* — The limpkin (*Aramus guarauna*) is classified as a species of special concern by the FWC but is not federally listed. It is a large, brown-feathered, long-billed, long-legged wading bird found in swamps and marshes. Limpkins inhabit mangroves, freshwater marshes, swamps, springs and spring runs, and pond and river margins. They are also found along lake margins in peninsular Florida, and swales, strand swamps, sloughs, and impoundments in south Florida. They may also forage in ruderal areas such as sugarcane fields and the banks of irrigation canals. Limpkins utilize a wide range of nesting sites, including mounds of aquatic vegetation and marsh grasses among cypress knees and high up in trees. Nesting generally occurs from late February to May in north Florida, late January to March in Central Florida, and possibly earlier in south Florida (FNAI 2001). No individual limpkins were observed within the DWDV corridor; although it is likely that they may occur based on the presence of suitable forested and herbaceous wetlands.

*Snowy Egret (SSC)* — The snowy egret (*Egretta thula*) is classified as a species of special concern by the FWC but is not listed by the USFWS. The snowy egret is a medium-sized, all-white wading bird. Adults have black legs with bright yellow feet.  Snowy egrets occur in Florida in all seasons but are generally less common during winter. Snowy egrets nest both inland and in coastal wetlands, with nests placed in many types of woody shrubs, especially mangroves and willows. Almost all nesting is over shallow waters or on islands that are separated from shoreline by extensive open water. Snowy egrets feed in a variety of permanently and seasonally flooded wetlands, streams, lakes, and swamps, and in man-made impoundments and ditches. A wide variety of wetland types must be available within seven miles to support breeding colonies (FNAI 2001). Nesting may begin as early as January in southern Florida. Egg laying occurs primarily between late March and June but may continue into August (Ogden 1996b). No individual snowy egrets were observed within the DWDV corridor; although it is likely that they may occur based on the presence of suitable wetland habitat.

*Tricolored Heron (SSC)* — The tricolored heron (*Egretta tricolor*) is classified as a species of special concern by the FWC but is not listed by the USFWS. It is a medium-sized heron with dark slate coloration on the head, neck, and body that contrasts with the white rump, belly, and undertail. Most tricolored heron nesting colonies occur on mangrove islands or in willow thickets in freshwater, but nesting sites include other woody thickets on islands or over standing water. Tricolored herons prefer coastal environments but will feed in a variety of permanently and seasonally flooded wetlands, mangrove swamps, tidal creeks, ditches, and edges of ponds and lakes. Tricolored herons are permanent residents and are found throughout Florida in all seasons, except they are rare in winter in the western Panhandle and also somewhat less common inland during winter (FNAI 2001). No individual tricolored herons were observed within the DWDV corridor; although it is likely that they may occur based on the presence of suitable wetland habitat.

*White Ibis (SSC)* — The white ibis (*Eudocimus albus*) is classified as a species of special concern by the FWC but is not listed by the USFWS. They are midsized and the adults are mostly white with black tipped wings, a red face, red legs, and very distinct downcurved pink bill, which is used to prove the ground for food while foraging. The white ibis is found throughout Florida in a wide variety of habitats, including freshwater and brackish marshes, salt flats and salt marsh meadows, many types of forested wetlands, wet prairies, swales, seasonally inundated fields, and man-made ditches. The white ibis typically nests in Florida from March to August. Nesting occurs in trees, shrubs, cactui, and grass clumps, from ground level to a height of approximately 50 feet. Eggs incubate for

a period of approximately 22 days and young begin leaving the nest around 9 to 16 days of age, but complete independence from the parents does not occur until 40 to 50 days of age (FWC 2003). White ibis were observed utilizing freshwater marsh habitat within the DWDV corridor.

### 2.5.4 Other Environmental Features

The environmental features of the DWDV corridor are described in the preceding sections; other environmental features within the DWDV corridor, such as natural landmarks and conservation lands, are identified in Section 2.4.4. This section addresses environmental features being considered beyond the items discussed in previous sections.

**Karst Geology and Groundwater Recharge Area Considerations**

The Wekiva Study Area Overlay – The Wekiva Study Area Overlay was established under the Wekiva Parkway and Protection Act (Florida Statutes, Part III of Chapter 369, Sections 369.314 through 369.324), and serves as a regulatory and planning framework aimed at protecting the Wekiva River Basin's sensitive ecological and hydrological features, including spring recharge zones, karst formations, and aquifer vulnerability areas (Lake County FLU Element Goal I-3 and City of Eustis FLU Element Goal FLU 5). While the overlay imposes specific environmental and permitting considerations for infrastructure development within its boundaries, spatial analysis confirms that the DWDV corridor does not intersect the Wekiva Study Area Overlay. The closest point of approach is approximately 0.45 miles, ensuring that the DWDV corridor alignment remains outside the overlay and is not subject to its direct regulatory constraints.

Lake County's Land Development Regulations Section 6.09.02 – Standards for Protecting Groundwater Aquifer and Recharge Areas outlines standards intended to protect groundwater aquifers and recharge areas from adverse impacts due to land development. The standard typically includes provisions for identifying prime recharge areas, limiting impervious surface coverage, requiring stormwater management practices, and coordinating with state and regional agencies for compliance. However, under Section 380.04(3)(b), F.S., the term "development" does not include the construction of facilities for the transmission of electricity by an electric utility. This means that, while Lake County's LDRs may impose environmental standards on development activities, electric transmission lines are not classified as "development" under state law and are therefore not subject to local development review or permitting under these provisions.

Volusia County's groundwater protection standards are embedded in their Comprehensive Plan Chapter 10 - Natural Groundwater and Aquifer Recharge Element. These policies aim to preserve the quality and recharge capacity of the surficial and Floridan aquifers, including the Volusia-Floridan sole source aquifer. While electric transmission lines are not classified as "development" under Section 380.04(3)(b), F.S., DEF will coordinate with Volusia County to ensure that construction activities within identified recharge areas are planned and executed in a manner consistent with the County's aquifer protection goals. This includes implementing best management practices for erosion control, minimizing impervious surface impacts, and avoiding disruption to natural recharge functions.

While not explicitly required by rule, geotechnical surveys are often included to assess subsurface stability, prevent structural failures, and minimize environmental impacts (e.g., karst-prone areas and aquifer recharge zones). To support environmental and engineering evaluations required under Chapter 62-17, Part II, F.A.C., DEF will conduct geotechnical investigations on a site-specific basis to determine if any groundbreaking work is to take place within geohazard areas such as prime Aquifer Recharge areas.

**Local Resource Protection Standards**

Lake County established local Resource Protection Standards under Chapter 6 of Appendix E – Land Development Regulations for wetland impacts, vegetation management, wellfield protections, natural upland communities, habitat of designated species, wildlife corridors, and groundwater aquifer recharge. Many of these standards fall within the jurisdiction of, or require up front coordination with, state and federal agencies. Local tree protections are established under Chapter 9 Development Design and Improvements Standards of Appendix E – Land Developments Regulations, with an exemption for “Trees removed as part of....other major utility improvements” mentioned under Section 9.02.04(G). Coordination with Lake County regarding Land Development Regulations pertaining to potential environmental impacts will be required.

Volusia County established local Land Development Regulations under Article III, Chapter 72 – Land Planning of the Code Of Ordinances of Volusia County, including regulations for wetland impacts, vegetation management, listed species, and tree impacts. Many of these standards fall within the jurisdiction of, or require up front coordination with, state and federal agencies. Coordination with Volusia County regarding Land Development Regulations pertaining to potential environmental impacts will be required.

# 3.0 EFFECTS OF RIGHT-OF-WAY PREPARATION AND TRANSMISSION LINE CONSTRUCTION

DEF typically obtains an easement for the construction, operation, and maintenance of its transmission line, as well as the rights of ingress and egress to the line, from the underlying landowner(s) who retains the fee-simple interest in the property. Transmission line construction phases will typically consist of right-of-way clearing, access road and structure pad construction (where necessary), line construction, and right-of-way restoration. The following construction phases will generally be performed sequentially along the right-of-way such that activities in any one area will be short-term. All activities will conform to applicable federal, state, and local regulations. In the event of inadvertent equipment or vehicle fluid release, construction crews will be equipped with spill containment and absorption materials.

## 3.1 Construction Techniques

The DWDV corridor follows existing DEF transmission lines for the majority of its approximately 26-mile length. Right-of-way preparation and transmission line construction will be conducted in a manner to minimize effects on human populations, waterbodies, archaeological and historic sites, vegetation, and wildlife.

### 3.1.1 Right-of-Way Preparation

#### *3.1.1.1 Clearing in Upland Areas*

It is anticipated that only moderate right-of-way clearing will be required for the DWDV Project because the new line will be following existing DEF transmission lines, which include 69 kV transmission lines that are currently maintained per DEF right-of-way clearing practices. DEF's typical practice is to clear trees and shrubs within the right-of-way to reduce vegetation-related hazard risk and ensure safe access for maintenance. Minimal amounts of clearing may be required for installations of structure pads and anchors for guyed structures. Additionally, conflict timber (i.e., danger trees) located outside the right-of-way will be removed if it is determined that they pose a risk to the transmission line conductors. A danger tree is any tree that could contact electric lines by growing or falling into the lines, or by the lines swaying or sagging into the tree.

The machinery used for vegetation clearing will depend on the density of trees to be cut and the restrictions on clearing wetlands. Typical equipment will include bulldozers, shearing machinery, chainsaws, and specialized mowing equipment. DEF will comply with all applicable requirements related to tree removal.

#### *3.1.1.2 Clearing in Wetland Areas*

Restrictive clearing techniques are used to clear vegetation in wetland areas. Restrictive wetland clearing will be done by hand (e.g., chainsaws) or with low-ground-pressure shear or rotary machines to reduce soil compaction and damage to vegetation. Trees will be cut as low as possible or to existing water levels in the areas outside of the access road and structure pads. To preserve the root mat, stumps may be left in place and treated with an approved herbicide to prevent regrowth. All trees and debris will be removed from the right-of-way and disposed of in upland areas or off site depending on regulatory agency or landowner restrictions. The cut material will be removed from the wetland utilizing either low-ground-pressure equipment or temporary construction mats. Care will be taken to minimize rutting and disturbance of the root mat.

The right-of-way in wetland areas will be cleared using the methods stated above and maintained in an herbaceous state. Tree stumps will be removed, sheared, or ground to six (6) inches below the ground line to allow for the installation of access roads and structure pads as well as general travel and related construction

activities. Where applicable, tree clearing within wetlands will be part of the final design of the transmission line to be submitted to agencies as a post-certification submittal in compliance with the conditions of certification.

### 3.1.2 Access Road and Structure Pad Construction

In areas where existing roads are insufficient, improved access roads and new structure pads may also be required. The details of this work will be submitted for review in accordance with the conditions of certification in a post-certification submittal. Figure 1-18 depicts the typical access road and structure pad cross sections. An overview of typical access road and structure pad construction in uplands and wetlands is provided below.

Where necessary, construction of access roads and pads in uplands will be conducted by first completing the clearing and grubbing of the road footprint and then placing, spreading, shaping, and compacting hauled clean fill or soil from both sides of the road surface to the design elevation using bulldozers. DEF may also consider the construction of at-grade access roads where new access roads are required in either uplands or wetlands.

Where construction of access roads and structure pads is required in wetlands, DEF will use erosion control BMPs such as silt fencing, staked turbidity barriers, or floating turbidity screens, to minimize any secondary impacts to wetlands and waterbodies and ensure that state water quality standards for turbidity are met. Construction in wetlands begins with installation of silt fence, turbidity curtains, and/or other appropriate BMPs along the perimeter of the work area within the right-of-way, followed by selective clearing of the right-of-way to remove vegetation whose mature height could exceed 14 feet. Additional BMPs will be installed along the perimeter of the access road or pad construction areas prior to final clearing and grubbing of these areas. Where applicable, a geotextile liner may be laid and staked in place following final clearing and prior to road or structure pad construction. The final grade of the road and/or pad is generally set up to be at least six (6) inches above the seasonal high water line elevation. Where applicable, specific locations and design of access roads or pads within wetlands will be part of the final design of the transmission line to be submitted to agencies as a post-certification submittal in compliance with the conditions of certification. Transmission line construction stormwater discharges released into waters of the state will be addressed through compliance with Section 62-621.300(4), F.A.C. (Generic Permit for Stormwater from Large and Small Construction Activities).

Where necessary, in conjunction with the construction of new roads, culverts are added under the access roads in wetlands to maintain flow. A minimum of two (2) feet of cover is installed over new culverts. Although some culverts may need to be engineered to accommodate flowing water, typical culvert inverts are placed so that the invert elevation is the same as the wetland floor elevation. A combination of culverts measuring 18 inches, 24 inches, and 36 inches in diameter are typically used. Culverts and access roads are designed to equalize the water volume created from a small rainfall event. The culvert's intended use is to maintain normal pool equilibrium. The culvert system is not intended to create a retention or detention area. During a major-intensity rainstorm (greater than a 25-year storm event), the water level may flow over the access road. The access road will function as an emergency spillway, thus equalizing the wetland pool.

### 3.1.3 Assembly and Erection of Structures

Transmission structures are generally delivered to the site using semi-trucks with open trailers and are assembled on site as close as possible to the structure location. To install the transmission line structures, a digger truck will auger a hole approximately 30 to 40 feet deep and the single-pole spun concrete structures or engineered steel structures will be embedded directly into the hole and backfilled with crushed rock. Taller poles, site-specific geography, or subsurface conditions may require additional setting depths. Multi-piece structures can be used should significantly taller structures be required at select locations. During the assembly process, poles are

maneuvered into place using crane equipment to facilitate connections. Cribbing is used to maintain a level working surface to prevent excess stress on components and connections. Once assembled, the structures are ready for final placement. When ready, a crane is used to pick up the structure. Tag lines may be used to facilitate the proper orientation and control of the structure until placed in the hole.

Although it is expected that most concrete poles will be directly embedded into the ground, where foundation construction is required, specialized crews and equipment will be utilized. This activity typically takes only a few hours per structure. The crew will then erect the structure on the foundation with a larger crane. This activity typically also takes only a few hours per structure.

Guys and anchors may be required depending on the structure type and the applied load. Anchors to be used will be either pile type or multi-helix/screw type. Multi-helix anchors are installed using mechanized equipment designed to screw the anchor into the ground to a specified length or torque, which meets the design requirements. Pile anchors are designed to provide high-strength applications by a short pole section, set at a specified depth into natural earth. The anchor is then backfilled with a suitable material or concrete to obtain the desired strength. Guy wires are utilized to connect hardware on the pile anchor. Guys typically consist of high-strength steel wire, typically 0.5 inch in diameter or larger. The guy wire is connected to the structure and anchor rods using preformed or adjustable guy grips. Typical equipment in transmission line construction includes but is not limited to cranes, bucket trucks, flatbed trucks, semi-trucks, front-end loaders, and support vehicles.

### 3.1.4 Installation of Insulators and Conductors

Insulator and conductor installation follows structure erection. Installing conductors between structures requires stringing a lead line between each structure's stringing block to form a continuous connection between end points of a conductor stringing pull. The lead line is used to pull the conductor into position. The conductor is then tensioned to design specifications, transferred to the support clamp at the structure, and then clipped into its final position. This operation is repeated for each of the conductors and overhead ground wires (OHGWs) on the transmission line. Bucket trucks, wire-pulling equipment, wire reels, trailers, tensioners, and other support vehicles are typically used in conductor and OHGW installation operations.

### 3.1.5 Right-of-Way Restoration

Once transmission line construction is completed, construction debris, if any, will be removed, and DEF will employ various methods to restore the right-of-way where necessary, such as stabilizing potentially erodible areas through seeding and mulching. Upon completion of construction, newly disturbed areas on steep slopes may be seeded, sodded, and/or mulched to control erosion (e.g., at canal or ditch crossings).

## 3.2 Environmental Resource Permit

Once the design for the DWDV transmission line is finalized, detailed design information typically provided in an environmental resource permit (ERP) application will be submitted to reviewing agencies for post-certification monitoring and compliance with the conditions of certification, as authorized by Rule 62-17.191, F.A.C.

Consistent with the ERP application requirements, the detailed design information will include the quantification of canopy clearing within forested wetlands, dredge and fill impacts associated with installation of transmission line facilities, new structure pads, and access roads, management of surface waters during construction, evaluation of floodplain compensation, application for use of sovereign submerged lands for the crossing of the St. Johns River, and a mitigation proposal to compensate for the loss of wetland functions in accordance with the Uniform Mitigation Assessment Method (UMAM) (Rule 62-345, F.A.C.).

The existing wetland condition and functional loss associated with unavoidable wetland fill and canopy clearing will be quantified in accordance with the UMAM based on consultation with FDEP Central District. It is anticipated that unavoidable wetland impacts will be compensated through purchase of credits from one or more agency-approved mitigation banks. The DWDV transmission line is within the service area of four agency-approved wetland mitigation banks; the Barberville, Blackwater Creek, Wekiva River, and Emeralda mitigation banks.

## 3.3 Solid Wastes

Solid waste generated from transmission line right-of-way preparation and line construction typically consists of cleared vegetation and construction-related debris. Solid wastes will be collected and removed for disposal in compliance with state and local landfill regulations. Any proposed on-site chipping or burning will be performed in compliance with applicable state and local regulations. The quantity of solid waste generated will depend upon site-specific characteristics of the area being cleared.

## 3.4 Changes to Vegetation, Wildlife, and Aquatic Life

Changes to vegetation, wildlife, and aquatic life are expected to be minimal because the DWDV corridor follows DEF existing transmission lines for most of the distance between the end points.

Impacts to vegetation include selective clearing within the right-of-way, removal of woody vegetation, danger tree removal, and access road and structure pad construction. The proposed right-of-way preparation and construction techniques were described previously in Section 3.1.

The new transmission line following DEF existing transmission lines reduces the potential of new impacts to wildlife. As discussed in Section 2.5.3.1, the DWDV corridor is within USFWS Wildlife Consultation Areas for several species. In addition, the FNAI Element Occurrence data and FNAI Biodiversity Matrix indicated several element occurrences within the vicinity of the study area. Florida Sandhill Cranes and Sandhill Crane Crossing signs were observed near the City of Umatilla during the field study area visit. There were no protected flora species element occurrences identified within the DWDV corridor.

According to authoritative data published by the FDEP, the DWDV corridor is within the Hontoon Island Florida Wood Stork Core Foraging Area (CFA). The USFWS and U.S. Army Corps of Engineers (USACE) Wood Stork Key for Central and North Peninsular Florida states that impacts to greater than or equal to (≥) 0.5 acres of wetlands that provide suitable foraging habitat within a CFA must be compensated through provision of mitigation within the service area of a USFWS-approved wetland mitigation bank or wood stork conservation bank preferably within the CFA. Another method is to enhance, create, or restore wetlands that provide habitat and foraging function equivalent to that of the impacted wetlands, which will be quantified upon completion of the transmission line design. The appropriate compensatory mitigation will be provided in accordance with the USFWS and USACE requirement prior to construction. The DWDV Project is within the service area of four agency-approved wetland mitigation banks; the Barberville, Blackwater Creek, Wekiva River, and Emeralda mitigation banks. The purchase of mitigation credits from one or more of these banks may be evaluated for provision of the necessary wood stork foraging habitat in consultation with the USFWS.

Gopher tortoise burrows within 25 feet of construction activities must be excavated, captured, and relocated to avoid impact in accordance with the FWC gopher tortoise permitting guidelines. If gopher tortoise burrows are located within the final DWDV right-of-way during pre-clearing species surveys, DEF will obtain a FWC gopher

tortoise permit to excavate burrows and relocate captured individuals either on site within undisturbed areas of the right-of-way or off site at an FWC-approved recipient site prior to construction.

## 3.5 Impact on Human Populations

Transmission line construction occurs as a series of tasks generally accomplished in sequence by different specialized crews. Pre-construction activities such as subsurface utility engineering (SUE) are used to locate existing buried utilities, assess potential conflicts, and provide data for design and permitting. Construction tasks can include right-of-way vegetation clearing, encroachment removal, constructing structure pads, temporary and permanent access roads, preparing foundations, assembling and erecting support structures, stringing conductors, and performing restoration activities. Construction of the entire DWDV transmission line is expected to take up to 20 to 24 months. Crew sizes vary depending on the task and usually range in size from 6 to 12 members. Although several crews may work simultaneously along the length of a transmission line, the duration of a crew's activities in any one area will be relatively short. Provided there are no delays, construction tasks typically take a few days, with more labor-intensive tasks, such as setting up locations and wire pulling, taking one to two weeks. Any inconvenience experienced by residents near the DWDV transmission line will be primarily confined to noise from machinery used intermittently at various locations along the right-of-way during construction and possible temporary traffic disruptions due to use of heavy equipment along roads and material deliveries. The construction and associated noise-producing activities are intermittent. FDOT guidelines incorporating Maintenance of Traffic Plans will be followed for any construction paralleling public roads. DEF will make every effort to ensure affected property owners receive timely notification via mail, text, or phone regarding when and where impacts are expected to occur.

Once a section of structures is erected, the process of stringing (installing) the conductors starts. Various pieces of wire-pulling equipment and support vehicles will be used during installation of the conductors, requiring approximately three to five days at any one location. The final phase of construction involves restoration of those areas that were affected by the transmission line construction as close as possible to their original condition.

Construction activities will typically take place during daylight hours and subject to availability of transmission line outages. Special circumstances could require nighttime construction activities. Any nighttime construction activities will be coordinated with appropriate agencies and governmental representatives as necessary. Any inconvenience to human populations attributable to construction of the DWDV transmission line will be limited, to the extent possible, and temporary. Public Engagement representatives will be on site or available to assist property owners with issues or concerns and coordinate any access issues on their properties.

In general, because of the temporary nature of the construction activities and the relatively short duration of the construction process at any given location, potential impacts experienced by the human populations residing or working adjacent to the transmission line right-of-way are anticipated to be minor.

## 3.6 Impact on Regional Scenic, Cultural, and Natural Landmarks

As discussed in Sections 2.4.1 and 2.4.4, the DWDV corridor crosses one national forest, one state forest, one state park, two conservation easements, a preserve, two local parks, and a scenic highway. The DWDV corridor crosses the Ocala National Forest west of the St. Johns River. The corridor is limited to the existing DEF 100-foot easement through the national forest. Approximately 1.8 miles of the DWDV corridor traverses the Lower Wekiva River Preserve State Park. The corridor is centered on existing DEF right-of-way through the state park. Approximately 5.8 miles of the DWDV corridor traverse portions of the Seminole State Forest. The corridor is centered on existing DEF right-of-way through the state forest with approximately 2 miles being adjacent to CR 42

road right-of-way. Approximately 1.6 miles of the DWDV corridor traverses the Holman Conservation Easement. The corridor is adjacent to road right-of-way and centered on existing DEF right-of-way through the easement. Approximately 0.6 miles of the DWDV corridor traverses the Maxwell Conservation Easement. The corridor is adjacent to road right-of-way and centered on existing DEF right-of-way through the easement. Approximately 0.12 miles of the DWDV corridor traverses the Tanner Preserve. The corridor is adjacent to road right-of-way and centered on existing DEF right-of-way through the preserve. The DWDV corridor intersects Ed Stone Park in Volusia County and North Lake Community Park in Lake County. The DWDV corridor crosses SR 44 in Volusia County where it is designated a scenic highway as part of the River of Lakes Heritage Corridor.

No adverse physical impacts to these landmarks are anticipated because the DWDV Project is expected to remain within DEF's existing transmission line right-of-way through these areas. The new 230 kV transmission line will require additional conductors mounted to monopole structures. Although the existing pole structure will likely be replaced with new monopole structures, if necessary, the additional conductors will be a new visual impact to the immediate area. This visual impact is not expected to adversely impact the scenic, cultural, or natural environment associated with these resources.

## 3.7 Impact on Archaeological and Historic Sites

As stated and described in Section 2.4.5, the DWDV corridor intersects seven archaeological sites, two resource groups, one historic district, and seventeen historic structures.

The FMSF database identifies 45 previously recorded cultural resources within or in the vicinity of the DWDV corridor, including 12 archaeological sites, 28 buildings, one historic bridge divided across the county boundary, one historic district, and three resource groups (Appendix E). The term 'vicinity' refers to findings that are within a quarter mile of the DWDV corridor.

- Of the 12 cultural resources that were identified during previous surveys, seven are within the DWDV corridor and five are in the vicinity of the DWDV corridor (see Appendix E Table 1).
- Of the 28 structures listed in the FMSF (see Appendix E Table 2), seventeen historic structures are within the DWDV corridor and the State Historic Preservation Office (SHPO) has determined that all of these are ineligible for listing in the NRHP. Eleven historic structures are in the vicinity of the DWDV corridor, two of which are residences indicated as being 'abandoned or vacant'. The eleven have been recommended as ineligible for listing in the NRHP by the SHPO.

Following the certification of the DWDV corridor and selection of the right-of-way, a cultural resource assessment survey will be conducted that meets applicable state and local requirements, including the requirements of Chapter 267, F.S. and Chapter 1A-46 (Archaeological and Historical Report Standards and Guidelines), F.A.C. The results of this cultural resource assessment survey will be documented in a report submitted to the Florida Department of State, Division of Historical Resources (DHR) / State Historic Preservation Office (SHPO). If significant resources are identified, DEF will work to avoid these resources. If avoidance is not feasible, then DEF will coordinate with the DHR/SHPO to develop a strategy to minimize or mitigate impacts.

If any cultural resource finds are discovered during construction, construction activities will be immediately halted in the vicinity and the DHR/SHPO will be notified. A determination of the significance of the find will be conducted, as appropriate, and DEF will coordinate with the DHR/SHPO and appropriate local government representatives to evaluate mitigative measures necessary to protect the area from adverse impacts.

# 4.0 POST-CONSTRUCTION IMPACTS AND EFFECTS OF MAINTENANCE

## 4.1 Maintenance Techniques

Safe and reliable operation of the new transmission line will be maintained through regular inspection of the structures, conductors, insulators, hardware, access areas, and vegetation in proximity to the facilities. Electric transmission lines normally require minimal maintenance; however, DEF will inspect the transmission lines on a regular basis to look for problems caused by weather, vandalism, vegetation regrowth, etc. The inspections will consist of ground patrols (truck) and/or aerial (airplane/helicopter) patrols.

In general, maintenance of the right-of-way will consist of mowing, pruning, and removal of conflict timber, as well as herbicide treatments. Maintenance of the right-of-way will be consistent with the right-of-way clearing described in Section 3.1.1. Using these same restrictive clearing practices will allow right-of-way maintenance in wetland areas to be performed while encouraging the growth of low-growing woody and herbaceous vegetation that will not exceed 14 feet in height at maturity, to the greatest extent practicable. Care will be taken not to cause unnecessary damage to vegetation in these environmentally sensitive areas. DEF will manage vegetation within the right-of-way by a variety of methods, including trimming, mowing, and the use of approved herbicides by approved applicators in accordance with federal and state regulations, targeting species that are incompatible with the safe operation, maintenance, and access to the transmission system. The exact manner in which maintenance will be performed will depend on the location, type of terrain, and surrounding environment. Vegetation removal is minimized, consistent with safe and reliable operation of the line. For example, fast-growing vegetation species and other vegetation whose mature height could exceed 14 feet will be cut or removed from the area between the structures lying within DEF's transmission right-of-way to avoid interference with clearances to the conductor. Any vegetation that could restrict access along the right-of-way will be removed. Other species are generally allowed to remain, resulting in a shrubby and herbaceous cover within the right-of-way. This allows a broad diversity of vegetation growth, which enhances wildlife use potential. DEF's right-of-way maintenance program is very site-specific, and a maintenance "prescription" is often detailed down to the individual pole spans. Each area of the right-of-way will be addressed based on site-specific vegetation and habitat. Endangered or threatened species, if present, are considered and accommodated in the maintenance program.

Some vegetation maintenance activities outside the right-of-way are occasionally necessary. To enhance the safe, reliable operation of the proposed transmission lines, DEF may trim or remove conflict timber outside the DEF right-of-way in coordination with the adjacent property owner(s). Conflict timber includes trees capable of falling or leaning into the conductors or, in areas of wildfire hazard, other vegetation that may provide excessive fuel loading in proximity to the transmission lines.

The exact manner in which maintenance will be performed will depend on the location, type of terrain, and surrounding environment. Each area of the right-of-way will be addressed based on site-specific vegetation and habitat. Listed species, if present, are considered and accommodated in the maintenance program.

Maintenance of the transmission line will be performed using various types of equipment. This equipment may consist of helicopters, bucket trucks, cranes, semi-trucks, and support vehicles. Typical line maintenance operations may include insulator replacements, conductor repairs, OHGW repairs, grounding, and other activities associated with structures, conductors, and foundations. In general, DEF crews or authorized contractors will mobilize in line trucks capable of supporting various operations. Once on site, the crew will establish a safe working area and perform the required repair. When maintenance is required in environmentally sensitive areas

where access and fill pads do not exist, temporary matting may be employed to minimize impacts to the areas during repairs.

## 4.2 Multiple Uses

Multiple uses within a transmission line right-of-way typically can include agricultural operations (e.g., grazing and right-of-way crops), controlled landscaping, and other activities that do not interfere with DEF's use of the right-of-way for the safe and reliable operation and maintenance of the transmission line. In areas where the new transmission line will be located within an existing transmission line right-of-way, multiple uses consistent with those currently allowed will generally be acceptable.

In most cases, DEF obtains an easement for the construction, maintenance, and operation of its transmission line, as well as the rights of ingress and egress to that line, from another party who retains the fee-simple interest in the property. The easement may provide for acceptable, compatible use of the right-of-way by the fee owner for activities that do not interfere with DEF's full use of its easement and the function, operation, and maintenance of the transmission line facilities. In some cases, DEF may purchase the fee-simple interest in the right-of-way. If DEF owns the right-of-way, all rights to the property will be held by DEF. If a party wishes to use the company-owned property, a license agreement may be negotiated, allowing for activities that do not interfere with DEF's full use of the right-of-way and the function of the transmission line facilities.

DEF currently maintains a right-of-way utilization program that will consider future requests for multiple uses. This program reviews requests for multiple uses to ensure that the proposed use of the right-of-way is compatible with safe operation and maintenance of the transmission line facilities.

## 4.3 Changes in Species Populations

The DWDV corridor has been designed to follow within and adjacent to DEF existing transmission line right-of-way, reducing impacts to undisturbed vegetative communities and wildlife habitat. As a result, and as described in Section 3.4, changes to vegetation, wildlife, and aquatic life are expected to be minimal. Utilizing existing DEF right-of-way for the DWDV corridor allows vegetation, wildlife, and aquatic life within the DWDV corridor a continuation of use of the habitat that is currently present. Many of the species currently present may prefer this habitat due to the regularly maintained transmission right-of-way, which provides herbaceous habitat that may not be as readily available in the surrounding land use types. Individual species that may be temporarily displaced from the right-of-way during construction include the Gopher Tortoise, Florida Pine snake, Eastern Indigo snake, and Sand skink. These species are likely to return following construction as a regularly mowed and maintained easement condition provides the herbaceous habitat these species prefer. No animal or plant species are expected to be permanently displaced from the right-of-way or vicinity as a result of construction, operation, or maintenance of the DWDV transmission line.

## 4.4 Effects of Public Access

It is DEF's policy to provide locked gates at the point where the transmission line access road intersects previously fenced property. Since DEF will install locked gates at any location that is currently fenced, no increased vehicle access is anticipated following construction except by DEF personnel performing routine inspection and maintenance. Where structures are placed adjacent to an existing roadway, maintenance of the line would have no additional impact on public access to the adjacent properties. No impacts to environmentally sensitive areas or resident wildlife populations from additional public access are expected.

## 4.5 Electric and Magnetic Field Effects

The DWDV Project complies with the Florida electromagnetic fields (EMF) regulations specified in Section 62-814, F.A.C. (the Florida EMF Rule). The strength of the magnetic field under a transmission line is primarily a function of the amount of current carried by the line and the height of the conductors above the ground. The electric field is primarily a function of the voltage impressed on the transmission line and conductor height above ground. The electric field near the transmission line is relatively constant over time, but the magnetic field fluctuates depending on customer demand for power.

The electric and magnetic fields produced by the DWDV transmission line were calculated in accordance with the requirements of Section 62-814.460, F.A.C. The fields associated with the new transmission line comply with the standards set forth in the Florida EMF Rule, as demonstrated in Table 8. Although the current carried by the transmission line will vary throughout the day, the value used in the calculations is the maximum quantity of electric current that can be continuously carried on the conductor, as required by Chapter 62-814, F.A.C. As per Section 62-814.460, F.A.C., DEF will submit an EMF compliance document 90 days prior to start of continuous construction.

### 4.5.1 Audible Noise

The audible noise associated with a transmission line is generated by either corona from the conductors or from gap-type discharges. Gap noise is typically due to faulty or failed hardware and easily corrected. Corona is a phenomenon that occurs when there is an irregularity on the surface of the conductor, such as buildup from fog, water droplets, or significant particulate matter. Corona activity at the surface of the conductors produces a low-level audible noise similar to a slight humming sound. Under wet conditions, higher audible noise levels are experienced than would typically occur under dry conditions. However, background noise from various sources (e.g., inclement weather, traffic, agricultural activity, etc.) has the effect of masking transmission line noise.

The following provides a jurisdiction-specific analysis of applicable noise control standards in Volusia County, Lake County, and the Cities of Umatilla and Eustis. DEF will ensure full compliance with regulatory requirements outlined below.

Volusia County enforces its noise ordinance under Chapter 50, Article VI, Section 50-476 of the County Code of Ordinances. The ordinance applies to unincorporated areas and prohibits any “loud, disturbing, or unnecessary noises” that would disrupt a reasonable person of normal sensitivity. The County sets specific decibel limits for residential zones: 60 dBA from 7:00 AM to 10:00 PM, and 55 dBA from 10:00 PM to 6:59 AM, reflecting a clear effort to preserve quiet during nighttime hours.

Lake County’s approach, outlined in Chapter 14, Article II, Section 14-34 of its Code of Ordinances, is broader and more qualitative. It prohibits excessive noise based on characteristics such as duration, frequency, and intensity, particularly when such noise may harm humans, animals, or property, or interfere with health, comfort, or business operations. While Lake County does not specify decibel thresholds, it restricts the use of outdoor tools and construction equipment in residential zones between 7:00 PM and 7:00 AM, except in emergencies (Section 14-35 (1)).

The City of Umatilla defines a noise disturbance under Chapter 34, Article IV, Section 34-43 of its Code of Ordinances. A disturbance is recognized when two or more conditions are met: the noise occurs during night hours, involves amplification, or is plainly audible from an adjoining unit. Additionally, vehicle-related noise is regulated under Chapter 34, Article V, Section 34-44(9), which prohibits amplified audio that is plainly audible at a

distance of 50 feet or more, or any noise that would disturb a reasonably prudent person. The City of Umatilla does not establish specific decibel limits.

Finally, the City of Eustis adopts a performance-based standard under Chapter 34, Article V, Section 34-129(a). The ordinance requires that noise levels not exceed the ambient background level by more than 10 dBA at the receiving property between 7:00 AM and 10:00 PM Sunday through Thursday and 7:00 AM until 11:00 PM Friday and Saturday; and not to exceed 5 dBA above background noise between 10:00 PM and 7:00 AM the following weekday, or 11:00 PM until 7:00 AM the following day if the following day is a Saturday or a Sunday.

Audible noise calculations were performed for the typical transmission line cross-section using corona field effects software produced by the Bonneville Power Administration, U.S. Department of Energy. This software provides estimated median (L50 dBA) noise levels for fair and rainy weather as a function of distance from the edge of right-of-way for the modeled transmission line configurations.

During fair weather and under normal operating conditions, the audible noise levels calculated for the DWDV transmission line designs will be lower than the ambient outdoor noise levels. Table 9 presents the maximum audible noise levels that could be produced by the DWDV transmission line. For a small portion of time, when the conductors are wet from rainfall or heavy fog, the transmission line noise will increase. The noise level produced by the DWDV transmission line will comply with any applicable noise regulations in the governmental jurisdictions crossed.

#### *4.5.1.1 Radio and Television Interference*

Electrical noise in the radio frequency range can be produced by corona on transmission line conductors or by gap-type discharges on transmission line hardware. Corona noise is most significant in the lower frequencies, such as those used for amplitude modulation (AM) radio broadcasting. Noise from gap-type discharges, on the other hand, extends to higher frequencies (i.e., peak levels are in the 30- to 100-megahertz range) and can be a source of interference with television broadcast reception. Since the transmission lines will be constructed with new hardware, gap-type discharges are not anticipated to occur. Should a gap-type discharge develop on a damaged, defective, or improperly installed piece of hardware and lead to interference, the hardware causing the gap-type discharge will be located and repaired or replaced.

Corona, which can occur on high-voltage transmission lines, produces electromagnetic (EM) noise. When this noise is sufficiently strong, it can cause interference with broadcast radio and television signals. Since corona is enhanced by water vapor, the magnitude of this noise is greater during wet or rainy periods than during dry or fair-weather periods.

Broadcast signals in the AM radio band and two television bands (very-high frequency [VHF] and ultra-high frequency [UHF]) are susceptible to this potential interference. EM noise from corona is not expected to cause interference with frequency-modulated (FM) radio, cable or satellite television systems, cellular telephones, home cordless telephones, or wireless networking.

In general, the EM noise from transmission line corona decreases with increasing distance from the right-of-way and with increasing noise frequencies (shorter wavelengths). Thus, interference effects are greatest immediately adjacent to the right-of-way and at the lower broadcast frequencies.

Due to the rural nature of the transmission line route and the conservative evaluation method, the overall impact to radio or television reception is expected to be minimal with the main potential for impact being to the AM radio

band. Should any entity experience interference from these transmission lines, DEF will work with the entity to resolve the interference issue.

## 4.6 Induced or Conducted Ground Currents

Induced currents from EMF produced by the transmission lines are at safe limits by compliance with the Florida EMF Rule for field magnitudes on the right-of-way and at the edge of the right-of-way. Electric field limits guard against startle shocks that can occur when contacting other objects beneath the line. Furthermore, minimum vertical clearances for the lines are designed to meet the NESC requirements.

Each structure will be grounded to minimize these induced ground currents and distribute ground fault currents. Each will have an electrical connection between the shield wire and ground lead that will be connected to ground rods. Ground resistance tests will be made at each structure before the shield wire is electrically connected to the ground lead. A sufficient number of ground rods will be installed to reduce the resistance to 10 ohms or less under normal atmospheric conditions. DEF standards require that fences and gates either crossing or parallel to and within the transmission right-of-way be grounded to mitigate shock hazard. DEF will provide this grounding as part of its construction activities.

## 4.7 Safety

DEF's transmission line facilities are designed to comply with all applicable codes, guidelines, and standards. The primary code used in the design of transmission lines is the NESC, 2023 edition. The NESC is an American National Standards Institute standard that covers electrical clearances and loading and strength requirements, including extreme wind. Codes and standards of other agencies and standards organizations that provide rules, guidelines, and conditions not specified by the NESC will be used to design the DWDV transmission line and include:

- Occupational Safety and Health Administration rules regarding safe minimum approach distances
- American Society of Civil Engineers Manual 74, Guidelines for Electrical Transmission Line Structural Loading, and Standard 48-05, Design of Steel Transmission Pole Structures
- American Concrete Institute Standards
- FAA guidelines covering requirements in the vicinity of airports
- FDOT 2017 Utility Accommodation Manual

These codes, guidelines, and standards provide design parameters and guidelines with the goal of protecting public safety.

# 5.0 VARIANCES, EXCEPTIONS, AND EXEMPTIONS

DEF is not currently aware of any necessary variances, exceptions, or exemptions from applicable non-procedural requirements required for the Project. Accordingly, DEF is not requesting any variances, exceptions from any applicable state and local standards.

# 6.0 ASSOCIATED LINEAR FACILITIES

There are no associated linear facilities proposed as part of the DWDV Project.

# 7.0 REFERENCES

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# TABLES

# TABLE 1
# EVALUATION CRITERIA LIST
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| Category | Criterion # | Criterion Description | Criterion Definition |
|---|---|---|---|
| Social | 1 | Building Footprint | A physical structure with a foundation, walls, and roof. |
| | 2 | Areas within close proximity to buildings (15ft and 25ft of building footprint) | The area within close proximity of a building with a foundation, walls, and roof. |
| | 3 | Residences within 150ft | A physical and inhabitable dwelling (i.e., single-family and multi-family) within 150ft of the route area. |
| | 4 | Residences | A physical and inhabitable dwelling (i.e., single-family and multi-family) that is within or intersects the route area. |
| | 5 | Ownership | A tract(s) or plot(s) of land attributed to a single owner as identified by the county property appraiser database. |
| | 6 | Parcels | A tract(s) or plot(s) of land referenced to a unique identification number as identified by the county property appraiser database. |
| | 7 | Schools | A tract(s) or plot(s) of land used for an existing and proposed public or private school (grades K-12, plus universities and colleges). The school is identified if the parcel intersects the route area. |
| | 8 | Community Facilities | A tract(s) or plot(s) of land associated with public assembly including but not limited to places of worship, special group gathering places (i.e., Rotary, veterans, etc.), and hospitals. The parcel is identified if the parcel intersects the route area. |
| | 9 | Cemetery | A place where the remains of deceased are buried or otherwise interred such as burial ground, gravesite, or graveyard. The parcel is identified if the parcel intersects the route area. |
| | 10 | Archaeological Resource Sites | Evidence of known human impact to the environment over 50 years old and evidence of cultural activity, excluding National Register for Historic Places (NRHP) sites. The archaeological area is identified if it intersects the route area. |
| | 11 | Historic Resource Sites | A known building or site over 50 years old. The site is identified if the area intersects the route area. |
| | 12 | Historic Districts | A group of known buildings, properties, or sites that have been designated by one of several entities on different levels as historically or architecturally significant. The districts are identified if the area intersects the route area. |
| | 13 | NRHP or Eligible for NRHP | Known cultural resources that have been identified as National Register for Historic Places (NRHP) or eligible for NRHP listing. The listings are identified if the area intersects the route area. |
| | 14 | Visibility | The potential for a change in the landscape setting related to the proposed transmission line that may impact viewing opportunities experienced by the local community and visitors. |

# TABLE 1
# EVALUATION CRITERIA LIST
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| Category | Criterion # | Criterion Description | Criterion Definition |
|---|---|---|---|
| Land Use | 15 | Co-location—Within Duke Energy Florida (DEF) Existing Right-of-Way | To place within existing right-of-way so as to share common property/ground improvements with DEF's existing transmission lines. |
| | 16 | Co-location—Adjacent to DEF Existing Right-of-Way | To place directly adjacent so as to share common property/ground improvements with Duke's existing transmission lines. |
| | 17 | Road Right-of-Way | The platted portion of a road as public right-of-way. |
| | 18 | Existing Linear Facilities—Roads | To place directly adjacent to existing and committed public road right-of-way. |
| | 19 | Railroad Right-of-Way | The platted portion of a road as public right-of-way. |
| | 20 | Existing Linear Facilities—Railroads | To place directly adjacent to existing railroad right-of-way. |
| | 21 | Existing Linear Facilities—Interstate and Gathering Pipelines | To place directly adjacent to existing interstate and gathering pipeline right-of-way. |
| | 22 | Existing Linear Facilities—Non-DEF Transmission Lines | To place directly adjacent to another electric utility's transmission line right-of-way. |
| | 23 | Area within 100ft of property lines | Area within 100ft of platted property lines. |
| | 24 | Residential Parcels | A parcel that contains a physical and habitable dwelling (i.e., single-family and multi-family) that intersects the route area. |
| | 25 | Future Residential Land Use | Category applied to an area where the future land use is designated residential according to the local governments adopted Future Land Use Map that intersects the route area. |
| | 26 | Planned Development | Development which has been approved or in the process of being approved by local government that intersects the route area. |
| | 27 | Commercial and Service Land Uses | Land uses that are predominately associated with commerce of products and services that intersects the route area. |
| | 28 | Industrial and Extractive Land Uses | Industrial land uses are where existing manufacturing, assembly, or processing of materials and products are accomplished. Extractive land uses are both surface and subsurface mining operations. The land use will be identified if it intersects the route area. |
| | 29 | Agricultural Land Uses | Disturbed land including land areas used for pasture lands, crop land, and rangeland that intersect the route area. |
| | 30 | Conservation Lands | Existing state and regional designated lands to be held for conservation purposes that intersect the route area. Including known private land holdings for environmental protection. |
| | 31 | Conservation Easements | Existing land that has a known easement over the property for conservation purposes. |
| | 32 | Federal Land | Existing land owned by the US government that intersect the route area. |
| | 33 | Tribal Lands | Land that is owned by a federally recognized tribe. |
| | 34 | State Land | Existing land owned by the state of Florida that intersects the route area. |
| | 35 | Recreation Area | Existing land designated for recreation purposes (i.e., parks, athletic fields, etc.) |
| | 36 | Improvements | Improvements within the route area (i.e., signs, lighting, etc.) that may need to be relocated based on the DEF Asset Protection Guidelines. |
| | 37 | Well Fields | Two or more permitted wells connected to a common piping or gathering system that are operated by entities for delivery to an end use point. |

# TABLE 1
# EVALUATION CRITERIA LIST
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| Category | Criterion # | Criterion Description | Criterion Definition |
|---|---|---|---|
| Environmental | 38 | Listed Species (flora and fauna)—Federally Listed | Federally listed species are those classified as threatened, endangered, or of special concern by the US Fish and Wildlife Service (USFWS). |
| | 39 | Listed Species (flora and fauna)—State Listed | State listed species are those classified as threatened, endangered, or of special concern by the Florida Fish and Wildlife Conservation Commission (FWC). The state list includes bald eagle nests and wading bird colonies. Also includes avian risk areas that are identified as having a high-risk area for avian strikes. |
| | 40 | Eagle Nests | Known eagle nests. |
| | 41 | Upland Forest | Upland areas which support a tree canopy of 10% closure. |
| | 42 | Tree Canopy | Areas derived through image analysis to identify areas where tree canopy exists. Examples include trees along roads and property lines that may not be included in the land use land cover upland forest data. |
| | 43 | Forested Wetland Areas | Wetlands dominated by a canopy of hardwoods and/or coniferous wetland trees that intersect the route area. |
| | 44 | Herbaceous Wetland Areas | Wetlands lacking a canopy component and are dominated by herbaceous vegetation that intersect the route area. |
| | 45 | 100-Year Floodplain | An area of land that would be inundated by a flood having a one percent chance of occurring in any given year that intersects the route area. |
| | 46 | Navigable Waterways | A river, canal, or other route for travel by water. The waterway will be identified if it intersects the route area. |
| | 47 | Non-Navigable Waterways | A stream, creek, or other body of flowing water not identified as navigable. The waterway will be identified if it intersects the route area. |
| | 48 | Waterbodies | A body of water forming a physiographical feature (i.e., ponds, lake, bay, reservoir, etc.). The waterbody will be identified if it intersects the route area. |
| | 49 | Springs | A known/identified natural occurrence where water flows from an aquifer to the surface that intersects the route area. |
| | 50 | Sinkholes | A previously identified/known observation of surface subsidence due to water erosion that intersects the route area. |
| | 51 | Protected Habitat | Federally or state identified protected habitat listed by the USFWS and/or FWC that intersects the route area. |
| | 52 | Potentially Contaminated Land | Federal or state identified lands that are currently under agency cleanup oversight including brownfields, petroleum, superfund, and dry-cleaning sites as well as closed and active landfills. The parcel will be identified if it intersects the route area. |

# TABLE 1
# EVALUATION CRITERIA LIST
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| Category | Criterion # | Criterion Description | Criterion Definition |
|---|---|---|---|
| Engineering | 53 | Existing Non-Duke Transmission Line Crossings | Locations of where the route crosses another utility's transmission line. |
| | 54 | Airports and Heliports (FAA Considerations) | Known public and licensed airports and heliports. Identification of any licensed public or private airports and heliports registered with FDOT. |
| | 55 | Road Crossings | Locations of where the route crosses a road right-of-way. |
| | 56 | Co-location with DEF Distribution Lines | To place close together so as to share common property/ground improvements with distribution lines. |
| | 57 | Co-location with Other Utility Distribution Lines | To place directly adjacent to another electric utility's distribution line. |
| | 58 | Underground Utilities—Hard Utilities | Underground hard utilities such as but not limited to sewer, electric, water, gas distribution lines, or stormwater pipelines within the route area. |
| | 59 | Underground Utilities—Soft Utilities | Underground utilities such as but not limited to irrigation, cable, fiber, and stormwater swales. |
| | 60 | Preliminary Access | Identification of preliminary access points of interest (i.e., canals, rivers, ponds, etc.) for construction and maintenance. |
| | 61 | Initial/Preliminary Constructability Review | Identification of any construction and maintenance issues or risks (i.e., outages, ERT, laydown areas, stringing setups, etc.) by utilizing the constructability review checklist. |
| | 62 | High-level Comparable Cost | High level comparative cost estimate to construct a transmission line. Cost estimate includes easement acquisition, engineering, construction (i.e., labor and materials), and environmental permitting considerations. |

# TABLE 2
# SUITABILITY ANALYSIS CRITERIA
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| Category | Criterion # | Criterion Description | Suitability Mapping (Base Case) |
|---|---|---|---|
| Social | 1 | Building Footprint | Exclusion |
| | 2 | Areas within close proximity to buildings (15ft and 25ft of building footprint) | C_2 |
| | 3 | Schools | C_1 |
| | 4 | Community Facilities | C_2 |
| | 5 | Cemetery | C_1 |
| | 6 | Archaeological Resource Sites | C_2 |
| | 7 | Historic Resource Sites | C_2 |
| | 8 | Historic Districts | C_1 |
| | 9 | National Register for Historic Places (NRHP) or Eligible for NRHP | C_1 |
| Land Use | 10 | Co-location—Within DEF Existing Right-of-Way | O_1 |
| | 11 | Road Right-of-Way | C_1 |
| | 12 | Existing Linear Facilities—Roads | O_1 |
| | 13 | Railroad Right-of-Way | C_1 |
| | 14 | Existing Linear Facilities—Railroads | O_1 |
| | 15 | Existing Linear Facilities—Interstate and Gathering Pipelines | O_2 |
| | 16 | Area within 100ft of property lines | O_1 |
| | 17 | Commercial and Service Land Uses | O_3 |
| | 18 | Industrial and Extractive Land Uses | O_2 |
| | 19 | Agricultural Land Uses | O_1 |
| | 20 | Conservation Lands | C_2 |
| | 21 | Conservation Easements | C_3 |
| | 22 | Federal Land | Exclusion |
| | 23 | Tribal Lands | Exclusion |
| | 24 | State Land | C_1 |
| | 25 | Recreation Area | C_3 |
| Environmental | 26 | Eagle Nests | C_1 |
| | 27 | Upland Forest | O_3 |
| | 28 | Forested Wetland Areas | C_2 |
| | 29 | Herbaceous Wetland Areas | C_3 |
| | 30 | 100-Year Floodplain | C_3 |
| | 31 | Potentially Contaminated Land—Landfills | C_1 |
| Engineering | 32 | Airports and Heliports | C_1 |

**Notes:**

**Weight Type**

| | |
|---|---|
| C | Constraint |
| O | Opportunity |
| BG | Background |

**Weight Level**

| | |
|---|---|
| 1 | High |
| 2 | Medium |
| 3 | Low |

# TABLE 3
## QUANTITATIVE EVALUATION CRITERIA AND WEIGHTS
## DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

### Duke Energy Florida

| Category | Criterion # | Criterion Description | Criterion Definition | Criterion Classification | Criterion Weight | Unit of Measure |
|---|---|---|---|---|---|---|
| Social | 1 | Residences within 150ft | A physical and habitable dwelling (i.e., single-family and multi-family) within 150ft of the route area. | Unfavorable | High | Count |
| | 2 | Residences | A physical and habitable dwelling (i.e., single-family and multi-family) that is within or intersects the route area. | Unfavorable | High | Count |
| | 3 | Ownership | A tract(s) or plot(s) of land attributed to a single owner as identified by the county property appraiser database. | Unfavorable | High | Count |
| | 4 | Parcels | A tract(s) or plot(s) of land referenced to a unique identification number as identified by the county property appraiser database. | Unfavorable | High | Count |
| | 5 | Schools | A tract(s) or plot(s) of land used for an existing and proposed public or private school (grades K-12, plus universities and colleges). The school is identified if the parcel intersects the route area. | Unfavorable | Medium | Count |
| | 6 | Community Facilities | A tract(s) or plot(s) of land associated with the public assembly including but not limited to places of worship, special group gathering places (i.e., Rotary, veterans, etc.), and hospitals. The parcel is identified if the parcel intersects the route area. | Unfavorable | Medium | Count |
| | 7 | Cemetery | A place where the remains of deceased are buried or otherwise interred such as burial ground, gravesite, or graveyard. The parcel is identified if the parcel intersects the route area. | Unfavorable | High | Count |
| | 8 | Archaeological Resource Sites | Evidence of known human impact to the environment over 50 years old and evidence of cultural activity, excluding National Register for Historic Places (NRHP) sites. The archaeological area is identified if it intersects the route area. | Unfavorable | Medium | Count |
| | 9 | Historic Resource Sites | A known building or site over 50 years old. The site is identified if the area intersects the route area. | Unfavorable | Medium | Count |
| | 10 | Historic Districts | A group of known buildings, properties, or sites that have been designated by one of several entities on different levels as historically or architecturally significant. The districts are identified if the area intersects the route area. | Unfavorable | Medium | Count |
| | 11 | NRHP or Eligible for NRHP | Known cultural resources that have been identified as National Register for Historic Places (NRHP) or eligible for NRHP listing. The listings are identified if the area intersects the route area. | Unfavorable | High | Count |

# TABLE 3
# QUANTITATIVE EVALUATION CRITERIA AND WEIGHTS
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| Category | Criterion # | Criterion Description | Criterion Definition | Criterion Classification | Criterion Weight | Unit of Measure |
|---|---|---|---|---|---|---|
| Land Use | 12 | Co-location—Within Duke Energy Florida (DEF) Existing Right-of-Way | To place within existing right-of-way so as to share common property/ground improvements with DEF's existing transmission lines. | Favorable | High | Percentage of Route Length |
| | 13 | Co-location—Adjacent to DEF Existing Right-of-Way | To place directly adjacent so as to share common property/ground improvements with Duke's existing transmission lines. | Favorable | High | Percentage of Route Length |
| | 14 | Existing Linear Facilities—Roads | To place directly adjacent to existing and committed public road right-of-way. | Favorable | Medium | Percentage of Route Length |
| | 15 | Existing Linear Facilities—Railroads | To place directly adjacent to existing railroad right-of-way. | Favorable | Medium | Percentage of Route Length |
| | 16 | Existing Linear Facilities—Interstate and Gathering Pipelines | To place directly adjacent to existing interstate and gathering pipeline right-of-way. | Unfavorable | Medium | Percentage of Route Length |
| | 17 | Residential Parcels | A parcel that contains a physical and habitable dwelling (i.e., single-family and multi-family) that intersects the route area. | Unfavorable | Medium | Count |
| | 18 | Future Residential Land Use | Category applied to an area where the future land use is designated residential according to the local governments adopted Future Land Use Map that intersects the route area. | Unfavorable | Medium | Acres |
| | 19 | Planned Development | Development which has been approved or in the process of being approved by local government that intersects the route area. | Unfavorable | Medium | Count |
| | 20 | Commercial and Service Land Uses | Land uses that are predominately associated with commerce of products and services that intersects the route area. | Favorable | Medium | Acres |
| | 21 | Industrial and Extractive Land Uses | Industrial land uses are where existing manufacturing, assembly, or processing of materials and products are accomplished. Extractive land uses are both surface and subsurface mining operations. The land use will be identified if it intersects the route area. | Favorable | Medium | Acres |
| | 22 | Agricultural Land Uses | Disturbed land including land areas used for pasture lands, crop land, and rangeland that intersect the route area. | Favorable | High | Acres |
| | 23 | Conservation Lands | Existing state and regional designated lands to be held for conservation purposes that intersect the route area. Including private land holdings for environmental protection. | Unfavorable | High | Acres |
| | 24 | Conservation Easements | Existing land that has a known easement over the property for conservation purposes. | Unfavorable | Medium | Acres |
| | 25 | Federal Land | Existing land owned by the US government that intersect the route area. | Unfavorable | High | Acres |
| | 26 | Tribal Lands | Land that is owned by a federally recognized tribe. | Unfavorable | High | Acres |
| | 27 | State Land | Existing land owned by the state of Florida that intersects the route area. | Unfavorable | Medium | Acres |
| | 28 | Recreation Area | Existing land owned by county or city designated for recreation purposes (i.e. parks, athletic fields, etc.) | Unfavorable | Medium | Acres |
| | 29 | Improvements | Improvements within the route area (i.e., signs, lighting, etc.) that may need to be relocated based on the DEF Asset Protection Guidelines. | Unfavorable | Low | Count |
| | 30 | Well Fields | Two or more permitted wells connected to a common piping or gathering system that are operated by entities for delivery to an end use point. | Unfavorable | Low | Count |

# TABLE 3
# QUANTITATIVE EVALUATION CRITERIA AND WEIGHTS
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| Category | Criterion # | Criterion Description | Criterion Definition | Criterion Classification | Criterion Weight | Unit of Measure |
|---|---|---|---|---|---|---|
| Environmental | 31 | Listed Species (flora and fauna)—Federally Listed | Federally listed species are those classified as threatened, endangered, or of special concern by the US Fish and Wildlife Service (USFWS). | Unfavorable | Medium | Count |
| | 32 | Listed Species (flora and fauna)—State Listed | State listed species are those classified as threatened, endangered, or of special concern by the Florida Fish and Wildlife Conservation Commission (FWC). The state list includes bald eagle nests and wading bird colonies. Also includes avian risk areas that are identified as having a high-risk area for avian strikes. | Unfavorable | Medium | Count |
| | 33 | Eagle Nests | Known eagle nests. | Unfavorable | Medium | Count |
| | 34 | Upland Forest | Upland areas which support a tree canopy of 10% closure. | Unfavorable | Low | Acres |
| | 35 | Tree Canopy | Areas derived through image analysis to identify areas where tree canopy exists. Examples include trees along roads and property lines that may not be included in the land use land cover upland forest data. | Unfavorable | Low | Acres |
| | 36 | Forested Wetland Areas | Wetlands dominated by a canopy of hardwoods and/or coniferous wetland trees that intersect the route area. | Unfavorable | Medium | Acres |
| | 37 | Herbaceous Wetland Areas | Wetlands lacking a canopy component and are dominated by herbaceous vegetation that intersect the route area. | Unfavorable | Low | Acres |
| | 38 | 100-Year Floodplain | An area of land that would be inundated by a flood having a one percent chance of occurring in any given year that intersects the route area. | Unfavorable | Low | Acres |
| | 39 | Navigable Waterways | A river, canal, or other route for travel by water. The waterway will be identified if it intersects the route area. | Unfavorable | Low | Count |
| | 40 | Non-Navigable Waterways | A stream, creek, or other body of flowing water not identified as navigable. The waterway will be identified if it intersects the route area. | Unfavorable | Low | Count |
| | 41 | Springs | A known/identified natural occurrence where water flows from an aquifer to the surface that intersects the route area. | Unfavorable | Medium | Count |
| | 42 | Sinkholes | A previously identified/known observation of surface subsidence due to water erosion that intersects the route area. | Unfavorable | Medium | Count |
| | 43 | Protected Habitat | Federally or state identified protected habitat listed by the USFWS and/or FWC that intersects the route area. | Unfavorable | Medium | Acres |
| | 44 | Potentially Contaminated Land | Federal or state identified lands that are currently under agency cleanup oversight including brownfields, petroleum, superfund, and dry-cleaning sites as well as closed and active landfills. The parcel will be identified if it intersects the route area. | Unfavorable | Medium | Count |

# TABLE 3
## QUANTITATIVE EVALUATION CRITERIA AND WEIGHTS
## DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

### Duke Energy Florida

| Category | Criterion # | Criterion Description | Criterion Definition | Criterion Classification | Criterion Weight | Unit of Measure |
|---|---|---|---|---|---|---|
| Engineering | 45 | Existing Non-Duke Transmission Line Crossings | Locations of where the route crosses another utility's transmission line. | Unfavorable | Medium | Percentage of Route Length |
| | 46 | Airports and Heliports (FAA Considerations) | Known public and licensed airports and heliports. Identification of any licensed public or private airports and heliports registered with FDOT. | Unfavorable | Medium | Count |
| | 47 | Road Crossings | Locations of where the route crosses a road right-of-way. | Unfavorable | Low | Count |
| | 48 | Co-location with DEF Distribution Lines | To place close together so as to share common property/ground improvements with distribution lines. | Favorable | Low | Percentage of Route Length |
| | 49 | Co-location with Other Utility Distribution Lines | To place directly adjacent to another electric utility's distribution line. | Unfavorable | Medium | Percentage of Route Length |

**Notes:**

**Weight Type**

| | |
|---|---|
| Favorable | Criterion is favorable to new transmission line project. |
| Unfavorable | Criterion is unfavorable to new transmission line project. |

**Weight Level**

| | |
|---|---|
| High | Criterion has highest influence on route score. |
| Medium | Criterion has a moderate influence on route score. |
| Low | Criterion has the least influence on route score. |

# TABLE 4
# QUANTITATIVE RESULTS FOR THE ALTERNATIVE ROUTES
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| Category | Criterion # | Criterion Description | R001 | R002 | R003 | R004 | Units |
|---|---|---|---|---|---|---|---|
| | | Length (Miles) | 26.27 | 25.39 | 26.92 | 26.35 | |
| Social | 1 | Residences within 150ft | 105 | 106 | 97 | 107 | Count |
| | 2 | Residences Intersecting Route Area | 6 | 0 | 0 | 7 | Count |
| | 3 | Ownership | 170 | 270 | 239 | 182 | Count |
| | 4 | Parcels (Total) | 219 | 318 | 298 | 230 | Count |
| | | *Non-DEF Parcel* | *214* | *316* | *296* | *226* | *Count* |
| | | *Parcels with DEF Easement* | *164* | *18* | *72* | *171* | *Count* |
| | | *Parcels owned by DEF in Fee* | *5* | *2* | *2* | *4* | *Count* |
| | 5 | Schools | 2 | 1 | 2 | 2 | Count |
| | 6 | Community Facilities | 3 | 1 | 1 | 3 | Count |
| | 7 | Cemetery | 0 | 0 | 0 | 0 | Count |
| | 8 | Archaeological Resource Sites | 0 | 0 | 0 | 0 | Count |
| | 9 | Historic Resource Sites | 0 | 0 | 0 | 0 | Count |
| | 10 | Historic Districts | 0 | 0 | 0 | 0 | Count |
| | 11 | National Register for Historic Places (NRHP) or Eligible for NRHP within 150ft | 0 | 0 | 0 | 0 | Count |
| Land Use | 12 | Co-location—Within DEF Existing Right-of-Way | 24.3 | 0.0 | 0.0 | 24.6 | Miles |
| | 13 | Co-location—Adjacent to DEF Existing Right-of-Way | 1.1 | 0.3 | 0.3 | 1.1 | Miles |
| | 14 | Existing Linear Facilities—Roads | 11.4 | 24.6 | 23.9 | 11.4 | Miles |
| | 15 | Existing Linear Facilities—Railroads | 0.0 | 0.0 | 0.0 | 0.0 | Miles |
| | 16 | Existing Linear Facilities—Interstate and Gathering Pipelines | 0.0 | 0.0 | 0.0 | 0.0 | Miles |
| | 17 | Residential Parcels | 5 | 160 | 114 | 5 | Count |
| | 18 | Future Residential Land Use | 0.0 | 0.0 | 0.0 | 0.0 | Area |
| | 19 | Planned Development | 0.0 | 0.0 | 2.0 | 0.0 | Area |
| | 20 | Commercial and Service Land Uses | 4.8 | 2.6 | 3.7 | 5.6 | Acres |
| | 21 | Industrial and Extractive Land Uses | 0.0 | 0.0 | 0.0 | 0.0 | Acres |
| | 22 | Agricultural Land Uses | 117.4 | 44.0 | 57.3 | 115.4 | Acres |
| | 23 | Conservation Lands | 68.9 | 16.8 | 15.6 | 68.9 | Acres |
| | 24 | Conservation Easements | 2.0 | 0.0 | 0.0 | 2.0 | Acres |
| | 25 | Federal Land | 0.0 | 0.0 | 0.0 | 0.0 | Acres |
| | 26 | Tribal Lands | 0.0 | 0.0 | 0.0 | 0.0 | Acres |
| | 27 | State Land | 2.0 | 2.0 | 2.0 | 2.0 | Acres |
| | 28 | Recreation Area | 0.0 | 0.0 | 1.0 | 0.0 | Acres |
| | 29 | Improvements | 4 | 3 | 6 | 4 | Count |
| | 30 | Well Fields | 0 | 1 | 0 | 0 | Count |
| Environmental | 31 | Listed Species (flora and fauna)—Federally Listed | 4 | 7 | 7 | 4 | Count |
| | 32 | Listed Species (flora and fauna)—State Listed | 7 | 10 | 11 | 7 | Count |
| | 33 | Eagle Nests | 0 | 0 | 0 | 0 | Count |
| | 34 | Upland Forest | 0.0 | 46.6 | 55.7 | 0.0 | Acres |
| | 36 | Forested Wetland Areas | 23.2 | 7.5 | 8.4 | 23.2 | Acres |
| | 37 | Herbaceous Wetland Areas | 12.9 | 1.6 | 1.7 | 12.4 | Acres |
| | 38 | 100-Year Floodplain | 58.1 | 20.7 | 33.1 | 57.5 | Acres |
| | 39 | Navigable Waterways | 0.0 | 0.0 | 0.0 | 0.0 | Acres |
| | 40 | Non-Navigable Waterways | 0.0 | 0.0 | 0.0 | 0.0 | Acres |
| | 41 | Springs | 0 | 0 | 0 | 0 | Count |
| | 42 | Sinkholes | 0 | 1 | 1 | 0 | Count |
| | 43 | Protected Habitat | 7.0 | 7.0 | 7.0 | 7.0 | Acres |
| | 44 | Potentially Contaminated Land | 11 | 26 | 28 | 15 | Count |
| Engineering | 45 | Existing Non-Duke Transmission Line Crossings | 0 | 0 | 0 | 0 | Count |
| | 46 | Airports and Heliports (FAA Considerations) | 1 | 4 | 4 | 1 | Count |
| | 47 | Road Crossings | 54 | 74 | 61 | 56 | Count |
| | 48 | Co-location with DEF Distribution Lines | 2.4 | - - - | - - - | 2.4 | Miles |
| | 49 | Co-location with Other Utility Distribution Lines | - - - | 11.3 | 13.3 | - - - | Miles |

# TABLE 5
# EASEMENT, TITLE, AND CROSSING APPROVALS THAT MAY BE REQUIRED FOR DWDV TRANSMISSION LINE DELAND WEST TO DONA VISTA TRANSMISSION LINE ROUTING STUDY

## Duke Energy Florida

| County | Map ID | Feature | Affected Agency | Potential Approval Type Needed |
|---|---|---|---|---|
| Volusia | 1 | SR 44 | FL Dept. of Transportation | Right-of-way use/Utility Permit (crossing) |
| | 2 | Ed Stone Park | Volusia County | Easement |
| | 3 | St. Johns River | FDEP<br>USACE | Section 10 Crossing<br>Sovereign Submerged Lands Easement |
| Lake | 4 | St. Johns River | FDEP<br>USACE | Section 10 Crossing<br>Sovereign Submerged Lands Easement |
| | 5 | Ocala National Forest | US Dept. of Agriculture, US Forest Service | NEPA / Categorical Exclusion |
| | 6 | CR 42 | Lake County | Right-of-way use/crossing |
| | 7 | Lower Wekiva River Preserve State Park | TIIFT/FL Dept. of Environmental Protection, Div. of Recreation and Parks | TIITF lands acquisition through ARC |
| | 8 | Seminole State Forest | TIIFT/FL Dept. of Agriculture and Consumer Services, Florida Forest Service | TIITF lands acquisition through ARC |
| | 9 | Holman Conservation Easement | St. Johns River Water Management District | Easement or modification of existing conservation easement |
| | 10 | CR 439 | Lake County | Right-of-way use/crossing |
| | 11 | Maxwell Conservation Easement | FL Dept. of Environmental Protection, Div. of State Lands | Easement or modification of existing conservation easement |
| | 12 | CR 450 | Lake County | Right-of-way use/crossing |
| | 13 | North Lake Community Park | Lake County | Easement |
| | 14 | CR 44A | Lake County | Right-of-way use/crossing |
| | 15 | Umatilla Municipal Airport | City of Umatilla | Airspace Evaluation / Notice of Proposed Construction or Alteration |
| | 16 | FLBOA-Umatilla South 4.5 Lateral Gas Transmission Pipeline | Florida Gas Transmission Company | Agreement |
| | 17 | CR 450A | Lake County | Right-of-way use/crossing |
| | 18 | Tanner Preserve | Lake County Water Authority | Easement or modification of existing conservation easement |
| | 19 | SR 19 | FL Dept. of Transportation | Right-of-way use/Utility Permit (crossing) |
| | 20 | N SR 19 | FL Dept. of Transportation | Right-of-way use/Utility Permit (crossing) |
| | 21 | CR 19A | Lake County | Right-of-way use/crossing |
| | 22 | E CR 44 | Lake County | Right-of-way use/crossing |

# TABLE 6
# ACREAGE OF LAND USE TYPE AND DOMINANT VEGETATIVE COMMUNITIES WITHIN THE DWDV CORRIDOR
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| Land Cover Code | Land Cover Description | Land Use Class | Area (Acres) |
|---|---|---|---|
| 110 | Residential, Low-Density-Less than two dwelling units/acre | Low-Density Residential | 38.3 |
| 118 | Residential, Rural < or = 0.5 dwelling units/acre | Low-Density Residential | 87.1 |
| 120 | Residential, Medium-Density (Two-five dwelling units per acre) | Medium-Density Residential | 51.1 |
| 130 | Residential, High-Density | High-Density Residential | 9.7 |
| 140 | Commercial and Services | Commercial | 56.4 |
| 148 | Cemeteries | Recreational 1 | 0.9 |
| 151 | Food Processing | Industrial | 0.5 |
| 170 | Institutional (Educational, religious, health and military facilities) | Institutional | 8.9 |
| 184 | Marinas and Fish Camps | Recreational 1 | 20.4 |
| 185 | Parks and Zoos | Recreational 2 | 0.3 |
| 186 | Community Recreational Facilities | Recreational 2 | 6.3 |
| 211 | Improved Pasture | Pasture | 192.7 |
| 213 | Woodland Pasture | Pasture | 65.5 |
| 215 | Field Crops | Row Crops | 3.3 |
| 216 | Mixed Crops | Row Crops | 2.6 |
| 220 | Tree Crops | Citrus | 1.3 |
| 221 | Citrus groves | Citrus | 40.2 |
| 242 | Sod farms | Agriculture | 1.6 |
| 243 | Ornamentals | Agriculture | 0.5 |
| 243 | Shade ferns | Agriculture | 6.0 |
| 310 | Herbaceous Dry Prairie | Dry Prairie | 19.3 |
| 310 | Open Land | Open | 7.8 |
| 320 | Shrub and Brushland | Scrub | 17.2 |
| 330 | Mixed Rangeland | Dry Prairie | 16.1 |
| 330 | Unimproved Pastures | Pasture | 43.7 |
| 411 | Pine flatwoods | Wet Flatwoods | 30.5 |
| 412 | Longleaf pine - xeric oak | Upland Mixed | 3.3 |
| 413 | Sand pine | Scrub | 17.4 |
| 420 | Upland Hardwood Forest | Upland Flatwoods | 4.7 |
| 434 | Hardwood Conifer Mixed | Upland Flatwoods | 128.6 |
| 441 | Coniferous pine | Xeric Hammock | 17.5 |
| 443 | Forest regeneration | Ruderal | 10.7 |
| 510 | Streams and waterways | Water | 8.6 |
| 520 | Lakes | Water | 2.1 |
| 530 | Reservoirs | Water | 1.0 |
| 611 | Bay swamps | Wetland | 1.3 |
| 617 | Mixed wetland hardwoods | Wetland | 59.1 |
| 621 | Cypress | Wetland | 0.9 |
| 625 | Hydric pine flatwoods | Mesic Flatwoods | 14.1 |
| 630 | Wetland Forested Mixed | Wetland | 61.3 |
| 641 | Freshwater marshes | Wetland | 38.0 |
| 643 | Improved Pasture | Pasture | 4.0 |
| 643 | Unimproved Pastures | Pasture | 0.0 |
| 643 | Wet prairies | Wet Prairies | 1.5 |
| 644 | Emergent aquatic vegetation | Wetland | 4.1 |
| 646 | Mixed scrub-shrub wetland | Wetland | 18.9 |
| 740 | Disturbed land | Open | 1.7 |
| 814 | Roads and Highways | Transportation | 56.0 |
| 831 | Electrical power facilities | Industrial | 38.1 |
| 832 | Electrical power transmission lines | Open | 4.9 |
| 837 | Surface Water Collection Basin | Water | 0.4 |

Codes are from Florida Land Use Cover and Forms Classification System (FLUCFCS) for St. Johns River Water Management District.

# TABLE 7
# LISTED SPECIES KNOWN TO OCCUR WITHIN THE DWDV CORRIDOR
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| | Species Type | Name | Scientific Name | Federal Status | State Listing | Data Source Listing | Occurrence Status |
|---|---|---|---|---|---|---|---|
| 1 | Fauna | Gopher Tortoise | *Gopherus polyphemus* | C | ST | FNAI EO/ Biodiv Matrix | Documented / Likely |
| 2 | Fauna | Red-cockaded Woodpecker | *Dryobates borealis* | E, PT | FE | FNAI EO/ Biodiv Matrix / USFWS WCA | Documented / Likely |
| 3 | Fauna | Pine Snake | *Pituophis melanoleucus* | N | ST | FNAI EO/ Biodiv Matrix | Documented / Likely |
| 4 | Fauna | American Alligator | *Alligator mississippiensis* | SAT | FT(S/A) | FNAI EO/ Biodiv Matrix | Documented / Likely |
| 5 | Fauna | Florida Scrub-Jay | *Aphelocoma coerulescens* | T | FT | FNAI EO/ Biodiv Matrix / USFWS WCA | Documented / Likely |
| 6 | Fauna | Florida Sandhill Crane | *Antigone canadensis pratensis* | N | ST | FNAI EO/ Biodiv Matrix / Field Observation | Documented / Likely |
| 7 | Fauna | Everglades Snail Kite | *Rostrhamus sociabilis plumbeus* | E | FE | USFWS Wildlife Consultation Area | Potential |
| 8 | Fauna | West Indian Manatee (Florida Manatee) | *Trichechus manatus latirostris* | T | N | Biodiv Matrix / USFWS WCA | Potential |
| 9 | Fauna | Sand Skink | *Plestiodon reynoldsi* | T | FT | USFWS Wildlife Consultation Area | Potential |
| 10 | Fauna | Bluenose Shiner | *Pteronotropis welaka* | N | ST | Biodiv Matrix | Potential |
| 11 | Fauna | Eastern Indigo Snake | *Drymarchon couperi* | T | FT | Biodiv Matrix | Potential |
| 12 | Fauna | Florida Burrowing Owl | *Athene cunicularia floridana* | N | ST | Biodiv Matrix | Potential |
| 13 | Fauna | Short-tailed Snake | *Lampropeltis extenuata* | N | ST | Biodiv Matrix | Potential |
| 14 | Fauna | Striped Newt | *Notophthalmus perstriatus* | N | C | Biodiv Matrix | Potential |
| 15 | Fauna | Wood Stork | *Mycteria* | T | FT | FNAI EO | Potential |
| 16 | Fauna | Little Blue Heron | *Egretta caerulea* | N | ST | FNAI EO | Potential |
| 17 | Fauna | Limpkin | *Aramidae* | N | SSC | FNAI EO | Potential |
| 18 | Fauna | Tricolored Heron | *Egretta tricolor* | N | ST | FNAI EO | Potential |
| 19 | Fauna | White Ibis | *Pseudibis davisoni* | N | SSC | FNAI EO | Potential |
| 20 | Fauna | Snowy Egret | *Egretta thula* | N | SSC | FNAI EO | Potential |
| 21 | Fauna | Bald Eagle | *Haliaeetus leucocephalus* | N | SSC | FNAI EO | Potential |
| 22 | Flora | Ashe's Savory | *Calamintha dentata* | N | T | Biodiv Matrix | Potential |
| 23 | Flora | Britton's Beargrass | *Nolina brittoniana* | E | E | Biodiv Matrix | Potential |
| 24 | Flora | Carter's Warea | *Warea carteri Small* | E | E | Biodiv Matrix | Potential |
| 25 | Flora | Celestial Lily | *Nemastylis floridana* | N | E | Biodiv Matrix | Potential |
| 26 | Flora | Chapman's Sedge | *Carex chapmannii* | N | T | Biodiv Matrix | Potential |
| 27 | Flora | Clasping Warea | *Warea amplexifolia* | E | E | Biodiv Matrix | Potential |
| 28 | Flora | Florida Beargrass | *Nolina atopocarpa* | N | T | Biodiv Matrix | Potential |
| 29 | Flora | Florida Bonamia | *Bonamia grandiflora* | T | E | Biodiv Matrix | Potential |
| 30 | Flora | Florida Mountain-mint | *Pycnanthemum floridanum* | N | T | Biodiv Matrix | Potential |
| 31 | Flora | Florida spiny-pod | *Matelea floridana* | N | E | Biodiv Matrix | Potential |
| 32 | Flora | Florida willow | *Salix floridana* | N | E | Biodiv Matrix | Potential |
| 33 | Flora | Giant Orchid | *Pteroglossaspis ecristata* | N | T | Biodiv Matrix | Potential |
| 34 | Flora | Hartwrightia | *Hartwrightia floridana* | N | T | Biodiv Matrix | Potential |
| 35 | Flora | Incised Groove-bur | *Agrimonia incisa* | N | T | Biodiv Matrix | Potential |
| 36 | Flora | Large-flowered Rosemary | *Conradina grandiflora* | N | T | Biodiv Matrix | Potential |

# TABLE 7
# LISTED SPECIES KNOWN TO OCCUR WITHIN THE DWDV CORRIDOR
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| | Species Type | Name | Scientific Name | Federal Status | State Listing | Data Source Listing | Occurrence Status |
|---|---|---|---|---|---|---|---|
| 37 | Flora | Lewton's Polygala | *Polygala lewtonii* | E | E | Biodiv Matrix | Potential |
| 38 | Flora | Many-flowered Grass-pink | *Calopogon multiflorus* | N | T | Biodiv Matrix | Potential |
| 39 | Flora | Nodding Pinweed | *Lechea cernua* | N | T | Biodiv Matrix | Potential |
| 40 | Flora | Ocala Vetch | *Vicia ocalensis* | N | E | Biodiv Matrix | Potential |
| 41 | Flora | Okeechobee Gourd | *Curcurbita okeechobeensis* | E | E | Biodiv Matrix | Potential |
| 42 | Flora | Piedmont Jointgrass | *Coelorachis tuberculosa* | N | T | Biodiv Matrix | Potential |
| 43 | Flora | Pondspice | *Litsea aestivalis* | N | E | Biodiv Matrix | Potential |
| 44 | Flora | Pygmy Pipes | *Monotropsis reynoldsiae* | N | E | Biodiv Matrix | Potential |
| 45 | Flora | Rugel's Pawpaw | *Deeringothamnus rugelii* | E | E | Biodiv Matrix | Potential |
| 46 | Flora | Sand Butterfly Pea | *Centrosema arenicola* | N | E | Biodiv Matrix | Potential |
| 47 | Flora | Scrub Buckwheat | *Eriogonum longifolium var. gnaphalifolium* | T | E | Biodiv Matrix | Potential |
| 48 | Flora | Star Anise | *Illicium parviflorum* | N | E | Biodiv Matrix | Potential |
| 49 | Flora | Variable-leaved Indian-plantain | *Arnoglossum diversifolium* | N | T | Biodiv Matrix | Potential |

**Notes:**

FNAI EO - Florida Areas Natural Inventory Element Occurrence
Biodiv Matrix - FNAI Biodiversity Matrix (Online: https://www.fnai.org/Biodiversity-Matrix-Intro)
USFWS - United States Fish and Wildlife Service
WCA - Wildlife Consultation Area
Field observation indicates that the noted species was identified in the field during a field visit or windshield survey.

Federal Status

| | |
|---|---|
| C | Candidate species for which federal listing agencies have sufficient information supporting an Endangered or Threatened listing proposal. |
| E | Endangered, species in danger of extinction throughout its range |
| N | Not currently listed |
| PT | Species proposed for listing as threatened |
| SAT | Treated as threatened due to similarity of appearance to a species which is federally listed. |
| T | Threatened, risk of being Endangered throughout its range |

State Listing

| | |
|---|---|
| C | Candidate for listing at the Federal level by the U.S. Fish and Wildlife Service |
| E | Endangered, species native to state that are in imminent danger of extinction |
| FE | Listed as Endangered Species at the Federal level by the U.S. Fish and Wildlife Service |
| FT | Listed as Threatened Species at the Federal level by the U.S. Fish and Wildlife Service |
| FT(S/A) | Federal Threatened due to similarity of appearance |
| N | Not currently listed |
| SSC | Species of Special Concern by the FWC |
| ST | State population listed as Threatened by the FWC |
| T | Threatened, species native to state that are in rapid decline |

# TABLE 8
# MAXIMUM ELECTROMAGNETIC FIELD CAPABLE OF BEING PRODUCED BY THE DWDV PROJECT DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

| Cross Section Location | Ampacity of New Line (amps) | Right-of-Way Width (ft) | Electric Field (kV/m) | | Magnetic Field (mG) |
|---|---|---|---|---|---|
| | | | Within Right-of-Way | At Edge of Right-of-Way | At Edge of Right-of-Way |
| DeLand West – Dona Vista Preliminary EMF | | | | | |
| TRANSMISSION | | | | | |
| Typical 100-foot Right-of-Way | 2510 | 100 | 2 | 0.8 | 148.6 |
| Typical 60-foot Right-of-Way | 2510 | 60 | 0.8 | 0.5 | 145.1 |
| SUBSTATION | | | | | |
| DeLand West Substation Property Line | 2510 | 1335 | NA | 0.49 | 112.9 |
| Dona Vista Substation - Property Line | 2510 | 432 | NA | 0.89 | 136 |
| Florida EMF Rule Limit for New 230 kV Lines[1] | | | 8 [2] | 2 [3] | 150 [4] |

**Notes:**

EMF = electromagnetic field

kV = kilovolt

kV/m = kilovolts per meter

mG = milliGauss

The field levels of the proposed transmission lines shown in this table are based on the highest fields anticipated for the 230 kV transmission line configurations, even though structural configurations with lower fields may be employed for some portions of the line routes. The transmission lines will generally operate at a level well under the maximum current rating (MCR). MCR is the nominal value expected to cause the conductor to reach a temperature limit of 180° Celsius.

[1] The standard field levels are established in Rule 62-814.450(3), Florida Administrative Code.

[2] Maximum electric field on the right-of-way (ROW) of a 230 kV or smaller transmission line

[3] Maximum magnetic field at the edge of the ROW or at the property boundary of a new substation serving a 230 kV or smaller transmission line

[4] Maximum magnetic field allowed for a 230 kV transmission line

Source: EzEMF software program developed through Florida Electric Coordinating Group and accepted by the Florida Department of Environmental Protection.

# TABLE 9
# MAXIMUM AUDIBLE NOISE AT THE EDGE OF THE EXISTING RIGHT-OF-WAY
# DELAND WEST TO DONA VISTA TRANSMISSION LINE PROJECT

## Duke Energy Florida

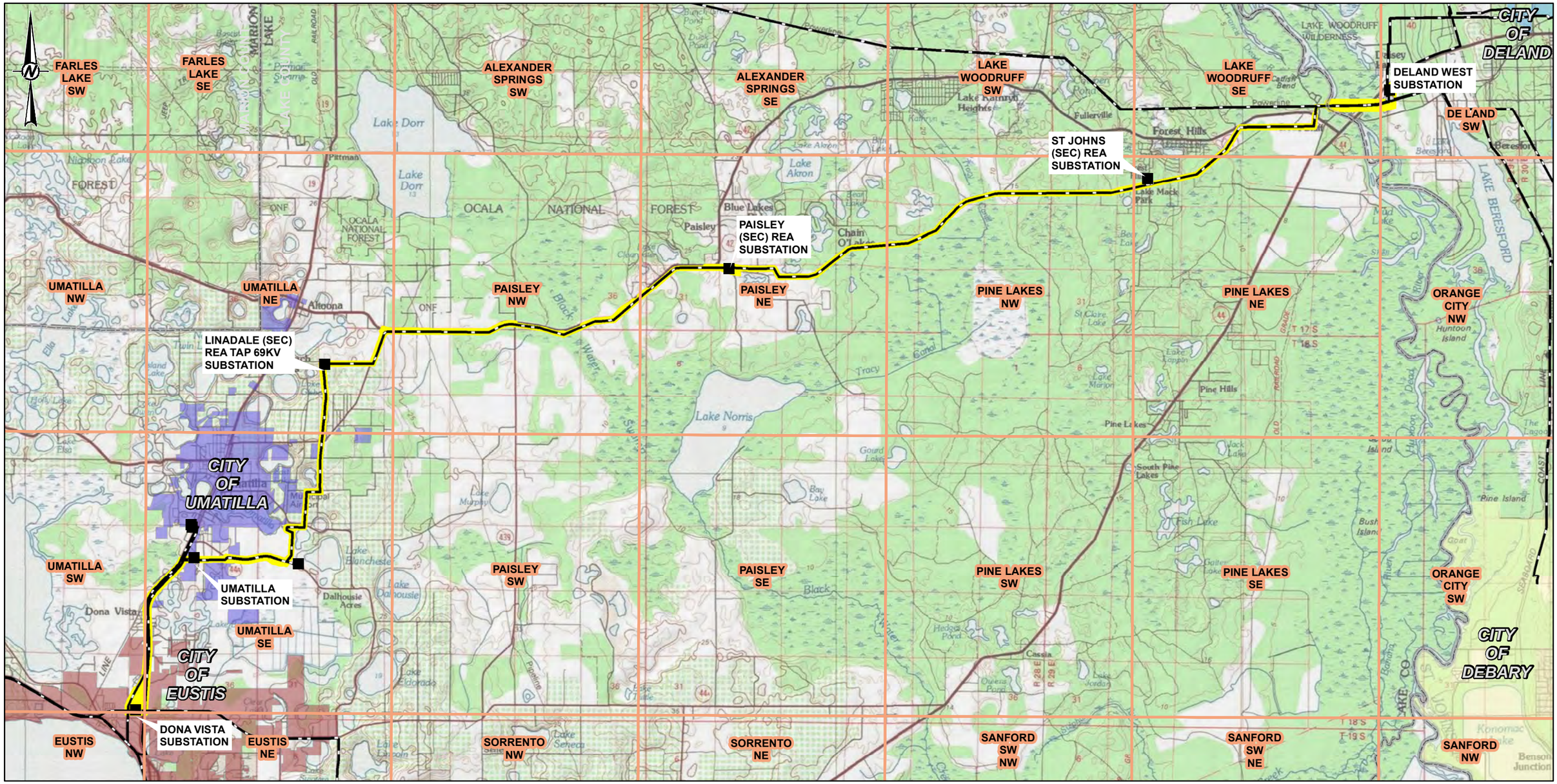
| Cross Section Location | | L501 (dBA)[1] |
|---|---|---|
| Figure 1-5 | Existing DEF SDW and ED Lines | 25.8 |
| Figure 1-6 | Existing DEF ED Line on 100' ROW Vertical Configuration | 25.8 |
| Figure 1-7 | Existing DEF ED Line Road ROW Adjacent Stacked (pole in easement) | 25.8 |
| Figure 1-8 | Existing DEF ED Line Road ROW Stacked (pole in road ROW) | 25.8 |
| Figure 1-9 | Existing DEF ED Line Road ROW Adjacent Back-to-back (pole in easement) | 25 |
| Figure 1-10 | Existing DEF ED Line Road ROW Back-to-back (pole in road ROW) | 25 |
| Figure 1-11 | Existing DEF ED Line on 100' ROW Delta Configuration | 25.8 |

Notes:

[1] L50 - The noise level that is exceeded 50% of the time during that measuring interval is the median level. Maximum audible noise occurs during rain or other wet weather conditions. Noise levels will be lower during dry weather conditions.

Source: DEF, 2015.

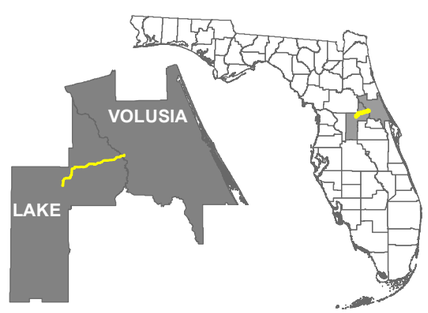
# FIGURES




- Existing Substation
- Duke Transmission Line
- DWDV Corridor
- County Boundary
- USGS 24K Quarter Quadrangle Boundary

PAISLEY NW — Quadrangle Name / Quarter Reference

- City of Debary Extent
- City of Deland Extent
- City of Eustis Extent
- City of Umatilla Extent




1.5 0.75 0 1.5 Miles

1:95,040

REFERENCE(S)
1. BASE IMAGERY: COPYRIGHT:© 2013 NATIONAL GEOGRAPHIC SOCIETY, I-CUBED

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PROJECT LOCATION**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K004 | 0 | 1-1 |

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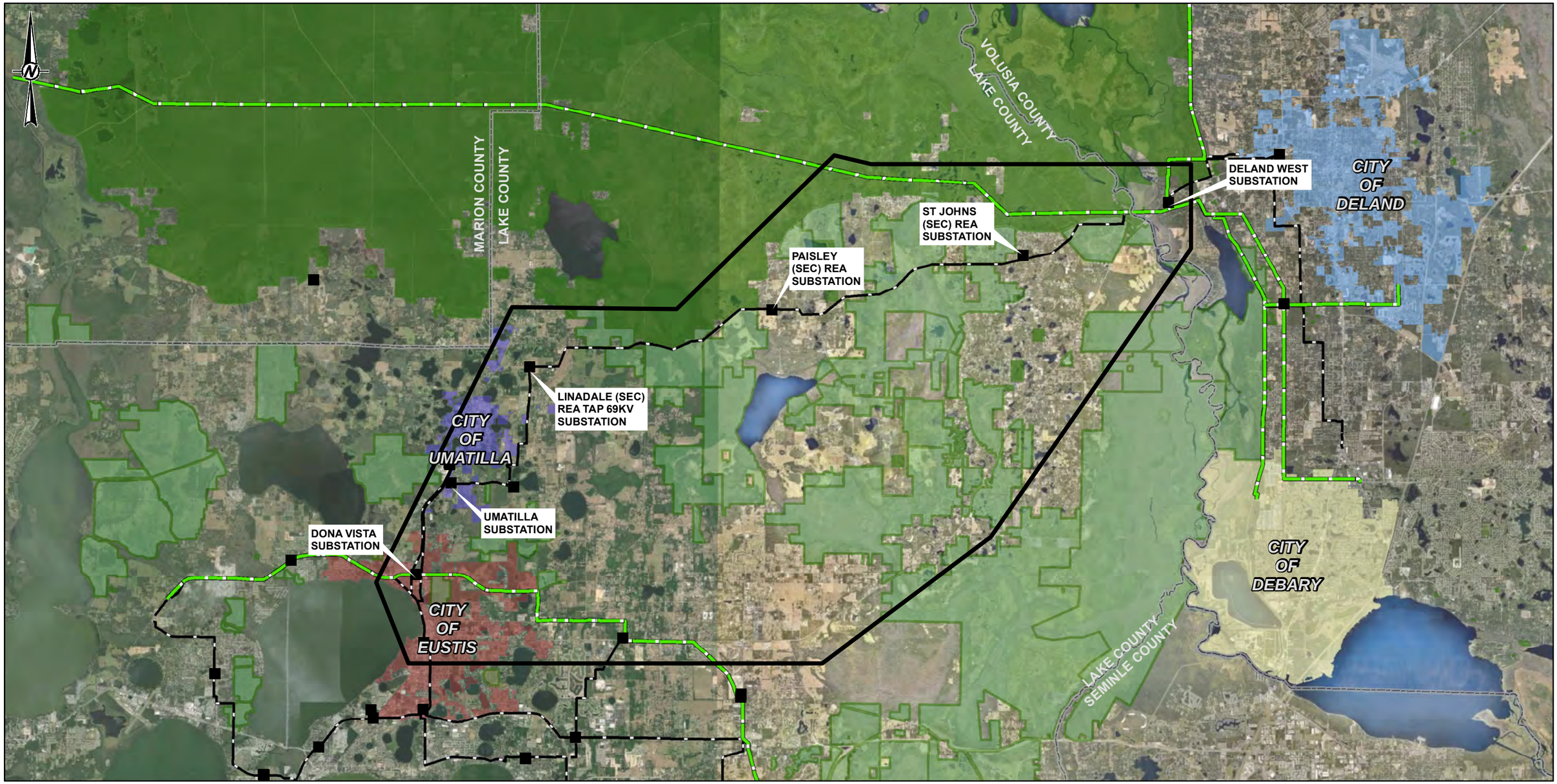
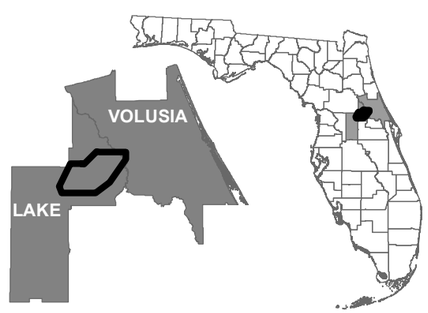
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm




- Substation
- Existing Transmission 115 kV or Higher within 5 Miles of Project
- Existing Transmission Less than 115 kV within 5 Miles of Project
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands
- City of Debary Extent
- City of Deland Extent
- City of Eustis Extent
- City of Umatilla Extent




2.5 1.25 0 2.5 Miles

1:158,400

**REFERENCE(S)**
1. BASE IMAGERY: SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**STUDY AREA**

DUKE ENERGY

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K022 | 0 | 1-2 |

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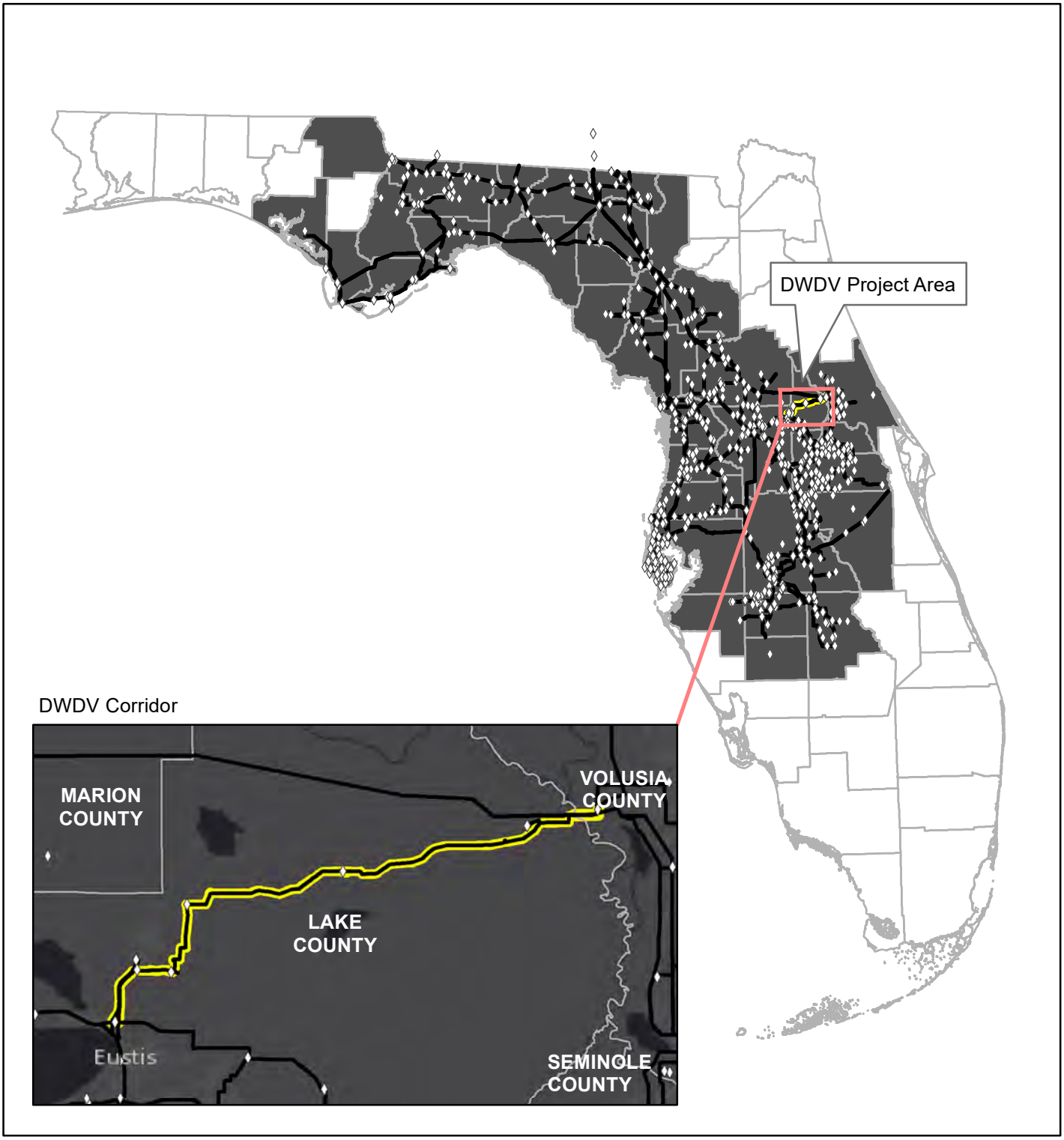
25mm




◊ Substation Location

Existing Transmission Line

DWDV Corridor

Duke Energy Florida Service Territory

County Boundary

**REFERENCE(S)**

1. DUKE ENERGY FLORIDA INFRASTRUCTURE - DUKE ENERGY, 2024

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**TRANSMISSION AND SUBSTATION INFRASTRUCTURE**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K017 | 0 | 1-3 |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSA\K_TLSA Application\map documents\31404342021K017.mxd
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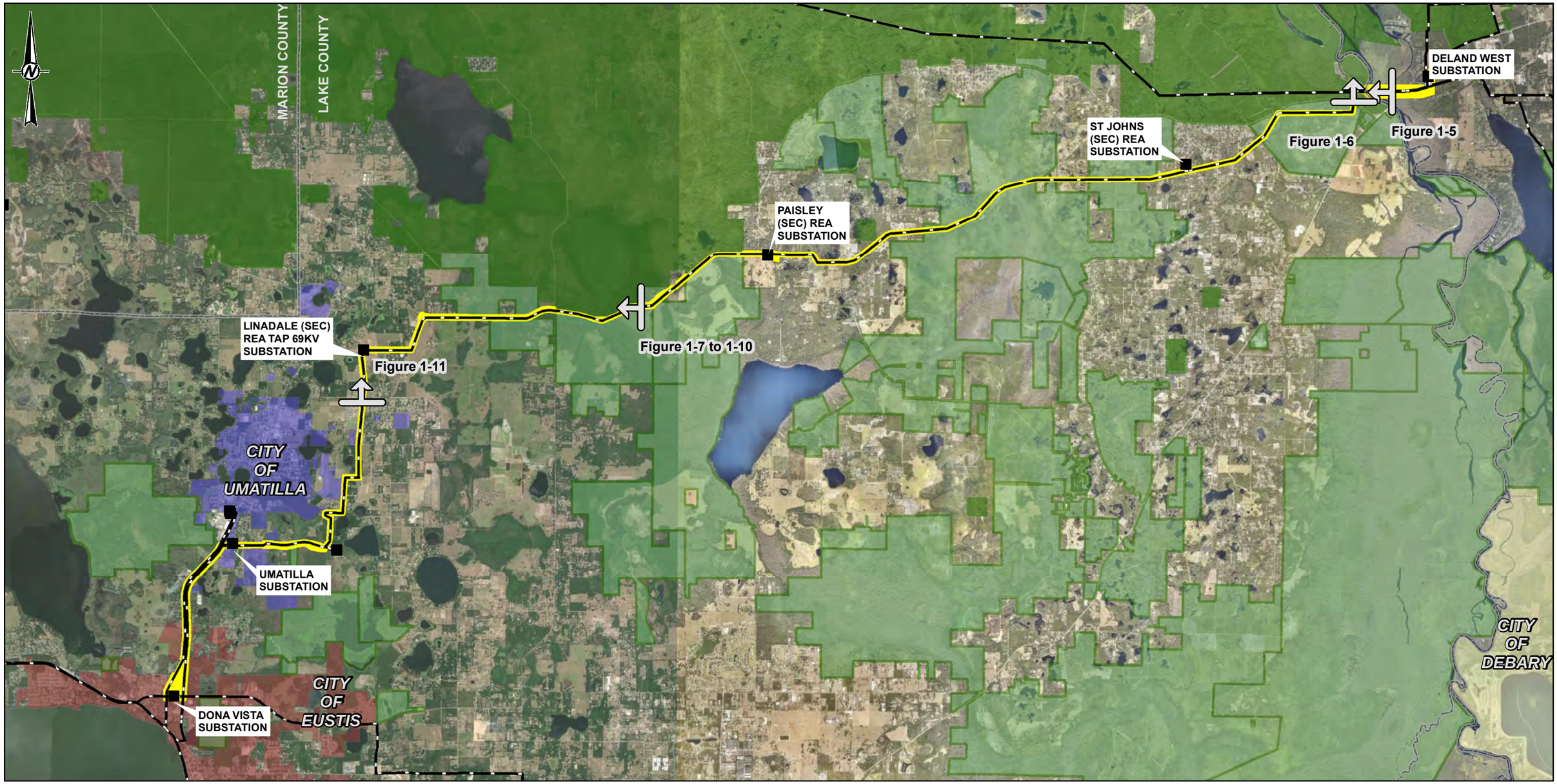
1 in
0




Location Reference for Typical Cross Section

Substation

Duke Transmission Line

DWDV Corridor

Federal Managed Lands

State, County, or Local Managed Lands

City of Debary Extent

City of Deland Extent

City of Eustis Extent

City of Umatilla Extent

County Boundary

1.5 0.75 0 1.5 Miles

1:95,040

**REFERENCE(S)**

1. BASE IMAGERY: SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**CROSS SECTION LOCATIONS ALONG CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K011 | 0 | 1-4 |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
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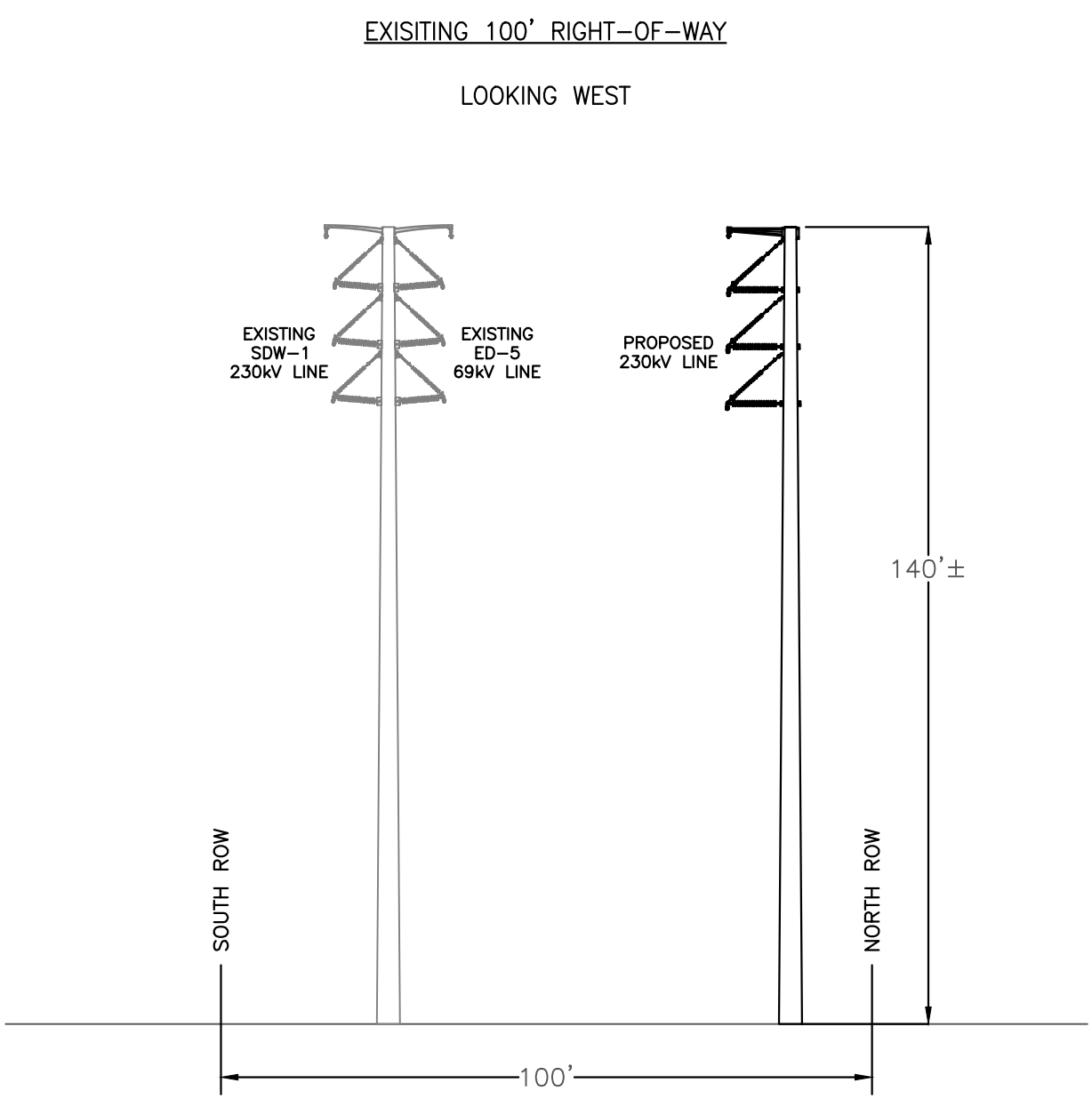



**NOTE(S)**

1. TYPICAL CONFIGURATION SHOWN. FINAL CONFIGURATIONS MAY VARY.
2. STRUCTURES MAY BE SPACED AT DIFFERENT INTERVALS LONGITUDINALLY ALONG THE RIGHT-OF-WAY.
3. SDW-1: DELAND WEST - SILVER SPRINGS 230kV.
4. ED-5: DELAND WEST - ST. JOHNS 69kV.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

TITLE
**TYPICAL CROSS SECTION - EXISTING DEF SDW AND ED LINES**

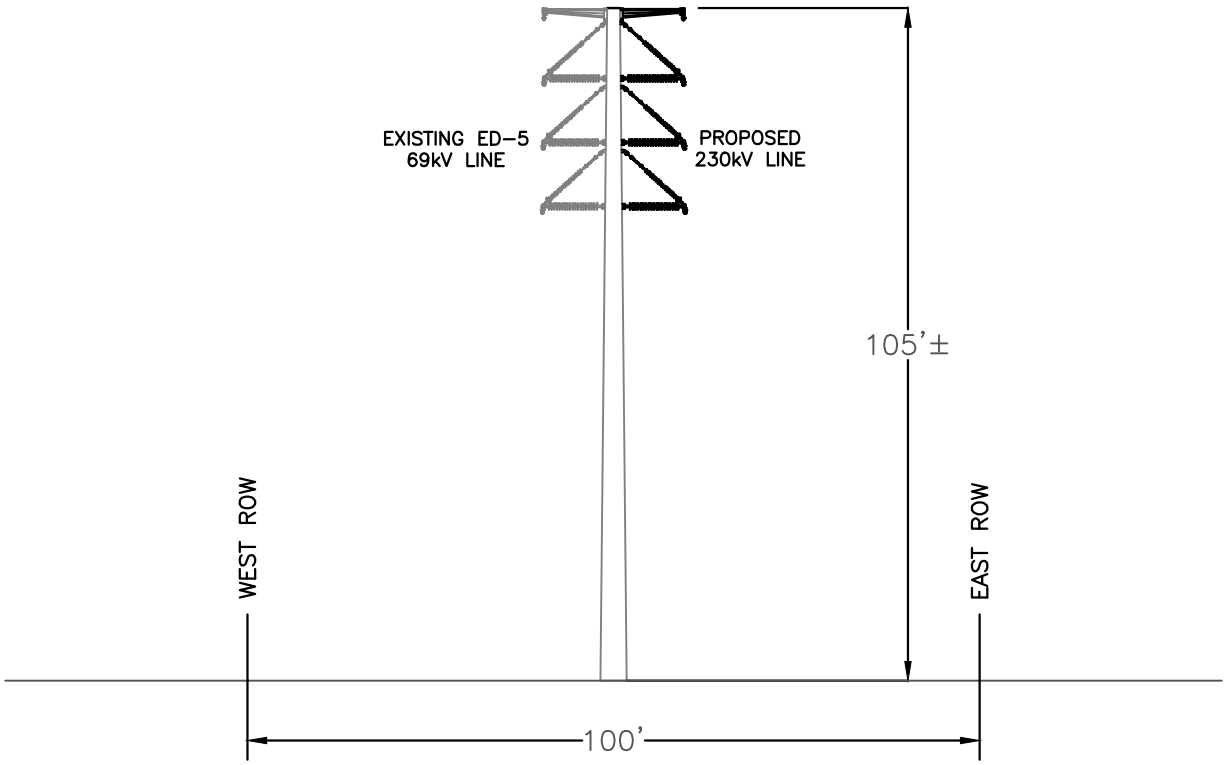
CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-5

EXISITING 100' RIGHT-OF-WAY

LOOKING NORTH




**NOTE(S)**

1. TYPICAL CONFIGURATION SHOWN. FINAL CONFIGURATIONS MAY VARY.
2. STRUCTURES MAY BE SPACED AT DIFFERENT INTERVALS LONGITUDINALLY ALONG THE RIGHT-OF-WAY.
3. ED-5: DELAND WEST - ST. JOHNS 69kV.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

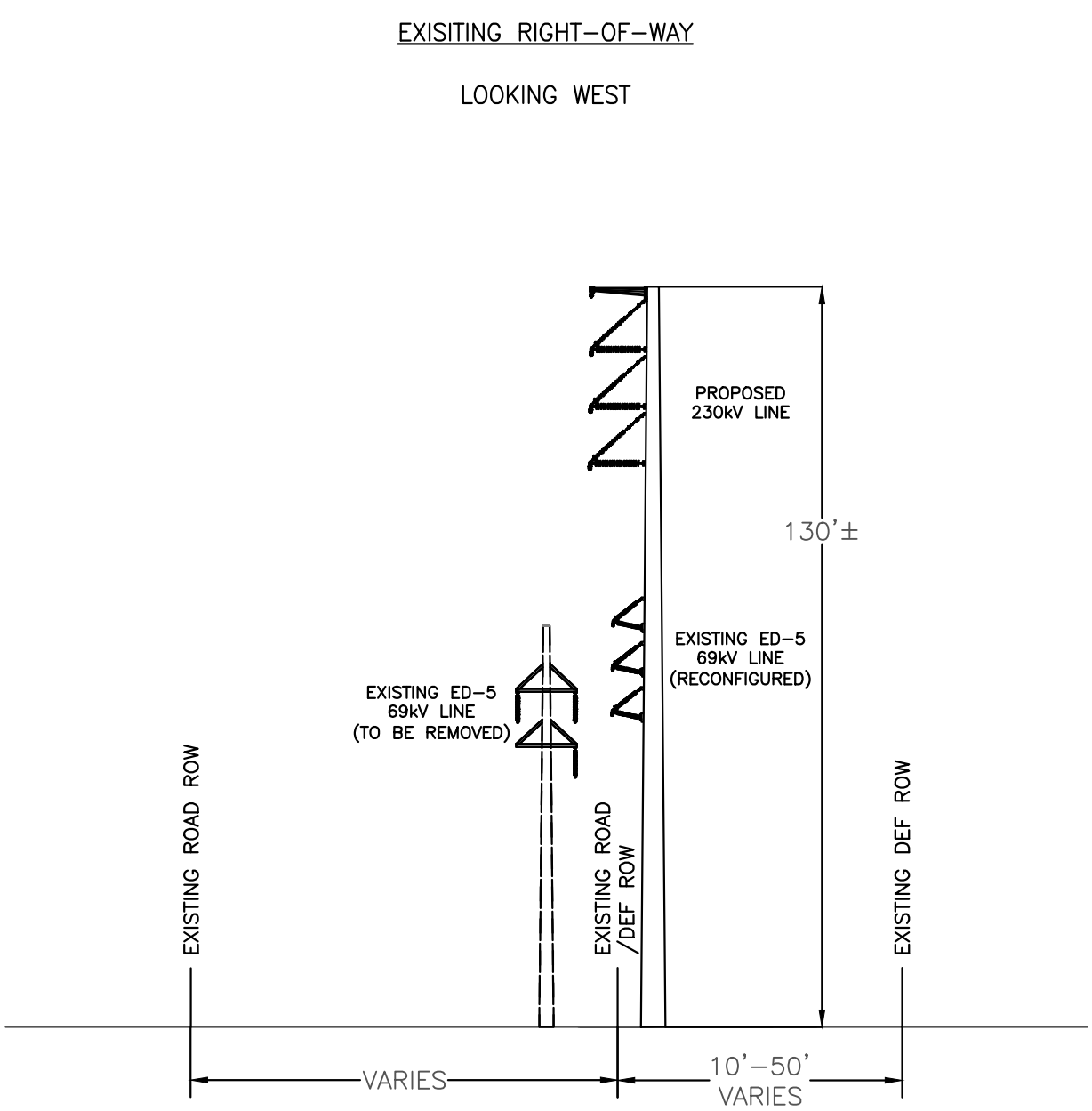
PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

TITLE
**TYPICAL CROSS SECTION - EXISTING DEF ED LINE ON 100' ROW VERTICAL CONFIG. (LOOKING NORTH)**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-6




**NOTE(S)**

1. TYPICAL CONFIGURATION SHOWN. FINAL CONFIGURATIONS MAY VARY.
2. POLE LOCATION HAS NOT BEEN DETERMINED AT THIS TIME AND ARE DEPICTED FOR CONCEPTUAL PURPOSES ONLY.
3. STRUCTURES MAY BE SPACED AT DIFFERENT INTERVALS LONGITUDINALLY ALONG THE RIGHT-OF-WAY.
4. ED-5: DELAND WEST - ST. JOHNS 69kV.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

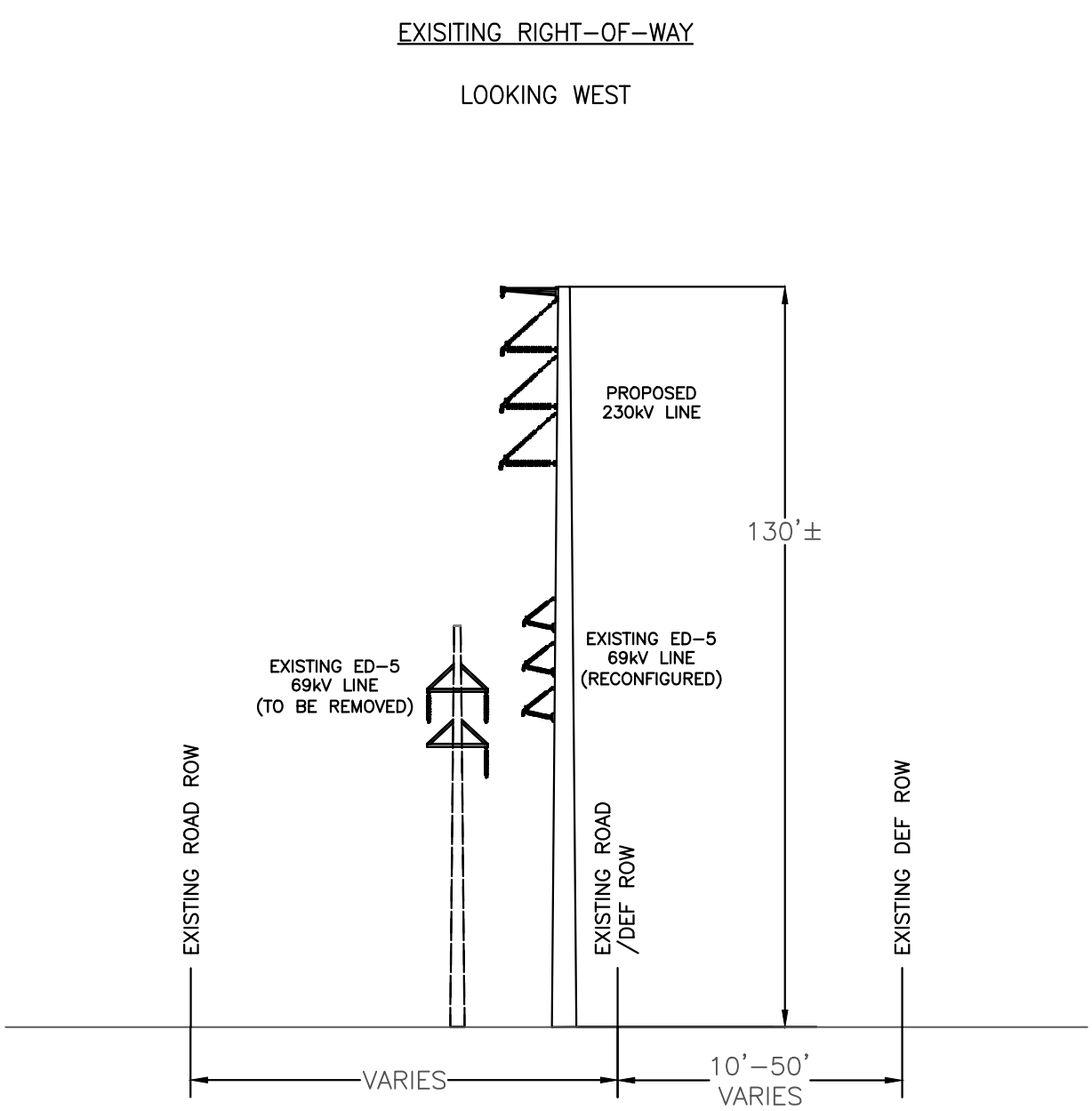
PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

TITLE
**TYPICAL CROSS SECTION - EXISTING DEF ED LINE ROAD ROW ADJ. STACKED (LOOKING WEST)**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-7




**NOTE(S)**

1. TYPICAL CONFIGURATION SHOWN. FINAL CONFIGURATIONS MAY VARY.
2. POLE LOCATION HAS NOT BEEN DETERMINED AT THIS TIME AND ARE DEPICTED FOR CONCEPTUAL PURPOSES ONLY.
3. STRUCTURES MAY BE SPACED AT DIFFERENT INTERVALS LONGITUDINALLY ALONG THE RIGHT-OF-WAY.
4. ED-5: DELAND WEST - ST. JOHNS 69kV.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

TITLE
**TYPICAL CROSS SECTION - EXISTING DEF ED LINE IN ROAD ROW STACKED (LOOKING WEST)**

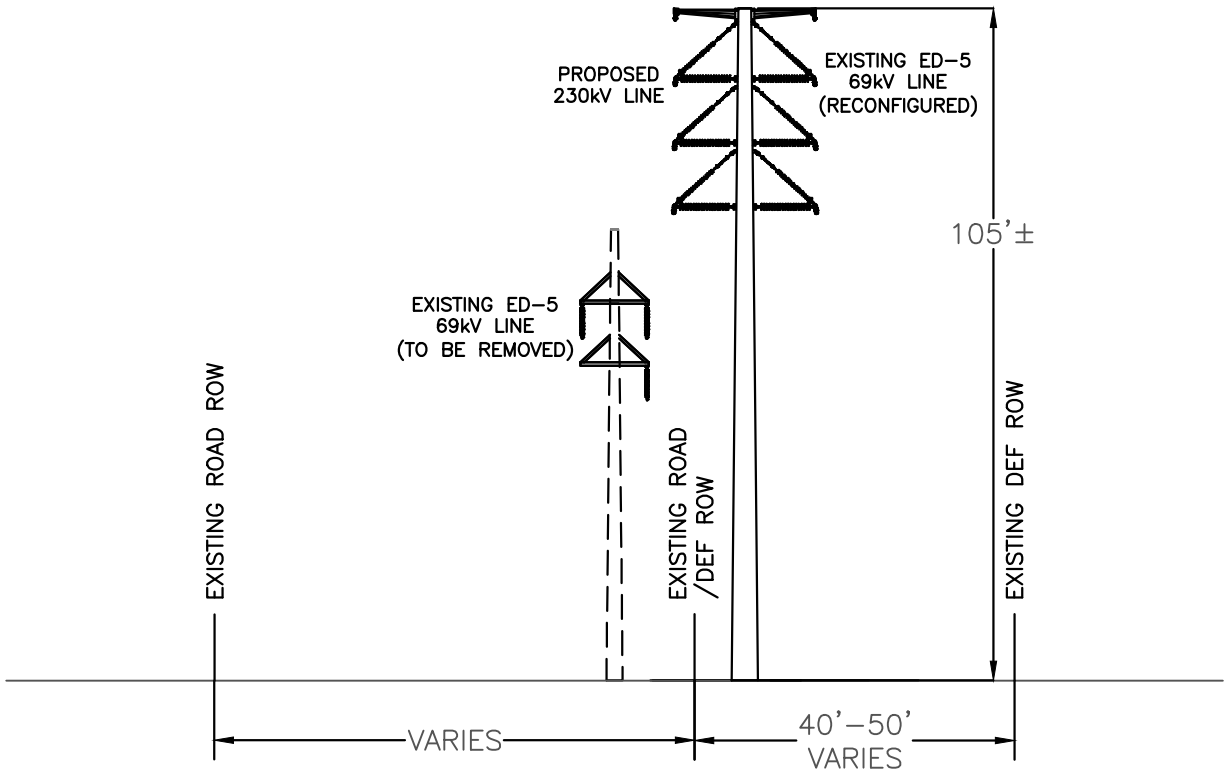
CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-8

EXISITING RIGHT-OF-WAY

LOOKING WEST




**NOTE(S)**

1. TYPICAL CONFIGURATION SHOWN. FINAL CONFIGURATIONS MAY VARY.
2. POLE LOCATION HAS NOT BEEN DETERMINED AT THIS TIME AND ARE DEPICTED FOR CONCEPTUAL PURPOSES ONLY.
3. STRUCTURES MAY BE SPACED AT DIFFERENT INTERVALS LONGITUDINALLY ALONG THE RIGHT-OF-WAY.
4. ED-5: DELAND WEST - ST. JOHNS 69kV.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

TITLE
**TYPICAL CROSS SECTION - EXISTING DEF ED LINE ROAD ROW ADJ. BACK-TO-BACK (LOOKING WEST)**

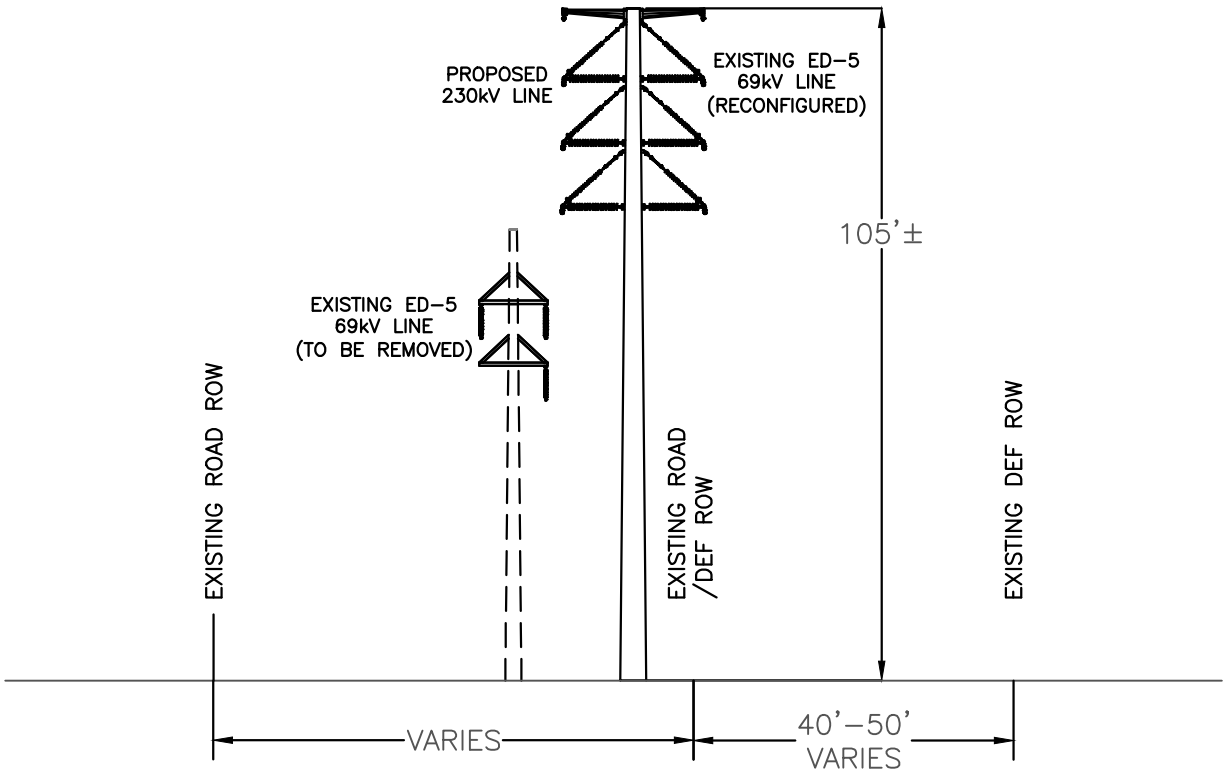
CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-9

EXISITING RIGHT-OF-WAY

LOOKING WEST




**NOTE(S)**

1. TYPICAL CONFIGURATION SHOWN. FINAL CONFIGURATIONS MAY VARY.
2. POLE LOCATION HAS NOT BEEN DETERMINED AT THIS TIME AND ARE DEPICTED FOR CONCEPTUAL PURPOSES ONLY.
3. STRUCTURES MAY BE SPACED AT DIFFERENT INTERVALS LONGITUDINALLY ALONG THE RIGHT-OF-WAY.
4. ED-5: DELAND WEST - ST. JOHNS 69kV.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

TITLE
**TYPICAL CROSS SECTION - EXISTING DEF ED LINE ROAD ROW BACK-TO-BACK (LOOKING WEST)**

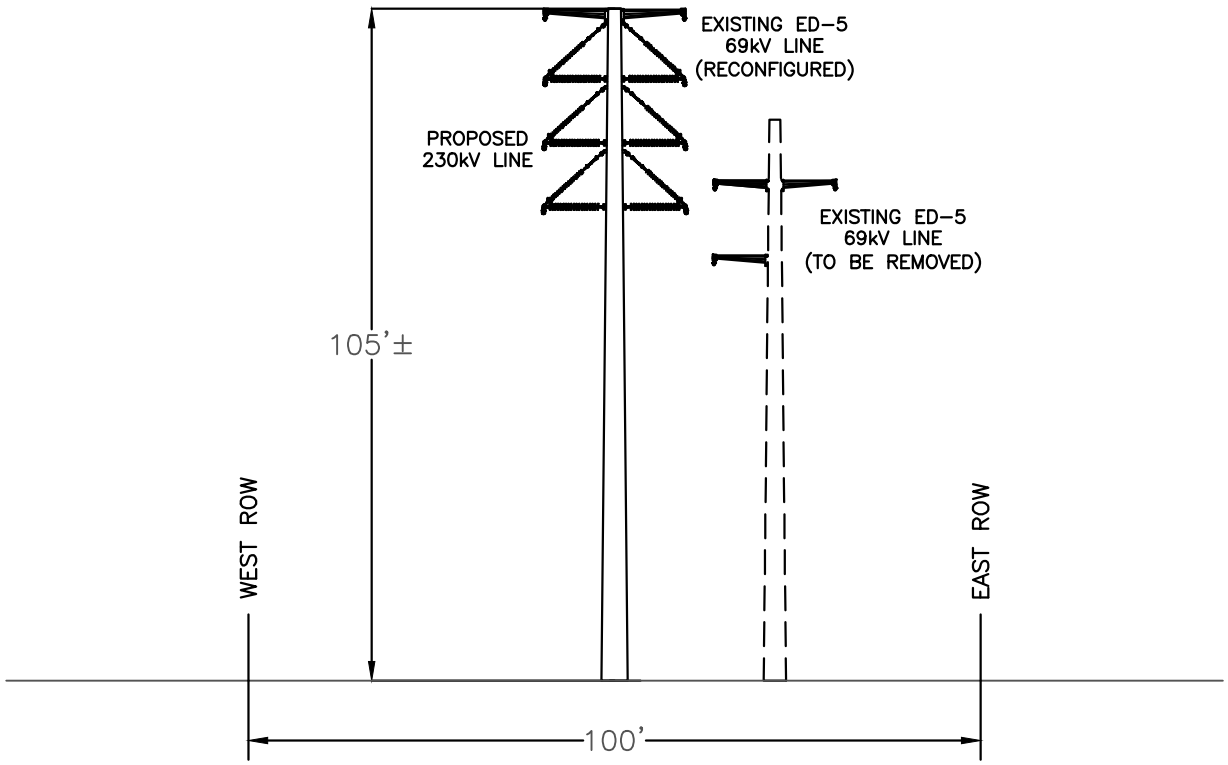
CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-10

EXISITING 100' RIGHT-OF-WAY

LOOKING NORTH




**NOTE(S)**

1. TYPICAL CONFIGURATION SHOWN. FINAL CONFIGURATIONS MAY VARY.
2. STRUCTURES MAY BE SPACED AT DIFFERENT INTERVALS LONGITUDINALLY ALONG THE RIGHT-OF-WAY.
3. ACCESS ROAD FINAL LOCATION MAY VARY.
4. ED-5: DELAND WEST - ST. JOHNS 69kV.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

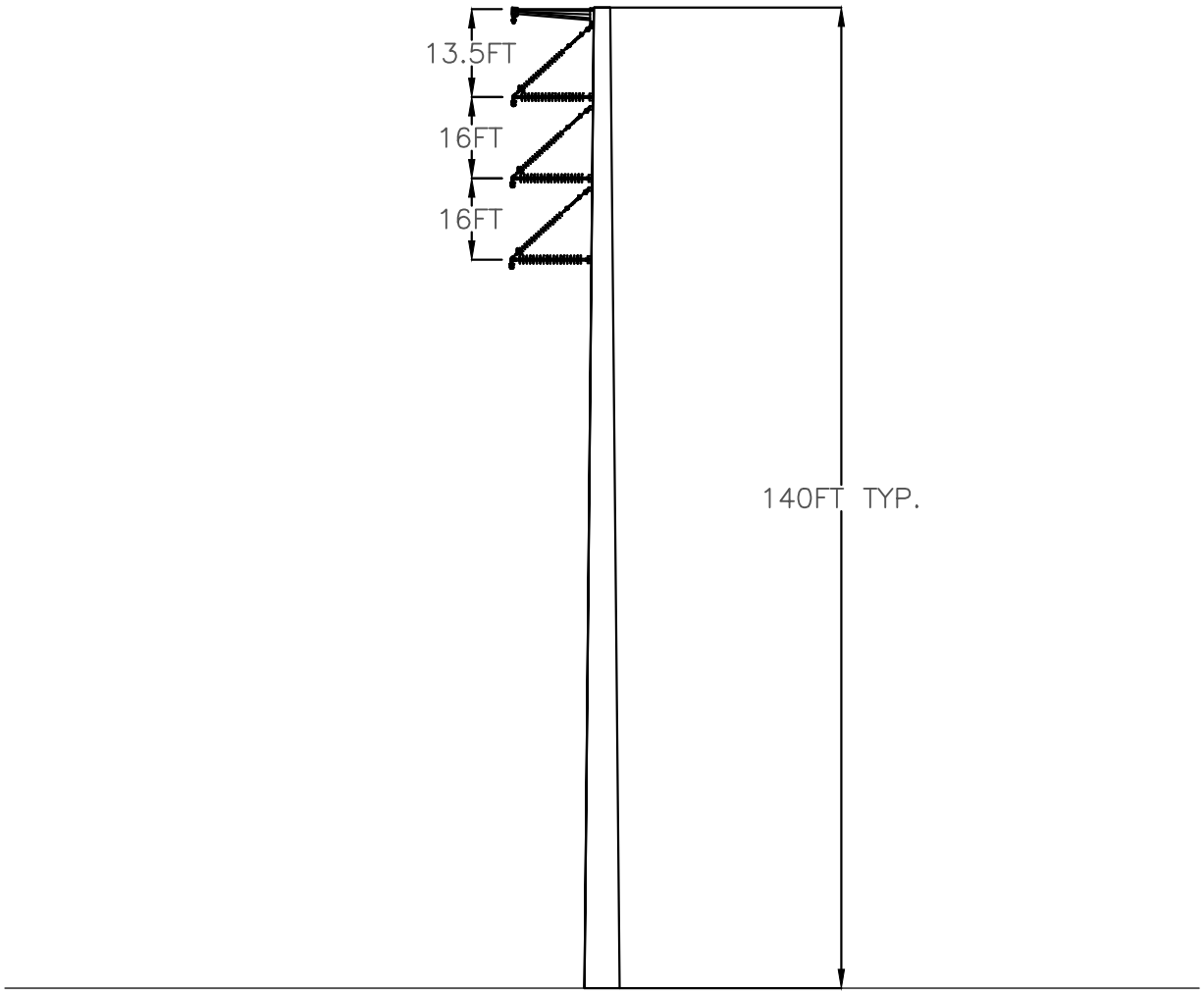
TITLE
**TYPICAL CROSS SECTION - EXISTING DEF ED LINE ON 100' ROW DELTA CONFIG. (LOOKING NORTH)**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-11

TYPICAL SINGLE CIRCUIT 230kV
STRUCTURE




NOTE(S)

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

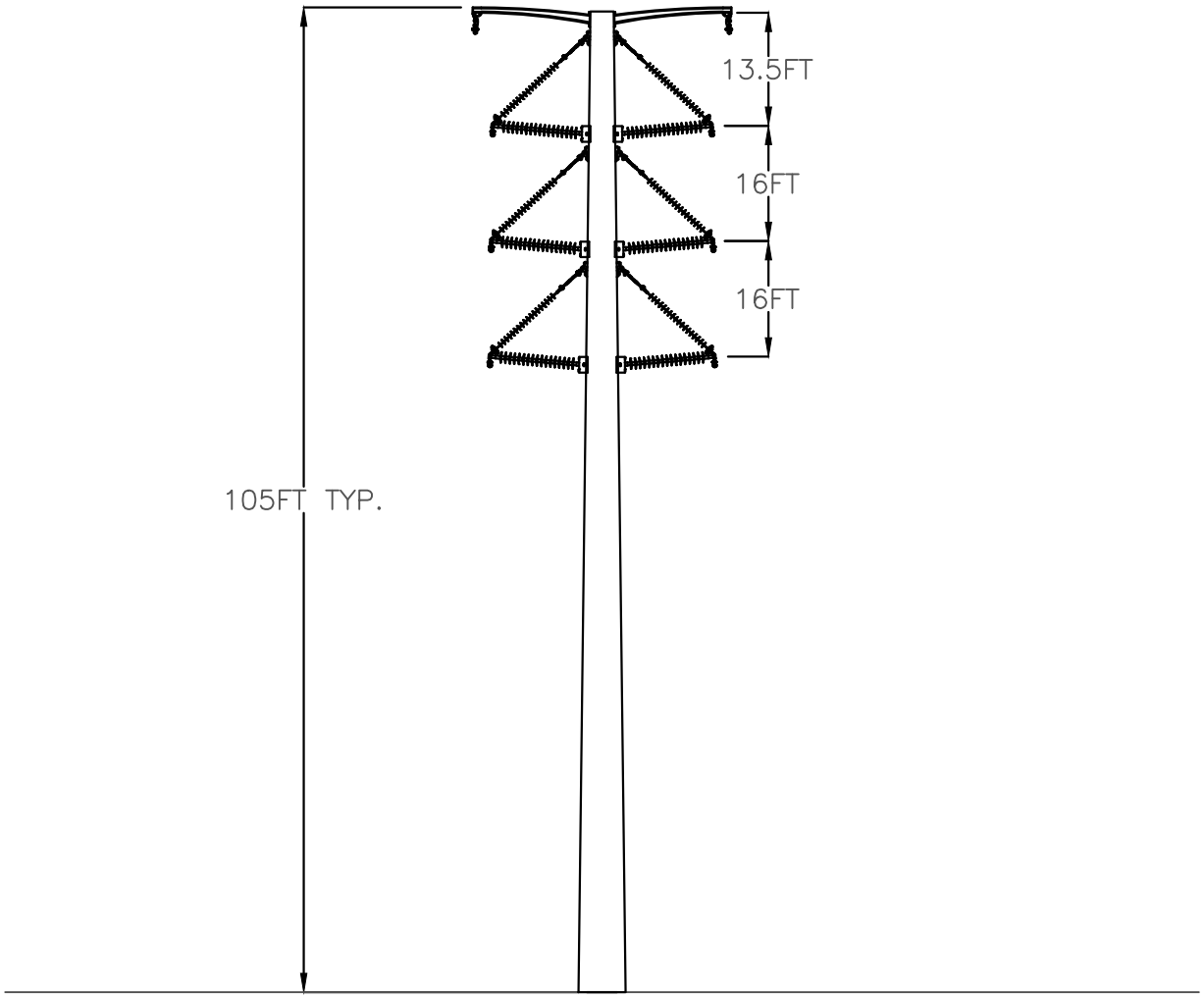
TITLE
**TYPICAL SINGLE CIRCUIT 230-kV STRUCTURE**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-12

TYPICAL DOUBLE CIRCUIT (BACK-TO-BACK)
230/69kV STRUCTURE




NOTE(S)

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

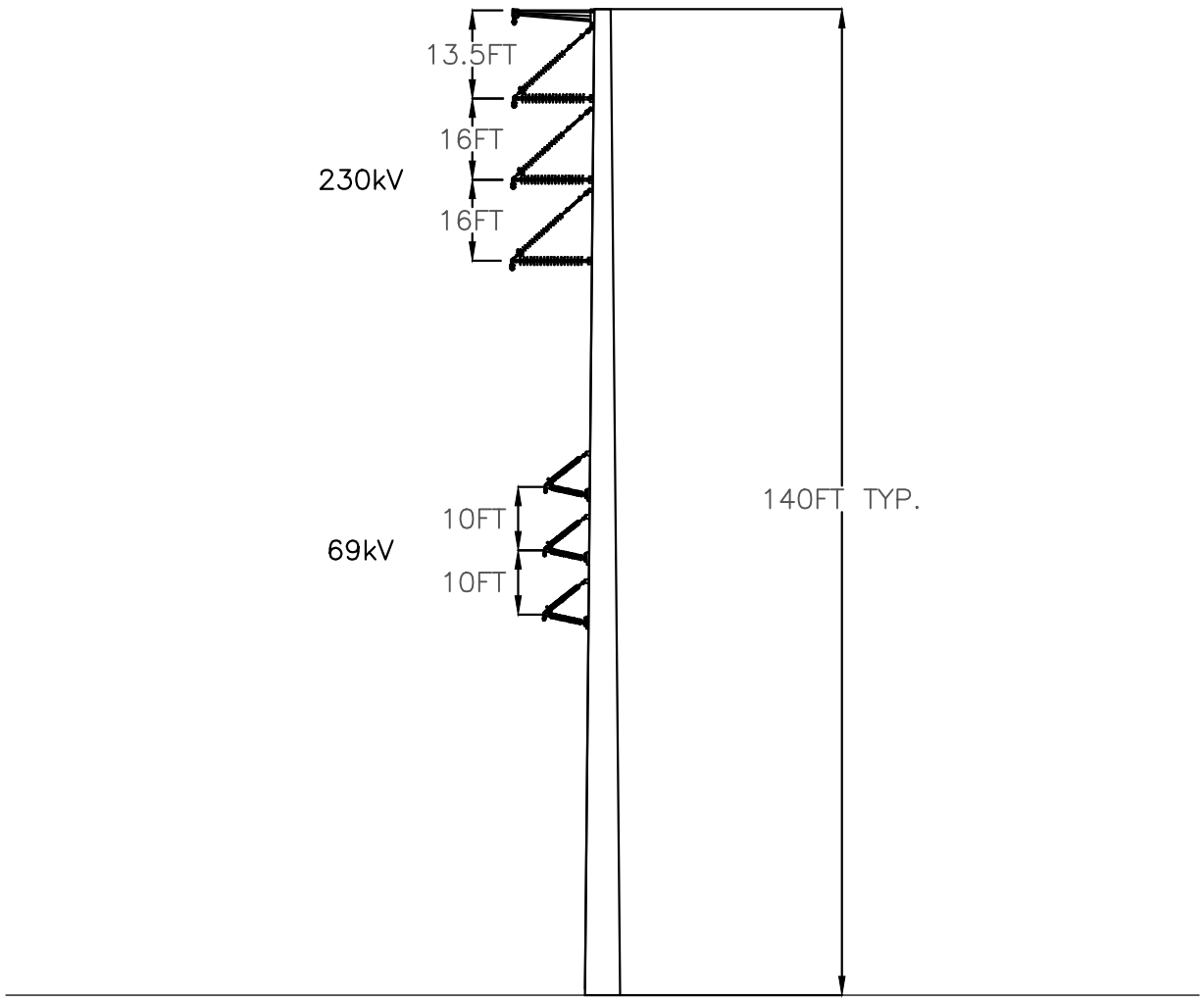
TITLE
**TYPICAL DOUBLE CIRCUIT 230/69-kV STRUCTURE BACK-TO-BACK**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-13

TYPICAL DOUBLE CIRCUIT (STACKED)
230/69kV STRUCTURE




NOTE(S)

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

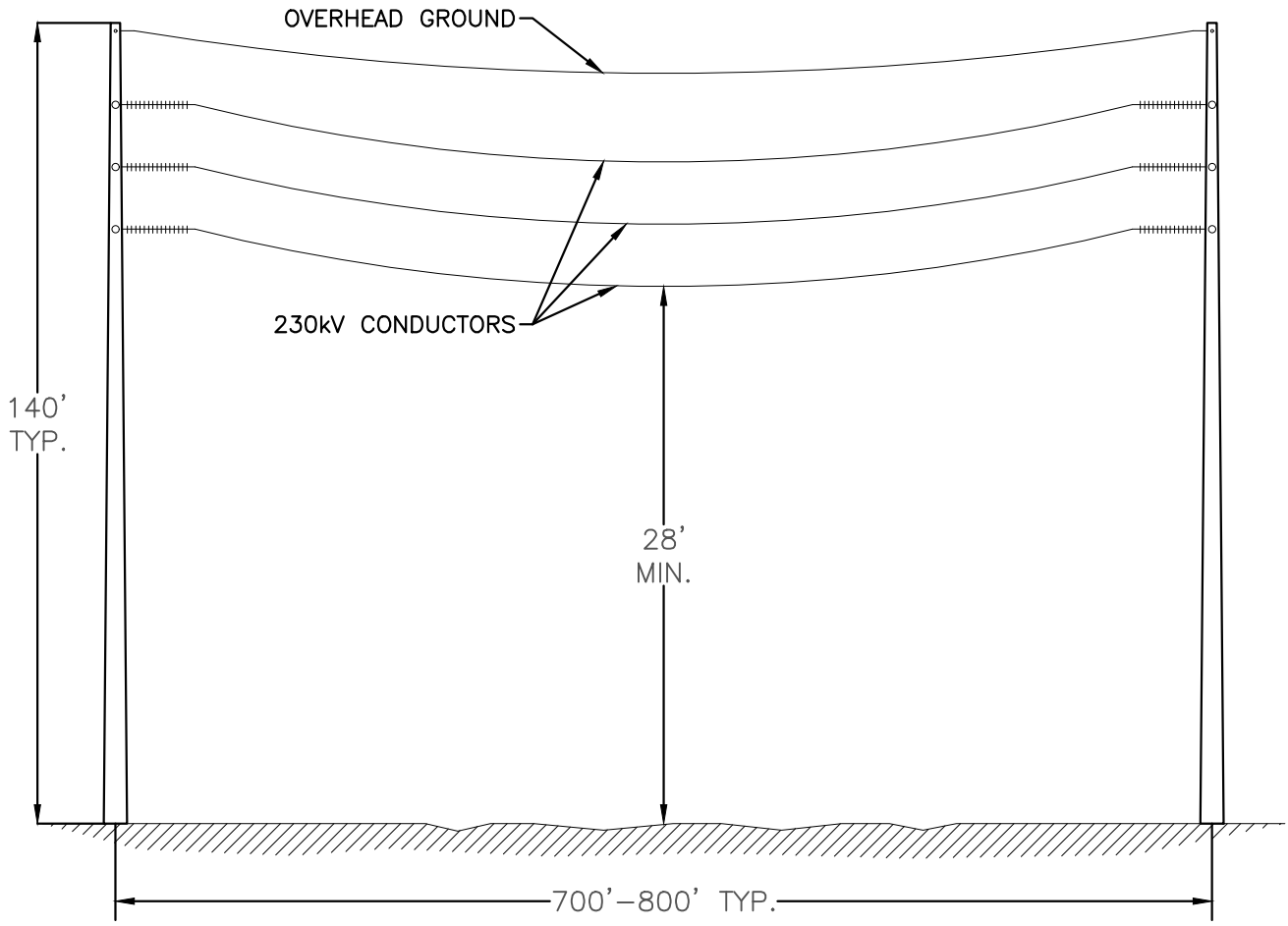
TITLE
**TYPICAL DOUBLE CIRCUIT 230/69kV STRUCTURE STACKED**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-14

## CONDUCTOR PROFILE VIEW – TYPICAL
VERTICAL CONSTRUCTION




**NOTE(S)**

1. MID-SPAN CLEARANCES ALONG THE LINE WILL VARY DEPENDING ON POLE HEIGHTS, SPAN LENGTHS, AND TOPOGRAPHY (LAND ELEVATION) BETWEEN STRUCTURES.
2. CONDUCTOR AND OVERHEAD GROUND WIRE SHOWN AT MAXIMUM CONDUCTOR DESIGN TEMPERATURE.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

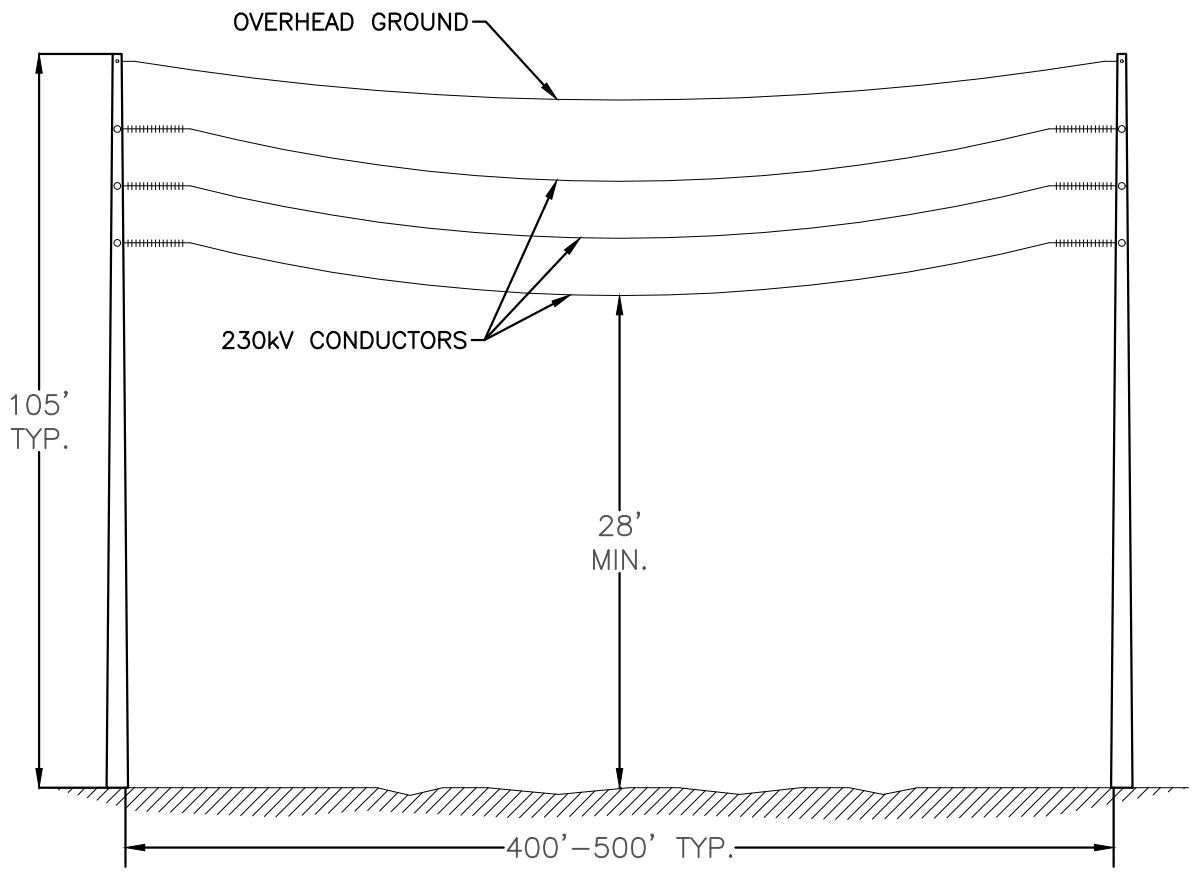
TITLE
**CONDUCTOR PROFILE - 700-FT SPAN AND 800-FT 140-FT POLE HEIGHTS ABOVE GRADE**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-15

## CONDUCTOR PROFILE VIEW – TYPICAL
VERTICAL CONSTRUCTION




**NOTE(S)**

1. MID-SPAN CLEARANCES ALONG THE LINE WILL VARY DEPENDING ON POLE HEIGHTS, SPAN LENGTHS, AND TOPOGRAPHY (LAND ELEVATION) BETWEEN STRUCTURES.
2. CONDUCTOR AND OVERHEAD GROUND WIRE SHOWN AT MAXIMUM CONDUCTOR DESIGN TEMPERATURE.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

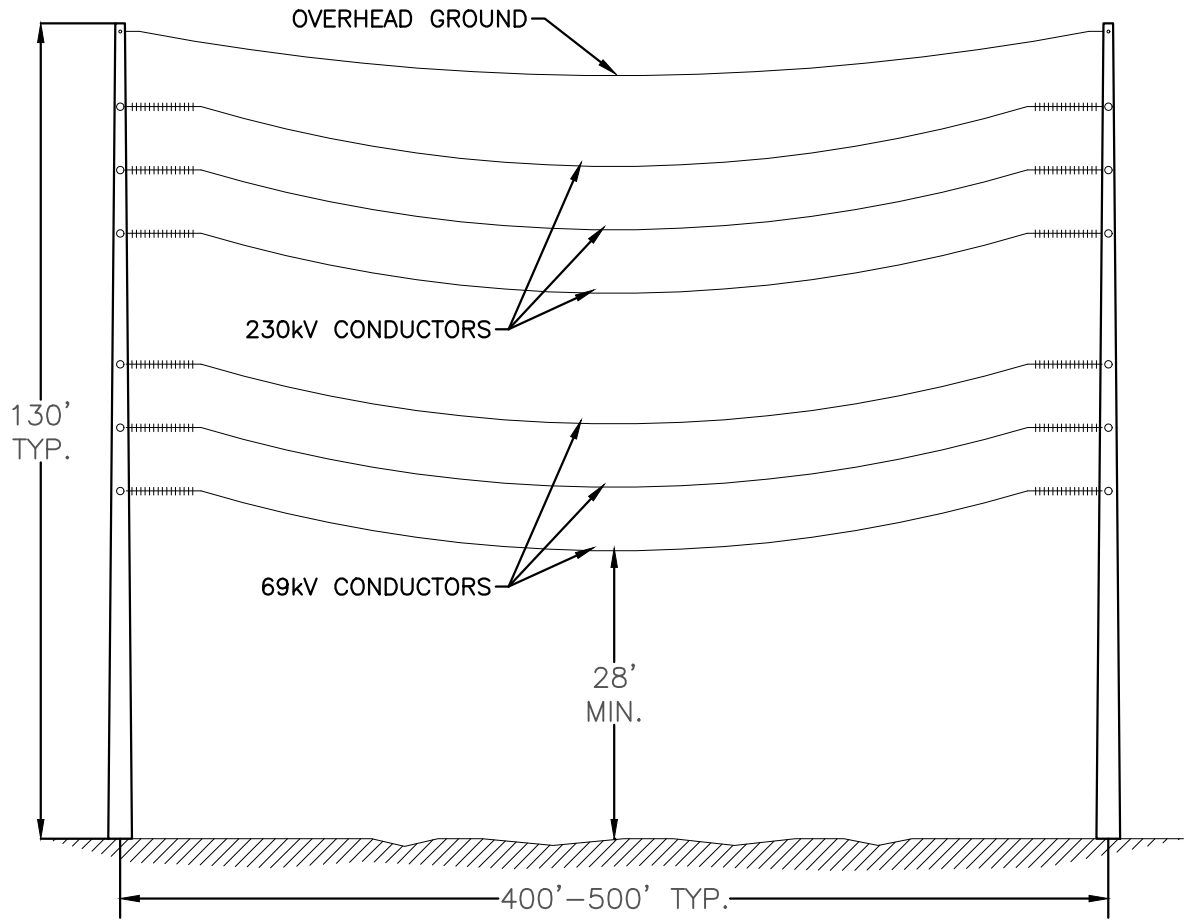
TITLE
**CONDUCTOR PROFILE - 400-FT SPAN AND 500-FT 105-FT POLE HEIGHTS ABOVE GRADE**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-16

## CONDUCTOR PROFILE VIEW – TYPICAL
STACKED VERTICAL CONSTRUCTION




**NOTE(S)**

1. MID-SPAN CLEARANCES ALONG THE LINE WILL VARY DEPENDING ON POLE HEIGHTS, SPAN LENGTHS, AND TOPOGRAPHY (LAND ELEVATION) BETWEEN STRUCTURES.
2. CONDUCTOR AND OVERHEAD GROUND WIRE SHOWN AT MAXIMUM CONDUCTOR DESIGN TEMPERATURE.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

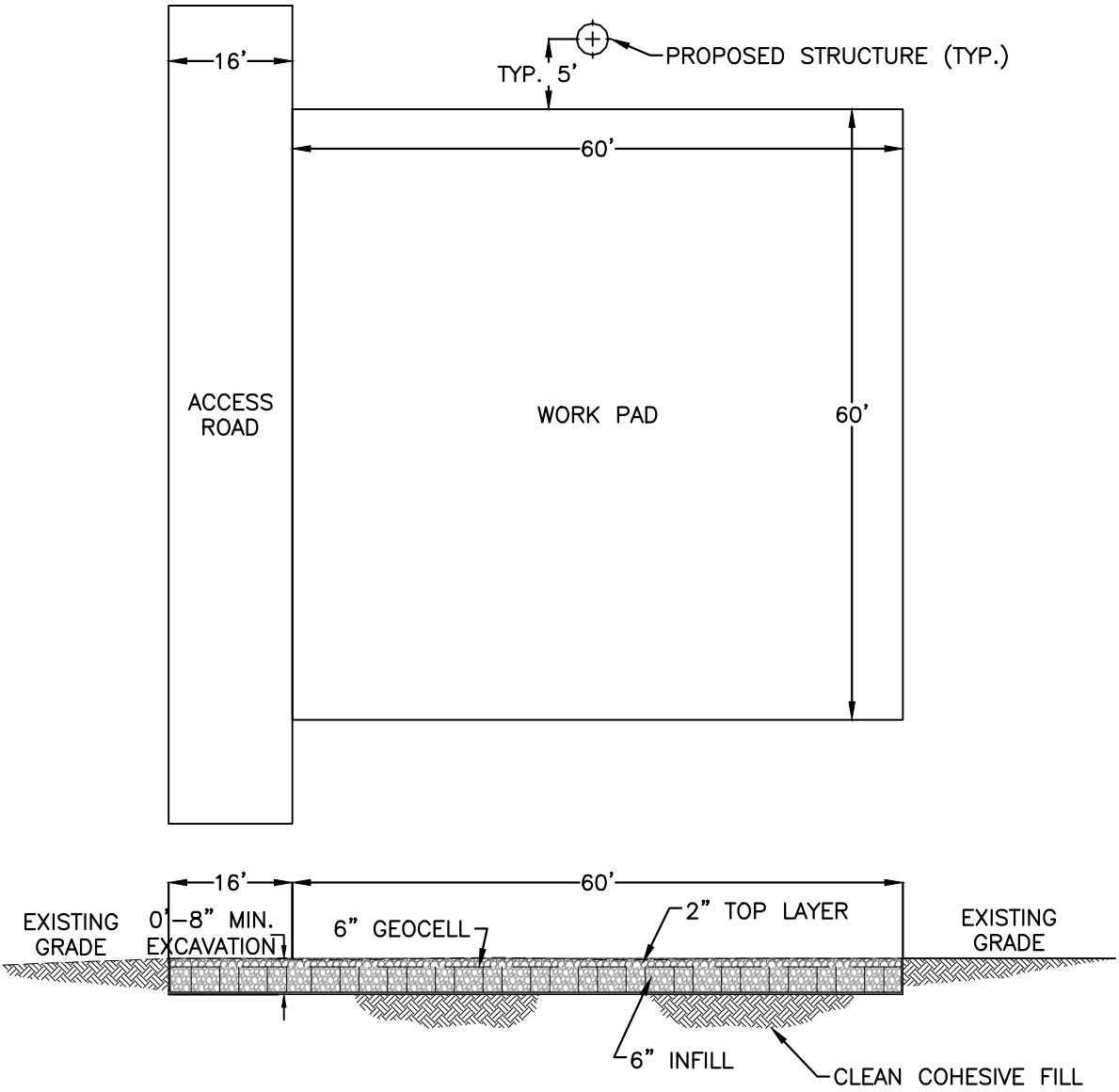
TITLE
**CONDUCTOR PROFILE - 400-FT SPAN AND 500-FT 130-FT POLE HEIGHTS ABOVE GRADE**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-17

# TYPICAL UPLAND–AT–GRADE PERMANENT ACCESS ROAD CROSS SECTION AND STRUCTURE PAD




**NOTE(S)**

1. TYPICAL CROSS SECTION - SITE SPECIFICS MAY VARY.
2. LAYERS TO BE DETERMINED BASED ON FIELD CONDITIONS.
3. HEIGHT OF ROAD/PAD VARIES, MINIMUM 6" OVER MEAN OR SEASONAL HIGH WATER.
4. ACCESS ROADS/PADS TO BE BUILT ONLY WHERE EXISTING ACCESS IS UNAVAILABLE.
5. TYPICAL ROAD IS 16 FT. TOP-WIDTH.

SCALE
NOT TO SCALE

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA 230kV LINE
LAKE & VOLUSIA COUNTIES, FLORIDA

TITLE
**TYPICAL UPLAND-AT-GRADE PERMANENT ACCESS ROAD CROSS SECTION AND STRUCTURE PAD**

CONSULTANT

| | |
|---|---|
| YYYY-MM-DD | 2025-06-04 |
| DESIGNED | JJC |
| PREPARED | SMR |
| REVIEWED | JJC |
| APPROVED | JJC |

FIGURE
1-18

Lake Woodruff National Wildlife Refuge

Ocala National Forest

DELAND WEST SUBSTATION

Volusia Small Lot Acquisitions

DELAND WEST - SILVER SPRINGS 230KV

DELAND WEST - SILVER SPRINGS 230KV

DELAND WEST - ST JOHNS 69KV (SEC)

DELAND WEST - ST JOHNS 69KV (SEC)

VOLUSIA COUNTY

LAKE COUNTY

Lower Wekiva River Preserve State Park

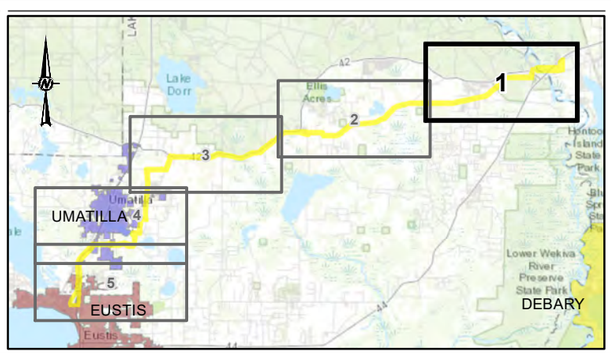
Seminole State Forest

ST JOHNS (SEC) REA SUBSTATION

ST JOHNS (SEC) - UMATILLA (SEC) 69KV

Helberg Estate Parcel

- Existing Substation
- Existing DEF Transmission Line
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands




2,000 1,000 0 2,000 Feet

1:24,000

**NOTE(S)**

1. ALL LOCATIONS ARE APPROXIMATE

**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION**

DUKE ENERGY

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K019 | 0 | 2-1 (1 OF 5) |

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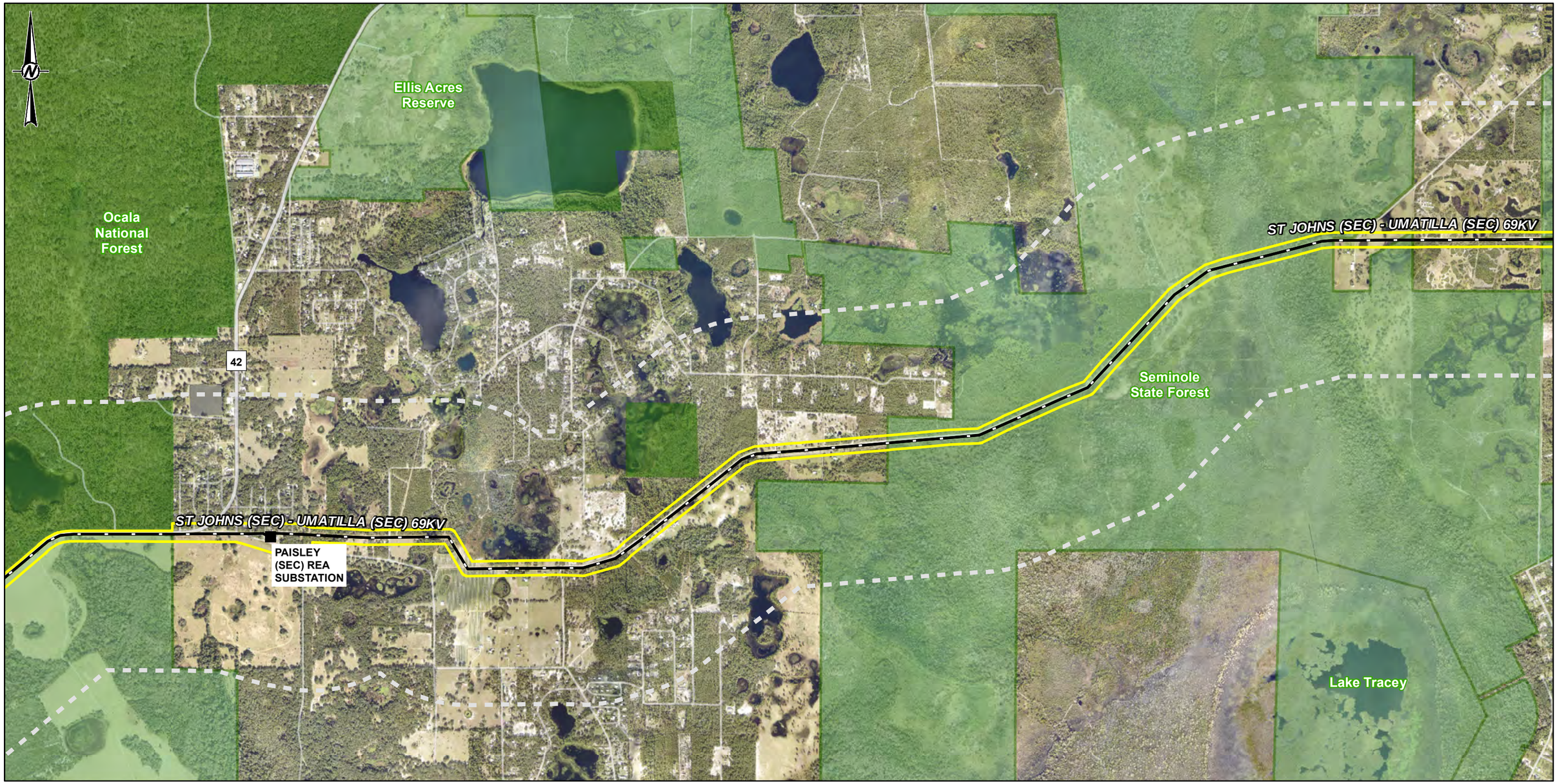
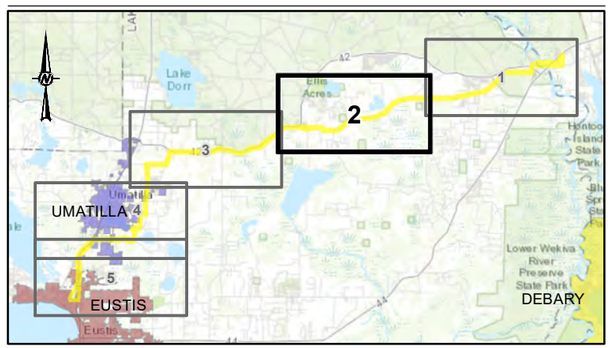
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B




- Existing Substation
- Existing DEF Transmission Line
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands

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1:24,000

**NOTE(S)**

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**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION**

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K019 | 0 | 2-1 (2 OF 5) |

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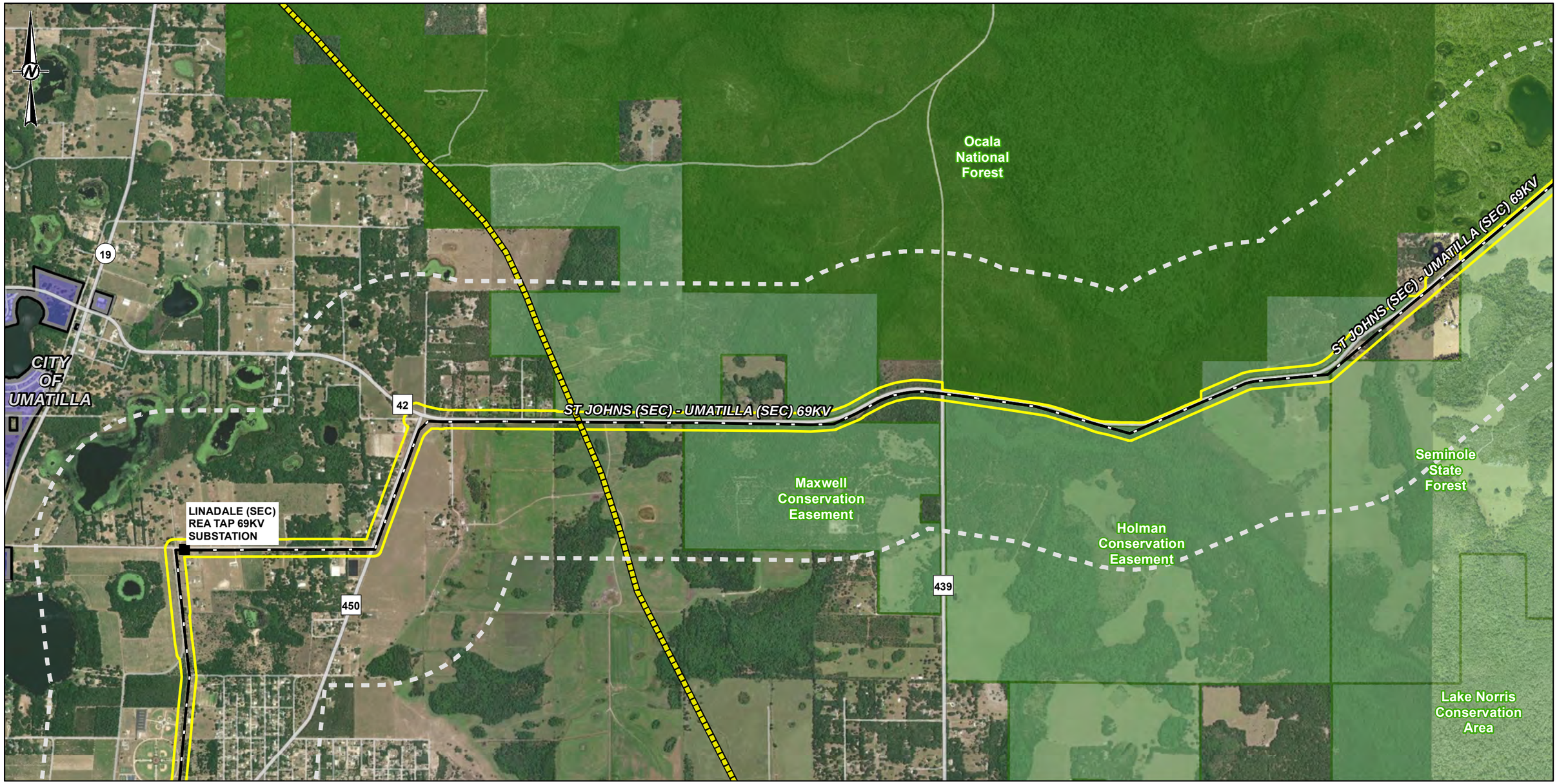
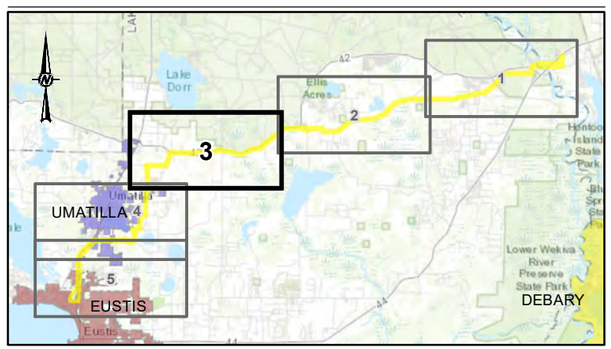



- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- Municipal Boundary
- City of Umatilla Extent
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands

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1:24,000

**NOTE(S)**

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**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K019 | 0 | 2-1 (3 OF 5) |

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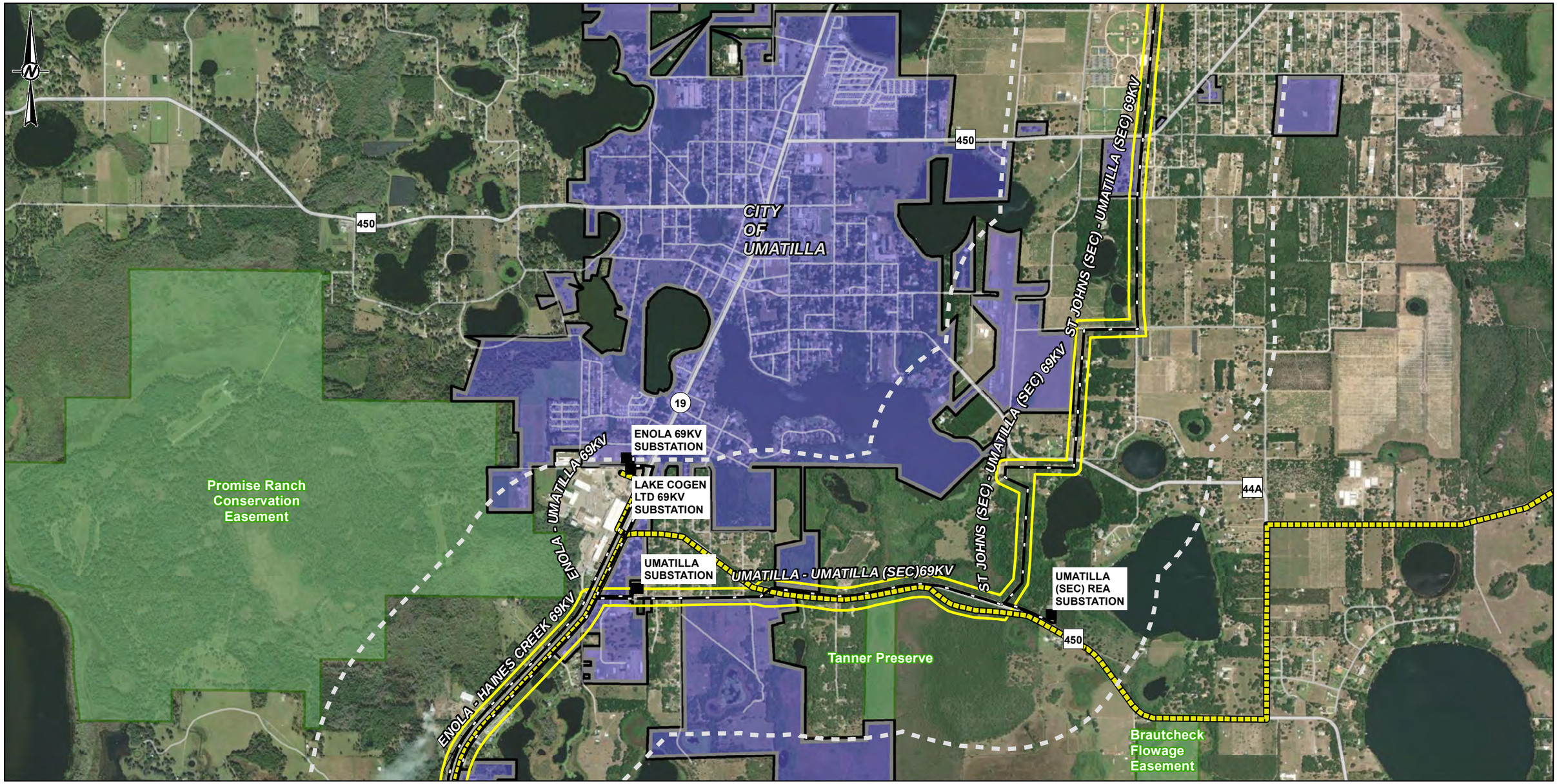
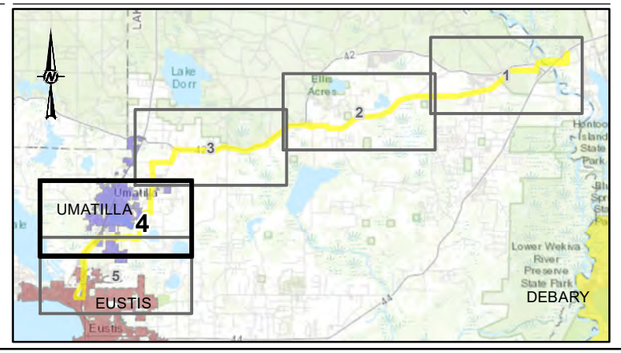



- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- Municipal Boundary
- City of Umatilla Extent
- County Boundary
- State, County, or Local Managed Lands

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1:24,000

**NOTE(S)**

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**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K019 | 0 | 2-1 (4 OF 5) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSA\K - TLSA Application\map documents\31404342021K019.mxd PRINTED ON: 2025-08-15 AT: 2:57:56 PM
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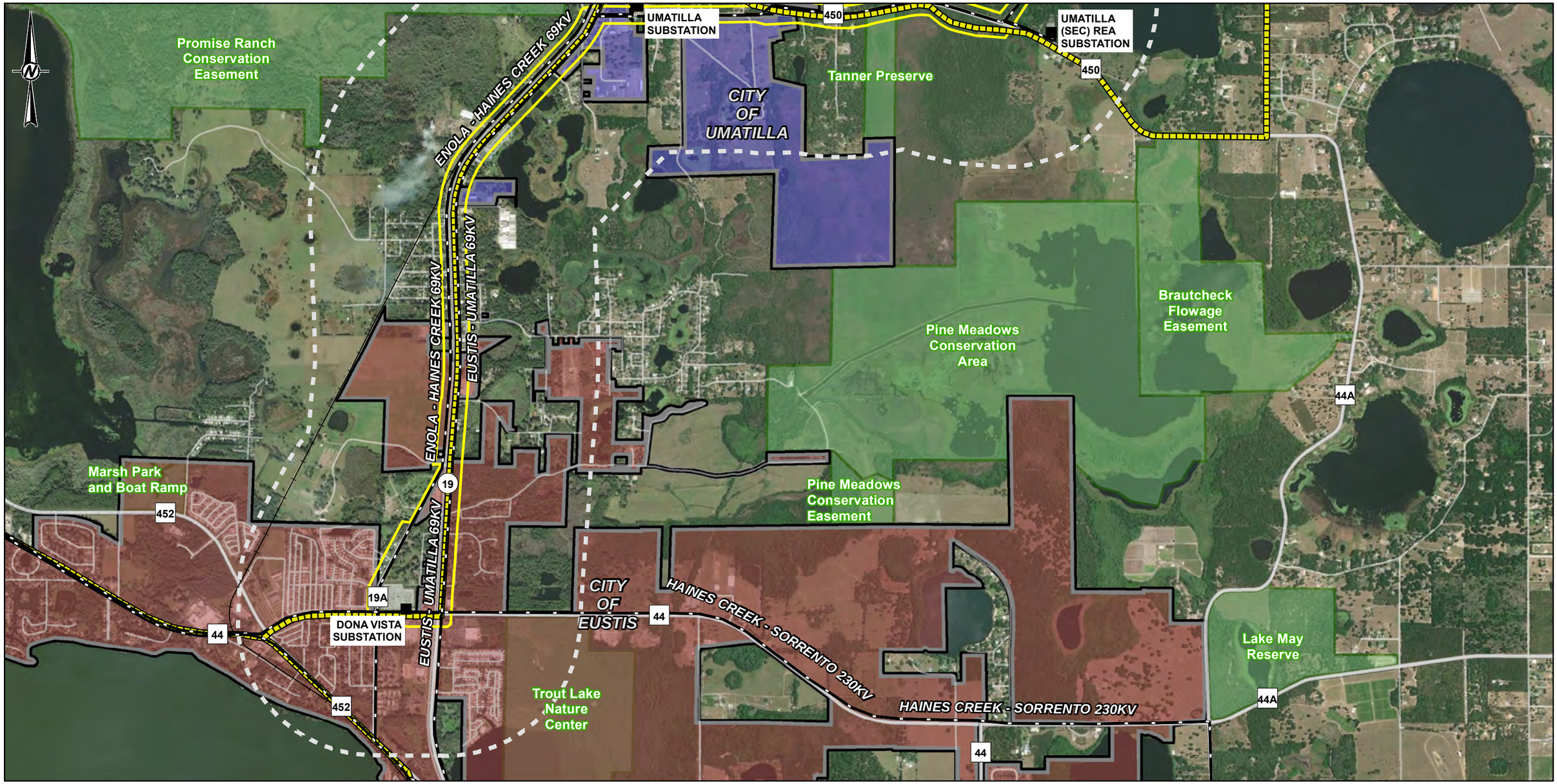
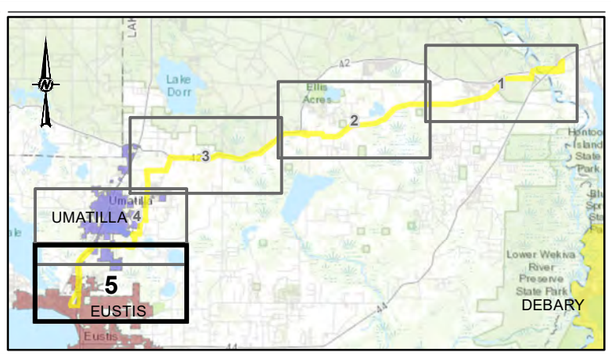
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B




- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- Municipal Boundary
- City of Eustis Extent
- City of Umatilla Extent
- County Boundary
- State, County, or Local Managed Lands




2,000 1,000 0 2,000 Feet

1:24,000

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**REFERENCE(S)**

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K019 | 0 | 2-1 (5 OF 5) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSA\K_ - TLSA Application\map documents\31404342021K019.mxd PRINTED ON: 2025-08-15 AT: 2:58:04 PM

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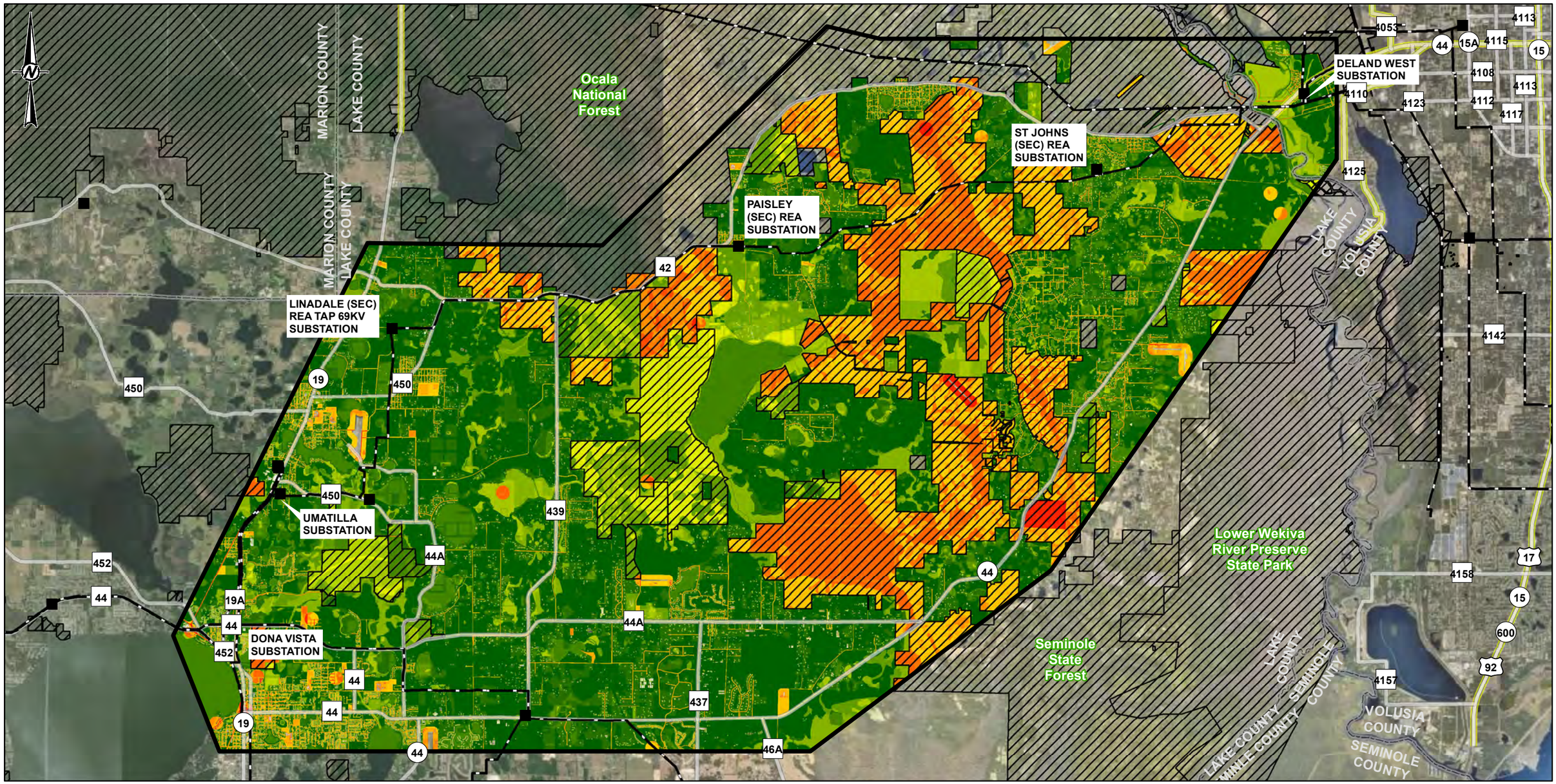


**LEGEND**

- Substation
- Duke Transmission Line
- Federal, State, and Local Government Managed Area
- County Boundary

**Suitability (Constraints and Opportunities)**

High Constraint

High Opportunity

1.75 0.875 0 1.75 Miles

1:110,880

**REFERENCE(S)**

1. BASE IMAGERY: SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**SUITABILITY MAPPING**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K021 | 0 | 2-2 |

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
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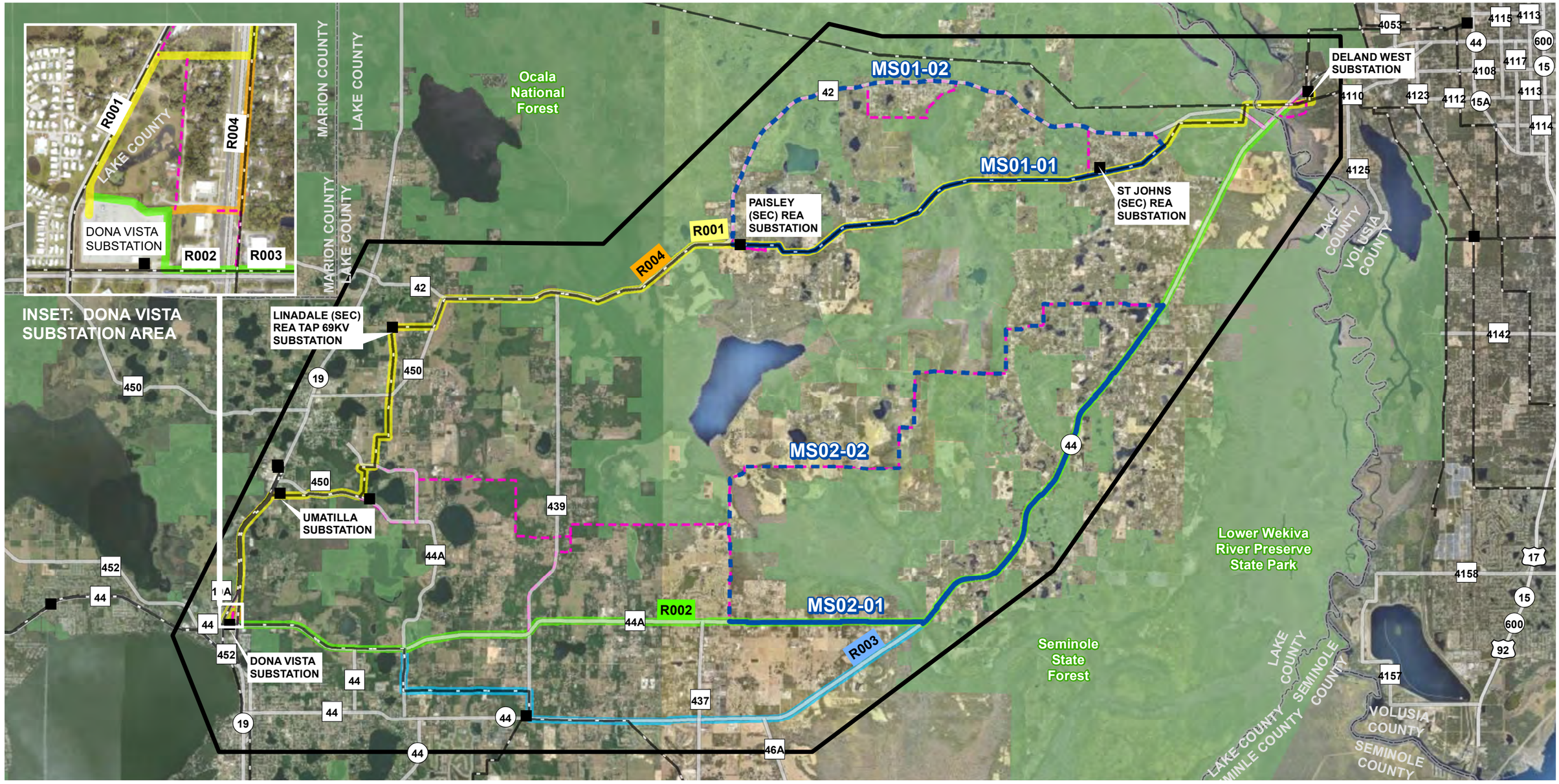



**LEGEND**

- Substation
- Duke Transmission Line
- Mini-Study Favorable Routes MS01-01 and MS02-01
- Mini-Study Unfavorable Routes MS01-02 and MS02-02 (Removed From Study)
- Inactive Route Segment (Removed from Study)
- Alternative Route R001
- Alternative Route R002
- Alternative Route R003
- Alternative Route R004
- County Boundary

1.75 0.875 0 1.75 Miles

1:110,880

**REFERENCE(S)**

1. BASE IMAGERY: SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ALTERNATIVE ROUTES AND MINI STUDIES**

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K018 | 0 | 2-3 |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAIK - TLSA Application\map documents\31404342021K018.mxd PRINTED ON: 2025-08-15 AT: 3:02:44 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

Lake Woodruff National Wildlife Refuge

Ocala National Forest

DELAND WEST - DELEON SPRINGS 115KV

BARBERVILLE - DELAND WEST 69KV

DELAND - DELAND WEST 69KV

44

DELAND WEST SUBSTATION

DELAND WEST - ORANGE CITY 115KV

Volusia Small Lot Acquisitions

DELAND WEST - SILVER SPRINGS 230KV

42

Ed Stone Park

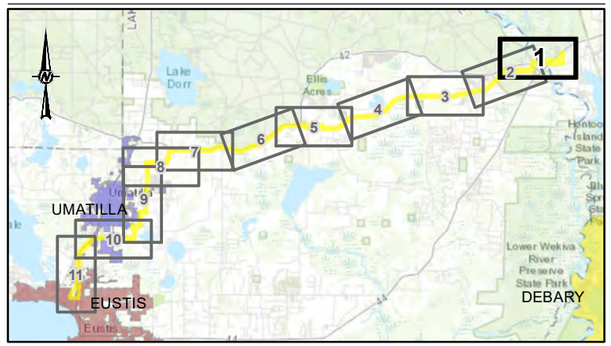
VOLUSIA COUNTY

LAKE COUNTY

DELAND WEST - ST JOHNS 69KV (SEC)

Lower Wekiva River Preserve State Park

- Existing Substation
- Existing DEF Transmission Line
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands
- County Park

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1:12,000

**NOTE(S)**

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**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION - LARGE SCALE**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (1 OF 11) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25mm

Lake Woodruff National Wildlife Refuge

VOLUSIA COUNTY

LAKE COUNTY

Ocala National Forest

DELAND WEST - SILVER SPRINGS 230KV

42

VOLUSIA COUNTY

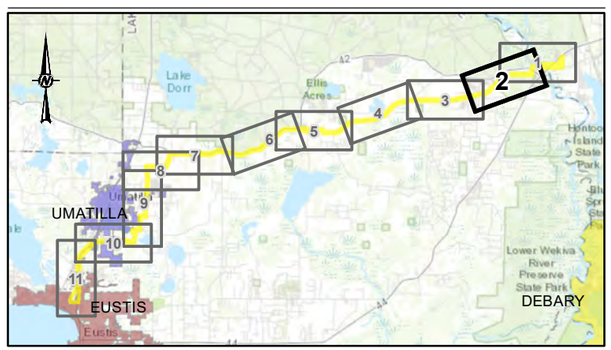
LAKE COUNTY

DELAND WEST - ST JOHNS 69KV (SEC)

Lower Wekiva River Preserve State Park

44

- Existing DEF Transmission Line
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands




1,000 500 0 1,000 Feet

1:12,000

**NOTE(S)**

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION - LARGE SCALE**

DUKE ENERGY®

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|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (2 OF 11) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25mm

Seminole State Forest

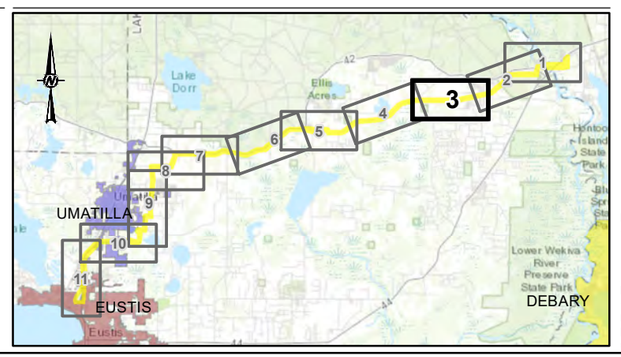
ST JOHNS (SEC) REA SUBSTATION

DELAND WEST - ST JOHNS 69KV (SEC)

ST JOHNS (SEC) - UMATILLA (SEC) 69KV

Lake Mack Park

- Existing Substation
- Existing DEF Transmission Line
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- County Boundary
- State, County, or Local Managed Lands
- County Park

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1. ALL LOCATIONS ARE APPROXIMATE

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1. BASE IMAGERY: 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

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DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION - LARGE SCALE**

DUKE ENERGY®

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|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (3 OF 11) |

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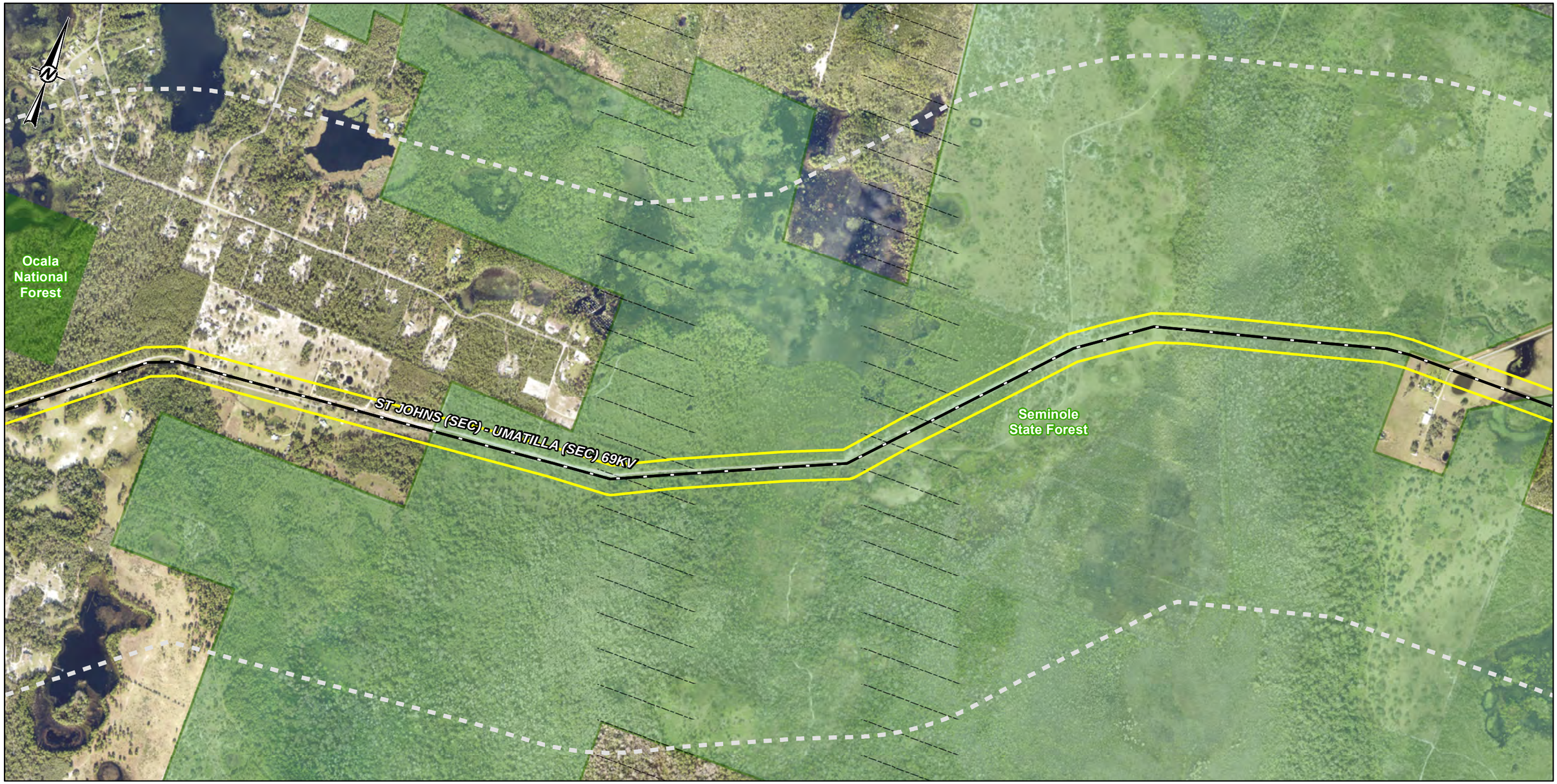
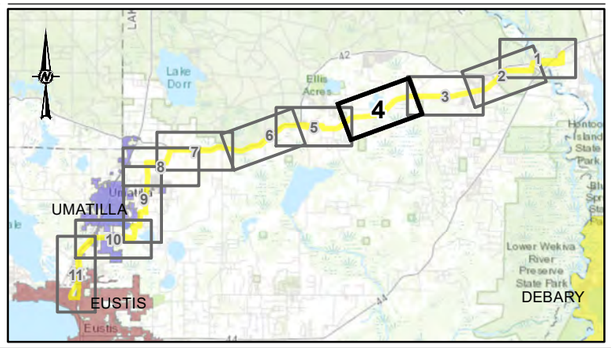



- Existing DEF Transmission Line
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands

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1:12,000

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PROJECT
DELAND WEST TO DONA VISTA PROJECT

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**DWDV CORRIDOR LOCATION - LARGE SCALE**

DUKE ENERGY®

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|---|---|
| YYYY-MM-DD | 2025-08-15 |
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| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (4 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSA\K - TLSA Application\map documents\31404342021K014.mxd PRINTED ON: 2025-08-15 AT: 3:04:15 PM

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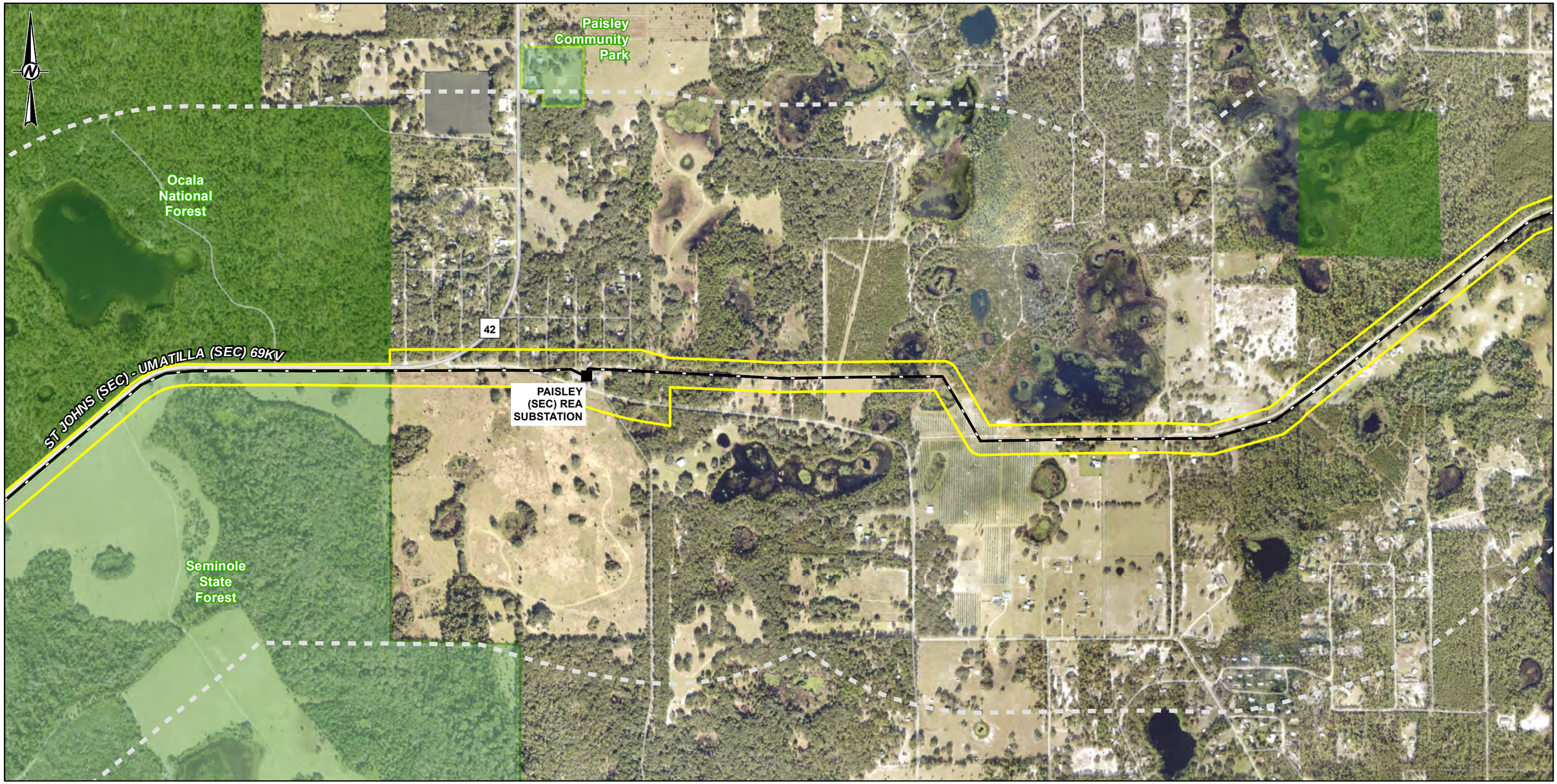
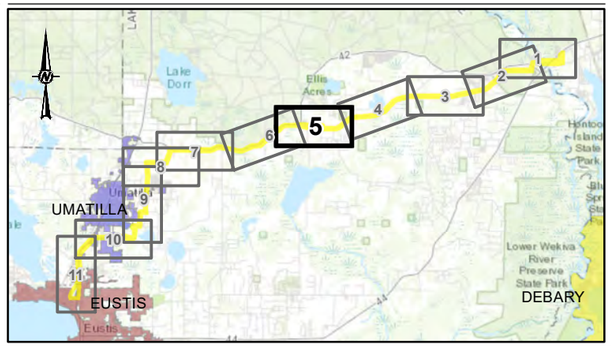



- Existing Substation
- Existing DEF Transmission Line
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands
- County Park




1,000 500 0 1,000 Feet

1:12,000

**NOTE(S)**

1. ALL LOCATIONS ARE APPROXIMATE

**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION - LARGE SCALE**

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (5 OF 11) |

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
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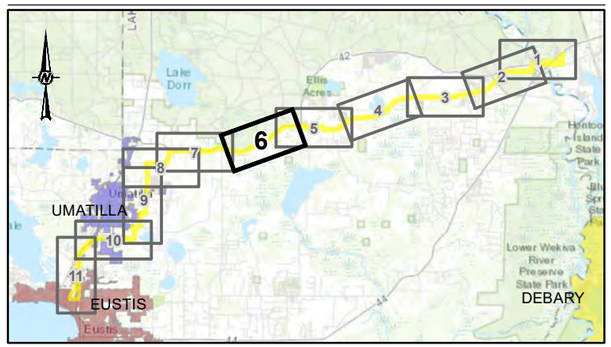
PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAIK - TLSA Application\map documents\31404342021K014.mxd PRINTED ON: 2025-08-15 AT: 3:04:22 PM

- Existing DEF Transmission Line
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands

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1:12,000

**NOTE(S)**

1. ALL LOCATIONS ARE APPROXIMATE

**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION - LARGE SCALE**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (6 OF 11) |

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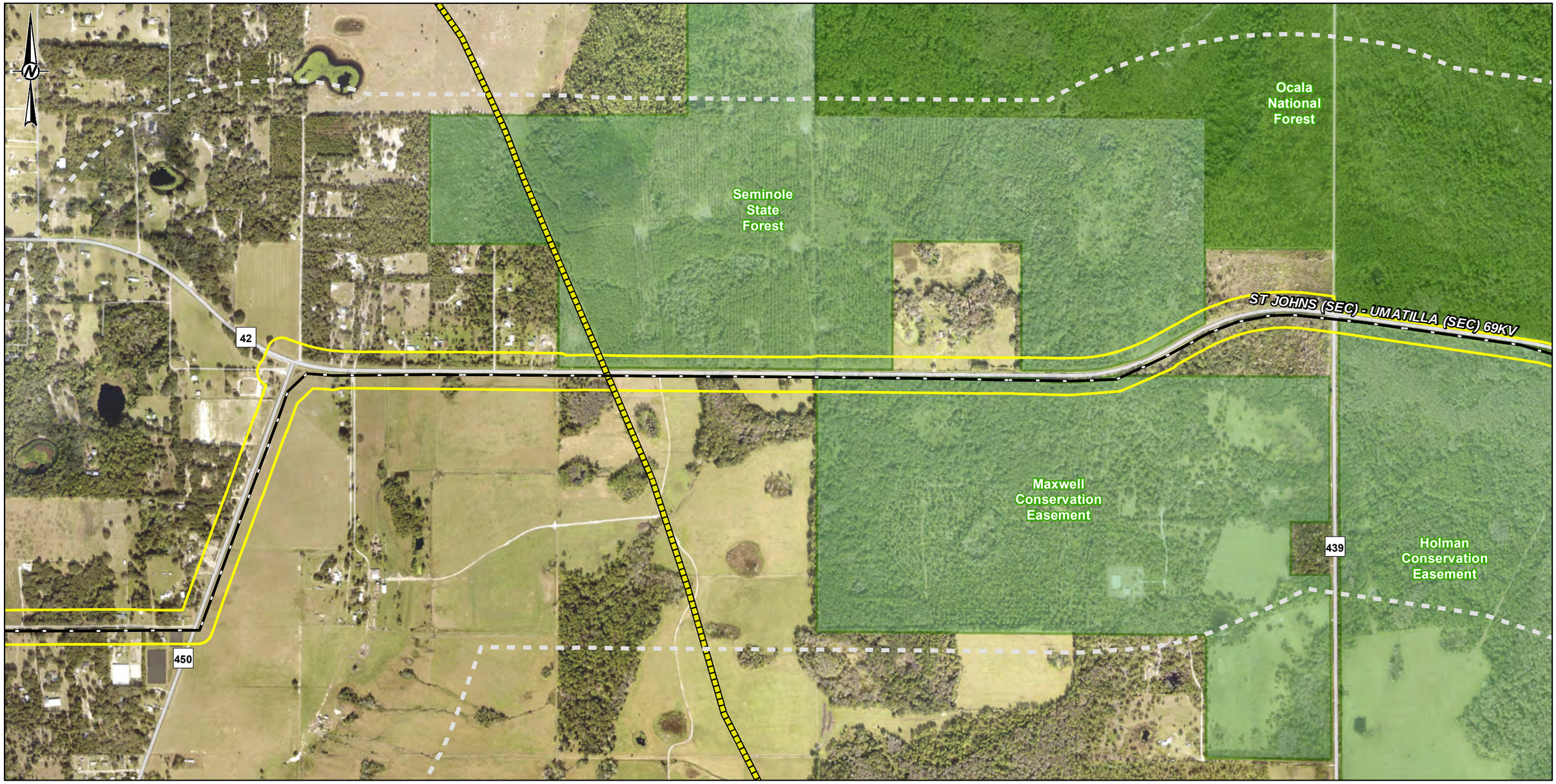
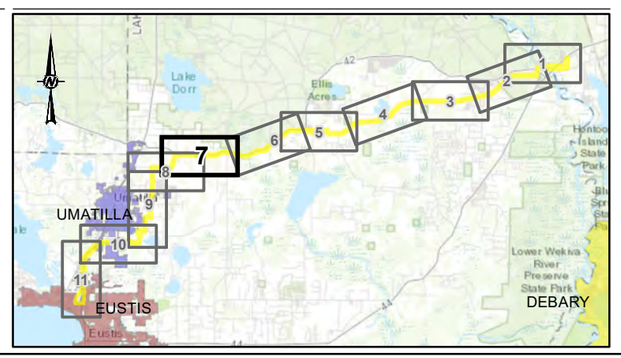
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B




- Existing DEF Transmission Line
- Natural Gas Pipeline
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands




1,000 500 0 1,000 Feet

1:12,000

**NOTE(S)**
1. ALL LOCATIONS ARE APPROXIMATE

**REFERENCE(S)**
1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION - LARGE SCALE**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (7 OF 11) |

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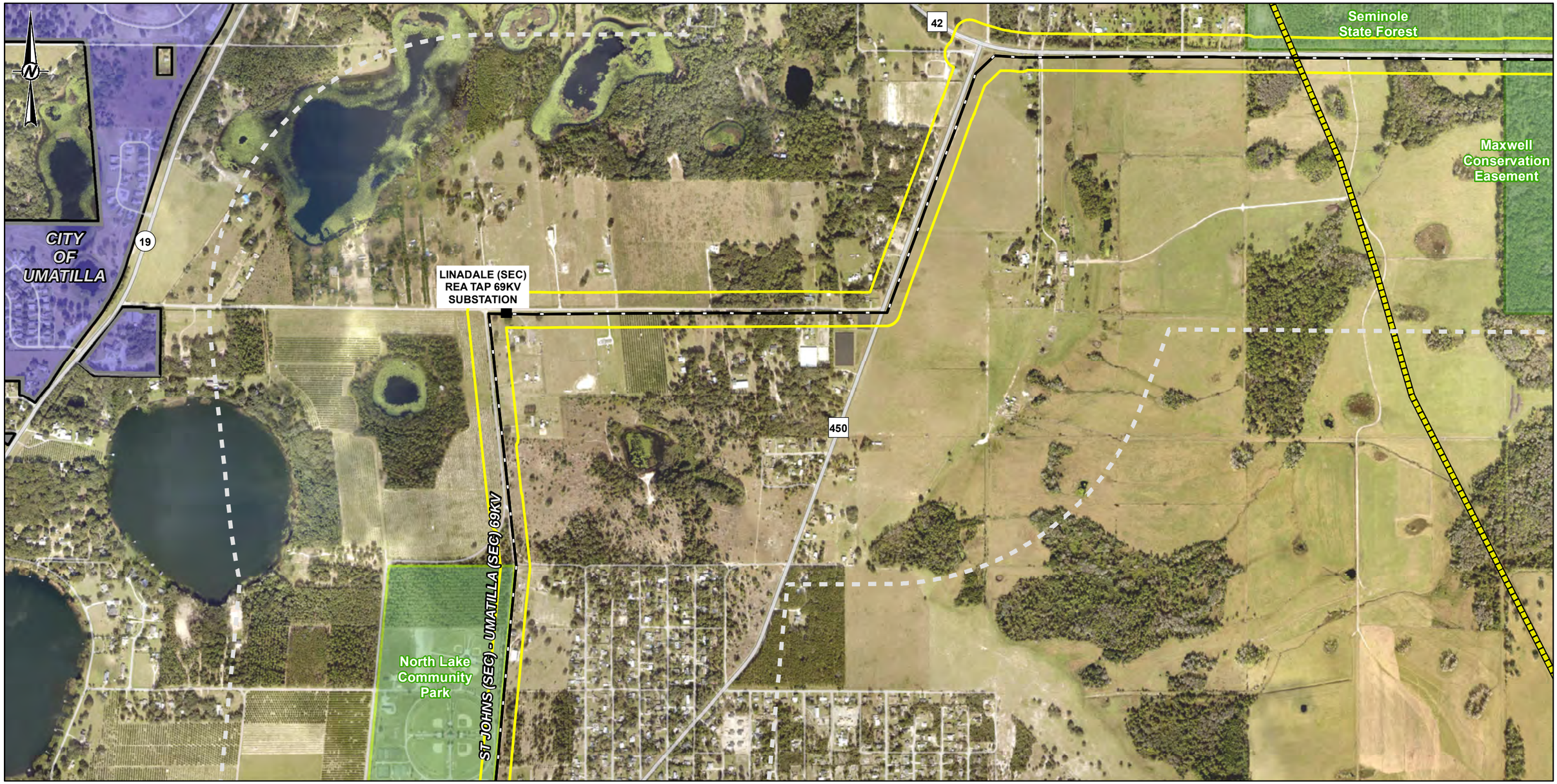
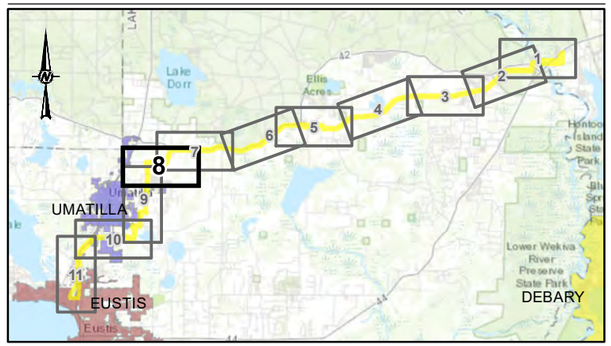



- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- Municipal Boundary
- City of Umatilla Extent
- County Boundary
- State, County, or Local Managed Lands
- County Park




1,000 500 0 1,000 Feet

1:12,000

**NOTE(S)**

1. ALL LOCATIONS ARE APPROXIMATE

**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION - LARGE SCALE**

DUKE ENERGY®

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|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (8 OF 11) |

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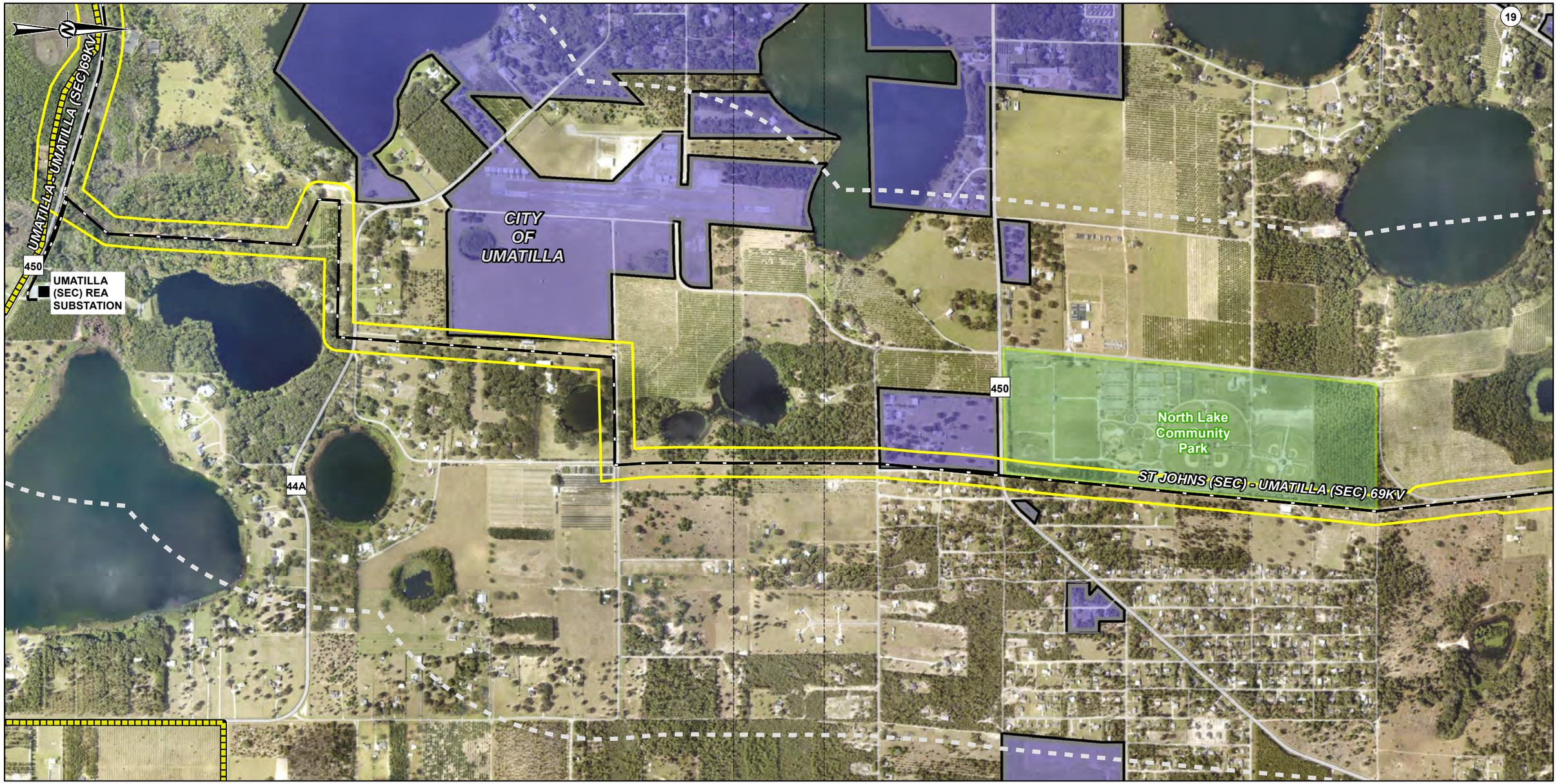
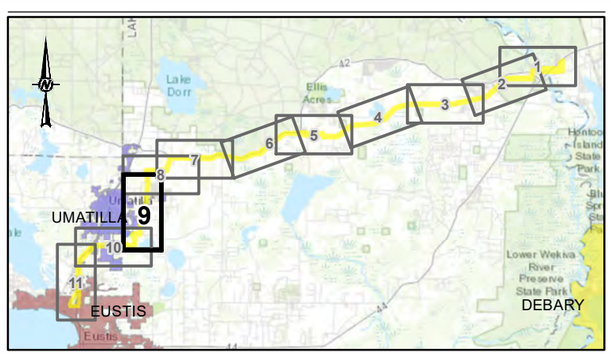



- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- Municipal Boundary
- City of Umatilla Extent
- County Boundary
- County Park




1,000 500 0 1,000 Feet

1:12,000

**NOTE(S)**

1. ALL LOCATIONS ARE APPROXIMATE

**REFERENCE(S)**

1. BASE IMAGERY: 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

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DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION - LARGE SCALE**

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|---|---|
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| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (9 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAVK - TLSA Application\map documents\31404342021K014.mxd PRINTED ON: 2025-08-15 AT: 3:04:52 PM

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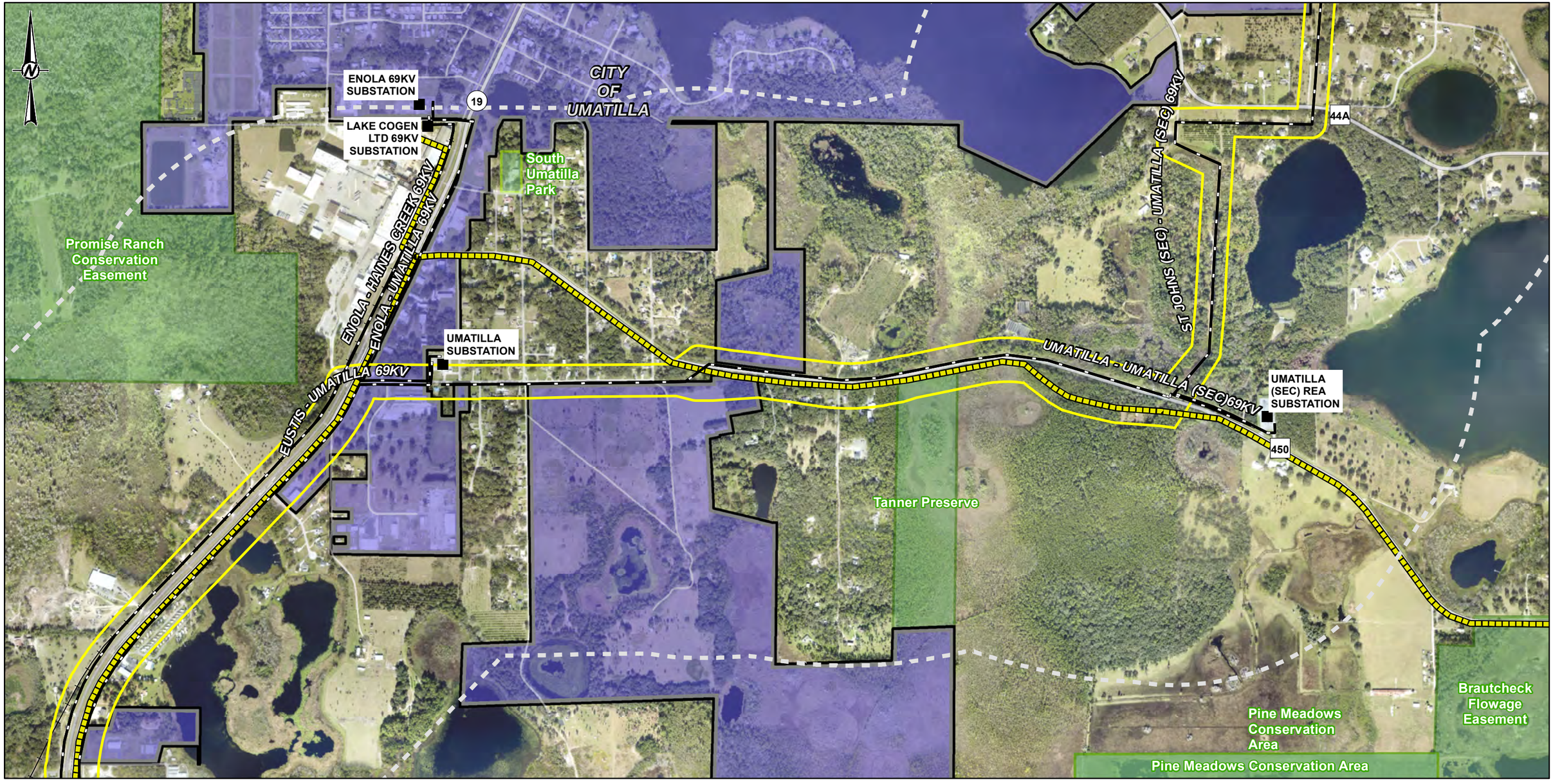
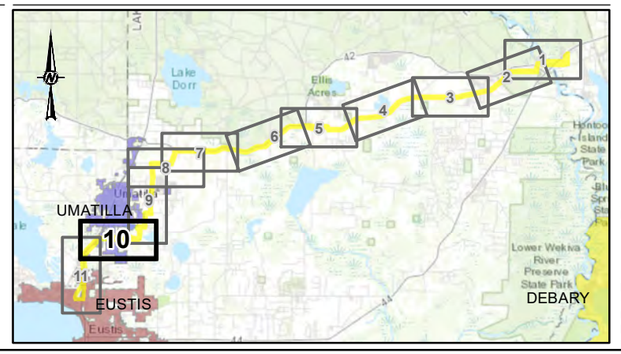



- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- Municipal Boundary
- City of Umatilla Extent
- County Boundary
- State, County, or Local Managed Lands
- County Park

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1:12,000

**NOTE(S)**

1. ALL LOCATIONS ARE APPROXIMATE

**REFERENCE(S)**

1. BASE IMAGERY: 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

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DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION - LARGE SCALE**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (10 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAVK - TLSA\Application\map documents\31404342021K014.mxd PRINTED ON: 2025-08-15 AT: 3:04:59 PM
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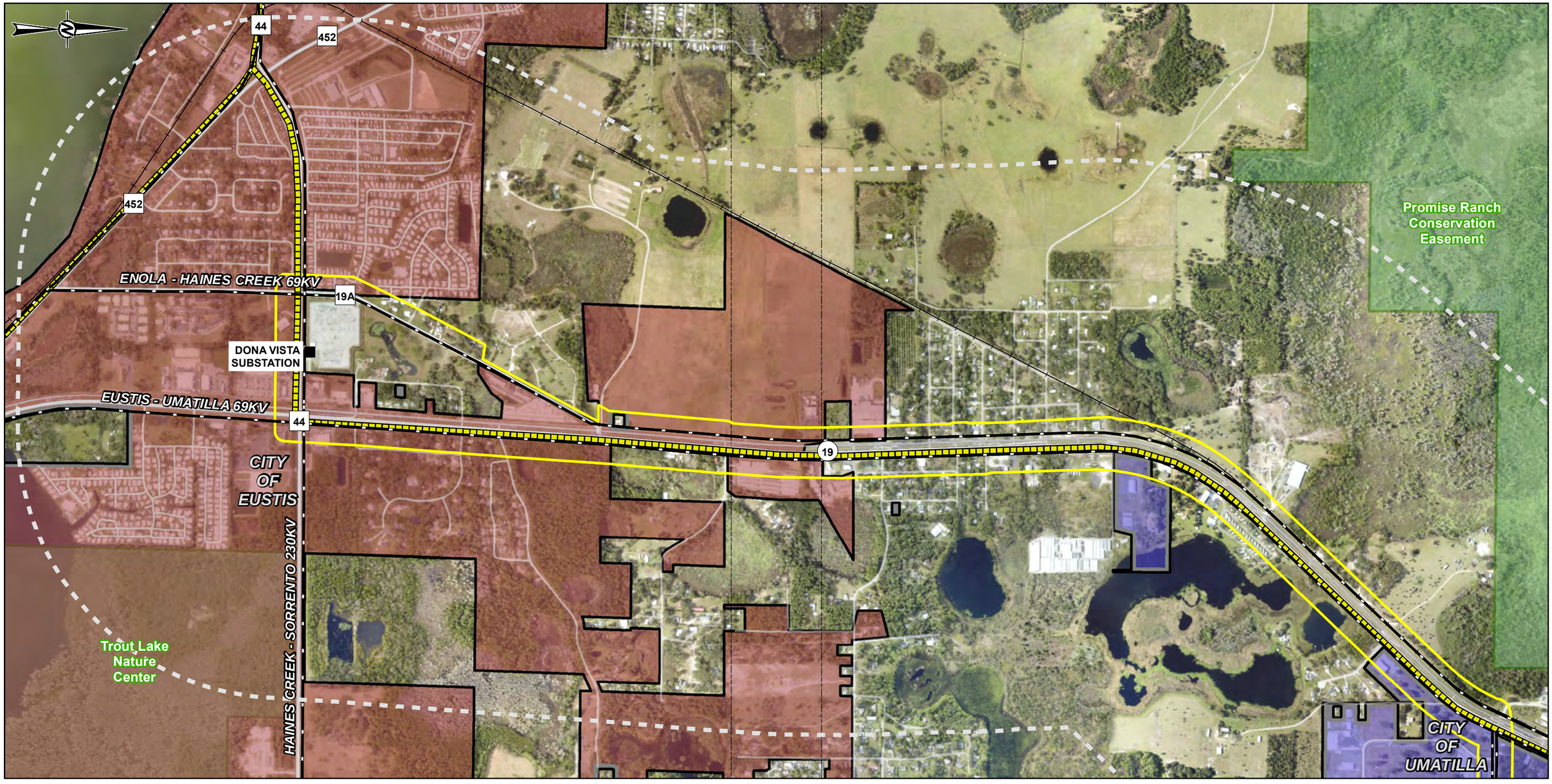
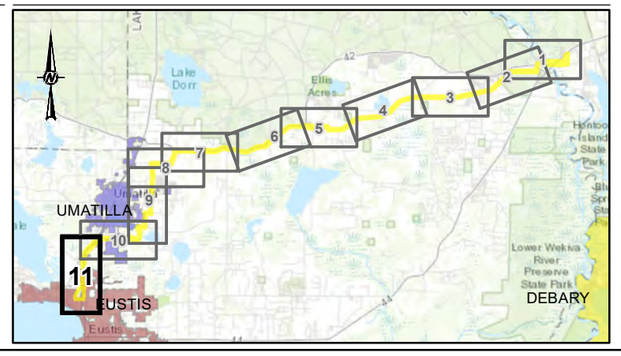



- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- DWDV Corridor
- Half-mile Buffer of DWDV Corridor
- Municipal Boundary
- City of Eustis Extent
- City of Umatilla Extent
- County Boundary
- State, County, or Local Managed Lands




1,000 500 0 1,000 Feet

1:12,000

**NOTE(S)**

1. ALL LOCATIONS ARE APPROXIMATE

**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**DWDV CORRIDOR LOCATION - LARGE SCALE**

DUKE ENERGY®

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|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K014 | 0 | 2-4 (11 OF 11) |

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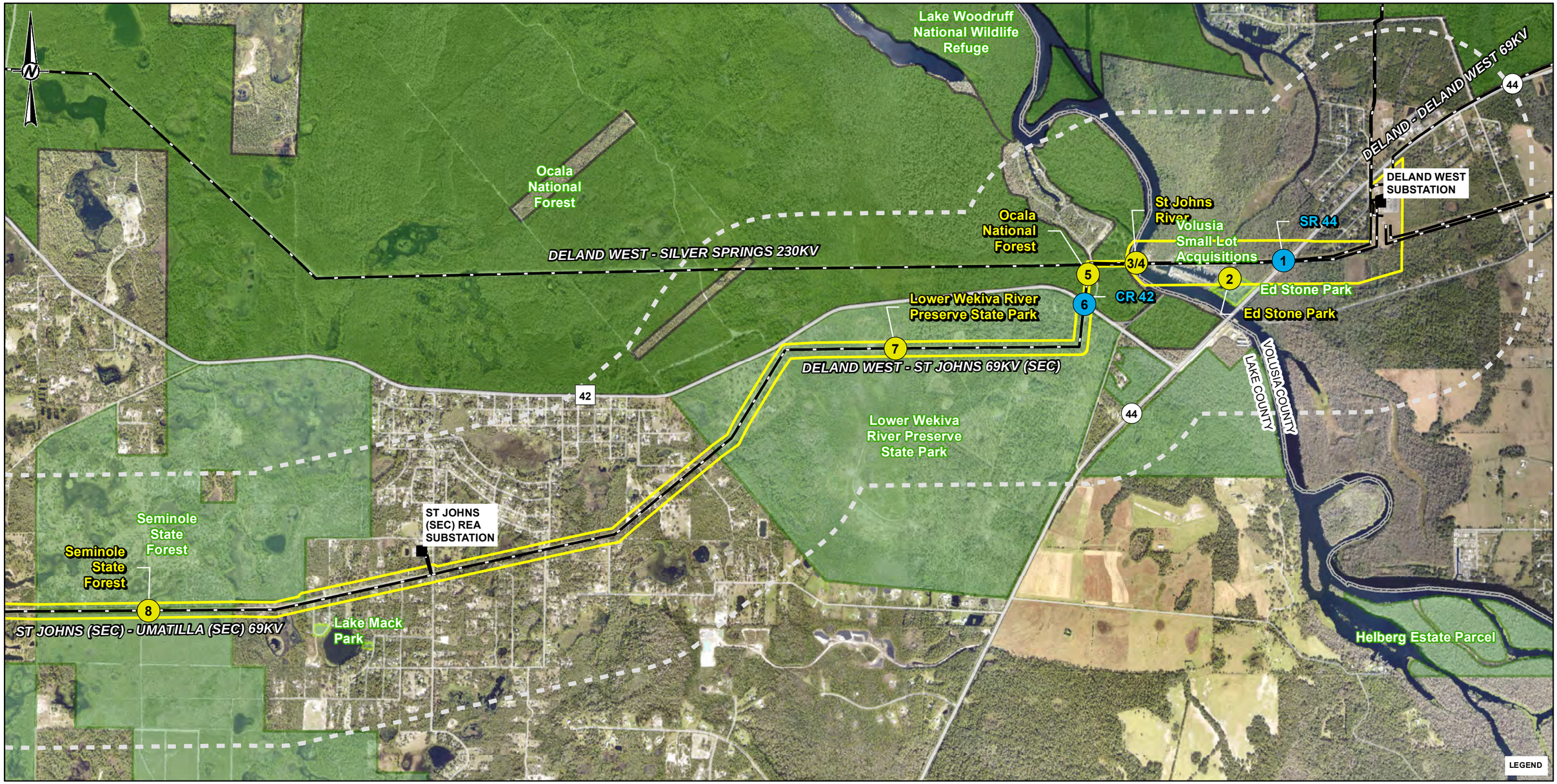
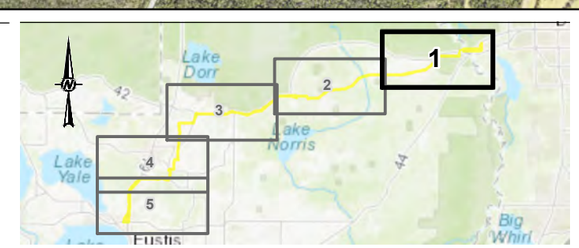



- Existing Substation
- Existing Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands
- County Park
- Governmental Jurisdiction
- Facility Crossing

2,000 1,000 0 2,000 Feet

1:24,000




**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**GOVERNMENTAL JURISDICTIONS**

DUKE ENERGY

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K002 | 0 | 2-5 (1 OF 5) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAIK - TLSA Application\map documents\31404342021K002.mxd PRINTED ON: 2025-08-15 AT: 3:15:59 PM
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

Ellis Acres Reserve

Ocala National Forest

Paisley Community Park

42

PAISLEY (SEC) REA SUBSTATION

ST JOHNS (SEC) - UMATILLA (SEC) 69KV

8

Seminole State Forest

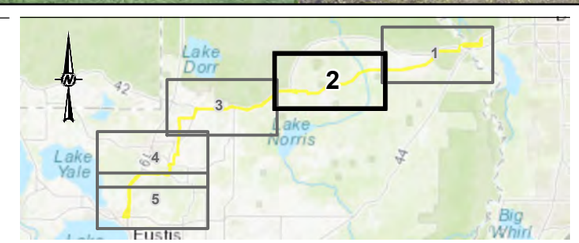
Seminole State Forest

Seminole State Forest

Lake Tracey

LEGEND

- Existing Substation
- Existing Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands
- County Park
- Governmental Jurisdiction

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**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**GOVERNMENTAL JURISDICTIONS**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K002 | 0 | 2-5 (2 OF 5) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25mm

Ocala National Forest

CITY OF UMATILLA

McTureous Memorial Park

19

42

CR 439

10

11

9

ST JOHNS (SEC) - UMATILLA (SEC) 69KV

12

CR 450

Maxwell Conservation Easement

Maxwell Conservation Easement

Holman Conservation Easement

Holman Conservation Easement

Seminole State Forest

LINADALE (SEC) REA TAP 69KV SUBSTATION

450

439

North Lake Community Park

North Lake Community Park

13

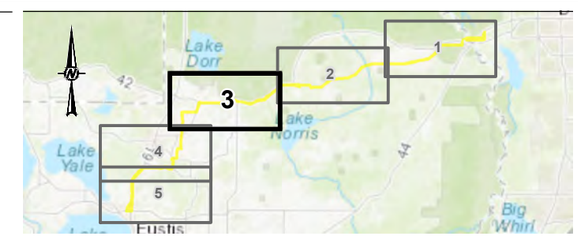
Lake Norris Conservation Area

LEGEND

- Existing Substation
- Existing Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary
- City of Umatilla Extent
- County Boundary
- Federal Managed Lands
- State, County, or Local Managed Lands
- County Park
- Governmental Jurisdiction
- Facility Crossing

2,000 1,000 0 2,000 Feet

1:24,000




REFERENCE(S)

1. BASE IMAGERY: 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

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PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**GOVERNMENTAL JURISDICTIONS**

DUKE ENERGY®

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| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
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| 31404342021 | 31404342021K002 | 0 | 2-5 (3 OF 5) |

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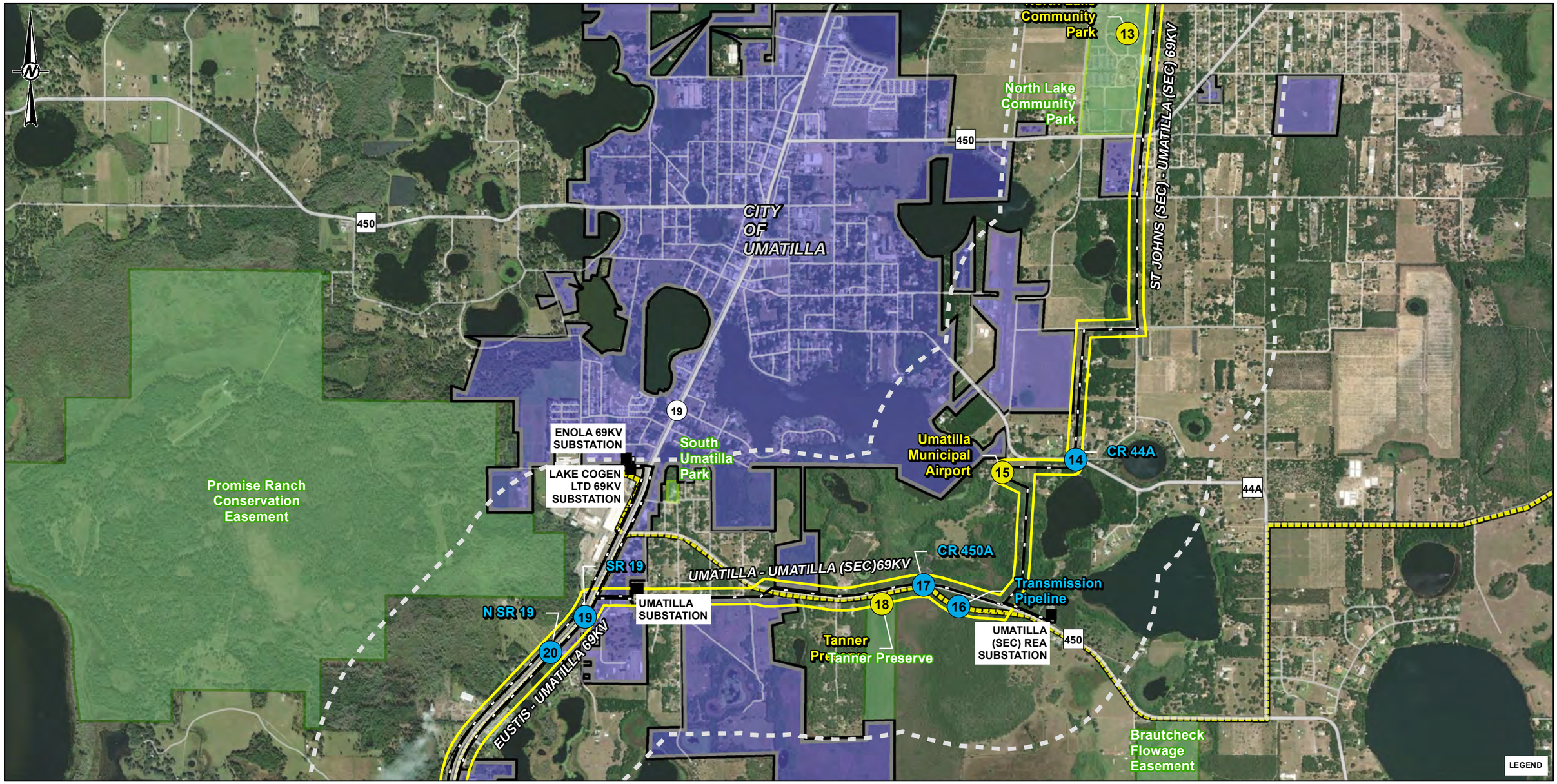
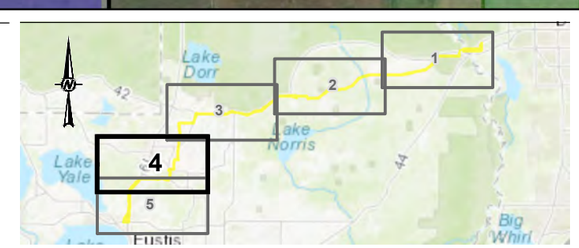



- Existing Substation
- Existing Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary
- City of Umatilla Extent
- County Boundary
- State, County, or Local Managed Lands
- County Park
- Governmental Jurisdiction
- Facility Crossing

2,000 1,000 0 2,000 Feet

1:24,000




**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**GOVERNMENTAL JURISDICTIONS**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K002 | 0 | 2-5 (4 OF 5) |

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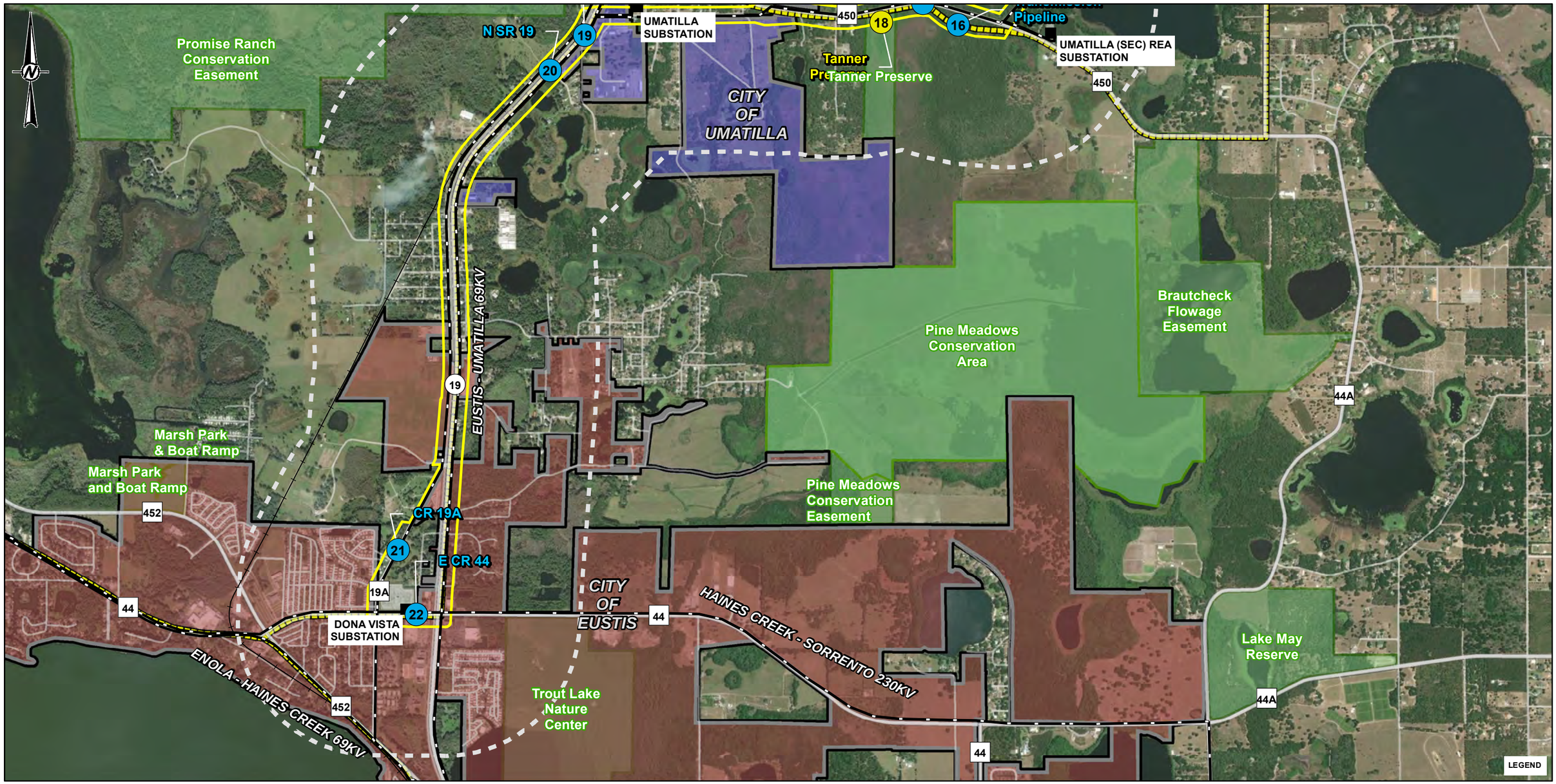
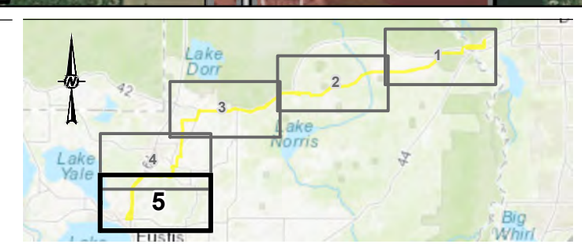
25mm




- Existing Substation
- Existing Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary
- City of Eustis Extent
- City of Umatilla Extent
- County Boundary
- State, County, or Local Managed Lands
- County Park
- Governmental Jurisdiction
- Facility Crossing




2,000 1,000 0 2,000 Feet

1:24,000

REFERENCE(S)

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**GOVERNMENTAL JURISDICTIONS**

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K002 | 0 | 2-5 (5 OF 5) |

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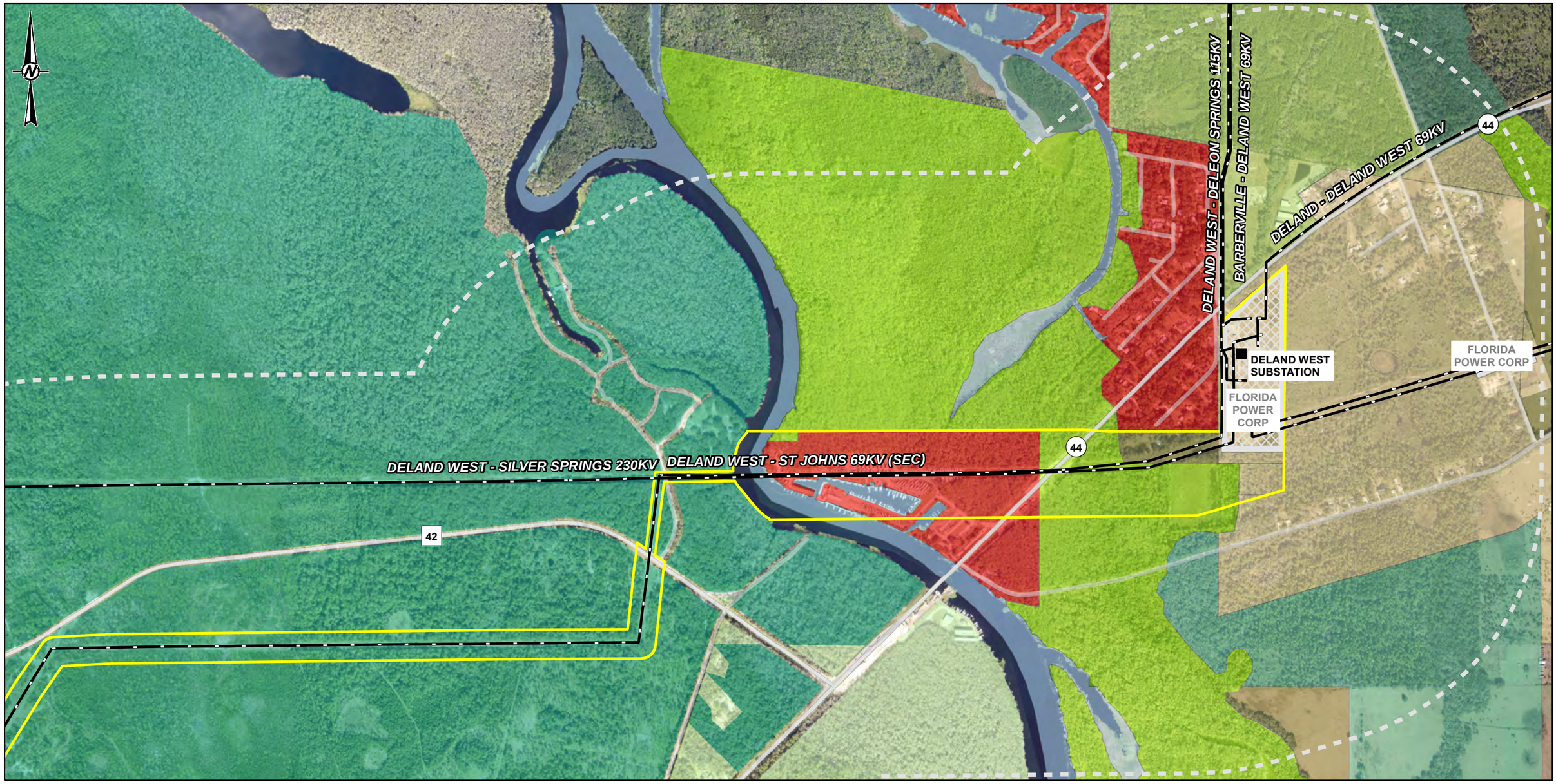


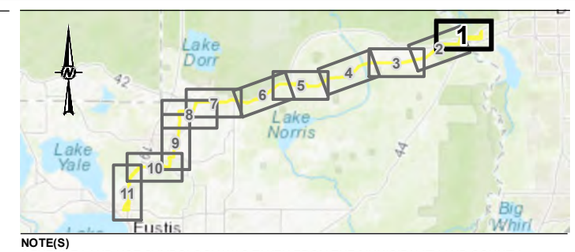

- Existing Substation
- Existing Transmission Line
- DEF Parcel (owned in fee)
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor

**Volusia County FLU**
- Agriculture Resource
- Conservation
- Environmental Systems Corridor
- Low Impact Urban
- Rural
- Rural Recreation
- Urban Low Intensity
- Water

**Lake County FLU**
- Conservation
- Rural

1,000 500 0 1,000 Feet

1:12,000




**NOTE(S)**
1.FUTURE LAND USE SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

**REFERENCE(S)**
1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (1 OF 11) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

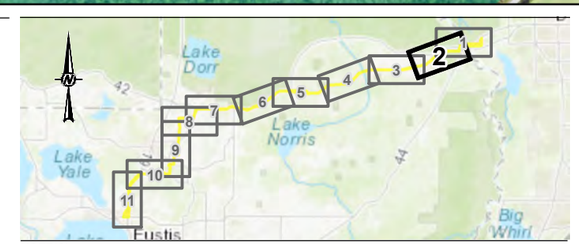
Existing Transmission Line
Half-mile Buffer of DWDV Corridor
DWDV Corridor

**Volusia County FLU**
- Environmental Systems Corridor
- Rural Recreation
- Water

**Lake County FLU**
- Conservation
- Rural

1,000 500 0 1,000 Feet

1:12,000




**NOTE(S)**
1.FUTURE LAND USE SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

**REFERENCE(S)**
1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

DUKE ENERGY

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (2 OF 11) |

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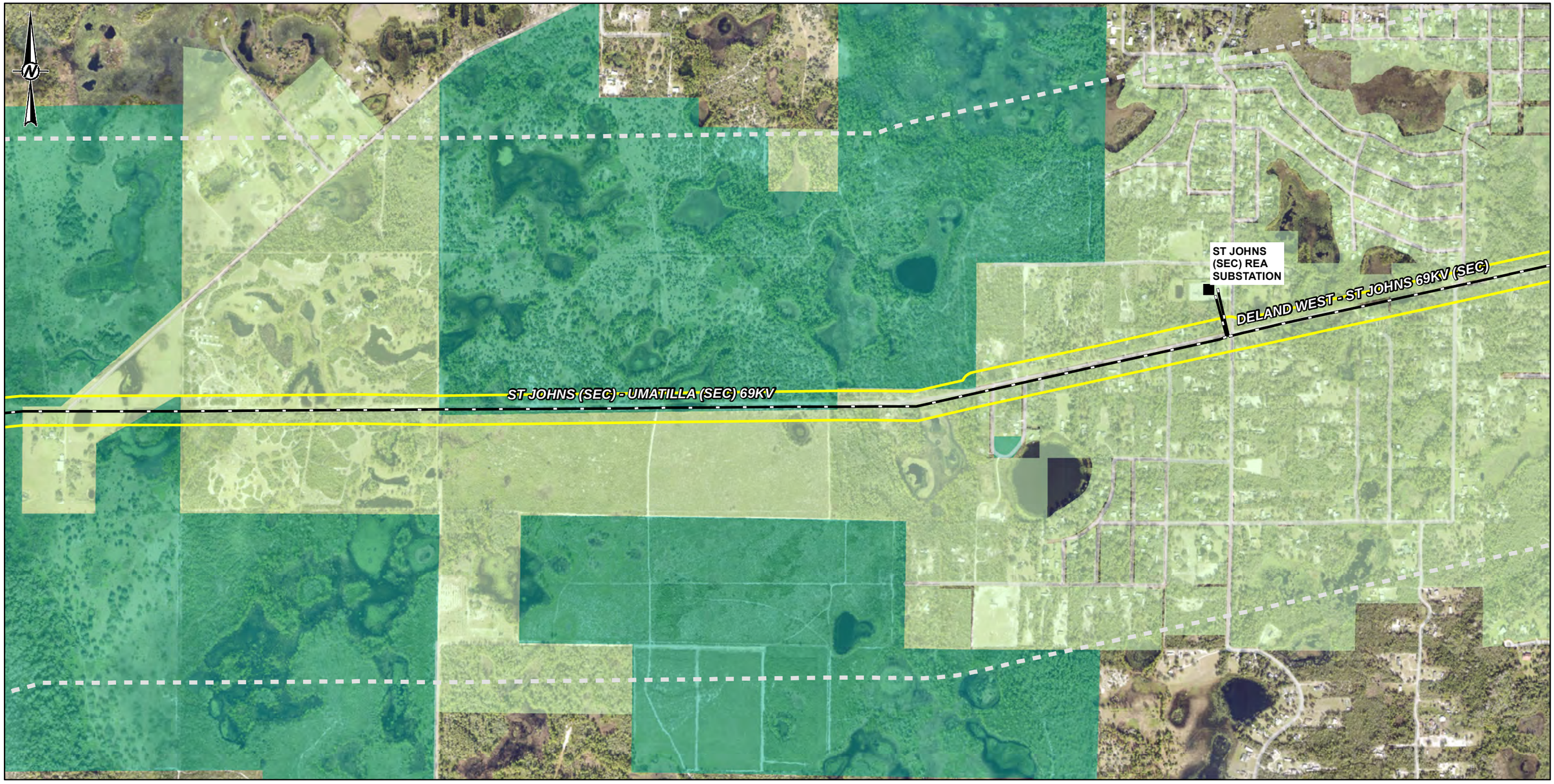
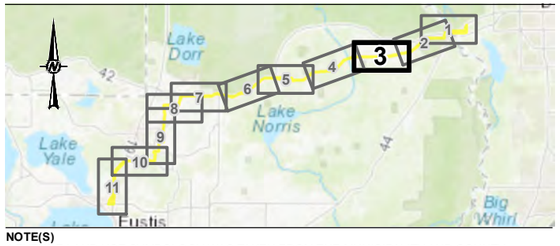



Existing Substation
Existing Transmission Line
Half-mile Buffer of DWDV Corridor
DWDV Corridor

**Lake County FLU**
Conservation
Rural

1,000 500 0 1,000 Feet
1:12,000




**NOTE(S)**
1.FUTURE LAND USE SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

**REFERENCE(S)**
1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (3 OF 11) |

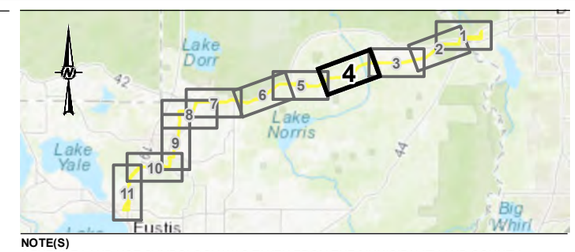
PATH: N:\File\2022\31404342021_Duke_DVDV_TLSA\K - TLSA Application\map documents\31404342021K006.mxd PRINTED ON: 2025-08-15 AT: 3:18:22 PM
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm

Existing Transmission Line
Half-mile Buffer of DWDV Corridor
DWDV Corridor

**Lake County FLU**
Conservation
Rural

1,000 500 0 1,000 Feet

1:12,000




**NOTE(S)**
1.FUTURE LAND USE SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

**REFERENCE(S)**
1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (4 OF 11) |

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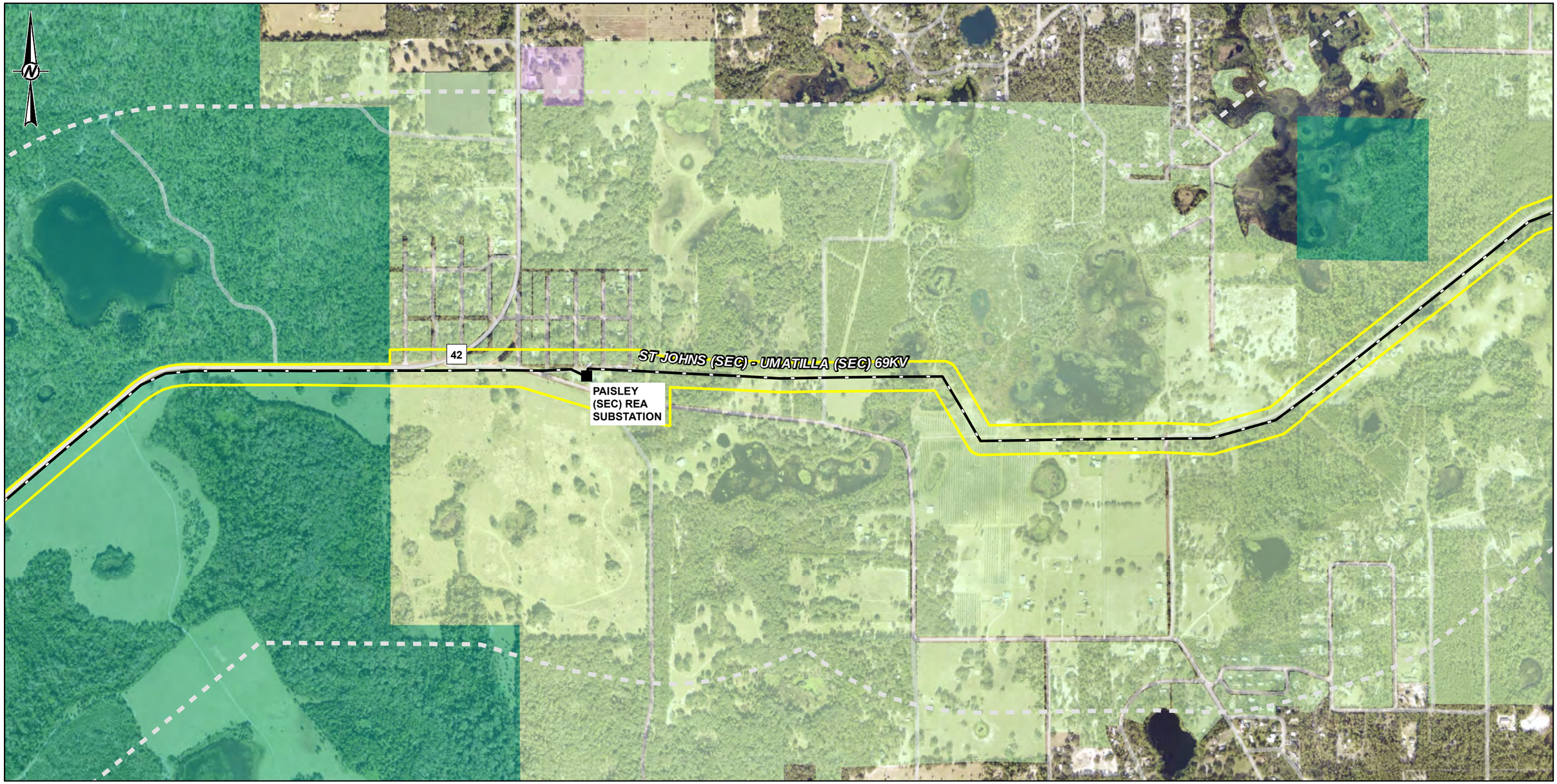


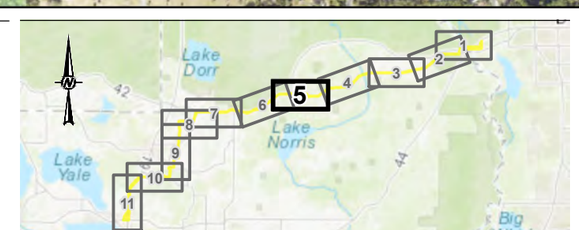

- Existing Substation
- Existing Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor

**Lake County FLU**

- Conservation
- Public Service Facility & Infrastructure
- Rural

1,000 500 0 1,000 Feet

1:12,000




**NOTE(S)**

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**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

DUKE ENERGY

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (5 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSA\K_Application\map documents\31404342021K006.mxd PRINTED ON: 2025-08-15 AT: 3:18:41 PM

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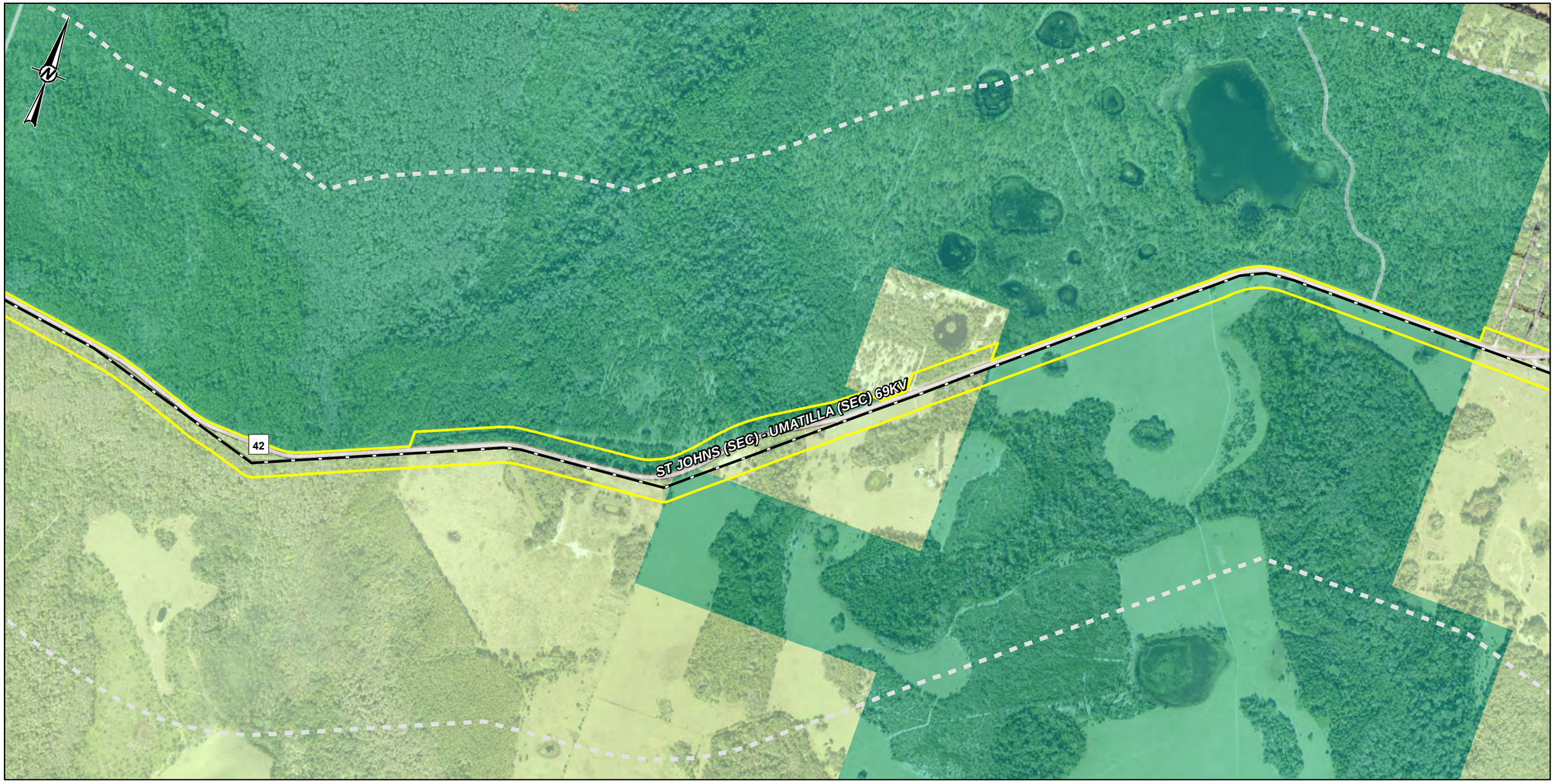



Existing Transmission Line

Half-mile Buffer of DWDV Corridor

DWDV Corridor

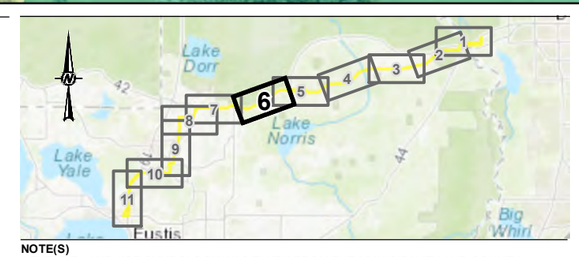
**Lake County FLU**

Conservation

Rural

1,000 500 0 1,000 Feet

1:12,000




**NOTE(S)**

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**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (6 OF 11) |

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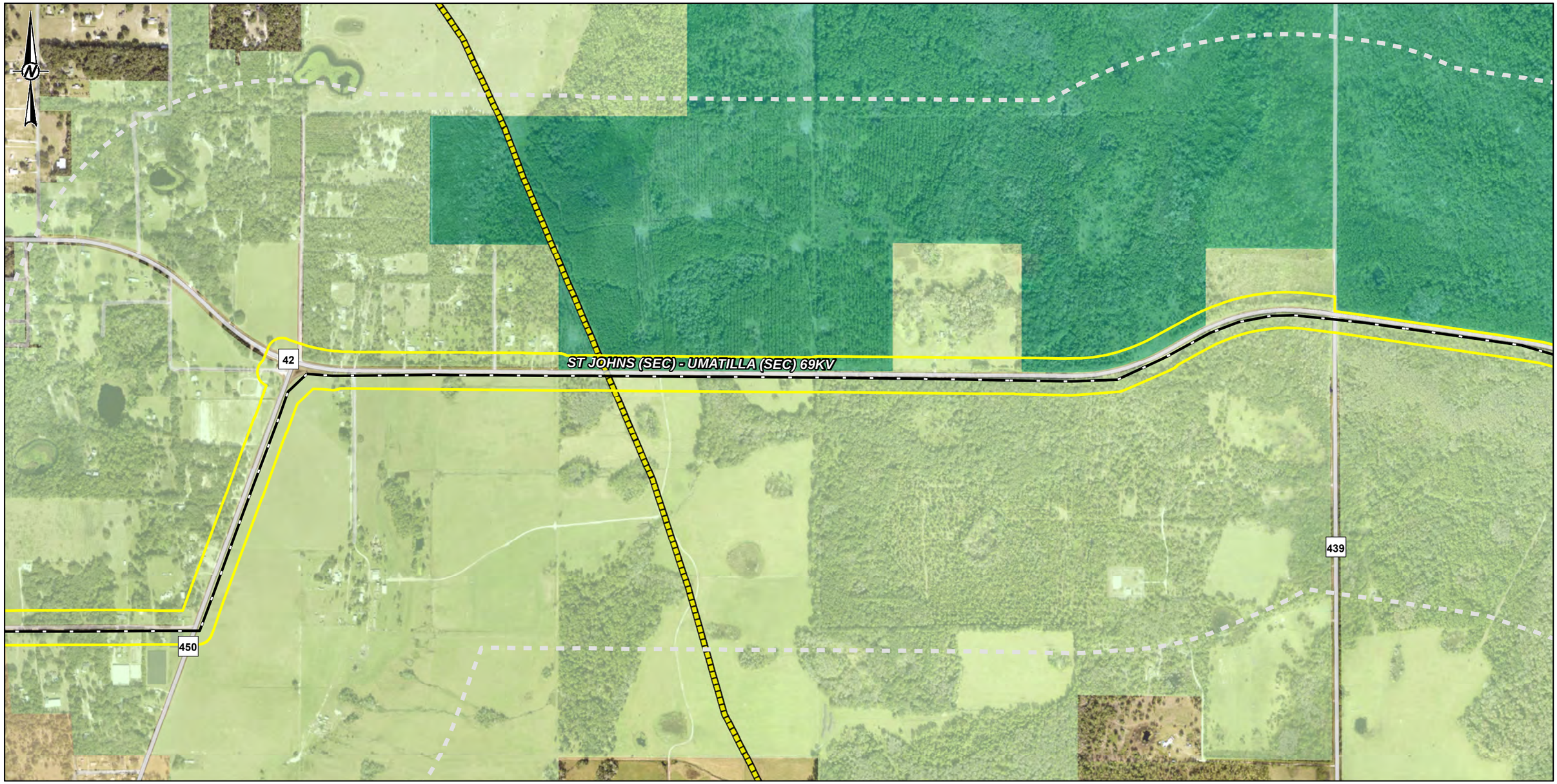
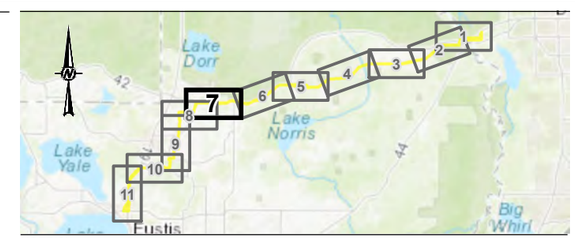



Existing Transmission Line
Natural Gas Pipeline
Half-mile Buffer of DWDV Corridor
DWDV Corridor

**Lake County FLU**
Conservation
Rural
Rural Transition

1,000 500 0 1,000 Feet
1:12,000




**NOTE(S)**
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**REFERENCE(S)**
1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (7 OF 11) |

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25mm
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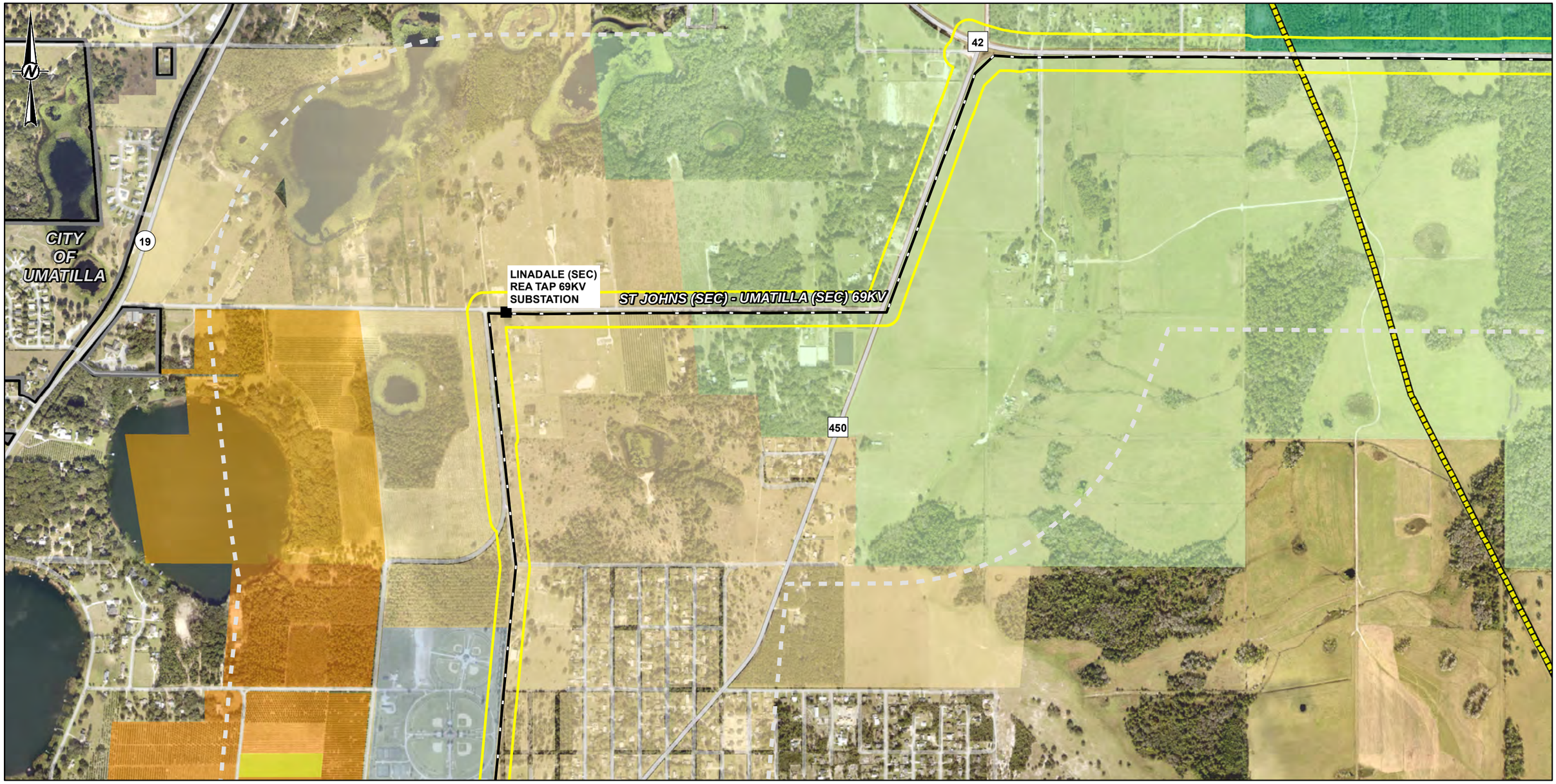


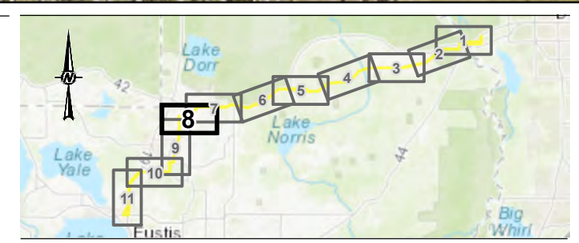

- Existing Substation
- Existing Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

**Lake County FLU**
- Conservation
- Recreation
- Rural
- Rural Transition
- Urban Low
- Urban Medium

**City of Umatilla FLU**
- Residential Single Family Low Density
- Residential Single Family Medium Density
- Transportation

1,000 500 0 1,000 Feet

1:12,000




**NOTE(S)**
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**REFERENCE(S)**
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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (8 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDV_TLSA\K - TLSA Application\map documents\31404342021K006.mxd PRINTED ON: 2025-08-15 AT: 3:19:02 PM

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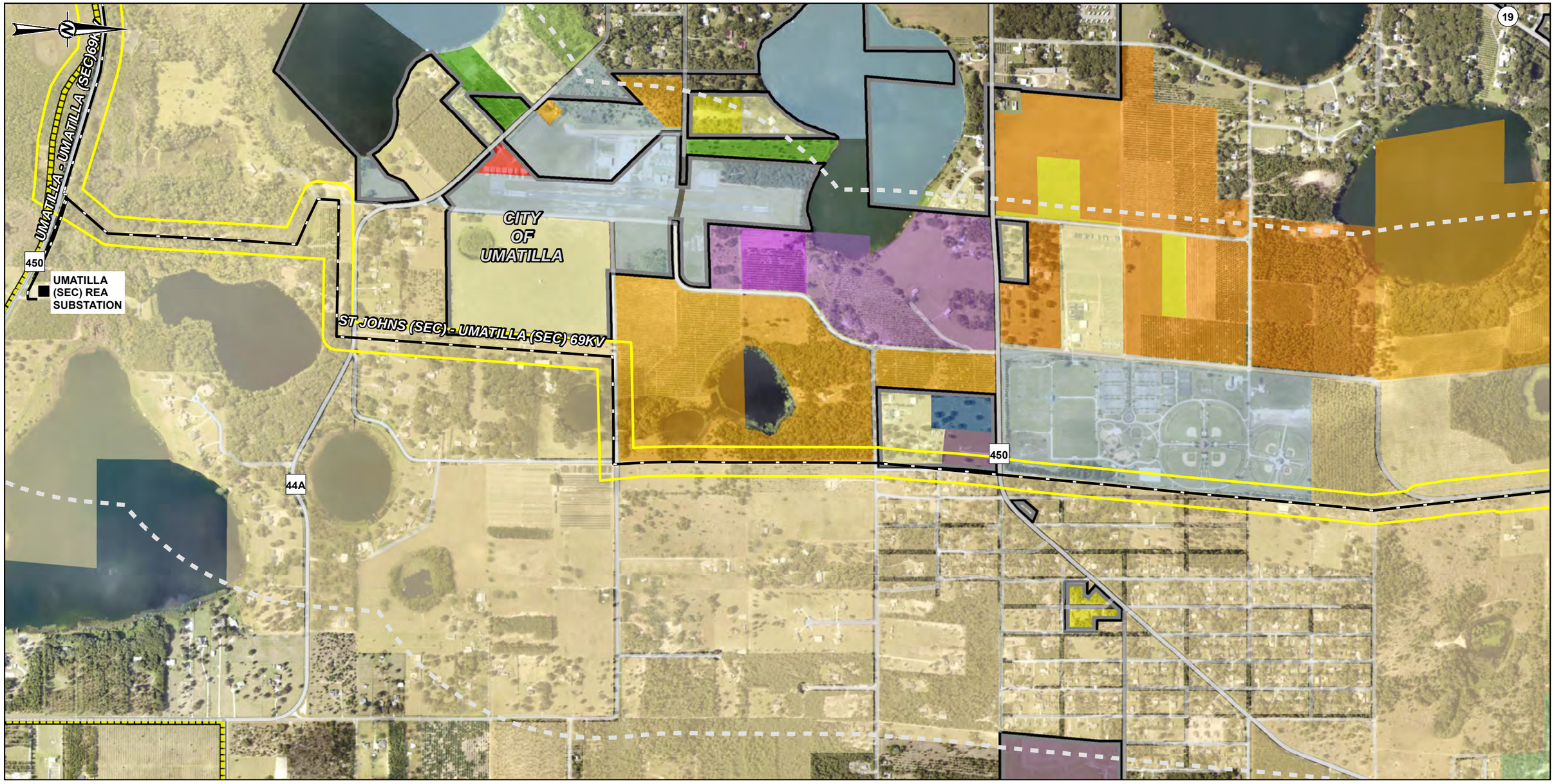


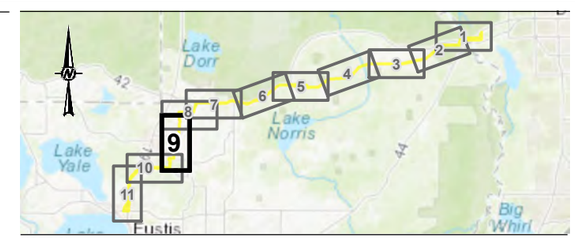

- Existing Substation
- Existing Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

**Lake County FLU**
- Industrial
- Recreation
- Rural
- Rural Transition
- Urban Low
- Urban Medium

**City of Umatilla FLU**
- Agricultural
- Commercial General
- Commercial Wholesale
- Conservation
- Industrial
- Institutional
- Lake
- Residential Single Family Low Density
- Residential Single Family Medium Density
- Transportation
- Transportation Aviation
- Utility

1,000 500 0 1,000 Feet

1:12,000




**NOTE(S)**
1.FUTURE LAND USE SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

**REFERENCE(S)**
1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (9 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAIX - TLSA Application\map documents\31404342021K006.mxd PRINTED ON: 2025-08-15 AT: 3:19:09 PM
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25mm
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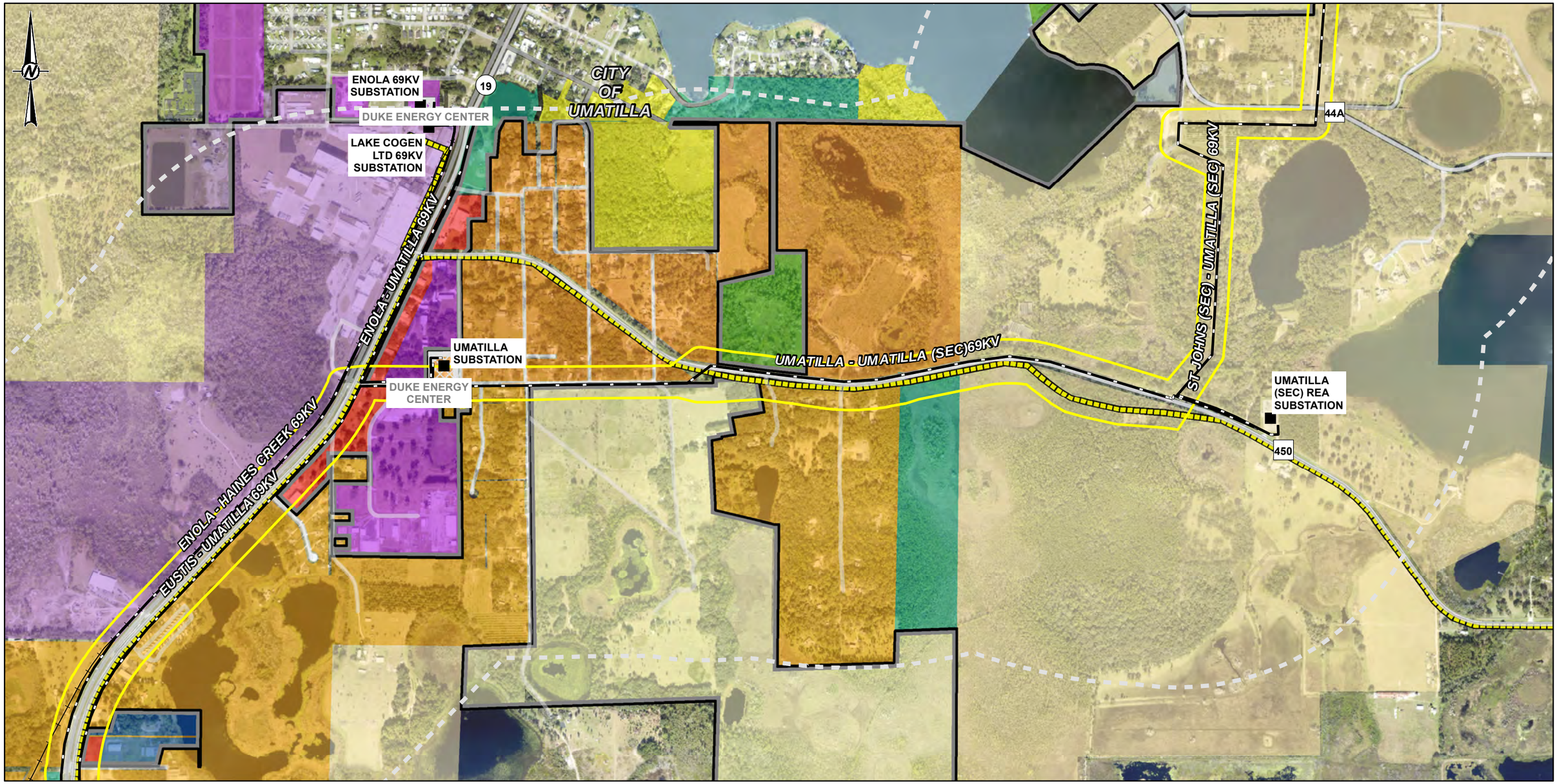


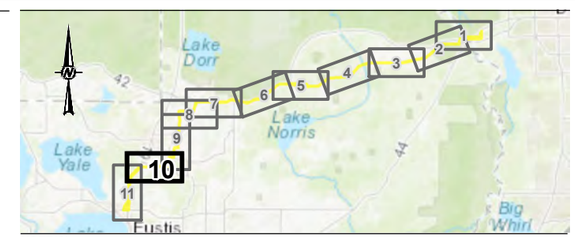

- Existing Substation
- Existing Transmission Line
- Natural Gas Pipeline
- DEF Parcel (owned in fee)
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

**Lake County FLU**
- Conservation
- Industrial
- Rural Transition
- Urban Low
- Urban Medium

**City of Umatilla FLU**
- Agricultural
- Commercial General
- Industrial
- Institutional
- Lake
- Recreational
- Residential Single Family Low Density
- Residential Single Family Medium Density
- Transportation
- Transportation Aviation
- Utility

1,000 500 0 1,000 Feet

1:12,000

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**REFERENCE(S)**
1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (10 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW - TLSAK - TLSA Application\map documents\31404342021K006.mxd PRINTED ON: 2025-08-15 AT: 3:19:15 PM
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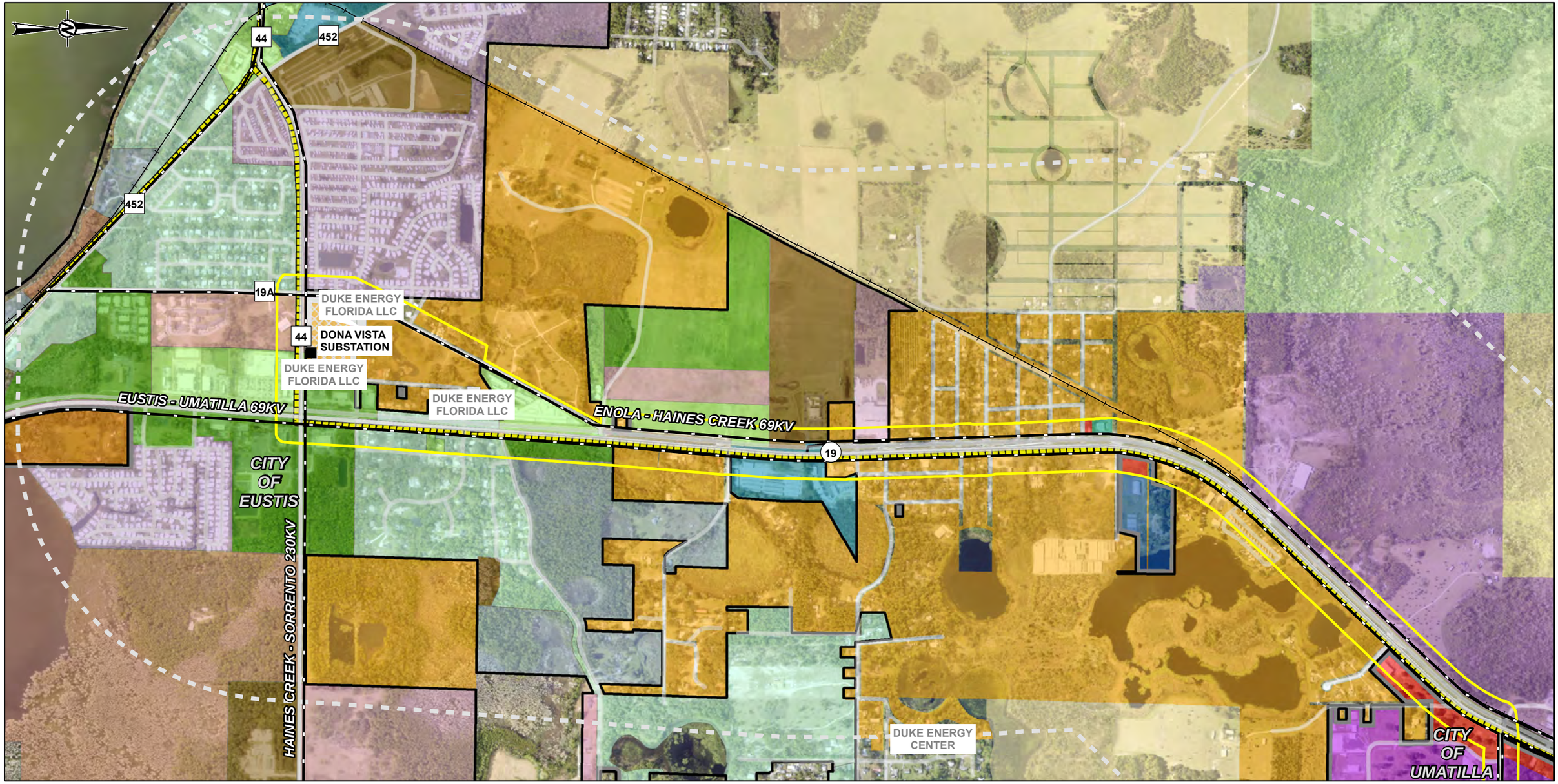



- Existing Substation
- Existing Transmission Line
- Natural Gas Pipeline
- DEF Parcel (owned in fee)
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

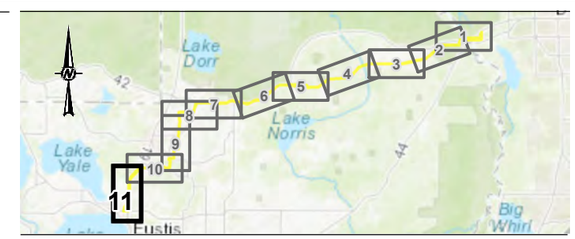
**Lake County FLU**
- Conservation
- Industrial
- Public Service Facility & Infrastructure
- Rural
- Rural Transition
- Urban Low
- Urban Medium

**City of Umatilla FLU**
- Commercial General
- Industrial
- Institutional
- Transportation

**City of Eustis FLU**
- Agriculture District
- Conservation
- General Commercial
- General Industrial
- Mixed Commercial / Industrial
- Mixed Commercial / Residential
- Mobile Home / RV
- Public / Institutional
- Rural Residential
- Suburban Residential
- Urban Residential

1,000 500 0 1,000 Feet

1:12,000




**NOTE(S)**
1.FUTURE LAND USE SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**FUTURE LAND USE ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K006 | 0 | 2-6A (11 OF 11) |

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25mm
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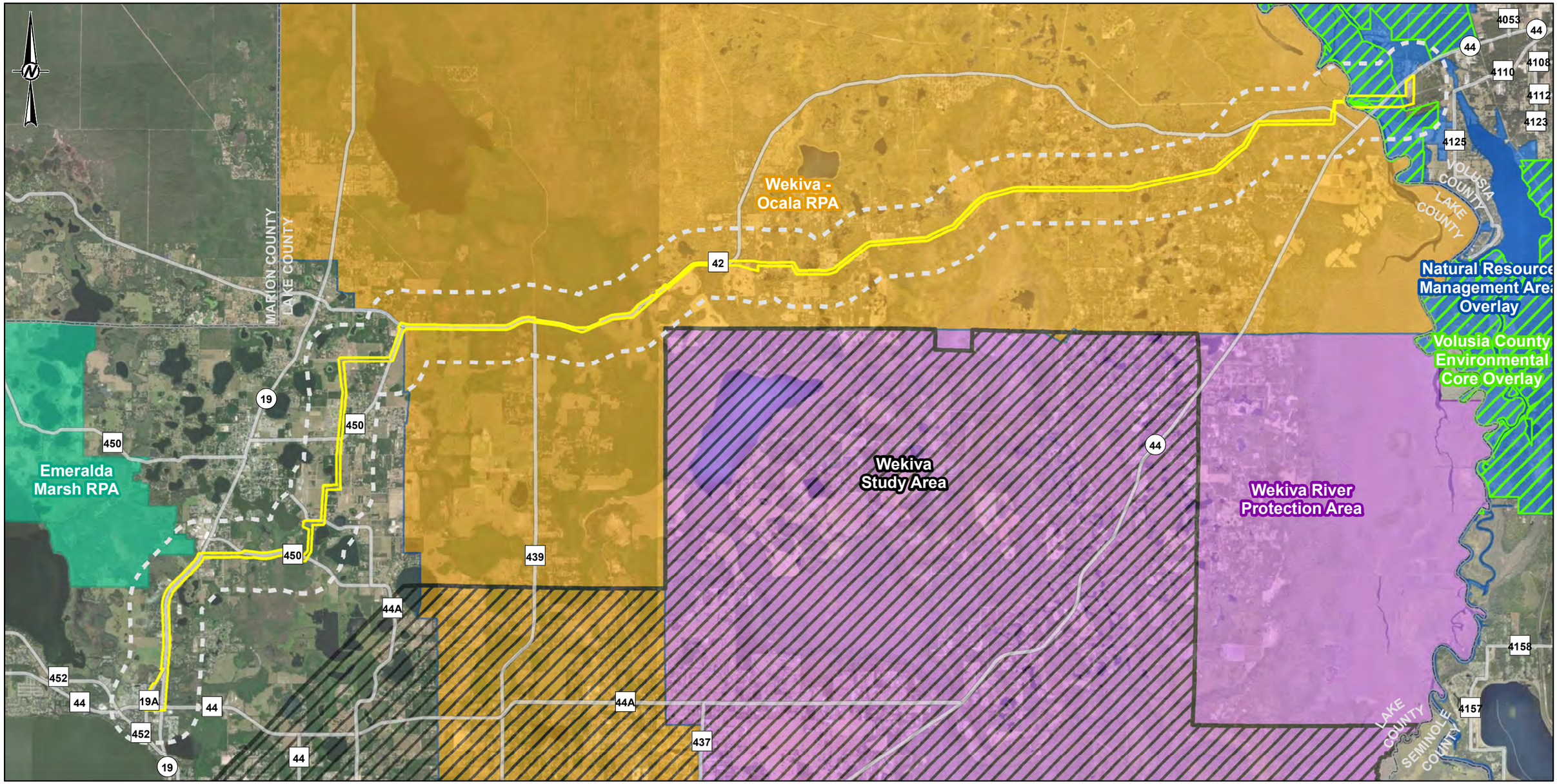


Half-mile Buffer of DWDV Corridor

DWDV Corridor

Volusia County Natural Resource Management Area Overlay

Volusia County Environmental Core Overlay

Wekiva Study Area

Wekiva - Ocala Rural Protection Area

Wekiva River Protection Area

Emeralda Marsh Rural Protection Area

1.5 0.75 0 1.5 Miles

1:95,040

**NOTE(S)**

1. RPA - RURAL PROTECTION AREA. A SPECIFICALLY DESIGNATED AREA ON THE LAKE COUNTY FUTURE LAND USE MAP AS AREAS WHERE THE LAND USE IS INTENDED TO REMAIN RURAL.

**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**COMPREHENSIVE PLAN OVERLAYS ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K024 | 0 | 2-6B |

PATH: N:\File\2022\31404342021_Duke_DVDV_TLSA\K - TLSA Application\map documents\31404342021K024.mxd PRINTED ON: 2025-08-15 AT: 3:20:47 PM
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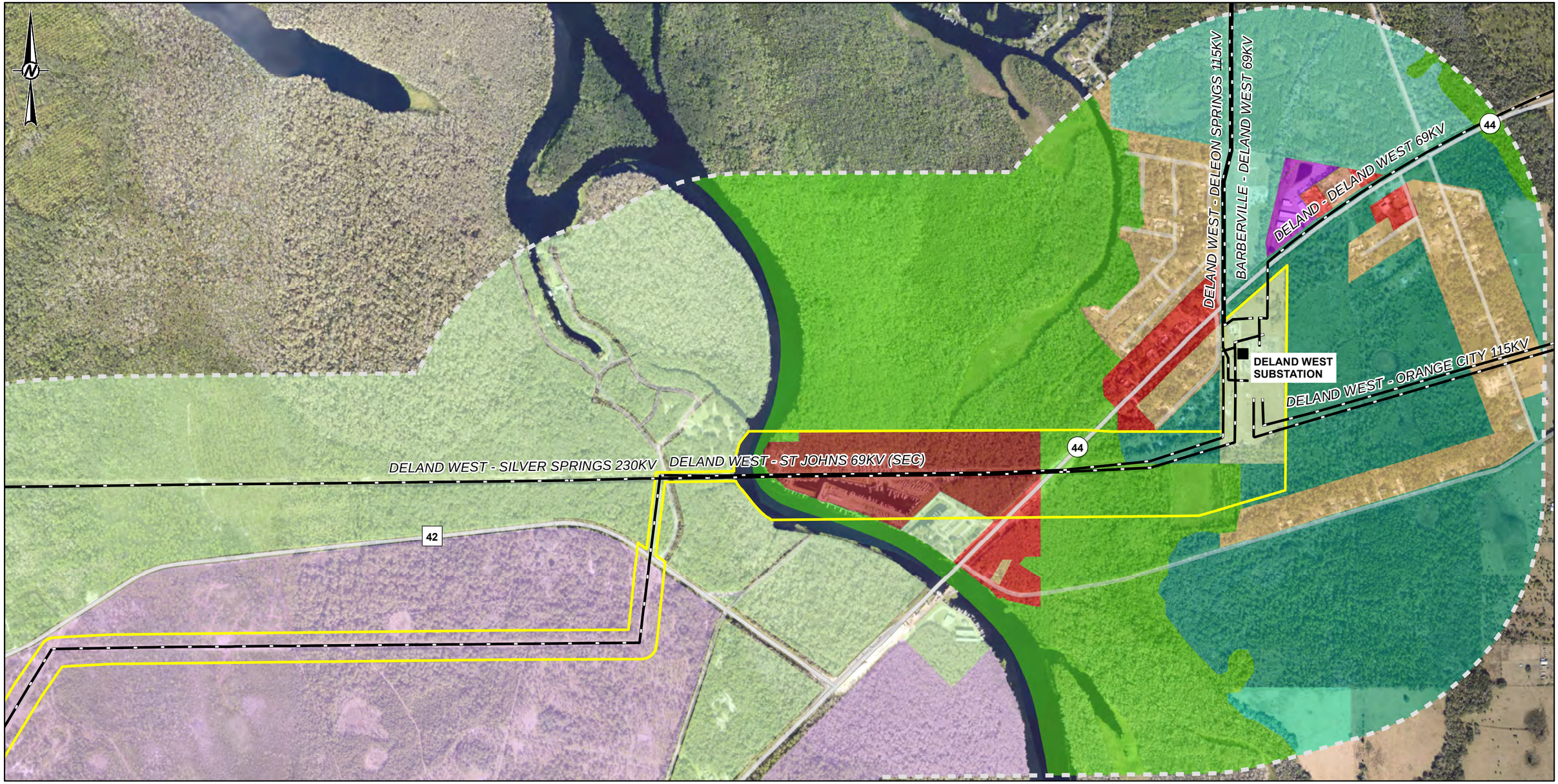
25mm
0



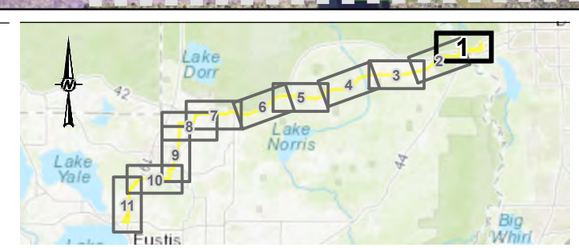

- Existing Substation
- Existing DEF Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor

**Volusia County Zoning**
- Prime Agriculture
- Rural Agriculture
- Transitional Agriculture
- General Commercial
- Commercial Marina
- Neighborhood Commercial
- Planned Unit Development
- Public
- Resource Corridor
- Rural Residential
- Urban Single-Family

**Lake County Zoning**
- Agriculture
- Planned Unit Development

NOTE(S)
1. ZONING SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS
2. CITY OF EUSTIS DOES NOT HAVE ZONING DISTRICTS. LAND USE ACTIVITIESARE REGULATED IN ACCORDANCE WITH THEIR FUTURE LAND USE DESIGNATIONS.

1,000 500 0 1,000 Feet 1:12,000




REFERENCE(S)
1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (1 OF 11) |

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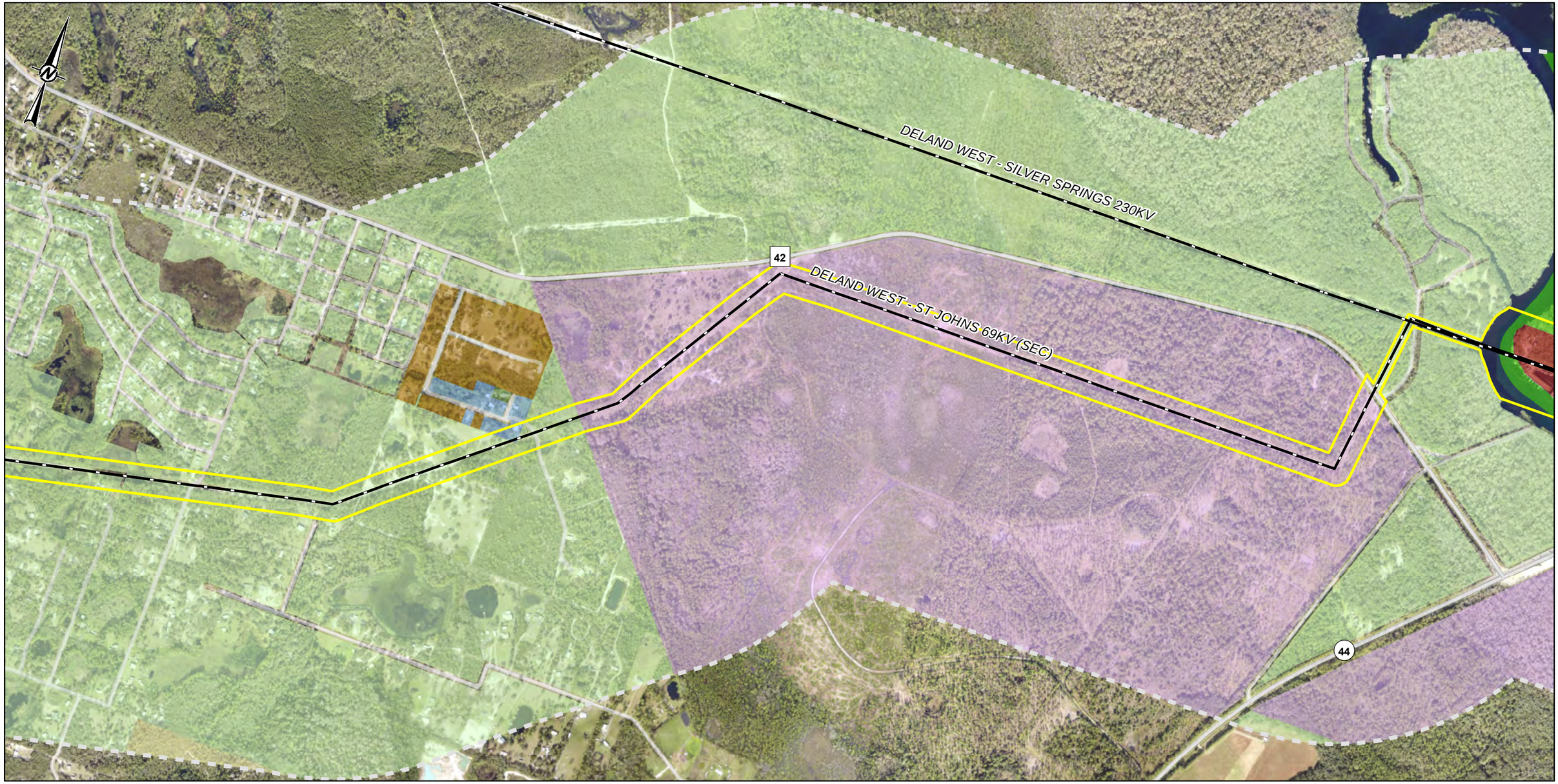
25mm




Existing DEF Transmission Line

Half-mile Buffer of DWDV Corridor

DWDV Corridor

**Volusia County Zoning**

- Commercial Marina
- Resource Corridor

**Lake County Zoning**

- Agriculture
- Ranchette District
- Rural Residential
- Urban Residential
- Mixed Home Residential
- Planned Unit Development

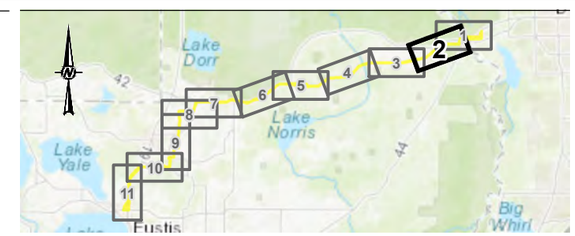
**NOTE(S)**

1.ZONING SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

2. CITY OF EUSTIS DOES NOT HAVE ZONING DISTRICTS. LAND USE ACTIVITIESARE REGULATED IN ACCORDANCE WITH THEIR FUTURE LAND USE DESIGNATIONS.

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (2 OF 11) |

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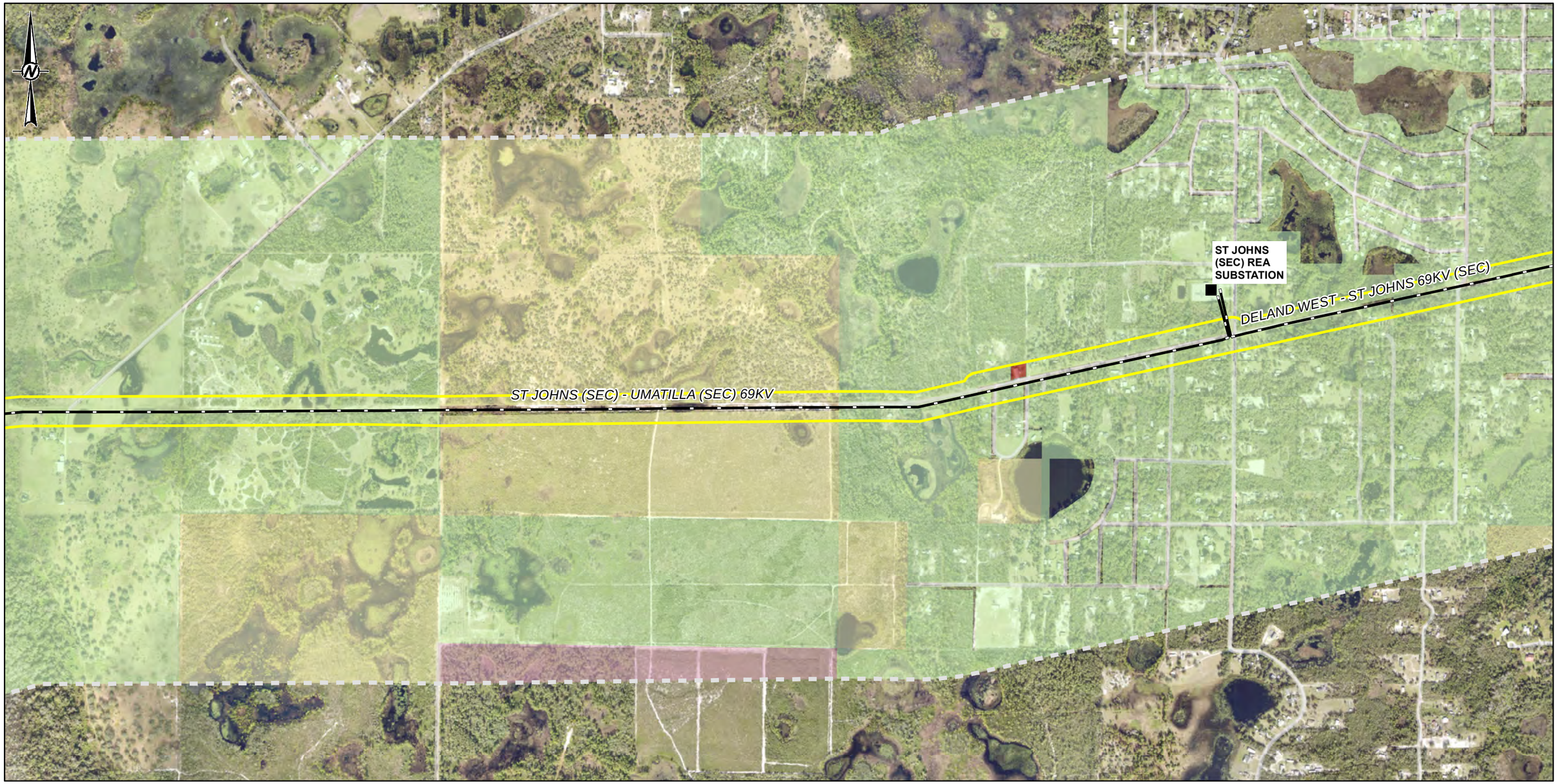
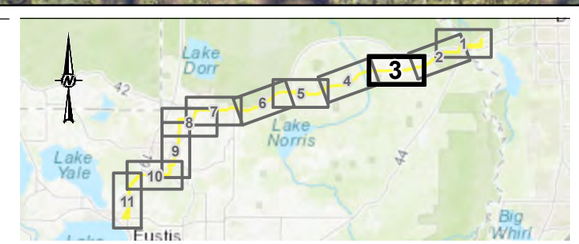
25mm




- Existing Substation
- Existing DEF Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor

**Lake County Zoning**

- Agriculture
- Rural Residential
- Planned Commercial
- Community Facility District




**NOTE(S)**

1.ZONING SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

2. CITY OF EUSTIS DOES NOT HAVE ZONING DISTRICTS. LAND USE ACTIVITIESARE REGULATED IN ACCORDANCE WITH THEIR FUTURE LAND USE DESIGNATIONS.

1,000 500 0 1,000 Feet 1:12,000

**REFERENCE(S)**

1. BASE IMAGERY: 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

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PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY®

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|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (3 OF 11) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

Existing DEF Transmission Line

Half-mile Buffer of DWDV Corridor

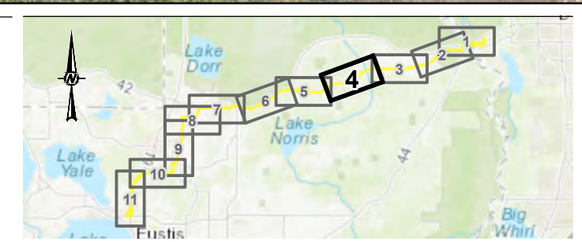
DWDV Corridor

**Lake County Zoning**

Agriculture

Rural Residential

Urban Residential

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1,000 500 0 1,000 Feet 1:12,000

REFERENCE(S)

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (4 OF 11) |

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25mm
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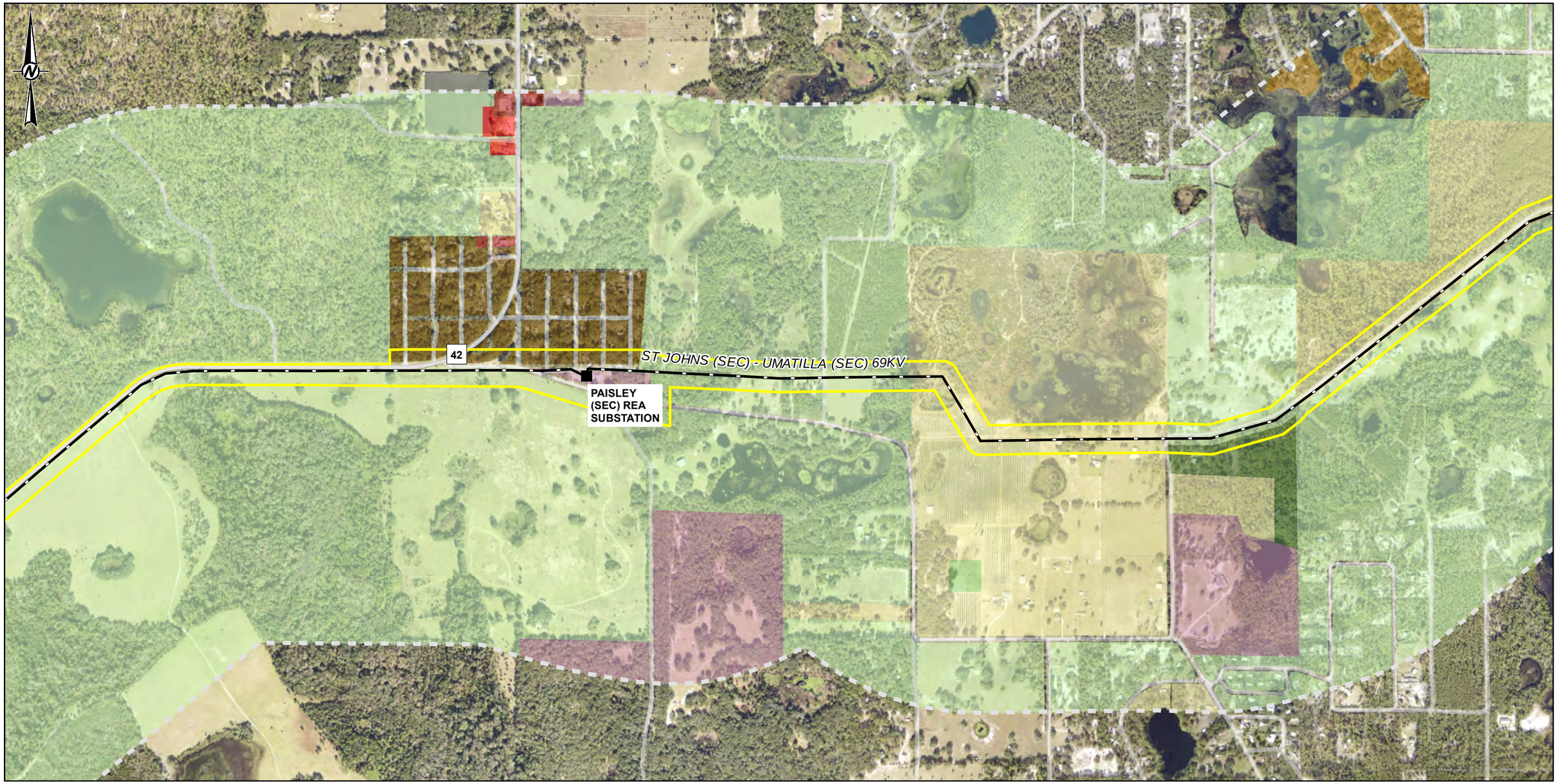


- Existing Substation
- Existing DEF Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor

**Lake County Zoning**

- Agriculture
- Agricultural Residential
- Ranchette District
- Rural Residential
- Urban Residential
- Mixed Residential
- Community Commercial
- Planned Commercial
- Community Facility District

NOTE(S)

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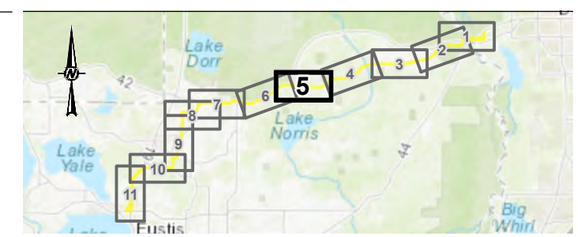
1,000 500 0 1,000 Feet

1:12,000




REFERENCE(S)

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (5 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAVK - TLSA Application\map documents\31404342021K007.mxd PRINTED ON: 2025-08-15 AT: 3:22:43 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
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Existing DEF Transmission Line

Half-mile Buffer of DWDV Corridor

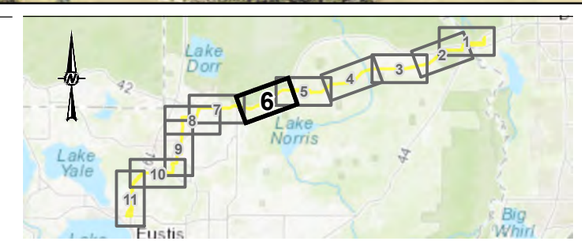
DWDV Corridor

**Lake County Zoning**

Agriculture

Mixed Residential

Community Facility District




**NOTE(S)**

1.ZONING SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

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1,000 500 0 1,000 Feet 1:12,000

**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

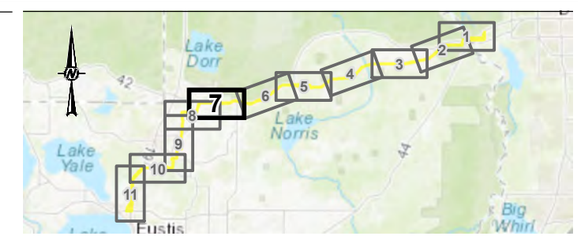
| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (6 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAK - TLSA Application\map documents\31404342021K007.mxd PRINTED ON: 2025-08-15 AT 3:22:49 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

Existing DEF Transmission Line
Natural Gas Pipeline
Half-mile Buffer of DWDV Corridor
DWDV Corridor

**Lake County Zoning**
- Agriculture
- Estate Residential
- Rural Residential
- Medium Residential
- Mobile Home Rental Park




NOTE(S)
1.ZONING SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS
2. CITY OF EUSTIS DOES NOT HAVE ZONING DISTRICTS. LAND USE ACTIVITIESARE REGULATED IN ACCORDANCE WITH THEIR FUTURE LAND USE DESIGNATIONS.

1,000 500 0 1,000 Feet 1:12,000

REFERENCE(S)
1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (7 OF 11) |

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25mm
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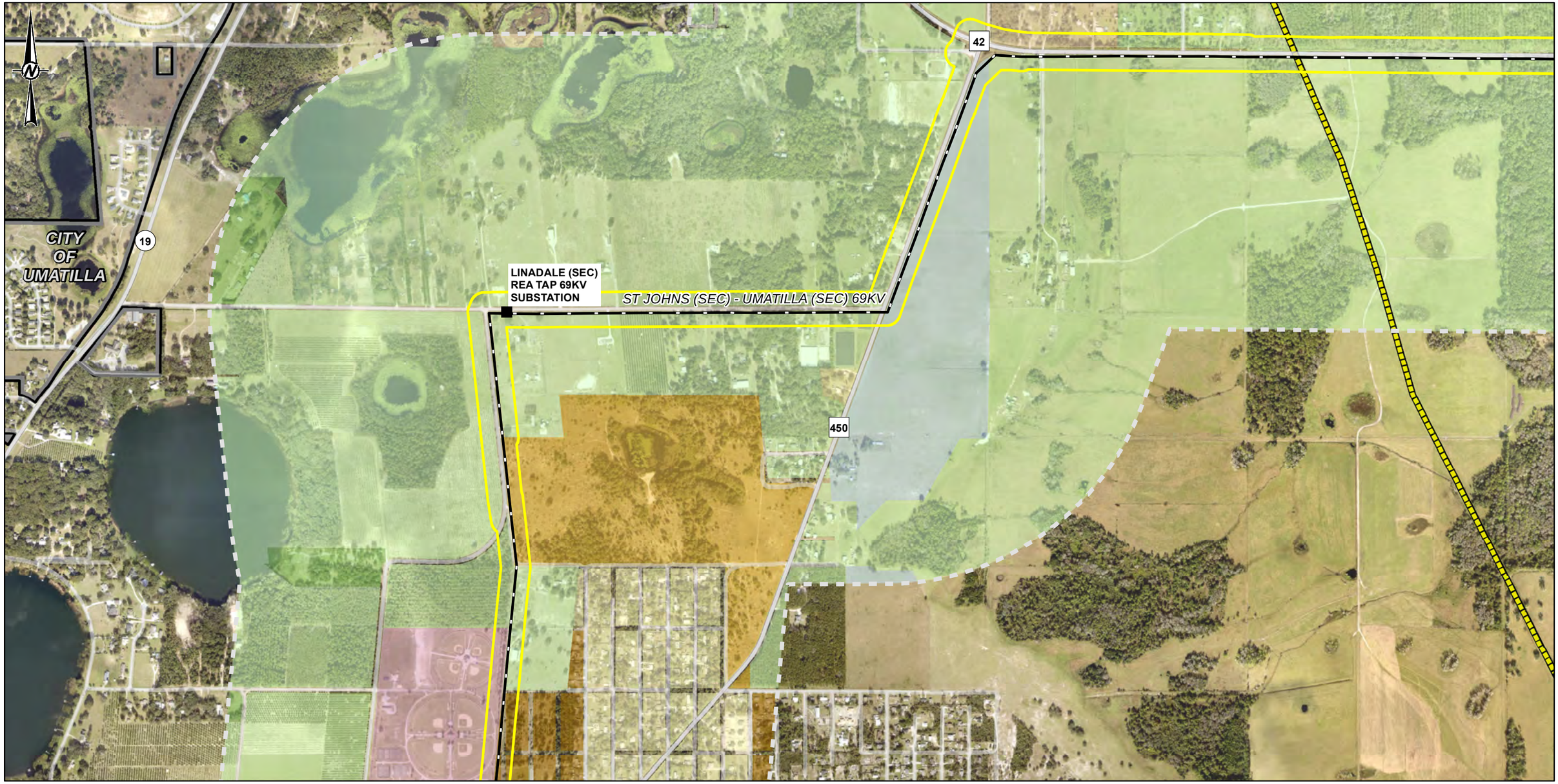


- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

**Lake County Zoning**

- Agriculture
- Agricultural Residential
- Estate Residential
- Rural Residential
- Medium Residential
- Urban Residential
- Mobile Home Rental Park
- Community Facility District

NOTE(S)
1.ZONING SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS
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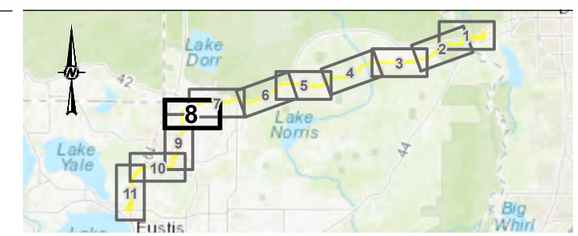
1,000 500 0 1,000 Feet

1:12,000

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1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (8 OF 11) |

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25mm
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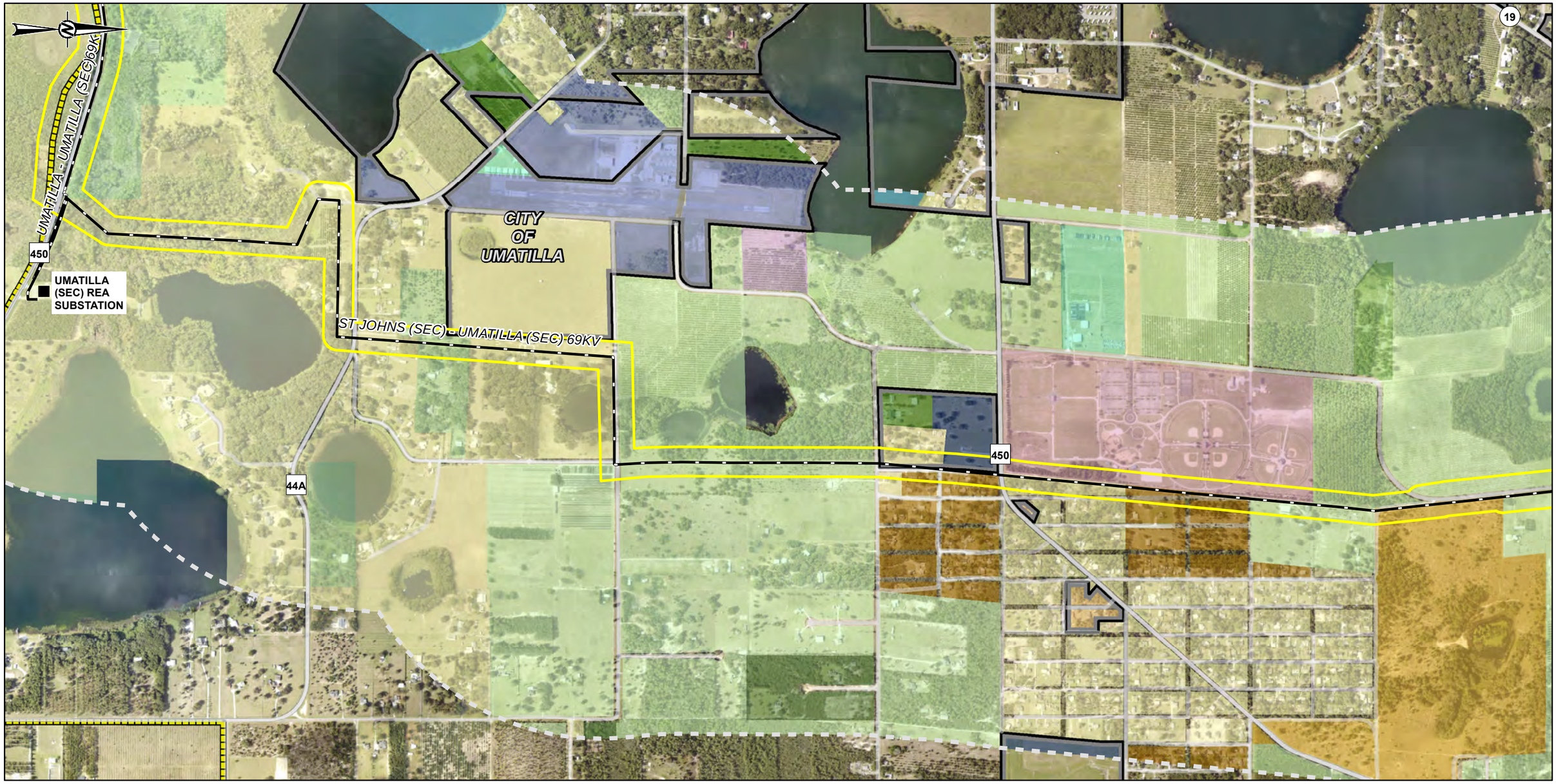



- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

**NOTE(S)**

1.ZONING SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

2. CITY OF EUSTIS DOES NOT HAVE ZONING DISTRICTS. LAND USE ACTIVITIESARE REGULATED IN ACCORDANCE WITH THEIR FUTURE LAND USE DESIGNATIONS.

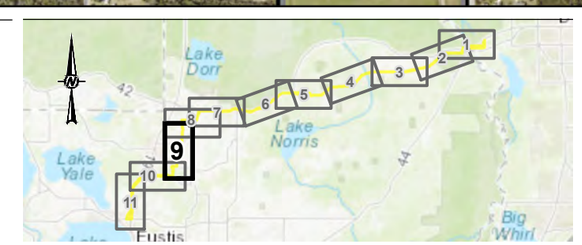
**Lake County Zoning**

- Agriculture
- Agricultural Residential
- Ranchette District
- Rural Residential
- Medium Residential
- Urban Residential
- Community Facility District
- Low Density Residential
- Urban Residential District
- Planned Unit Development
- Airport Zoning
- Public Facilities District
- Light Manufacturing District
- Right of Way
- Lake

**City of Umatilla Zoning**

- Agriculture Residential

1,000 500 0 1,000 Feet 1:12,000




**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (9 OF 11) |

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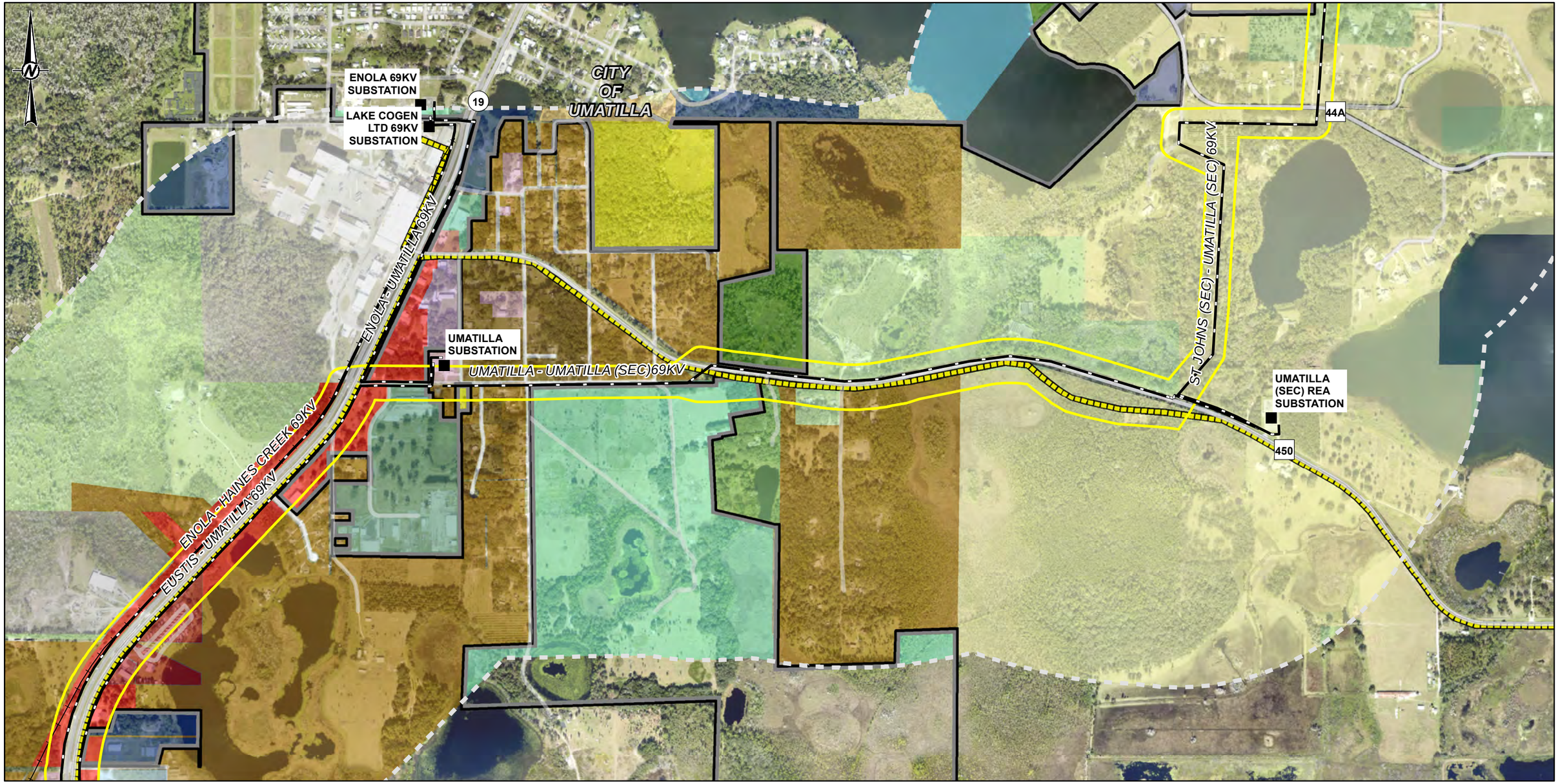


- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

**Lake County Zoning**
- Agriculture
- Agricultural Residential
- Rural Residential
- Urban Residential
- Mixed Residential
- Mobile Home Rental Park
- Community Commercial
- Planned Commercial
- Light Industrial
- Heavy Industrial
- Community Facility District

**City of Umatilla Zoning**
- Agriculture Residential
- Low Density Residential
- Single Family Medium Density Residential District
- Urban Residential District
- Planned Unit Development
- Commerical PUD
- Industrial PUD
- Airport Zoning
- Public Facilities District
- Neighborhood Commercial
- General Commercial & Warehouse
- Light Manufacturing District
- Right of Way
- Lake

NOTE(S)
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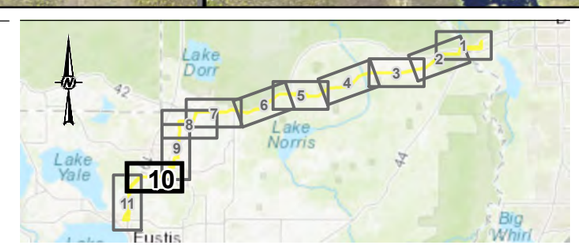
1,000 500 0 1,000 Feet 1:12,000

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1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (10 OF 11) |

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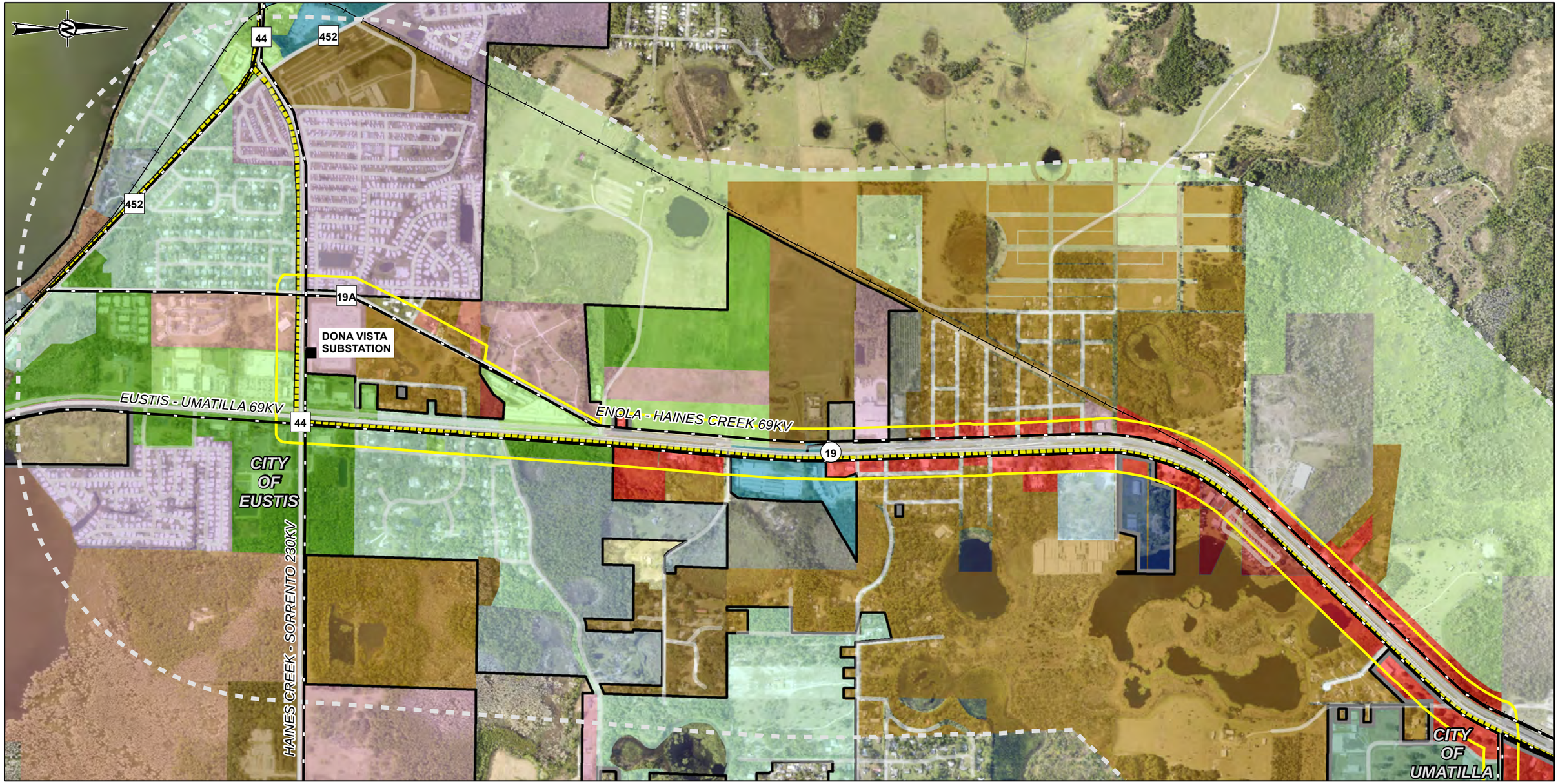



- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

**NOTE(S)**

1.ZONING SYMBOLOGY WAS TAKEN FROM THE MUNICIPALITY AND COUNTY COMPREHENSIVE PLANS

2. CITY OF EUSTIS DOES NOT HAVE ZONING DISTRICTS. LAND USE ACTIVITIESARE REGULATED IN ACCORDANCE WITH THEIR FUTURE LAND USE DESIGNATIONS.

**Lake County Zoning**

- Agriculture
- Rural Residential
- Urban Residential
- Mixed Residential
- Residential Professional
- Mobile Home Rental Park
- Neighborhood Commercial
- Community Commercial
- Planned Commercial
- Light Industrial
- Heavy Industrial
- Planned Industrial
- Community Facility District

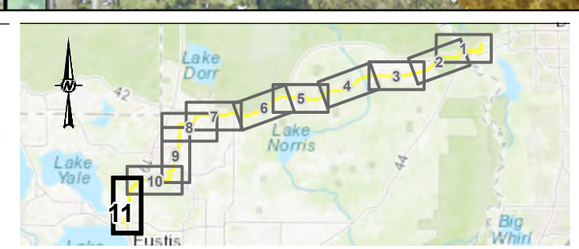
**City of Umatilla Zoning**

- Industrial PUD
- Residential Professional
- Public Facilities District
- Neighborhood Commercial
- General Commercial & Warehouse
- Right of Way

**City of Eustis FLU**

- Agriculture District
- Conservation
- General Commercial
- General Industrial
- Mixed Commercial / Industrial
- Mixed Commercial / Residential
- Mobile Home / RV
- Public / Institutional
- Rural Residential
- Suburban Residential
- Urban Residential

1,000 500 0 1,000 Feet 1:12,000




**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**ZONING ALONG DWDV CORRIDOR**

DUKE ENERGY

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K007 | 0 | 2-7 (11 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSA\K - TLSA Application\map documents\31404342021K007.mxd PRINTED ON: 2025-08-15 AT 3:23:21 PM
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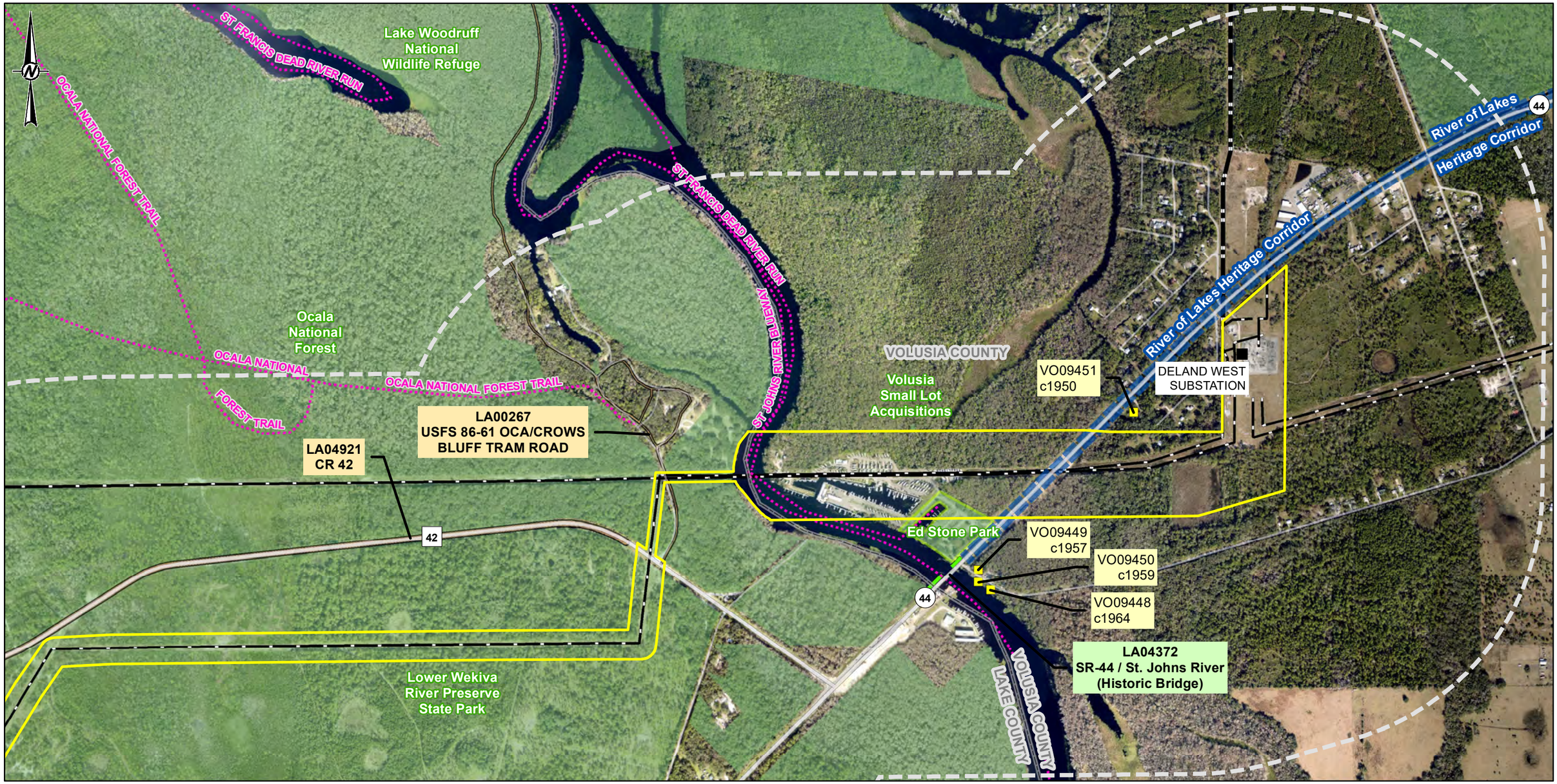



- Substation
- Duke Transmission Line
- Existing Terrestrial or Waterway Trail
- Scenic Highway (River of Lakes Heritage Corridor)
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Historic Structure
- Historic Bridge
- Cultural Resource Group
- Federal, State, and Local Government Managed Area
- County Park
- County Boundary

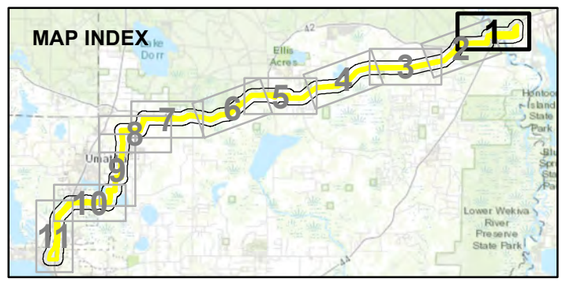
1,000 500 0 1,000 Feet

1:12,000

**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA DEPARTMENT OF HISTORICAL RESOURCES, FLORIDA MASTER SITE FILE, 2024 (NOTE THAT THE EXACT LOCATION OF SENSITIVE CULTURAL RESOURCE ARE NOT SHOWN. AREAS WERE APPROXIMATED)
2. SERVICE LAYER CREDITS: 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

SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY




CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**VICINITY SCENIC, CULTURAL, AND NATURAL LANDMARKS**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-18 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (1 of 11) |

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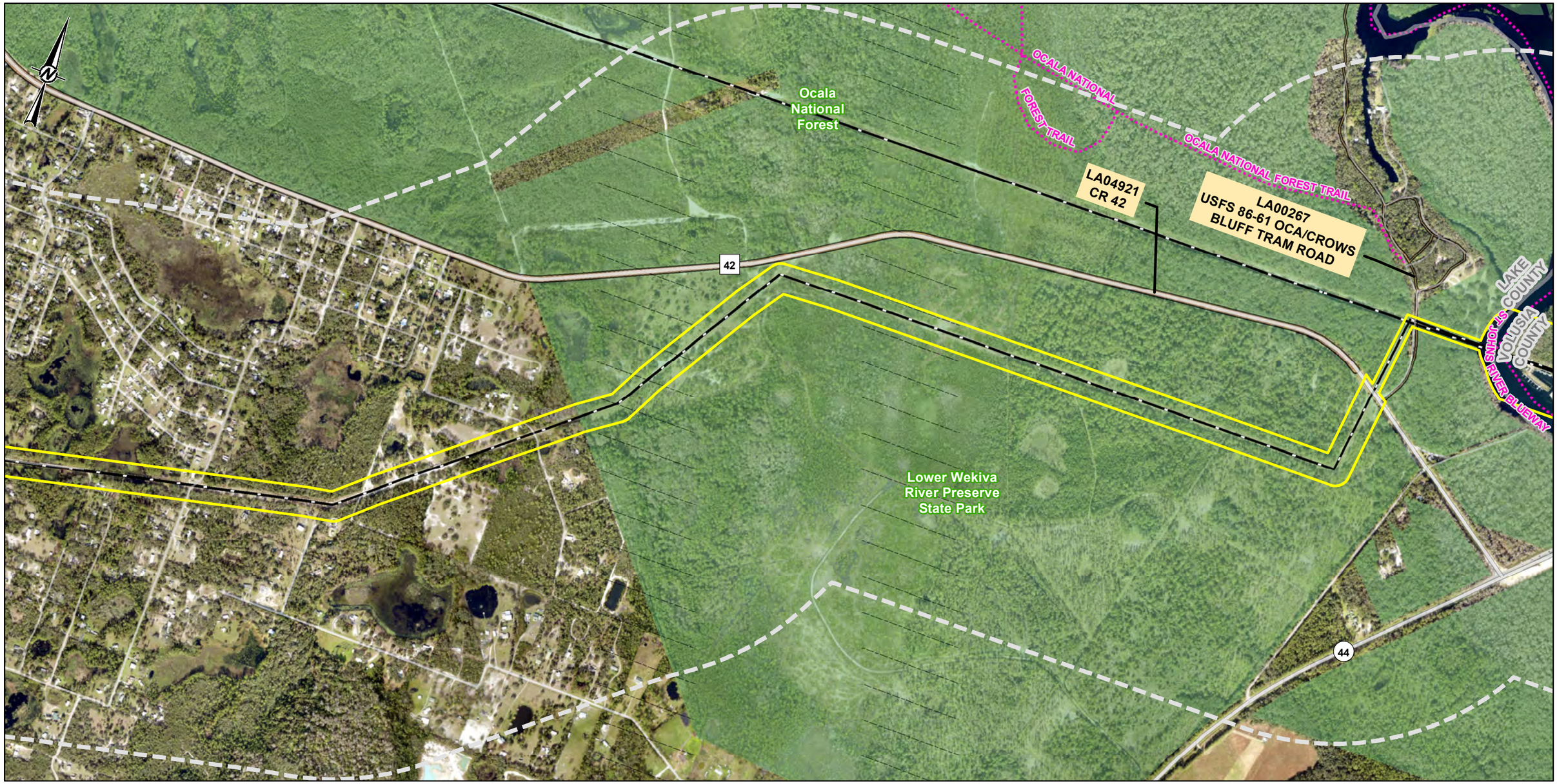


- Duke Transmission Line
- Existing Terrestrial or Waterway Trail
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Cultural Resource Group
- Federal, State, and Local Government Managed Area
- County Boundary

1,000 500 0 1,000 Feet

1:12,000

**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA DEPARTMENT OF HISTORICAL RESOURCES, FLORIDA MASTER SITE FILE, 2024 (NOTE THAT THE EXACT LOCATION OF SENSITIVE CULTURAL RESOURCE ARE NOT SHOWN. AREAS WERE APPROXIMATED)
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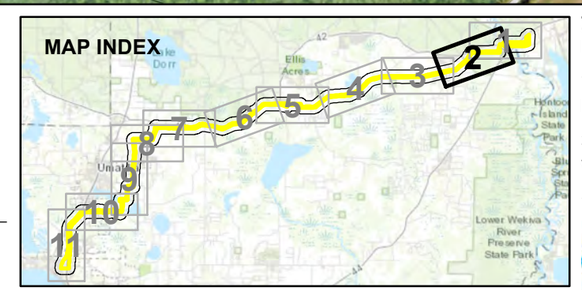


CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**VICINITY SCENIC, CULTURAL, AND NATURAL LANDMARKS**

DUKE ENERGY

| | |
|---|---|
| YYYY-MM-DD | 2025-08-18 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (2 of 11) |

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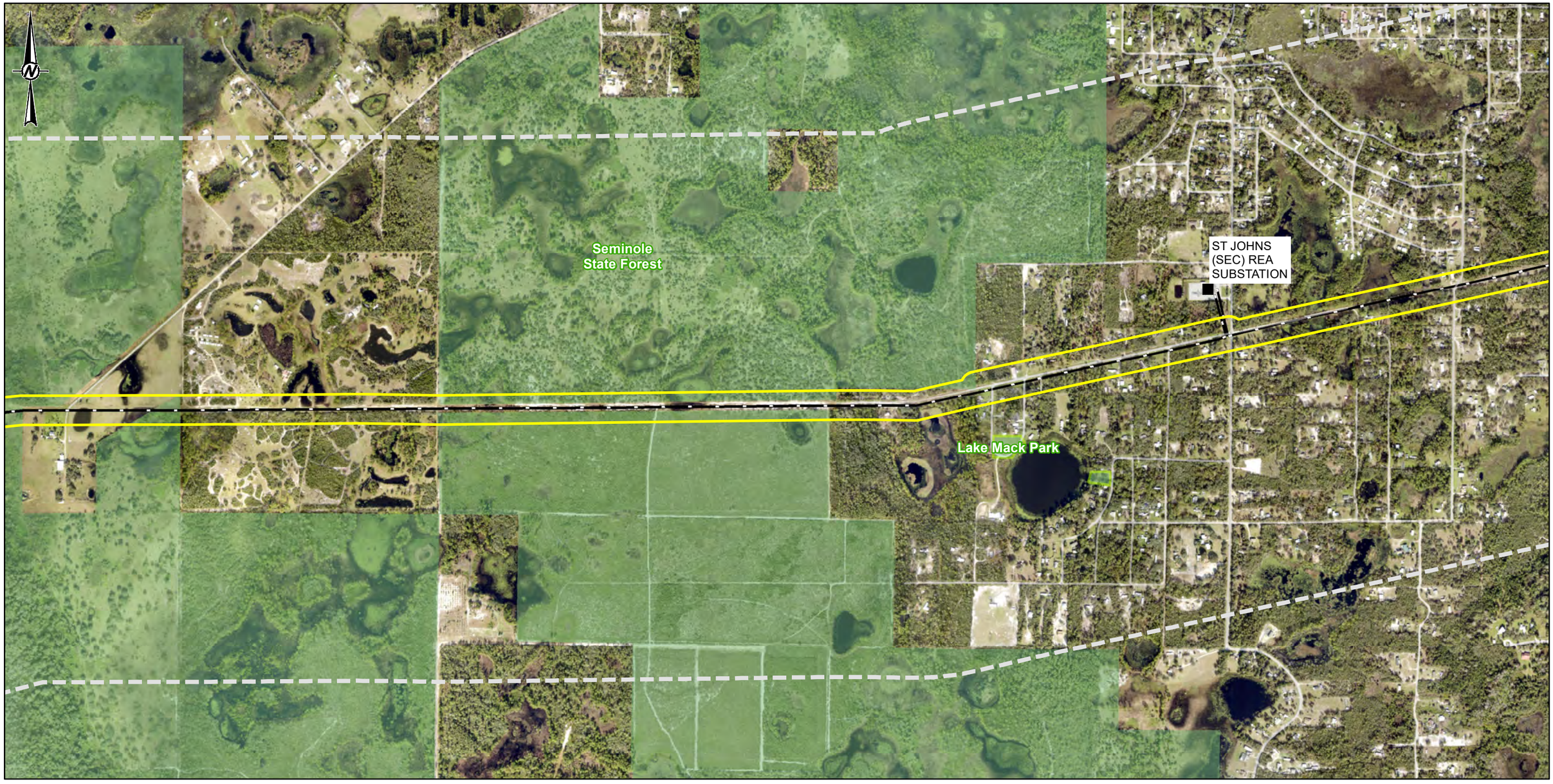


- Substation
- Duke Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Federal, State, and Local Government Managed Area
- County Park
- County Boundary

1,000 500 0 1,000 Feet

1:12,000

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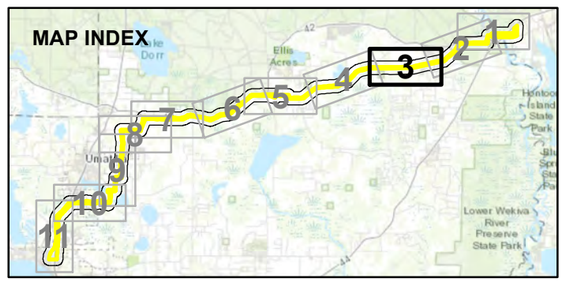


CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**VICINITY SCENIC, CULTURAL, AND NATURAL LANDMARKS**

DUKE ENERGY

| | |
|---|---|
| YYYY-MM-DD | 2025-08-18 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (3 of 11) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

- Duke Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Federal, State, and Local Government Managed Area
- County Boundary

1,000 500 0 1,000 Feet

1:12,000

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1. CULTURAL RESOURCES: FLORIDA DEPARTMENT OF HISTORICAL RESOURCES, FLORIDA MASTER SITE FILE, 2024 (NOTE THAT THE EXACT LOCATION OF SENSITIVE CULTURAL RESOURCE ARE NOT SHOWN. AREAS WERE APPROXIMATED)
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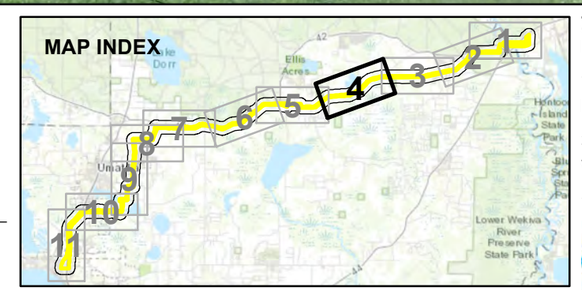
SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

**MAP INDEX**

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| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (4 of 11) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

- Substation
- Duke Transmission Line
- Existing Terrestrial or Waterway Trail
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Cultural Resource Group
- Federal, State, and Local Government Managed Area
- County Park
- County Boundary

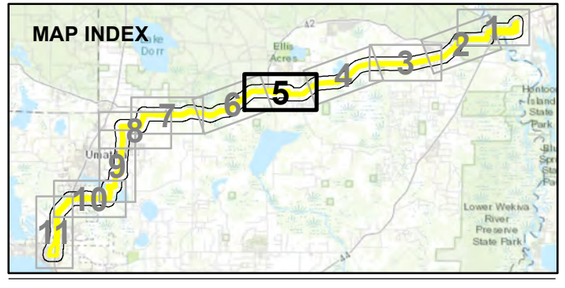
1,000 500 0 1,000 Feet

1:12,000

**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA DEPARTMENT OF HISTORICAL RESOURCES, FLORIDA MASTER SITE FILE, 2024 (NOTE THAT THE EXACT LOCATION OF SENSITIVE CULTURAL RESOURCE ARE NOT SHOWN. AREAS WERE APPROXIMATED)
2. SERVICE LAYER CREDITS: 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

SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY




CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**VICINITY SCENIC, CULTURAL, AND NATURAL LANDMARKS**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-18 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (5 of 11) |

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Ocala National Forest

LA02780 Ponceannah

LA04921 CR 42

42

Holman Conservation Easement

Seminole State Forest

OCALA NATIONAL FOREST TRAIL

OCALA EAST TRAIL

OCALA NATIONAL FOREST

CR 42 ROADWALK

SEMINOLE STATE FOREST TRAIL

- Duke Transmission Line
- Existing Terrestrial or Waterway Trail
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Cultural Resource Group
- Federal, State, and Local Government Managed Area
- County Boundary

1,000 500 0 1,000 Feet

1:12,000

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SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

MAP INDEX

1 2 3 4 5 6 7 8 9 10 11

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DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**VICINITY SCENIC, CULTURAL, AND NATURAL LANDMARKS**

| | |
|---|---|
| YYYY-MM-DD | 2025-08-18 |
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| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (6 of 11) |

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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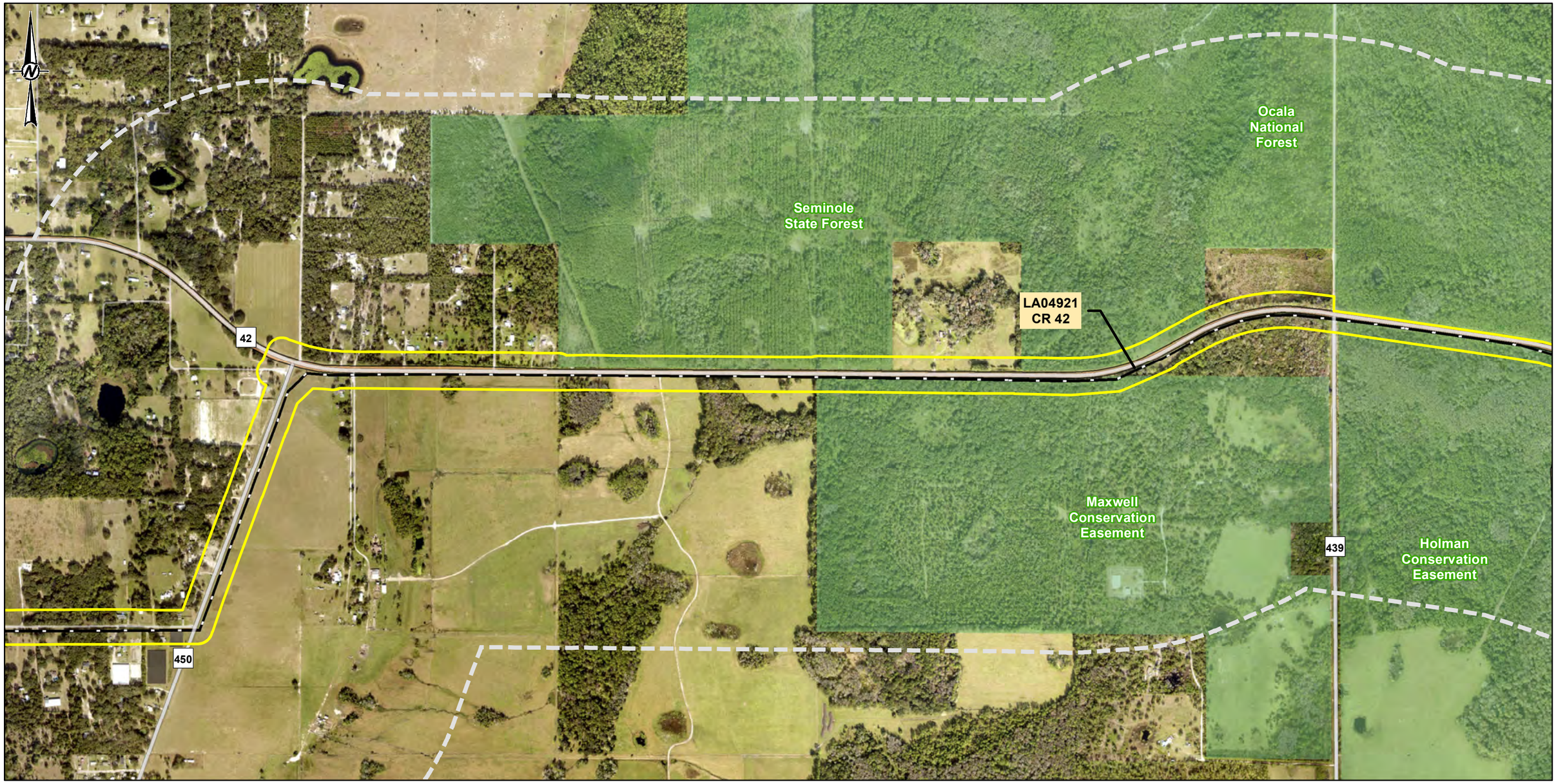


- Duke Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Cultural Resource Group
- Federal, State, and Local Government Managed Area
- County Boundary

1,000 500 0 1,000 Feet

1:12,000

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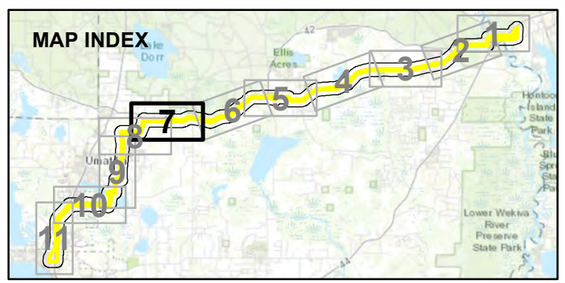
**MAP INDEX**




CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
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DUKE ENERGY®

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| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (7 of 11) |

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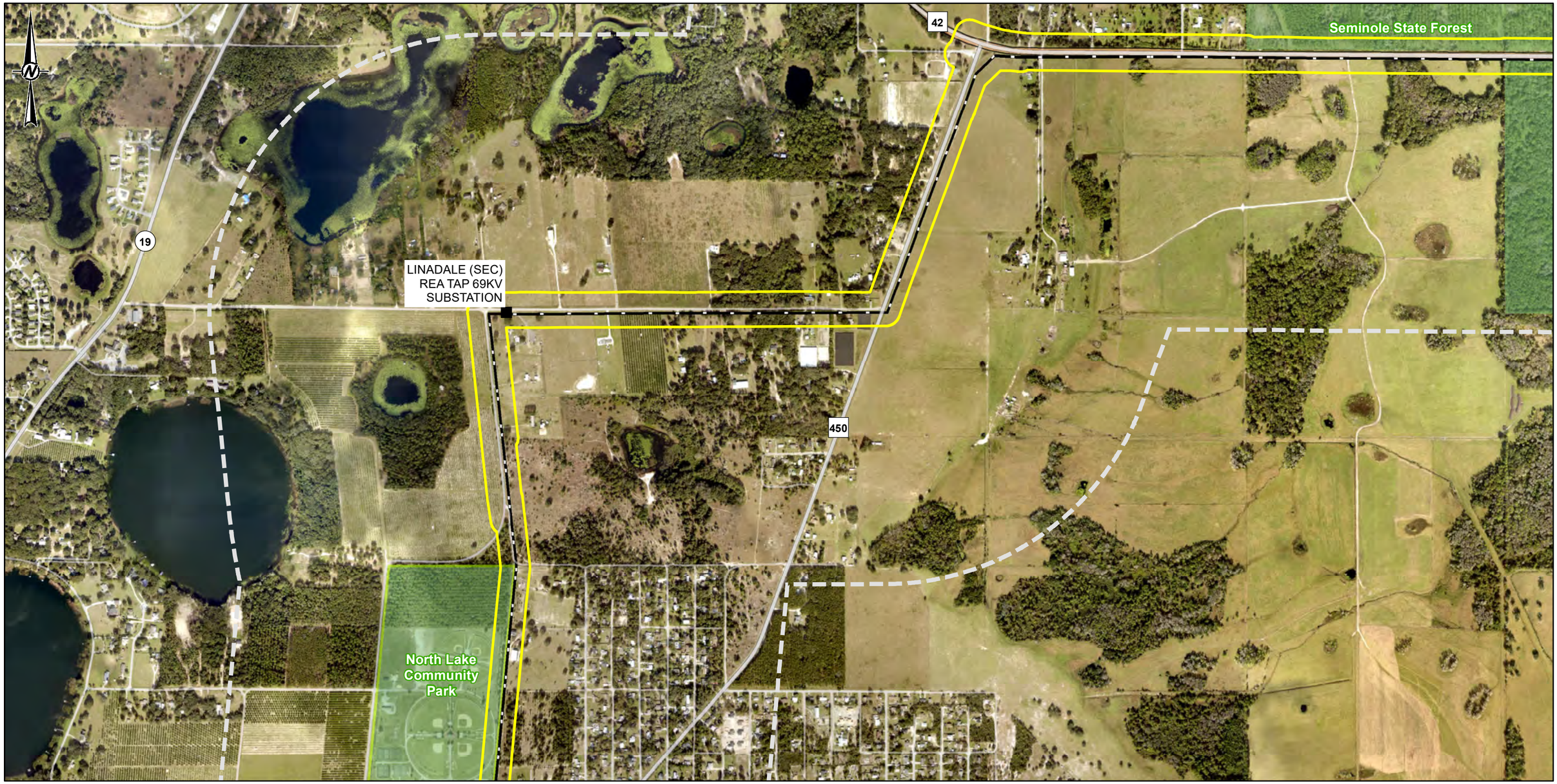


- Substation
- Duke Transmission Line
- Half-mile Buffer of DWDV
- DWDV Corridor
- Cultural Resource Group
- Federal, State, and Local Government Managed Area
- County Park
- County Boundary

1,000 500 0 1,000 Feet

1:12,000

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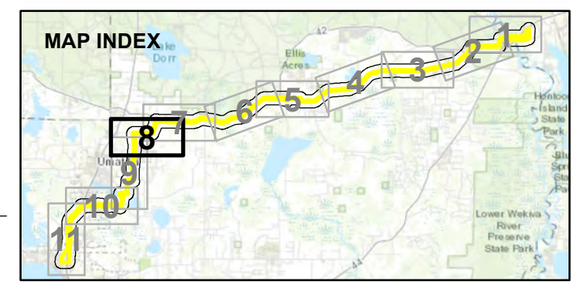


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**VICINITY SCENIC, CULTURAL, AND NATURAL LANDMARKS**

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| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (8 of 11) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

- Substation
- Duke Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- County Park
- County Boundary

1,000 500 0 1,000 Feet

1:12,000

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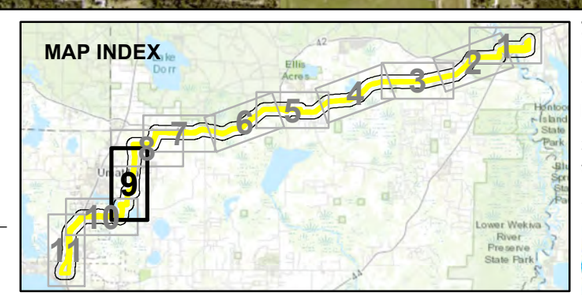


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| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (9 of 11) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

ENOLA 69KV SUBSTATION

LAKE COGEN LTD 69KV SUBSTATION

LA02957 Seaboard Coast Line RR Grade

South Umatilla Park

Promise Ranch Conservation Easement

LA05036 c1944

LA05037 c1950

LA05035 c1950

UMATILLA SUBSTATION

19

44A

450

UMATILLA (SEC) REA SUBSTATION

LA05038 c1966

LA05039 c1970

LA05040 c1971

LA05041 c1971

LA05042 c1971

LA05033 1972-

LA05034 c1970

Tanner Preserve

Brautcheck Flowage Easement

Pine Meadows Conservation Area

rails_2017

Substation

Duke Transmission Line

Half-mile Buffer of DWDV Corridor

DWDV Corridor

Historic Structure

Cultural Resource Group

Federal, State, and Local Government Managed Area

County Park

County Boundary

1,000 500 0 1,000 Feet

1:12,000

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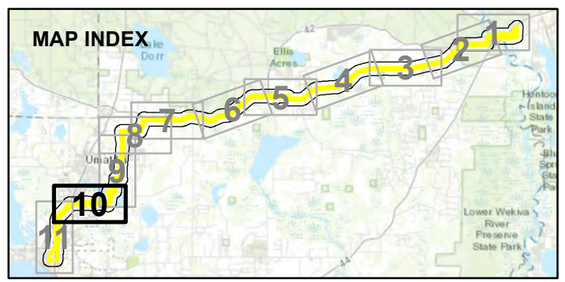
**MAP INDEX**




CLIENT
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DELAND WEST TO DONA VISTA PROJECT

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**VICINITY SCENIC, CULTURAL, AND NATURAL LANDMARKS**

DUKE ENERGY

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| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (10 of 11) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

rails_2017
Substation
Duke Transmission Line
Existing Terrestrial or Waterway Trail
Half-mile Buffer of DWDV Corridor
DWDV Corridor
Historic Structure
Cultural Resource Group
Federal, State, and Local Government Managed Area
County Boundary

1,000 500 0 1,000 Feet

1:12,000

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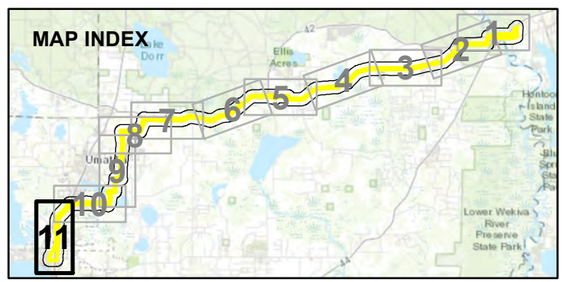


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| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K020 | 0 | 2-8 (11 of 11) |

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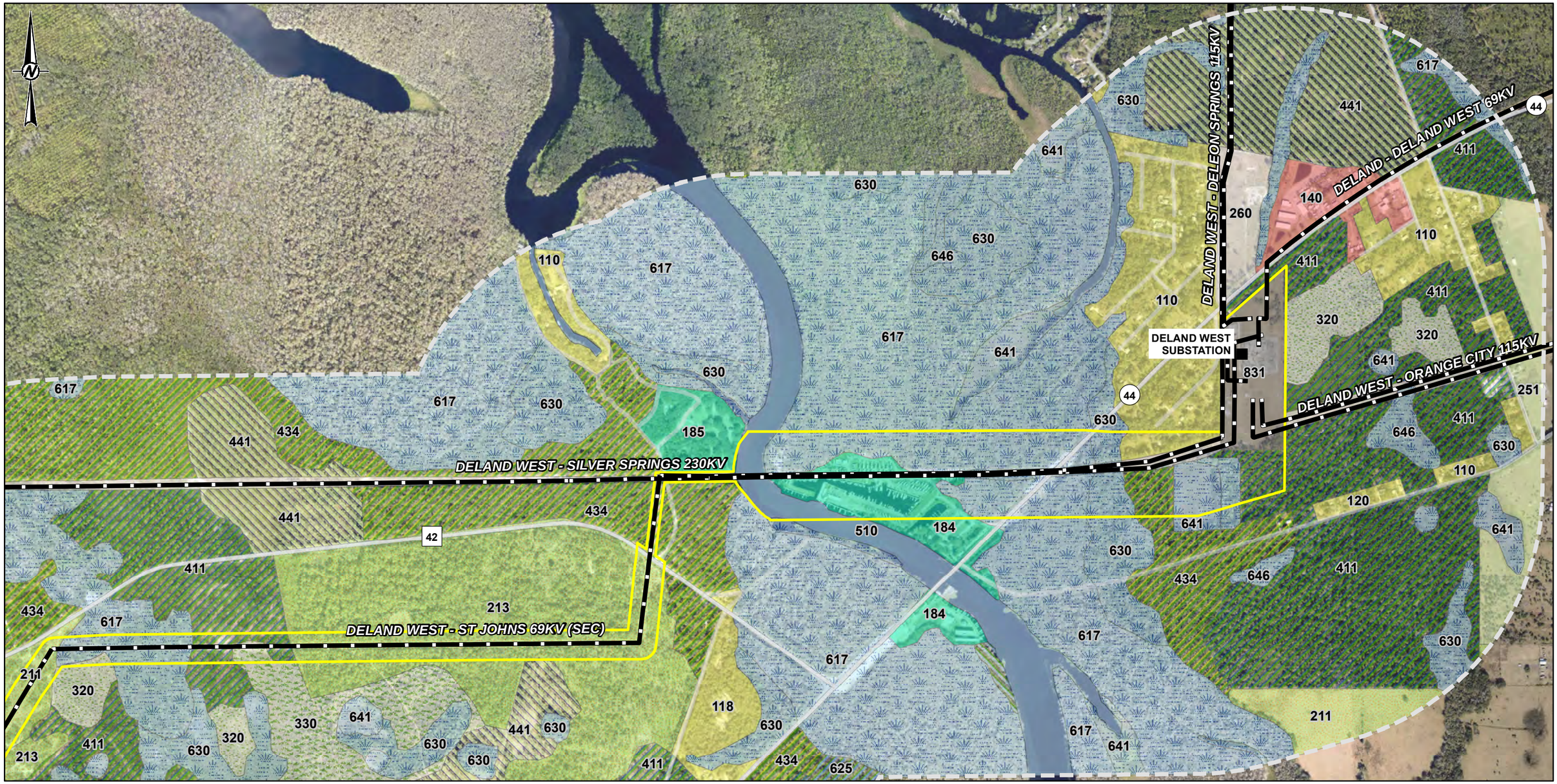


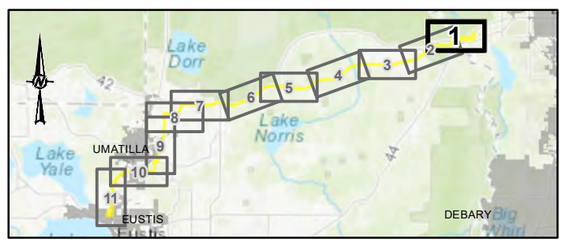

- Existing Substation
- Existing DEF Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor

**Land Use Classification**

- Residential
- Commercial
- Industrial
- Community Facility (Cemetery 148, Recreational 184-186)
- Open
- Pasture
- Agriculture
- Dry Prairie
- Scrub
- Wet Flatwoods
- Upland Flatwoods
- Xeric Hammock
- Hydric Hammock
- Mesic Flatwoods
- Water
- Wetland

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. LAND USE / LAND COVER - SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT, 2020
2. BASE IMAGERY: 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

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DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY®

| | |
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| YYYY-MM-DD | 2025-08-15 |
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| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (1 OF 11) |

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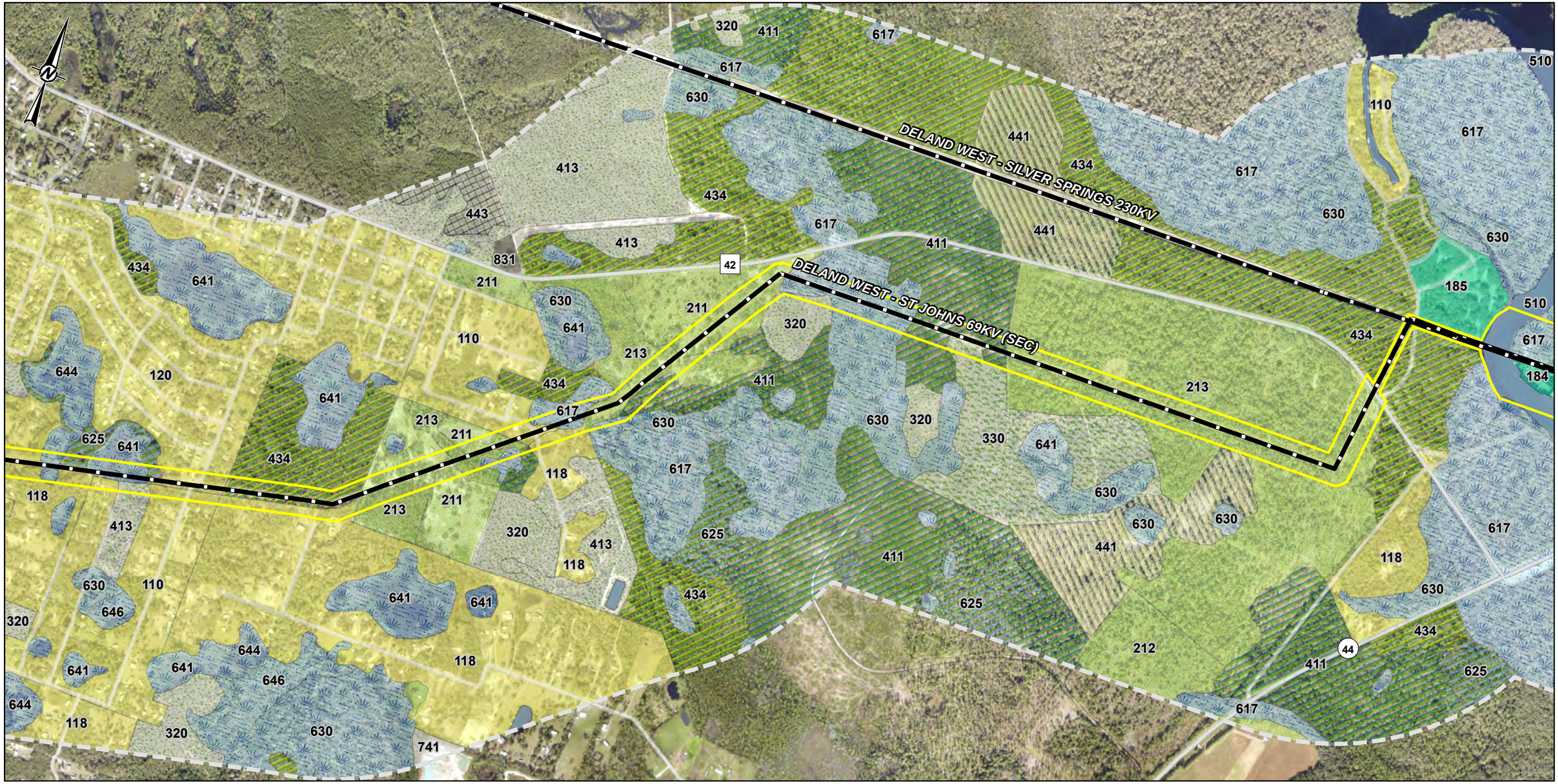



Existing DEF Transmission Line

Half-mile Buffer of DWDV Corridor

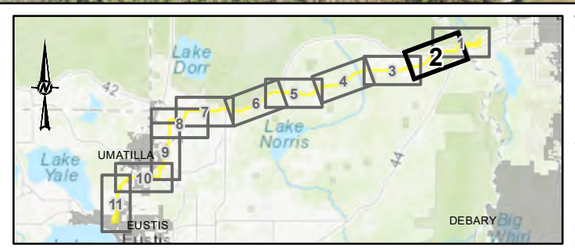
DWDV Corridor

**Land Use Classification**

- Residential
- Industrial
- Community Facility (Cemetery 148, Recreational 184-186)
- Open
- Pasture
- Dry Prairie
- Scrub
- Wet Flatwoods
- Upland Flatwoods
- Xeric Hammock
- Ruderal
- Mesic Flatwoods
- Water
- Wet Prairies
- Wetland

1,000 500 0 1,000 Feet

1:12,000

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY®

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|---|---|
| YYYY-MM-DD | 2025-08-15 |
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| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (2 OF 11) |

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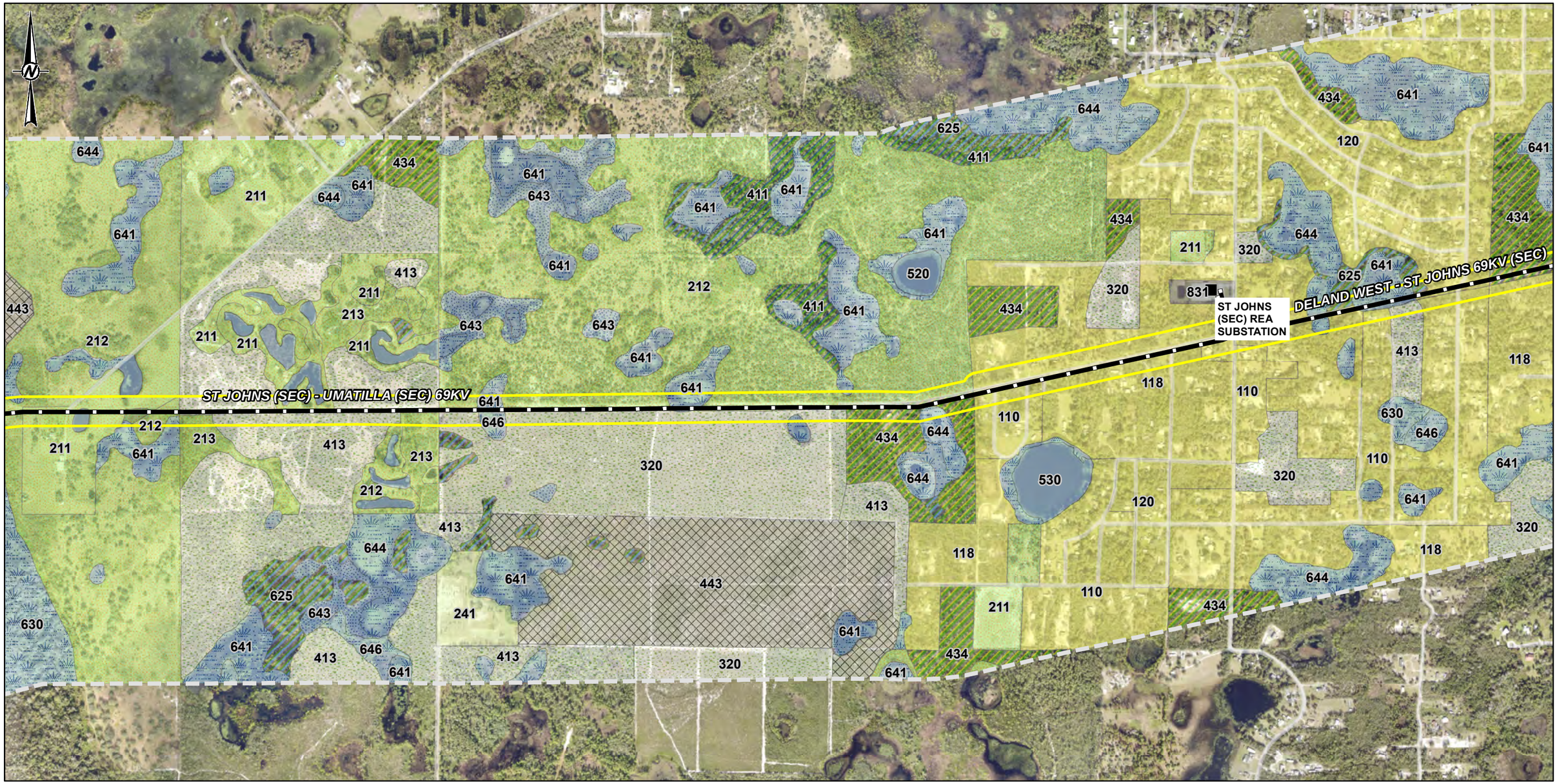


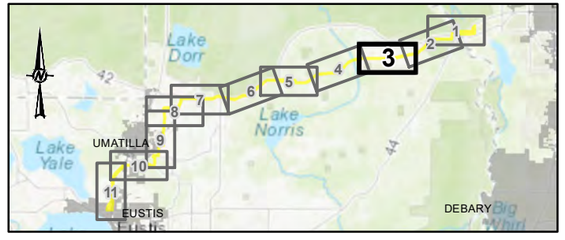

- Existing Substation
- Existing DEF Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor

**Land Use Classification**

- Residential
- Industrial
- Pasture
- Agriculture
- Scrub
- Wet Flatwoods
- Upland Flatwoods
- Ruderal
- Mesic Flatwoods
- Water
- Wet Prairies
- Wetland

1,000 500 0 1,000 Feet

1:12,000

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DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (3 OF 11) |

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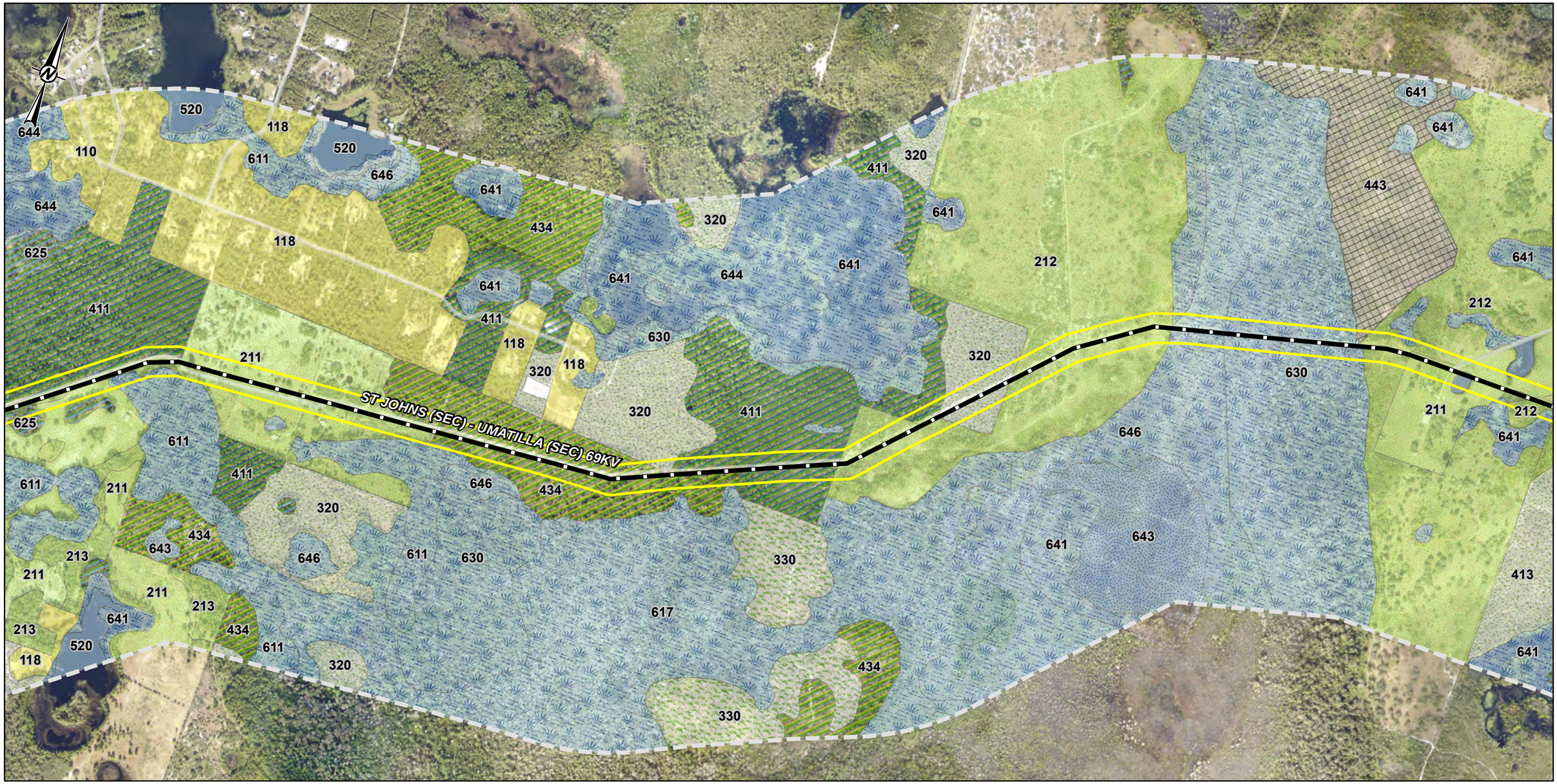


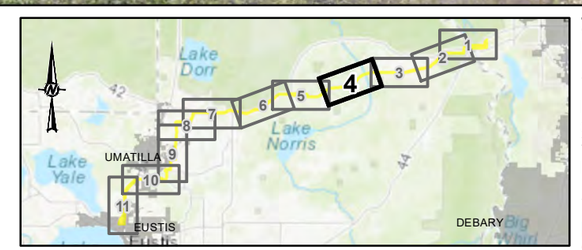

- Existing DEF Transmission Line
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor

**Land Use Classification**

- Residential
- Open
- Pasture
- Citrus
- Dry Prairie
- Scrub
- Wet Flatwoods
- Upland Flatwoods
- Ruderal
- Mesic Flatwoods
- Water
- Wet Prairies
- Wetland

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. LAND USE / LAND COVER - SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT, 2020
2. BASE IMAGERY: 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

SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY®

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| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (4 OF 11) |

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
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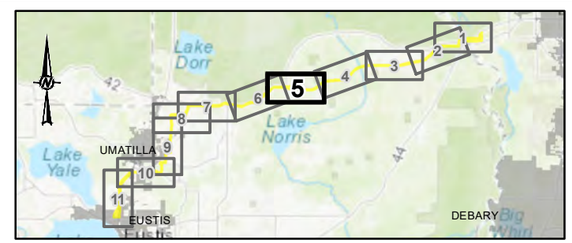
Existing Substation
Existing DEF Transmission Line
Half-mile Buffer of DWDV Corridor
DWDV Corridor

**Land Use Classification**

Residential
Commercial
Industrial
Institutional
Community Facility (Cemetery 148, Recreational 184-186)
Pasture
Row Crops
Agriculture
Citrus
Dry Prairie
Scrub
Wet Flatwoods
Upland Mixed
Upland Flatwoods
Ruderal
Mesic Flatwoods
Water
Wet Prairies
Wetland

1,000 500 0 1,000 Feet

1:12,000

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY®

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| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
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| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (5 OF 11) |

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
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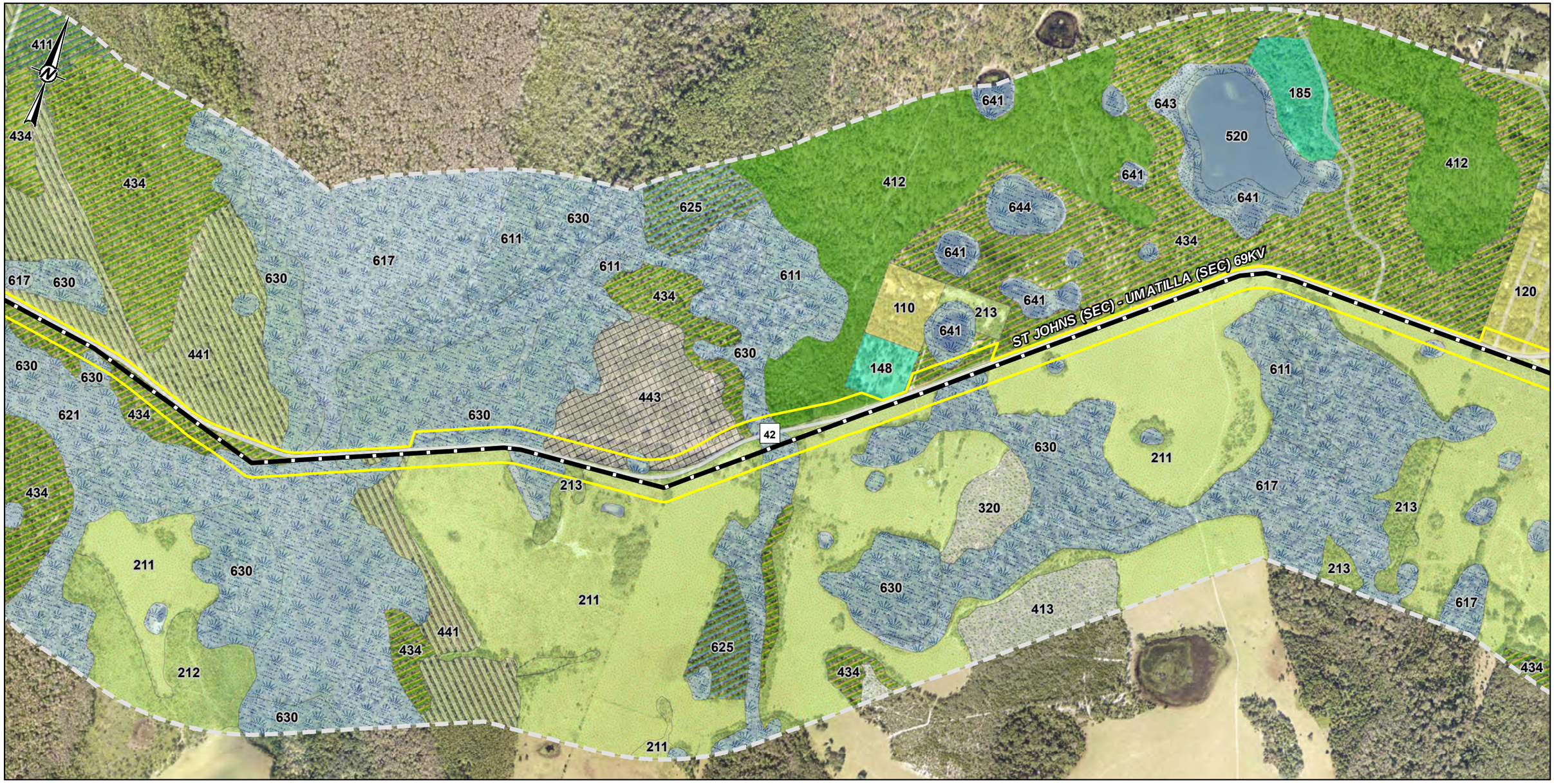



Existing DEF Transmission Line

Half-mile Buffer of DWDV Corridor

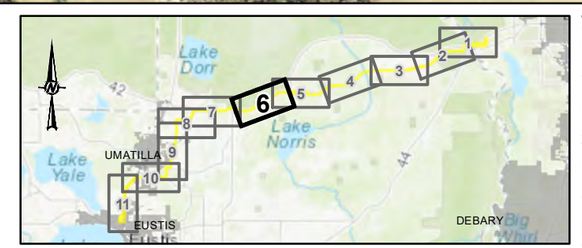
DWDV Corridor

**Land Use Classification**

- Residential
- Community Facility (Cemetery 148, Recreational 184-186)
- Pasture
- Dry Prairie
- Scrub
- Wet Flatwoods
- Upland Mixed
- Upland Flatwoods
- Xeric Hammock
- Ruderal
- Mesic Flatwoods
- Water
- Wet Prairies
- Wetland

1,000 500 0 1,000 Feet

1:12,000

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SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (6 OF 11) |

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
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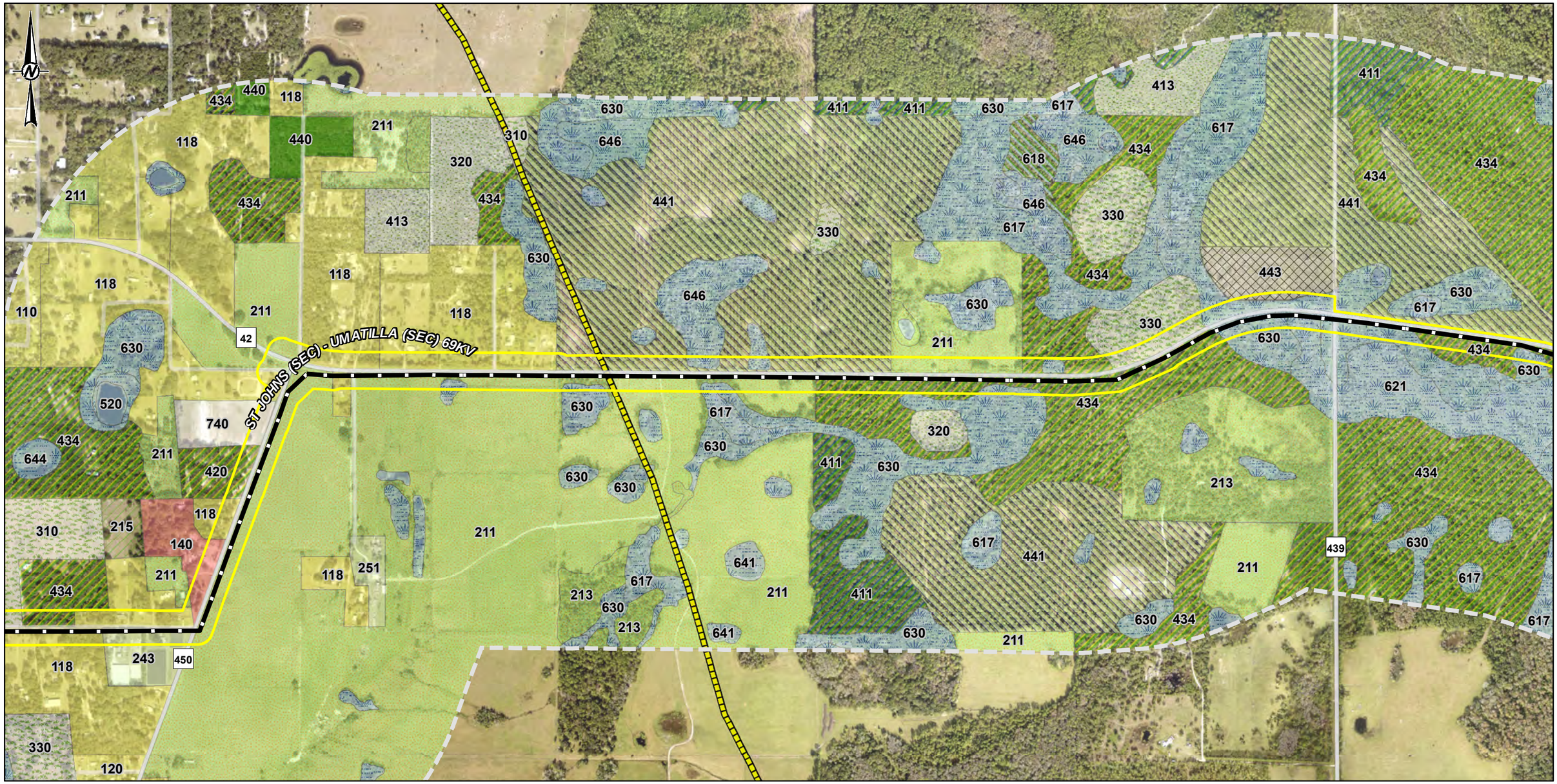


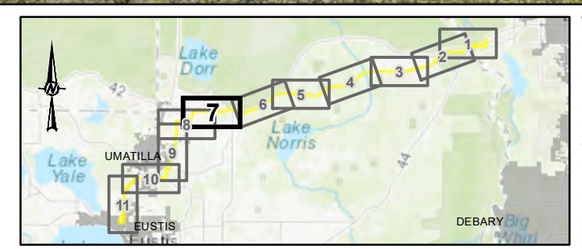

Existing DEF Transmission Line
Natural Gas Pipeline
Half-mile Buffer of DWDV Corridor
DWDV Corridor

**Land Use Classification**

- Residential
- Commercial
- Open
- Pasture
- Row Crops
- Agriculture
- Dry Prairie
- Scrub
- Wet Flatwoods
- Upland Mixed
- Upland Flatwoods
- Xeric Hammock
- Ruderal
- Hydric Hammock
- Water
- Wet Prairies
- Wetland

1,000 500 0 1,000 Feet

1:12,000

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SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY®

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| YYYY-MM-DD | 2025-08-15 |
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| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (7 OF 11) |

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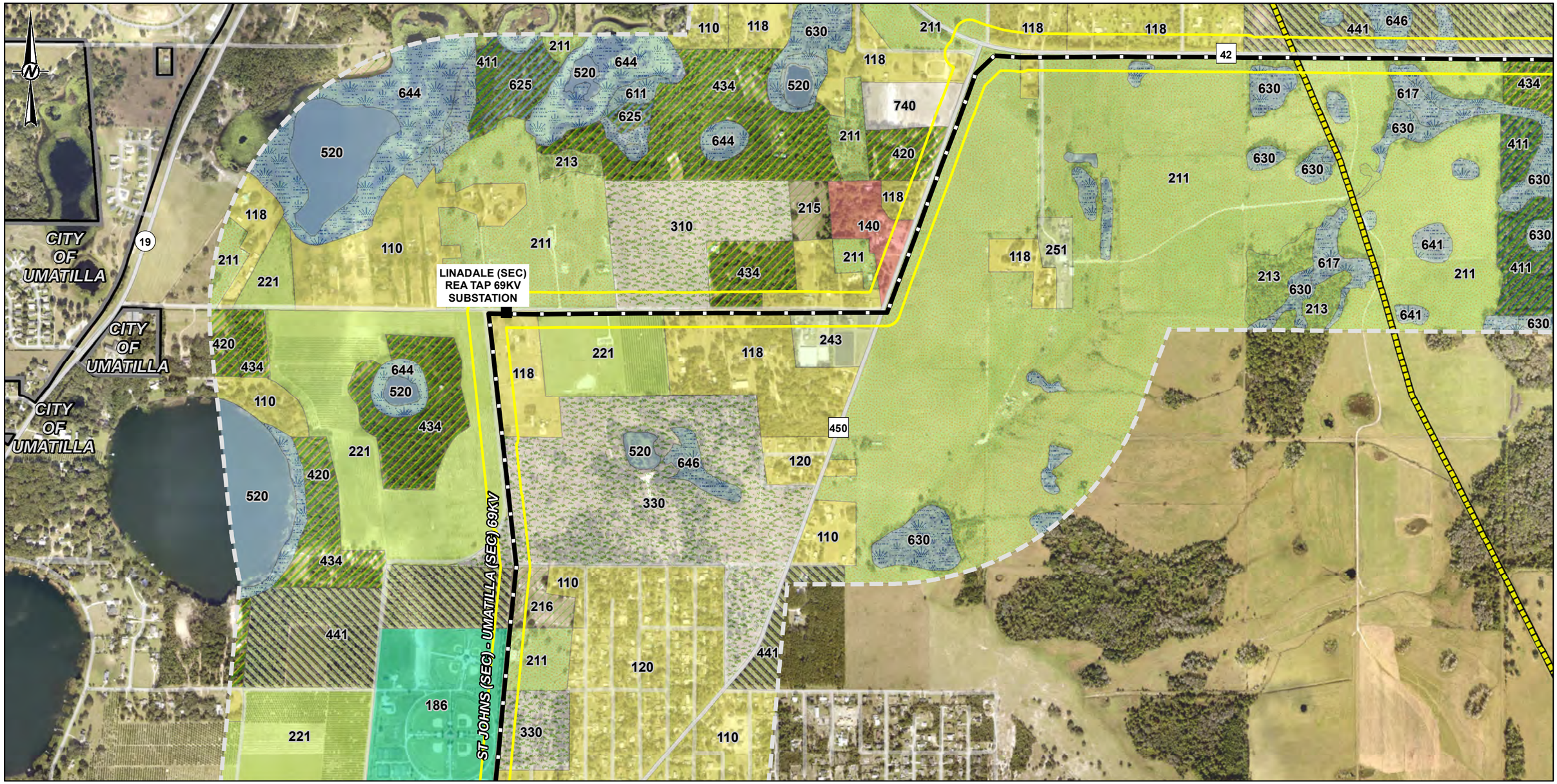


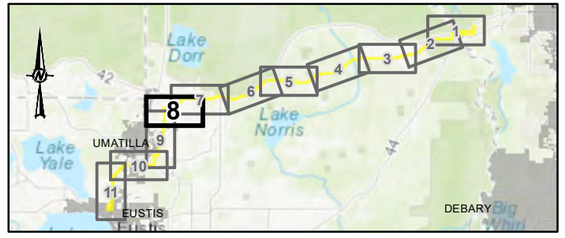

- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

**Land Use Classification**

- Residential
- Commercial
- Community Facility (Cemetery 148, Recreational 184-186)
- Open
- Pasture
- Row Crops
- Agriculture
- Citrus
- Dry Prairie
- Wet Flatwoods
- Upland Flatwoods
- Xeric Hammock
- Mesic Flatwoods
- Water
- Wet Prairies
- Wetland

1,000 500 0 1,000 Feet

1:12,000

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY®

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|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (8 OF 11) |

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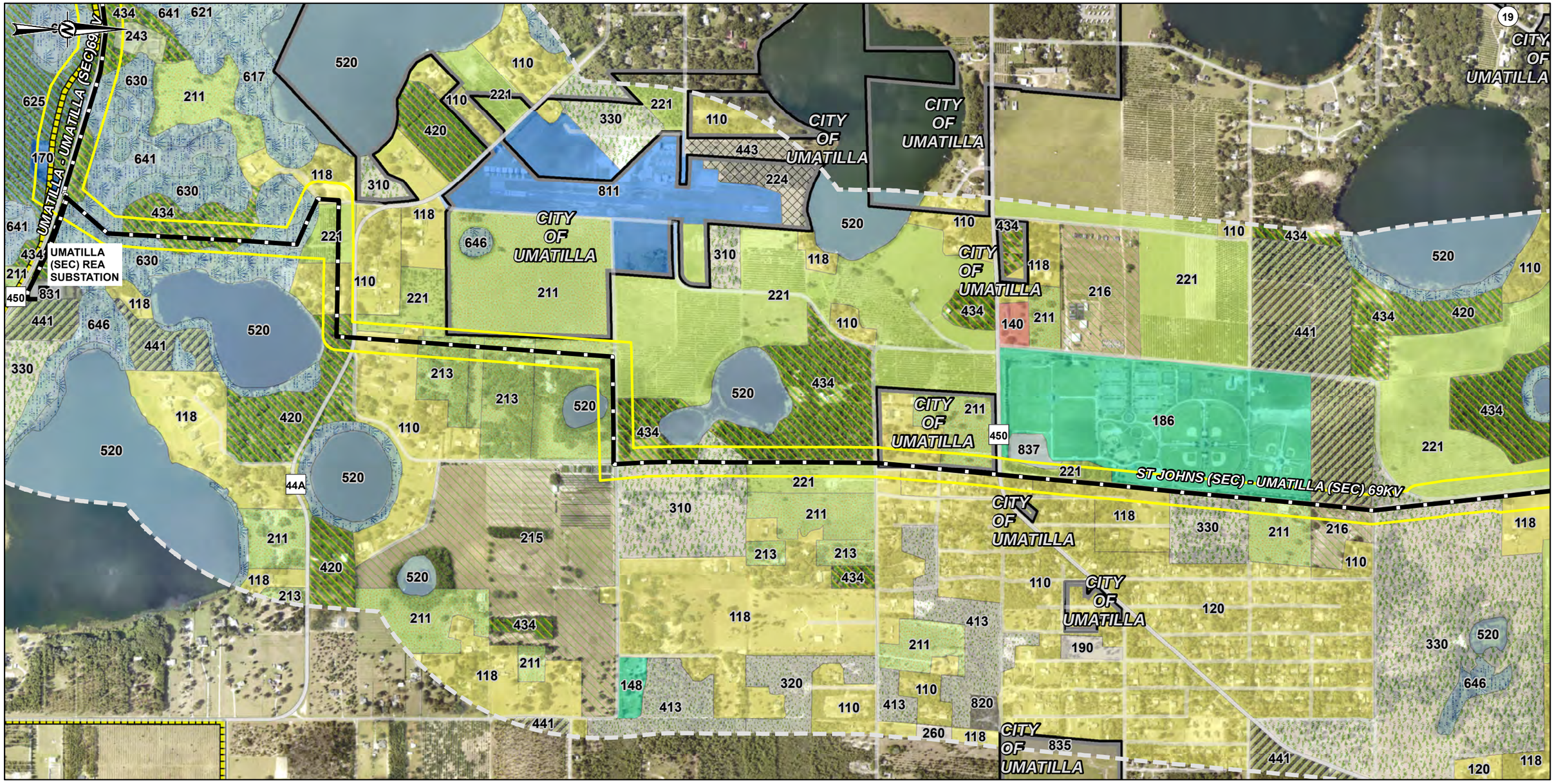


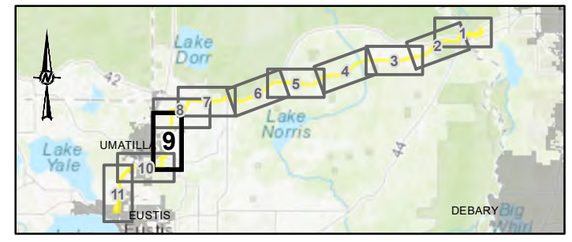

Existing Substation
Existing DEF Transmission Line
Natural Gas Pipeline
Half-mile Buffer of DWDV Corridor
DWDV Corridor
Municipal Boundary

**Land Use Classification**

Residential
Commercial
Industrial
Institutional
Community Facility (Cemetery 148, Recreational 184-186)
Open
Pasture
Row Crops
Agriculture
Citrus
Dry Prairie
Scrub
Upland Flatwoods
Xeric Hammock
Ruderal
Mesic Flatwoods
Water
Wetland

1,000 500 0 1,000 Feet

1:12,000

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DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY

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|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (9 OF 11) |

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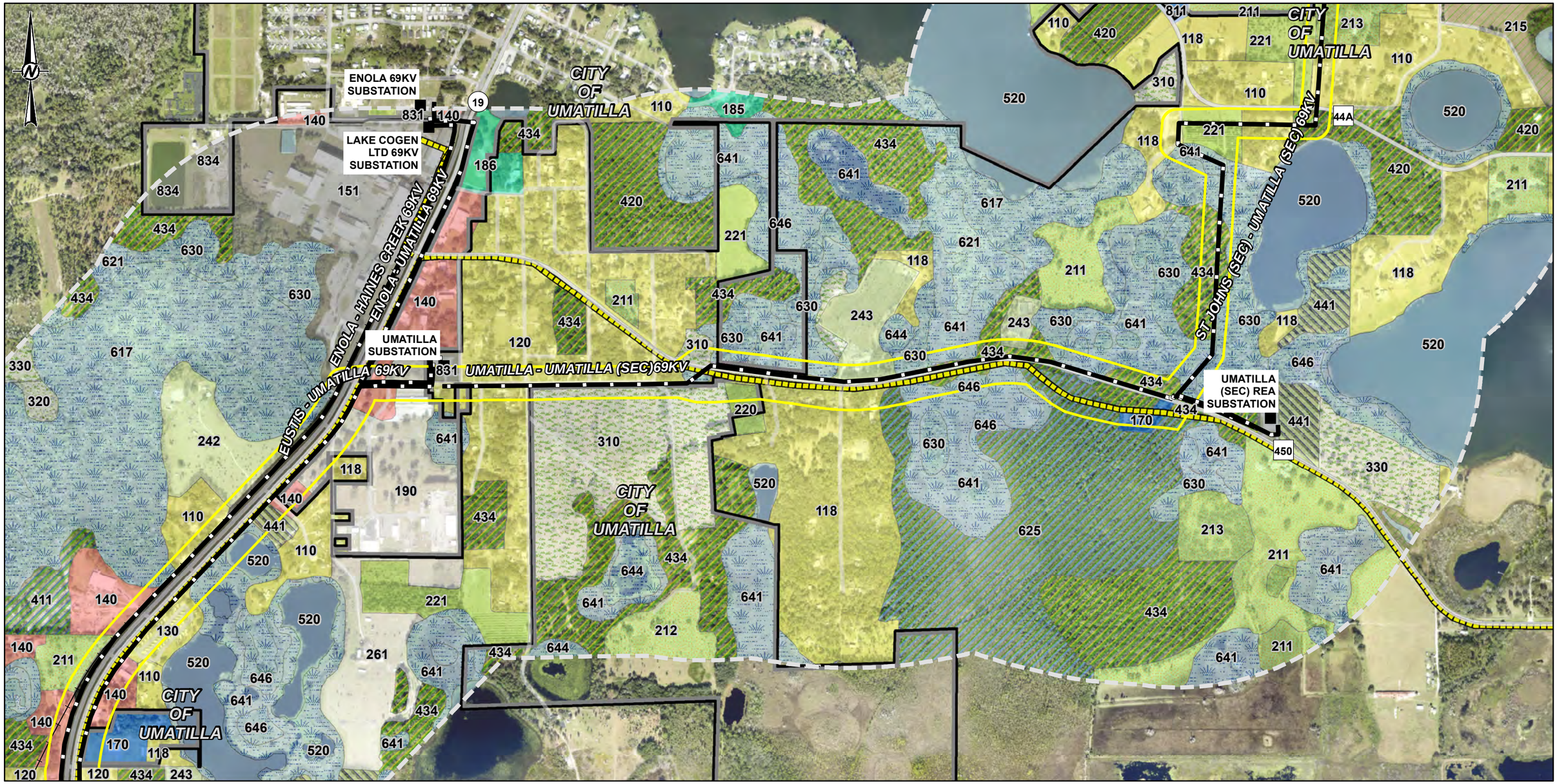


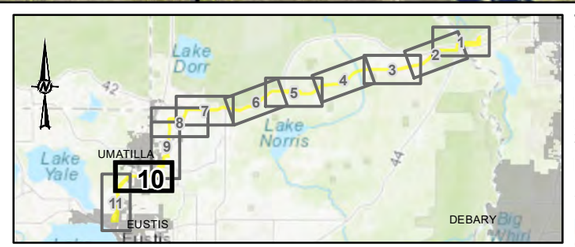

- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

**Land Use Classification**

- Residential
- Commercial
- Industrial
- Institutional
- Community Facility (Cemetery 148, Recreational 184-186)
- Open
- Pasture
- Row Crops
- Agriculture
- Citrus
- Dry Prairie
- Scrub
- Wet Flatwoods
- Upland Flatwoods
- Xeric Hammock
- Mesic Flatwoods
- Transportation
- Water
- Wet Prairies
- Wetland

1,000 500 0 1,000 Feet

1:12,000

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY®

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| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
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| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (10 OF 11) |

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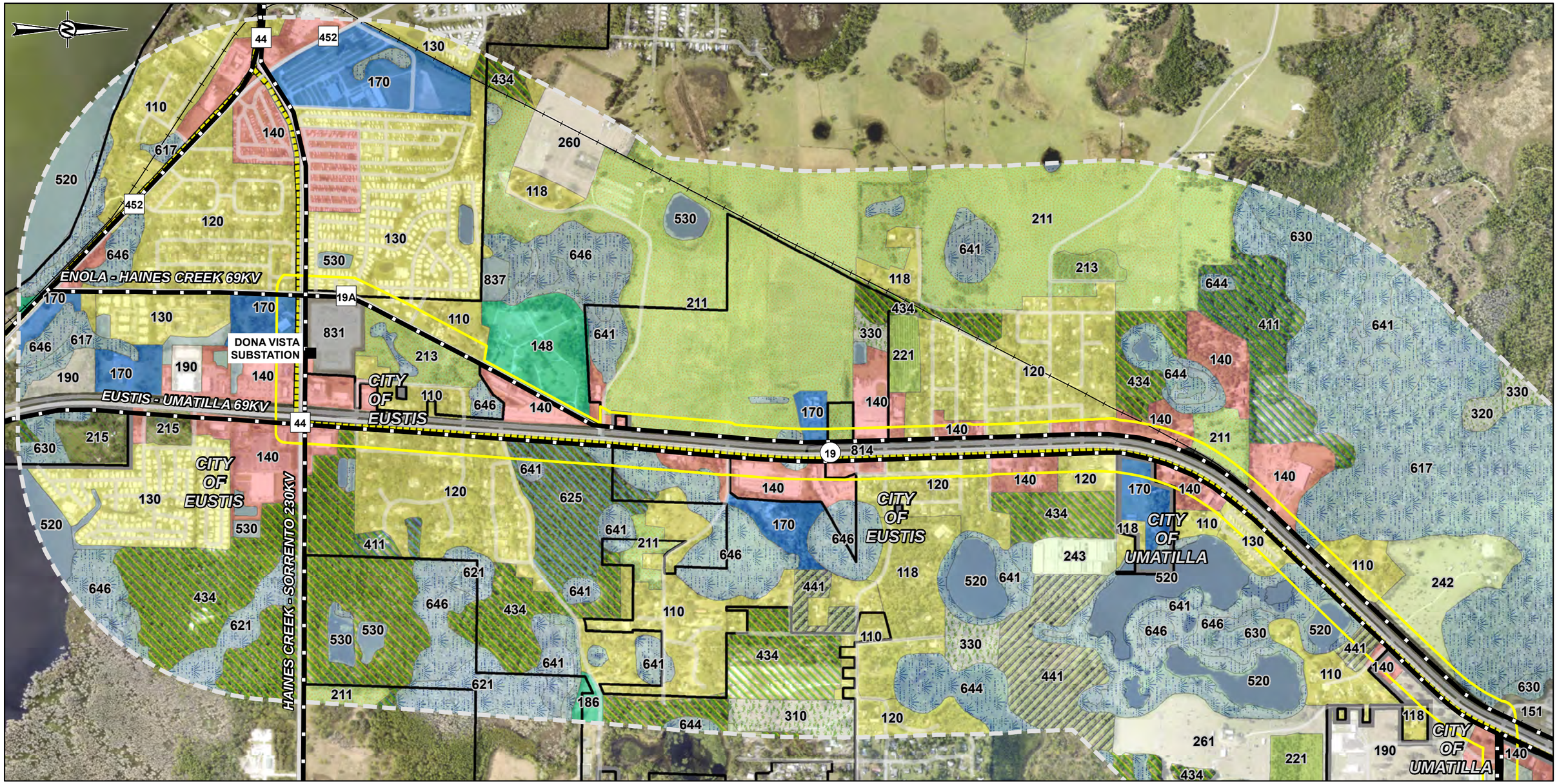


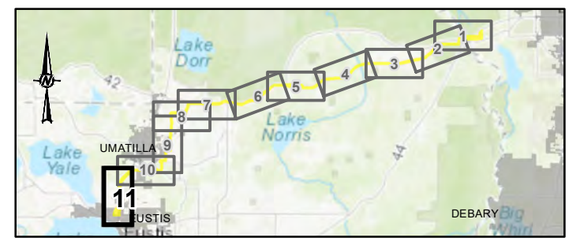

- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Half-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary

**Land Use Classification**

- Residential
- Commercial
- Industrial
- Institutional
- Community Facility (Cemetery 148, Recreational 184-186)
- Open
- Pasture
- Row Crops
- Agriculture
- Citrus
- Dry Prairie
- Scrub
- Wet Flatwoods
- Upland Flatwoods
- Xeric Hammock
- Mesic Flatwoods
- Transportation
- Water
- Wetland

1,000 500 0 1,000 Feet

1:12,000

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA TRANSMISSION LINE CORRIDOR

TITLE
**LAND USE AND VEGETATION COVER**

DUKE ENERGY®

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| YYYY-MM-DD | 2025-08-15 |
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| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K012 | 0 | 2-9 (11 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDV_TLSA\K - TLSA Application\map documents\31404342021K012.mxd PRINTED ON: 2025-08-15 AT: 4:02:00 PM

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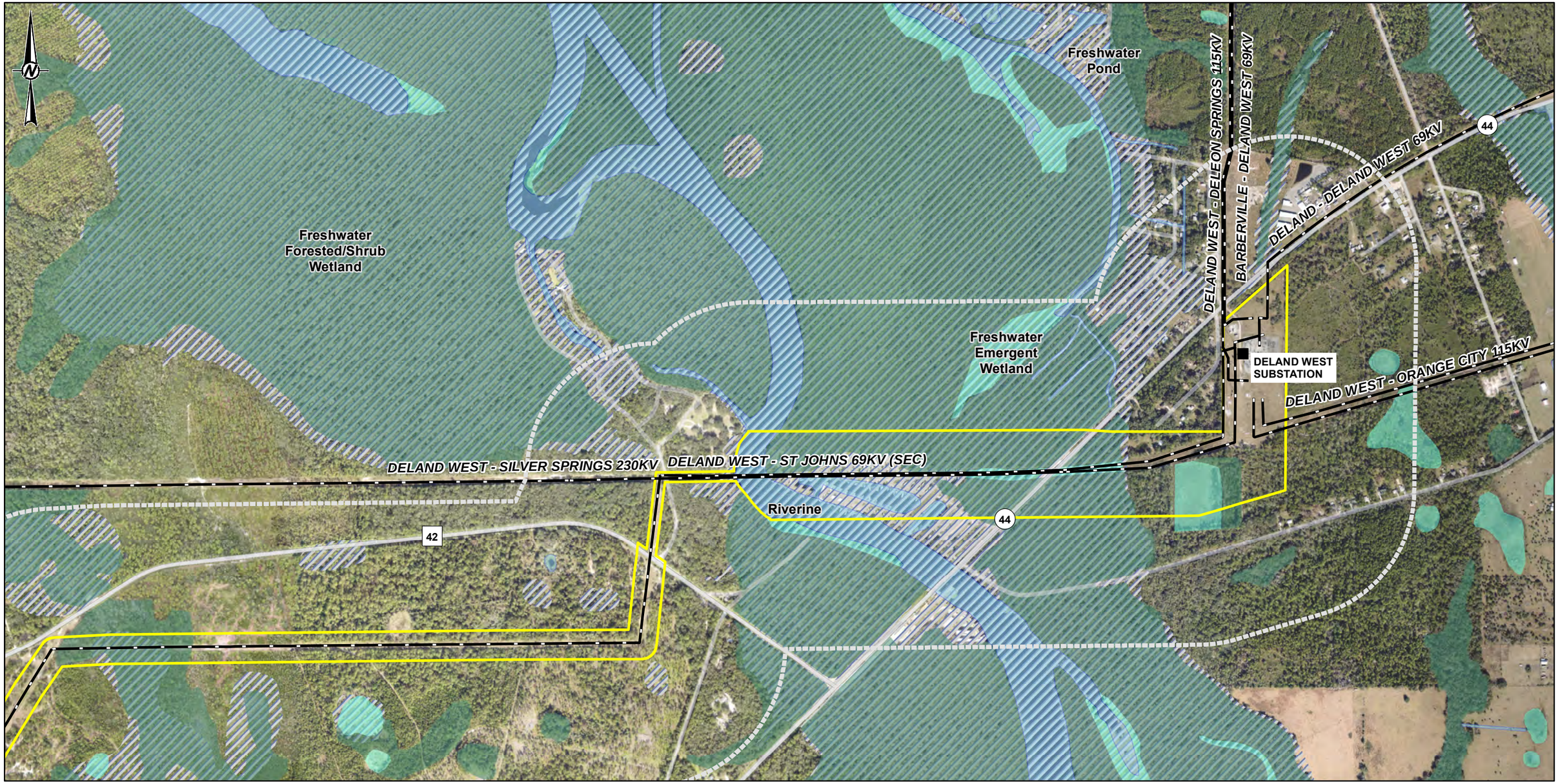
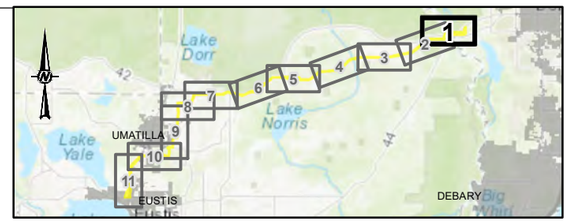



- Existing Substation
- Existing DEF Transmission Line
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Flood Hazard Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Open Water (Pond, Lake, River)

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. WETLANDS: NATIONAL WETLANDS INVENTORY, 2016
2. FLOODPLAINS: FEDERAL EMERGENCY MANAGMENT AGENCY, 2016
3. BASE IMAGERY: 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

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CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**WATERS, WETLANDS, AND FLOODPLAINS**

DUKE ENERGY®

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| YYYY-MM-DD | 2025-08-15 |
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| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K013 | 0 | 2-10 (1 OF 11) |

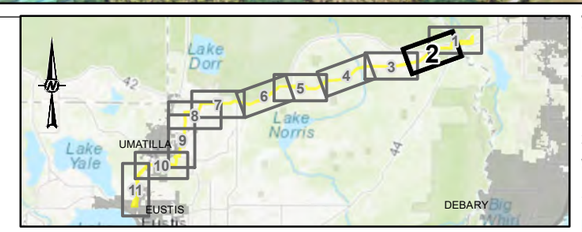
PATH: N:\File\2022\31404342\2021_Duke_DVDW_TLSA\K - TLSA Application\map documents\31404342021K013.mxd PRINTED ON: 2025-08-15 AT 3:32:10 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

- Existing DEF Transmission Line
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Flood Hazard Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Open Water (Pond, Lake, River)

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**
1. WETLANDS: NATIONAL WETLANDS INVENTORY, 2016
2. FLOODPLAINS: FEDERAL EMERGENCY MANAGMENT AGENCY, 2016
3. BASE IMAGERY: 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
SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**WATERS, WETLANDS, AND FLOODPLAINS**

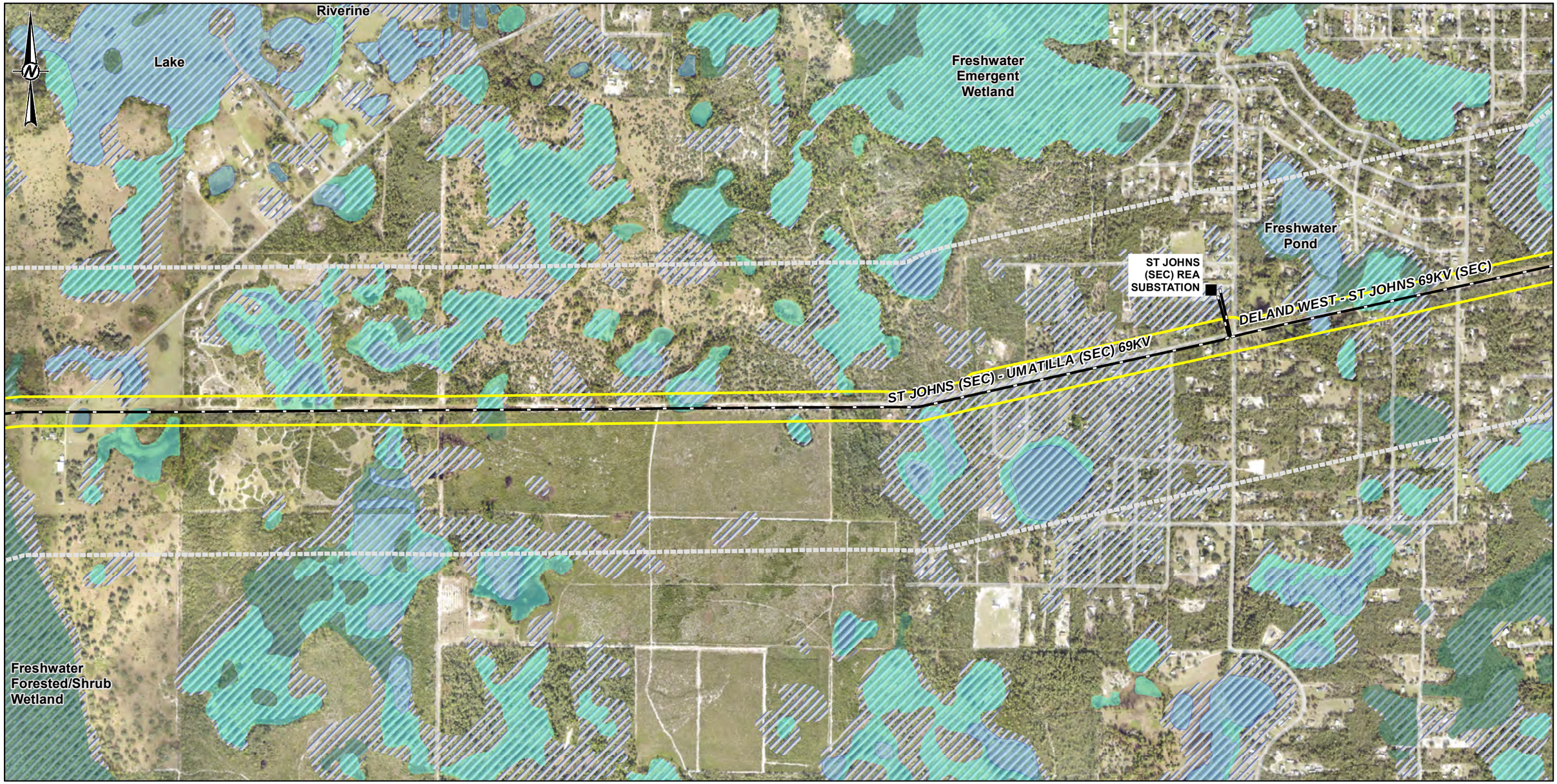
DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K013 | 0 | 2-10 (2 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAK - TLSA Application\map documents\31404342021K013.mxd PRINTED ON: 2025-08-15 AT 3:32:23 PM

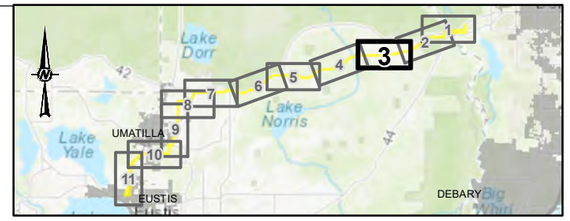
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0




- Existing Substation
- Existing DEF Transmission Line
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Flood Hazard Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Open Water (Pond, Lake, River)

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. WETLANDS: NATIONAL WETLANDS INVENTORY, 2016
2. FLOODPLAINS: FEDERAL EMERGENCY MANAGMENT AGENCY, 2016
3. BASE IMAGERY: 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

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DUKE ENERGY®

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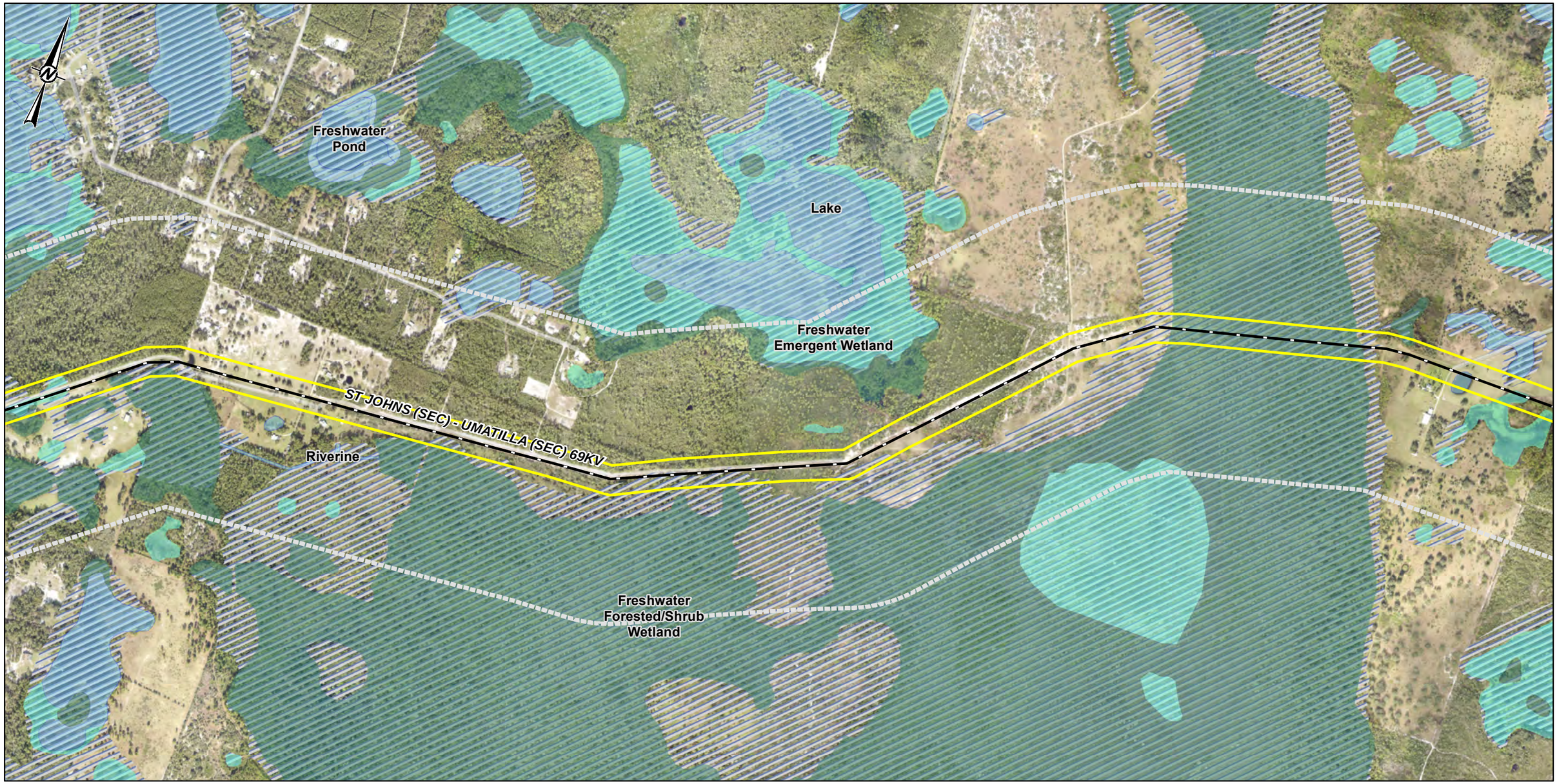
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K013 | 0 | 2-10 (3 OF 11) |

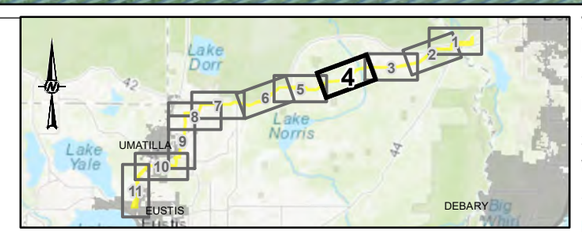
PATH: N:\File\2022\31404342021_Duke_DVDW_TLSA\K_TLSA Application\mxp documents\31404342021K013.mxd PRINTED ON: 2025-08-15 AT: 3:32:35 PM
© THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm




- Existing DEF Transmission Line
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Flood Hazard Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Open Water (Pond, Lake, River)

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

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DELAND WEST TO DONA VISTA PROJECT

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DUKE ENERGY®

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|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K013 | 0 | 2-10 (4 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSA\K - TLSA Application\map documents\31404342021K013.mxd PRINTED ON: 2025-08-15 AT: 3:32:48 PM
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

Riverine

Freshwater Emergent Wetland

Freshwater Pond

Lake

42

ST JOHNS (SEC) - UMATILLA (SEC) 69KV

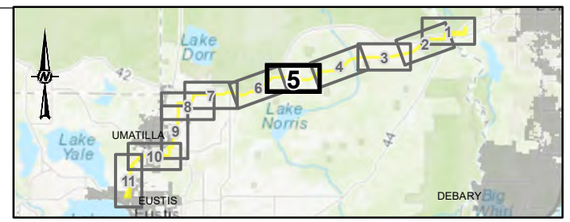
PAISLEY (SEC) REA SUBSTATION

Freshwater Forested/Shrub Wetland

- Existing Substation
- Existing DEF Transmission Line
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Flood Hazard Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Open Water (Pond, Lake, River)

1,000 500 0 1,000 Feet

1:12,000

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DELAND WEST TO DONA VISTA PROJECT

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| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K013 | 0 | 2-10 (5 OF 11) |

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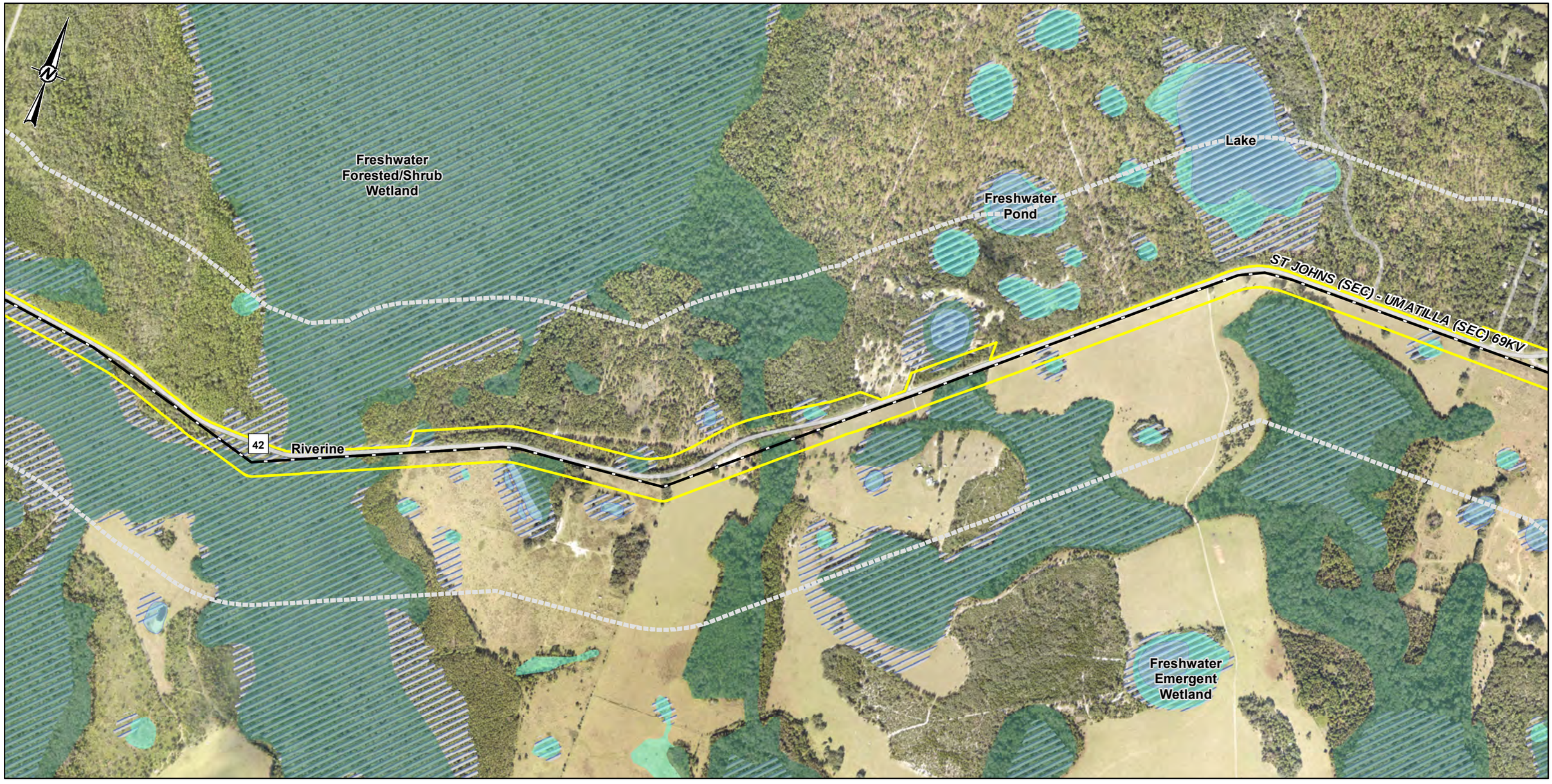
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

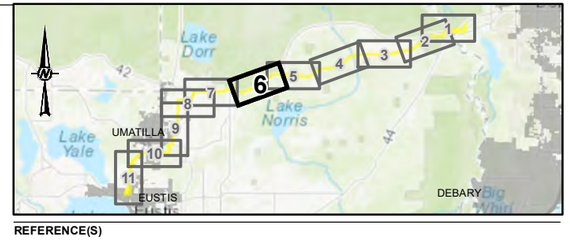
25mm




- Existing DEF Transmission Line
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Flood Hazard Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Open Water (Pond, Lake, River)

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

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DELAND WEST TO DONA VISTA PROJECT

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DUKE ENERGY®

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| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K013 | 0 | 2-10 (6 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAIK - TLSA Application\map documents\31404342021K013.mxd PRINTED ON: 2025-08-15 AT: 3:33:11 PM

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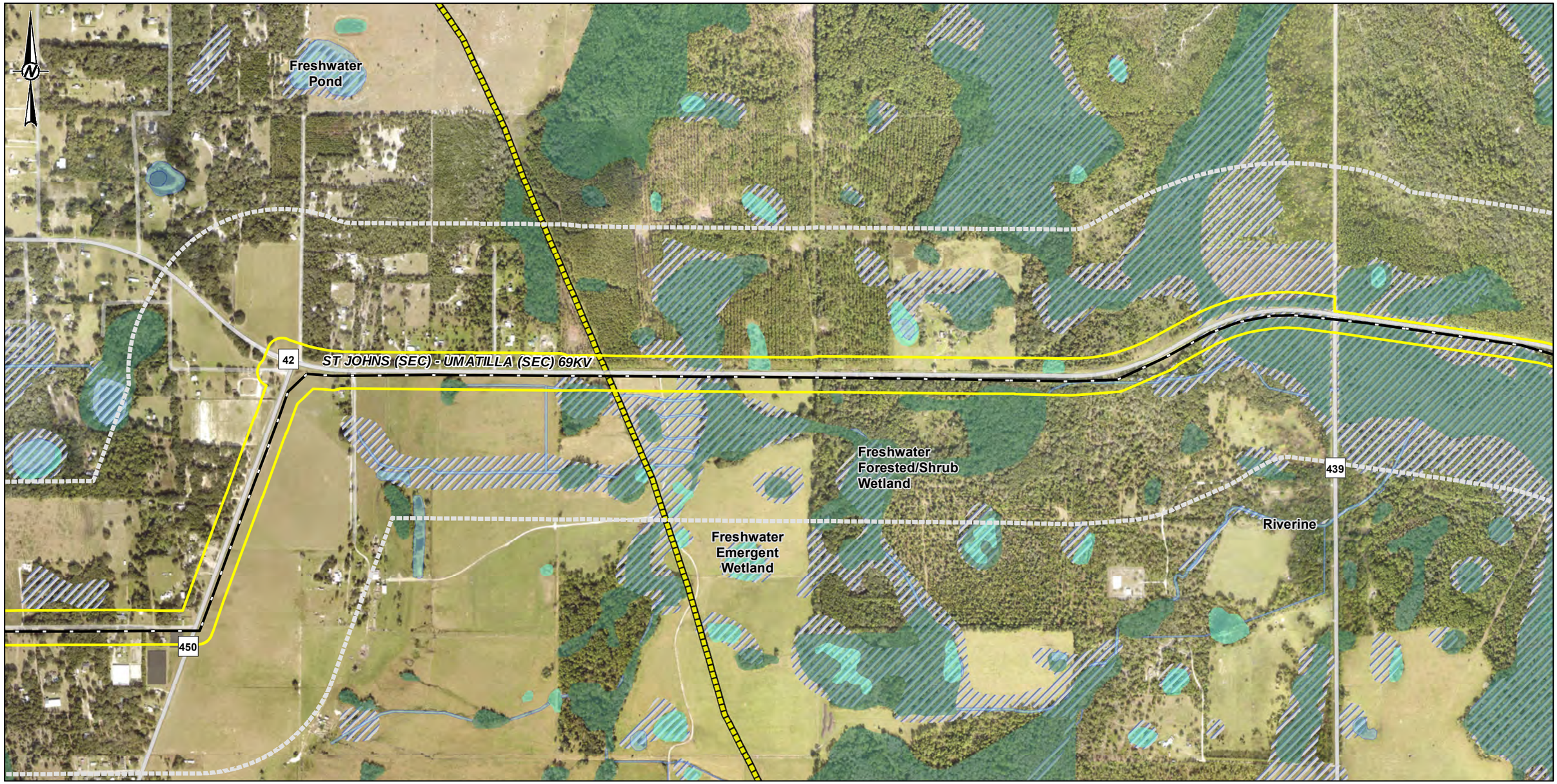
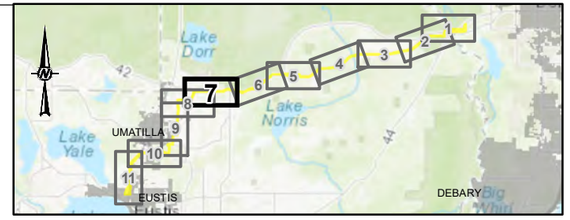
25mm
0




- Existing DEF Transmission Line
- Natural Gas Pipeline
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Flood Hazard Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Open Water (Pond, Lake, River)

1,000 500 0 1,000 Feet

1:12,000

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SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

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PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
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|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K013 | 0 | 2-10 (7 OF 11) |

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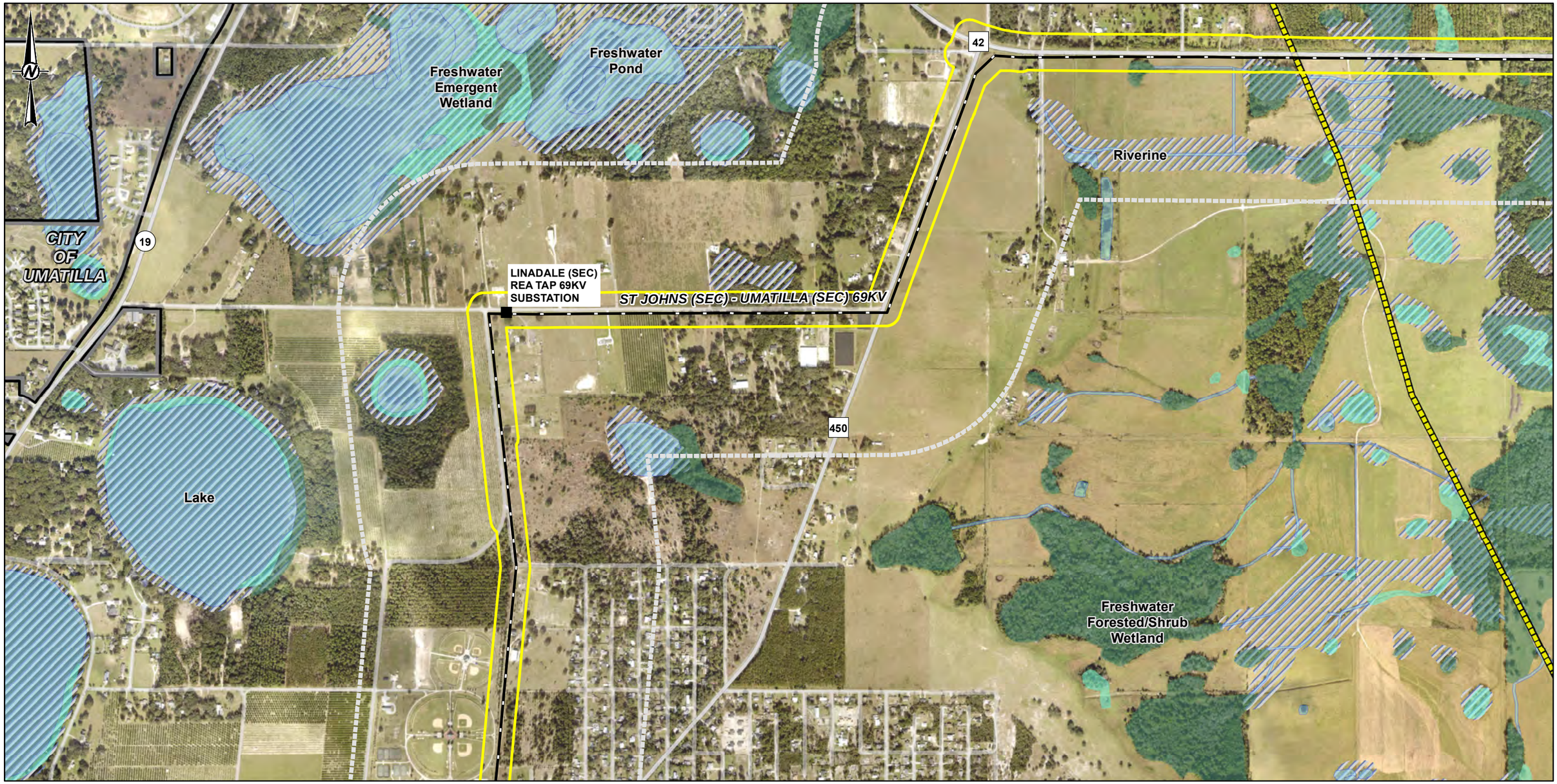
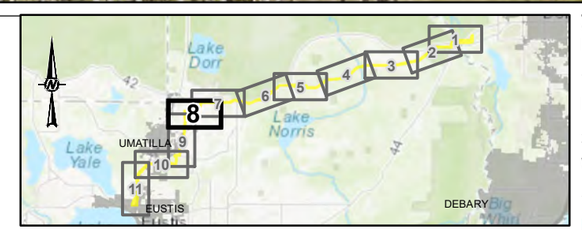
25mm




- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary
- Flood Hazard Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Open Water (Pond, Lake, River)

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

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CLIENT
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TITLE
**WATERS, WETLANDS, AND FLOODPLAINS**

DUKE ENERGY®

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|---|---|
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K013 | 0 | 2-10 (8 OF 11) |

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25mm
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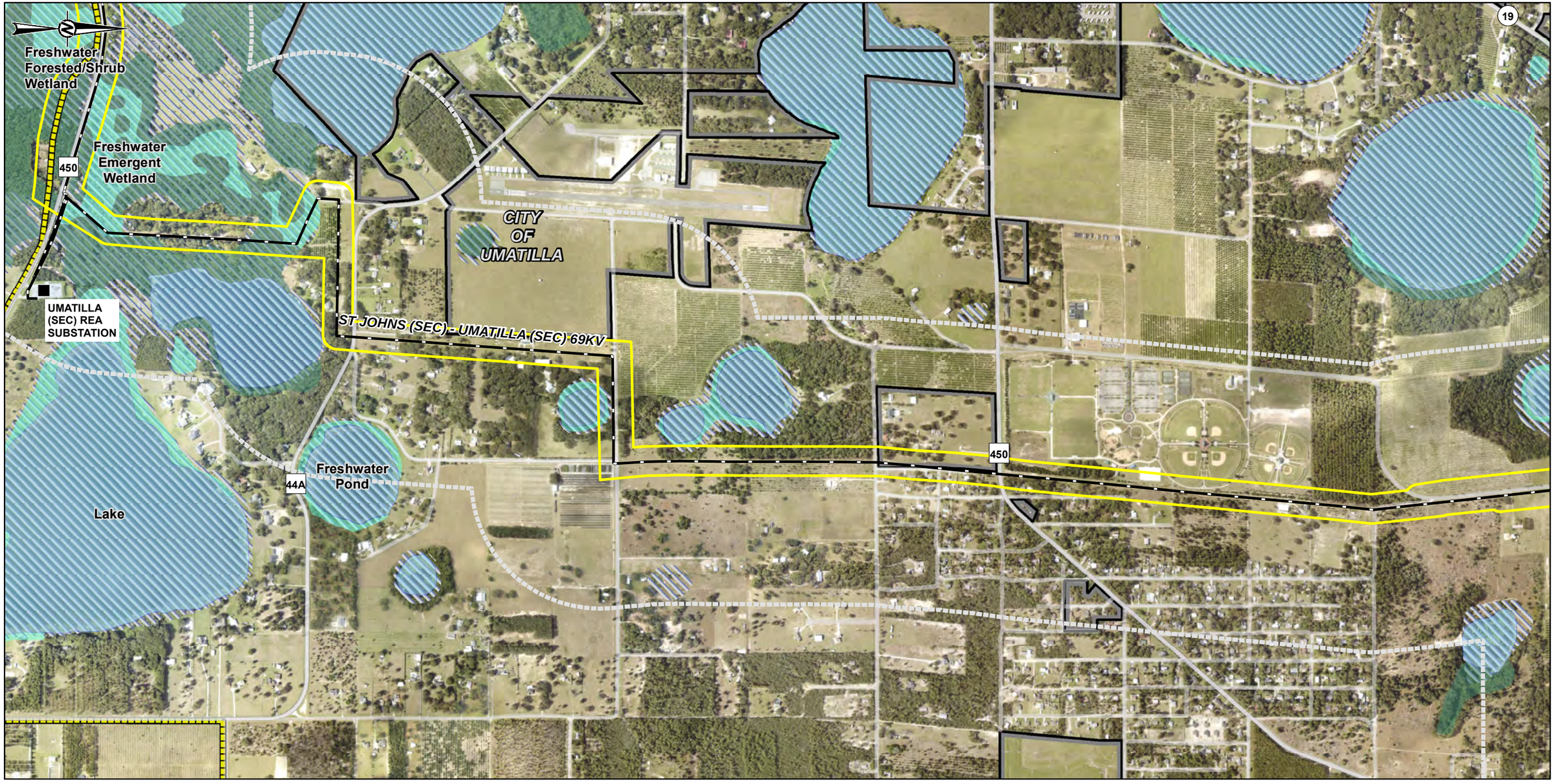
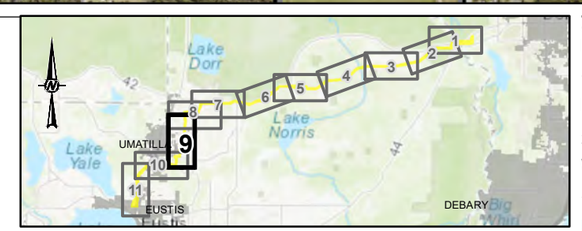



- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary
- Flood Hazard Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Open Water (Pond, Lake, River)

1,000 500 0 1,000 Feet

1:12,000

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| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K013 | 0 | 2-10 (9 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDV_TLSAIK - TLSA Application\mxp documents\31404342021K013.mxd PRINTED ON: 2025-08-15 AT: 3:33:44 PM
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

ENOLA 69KV SUBSTATION

LAKE COGEN LTD 69KV SUBSTATION

CITY OF UMATILLA

Lake

ENOLA - UMATILLA 69KV

UMATILLA SUBSTATION

UMATILLA - UMATILLA (SEC) 69KV

ST JOHNS (SEC) - UMATILLA (SEC) 69KV

UMATILLA (SEC) REA SUBSTATION

ENOLA - HAINES CREEK 69KV

EUSTIS - UMATILLA 69KV

Freshwater Forested/Shrub Wetland

Freshwater Emergent Wetland

Riverine

Freshwater Pond

19

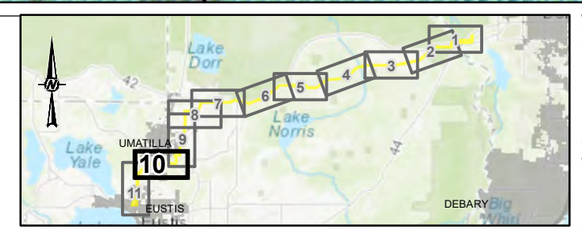
44A

450

- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary
- Flood Hazard Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Open Water (Pond, Lake, River)

1,000 500 0 1,000 Feet

1:12,000

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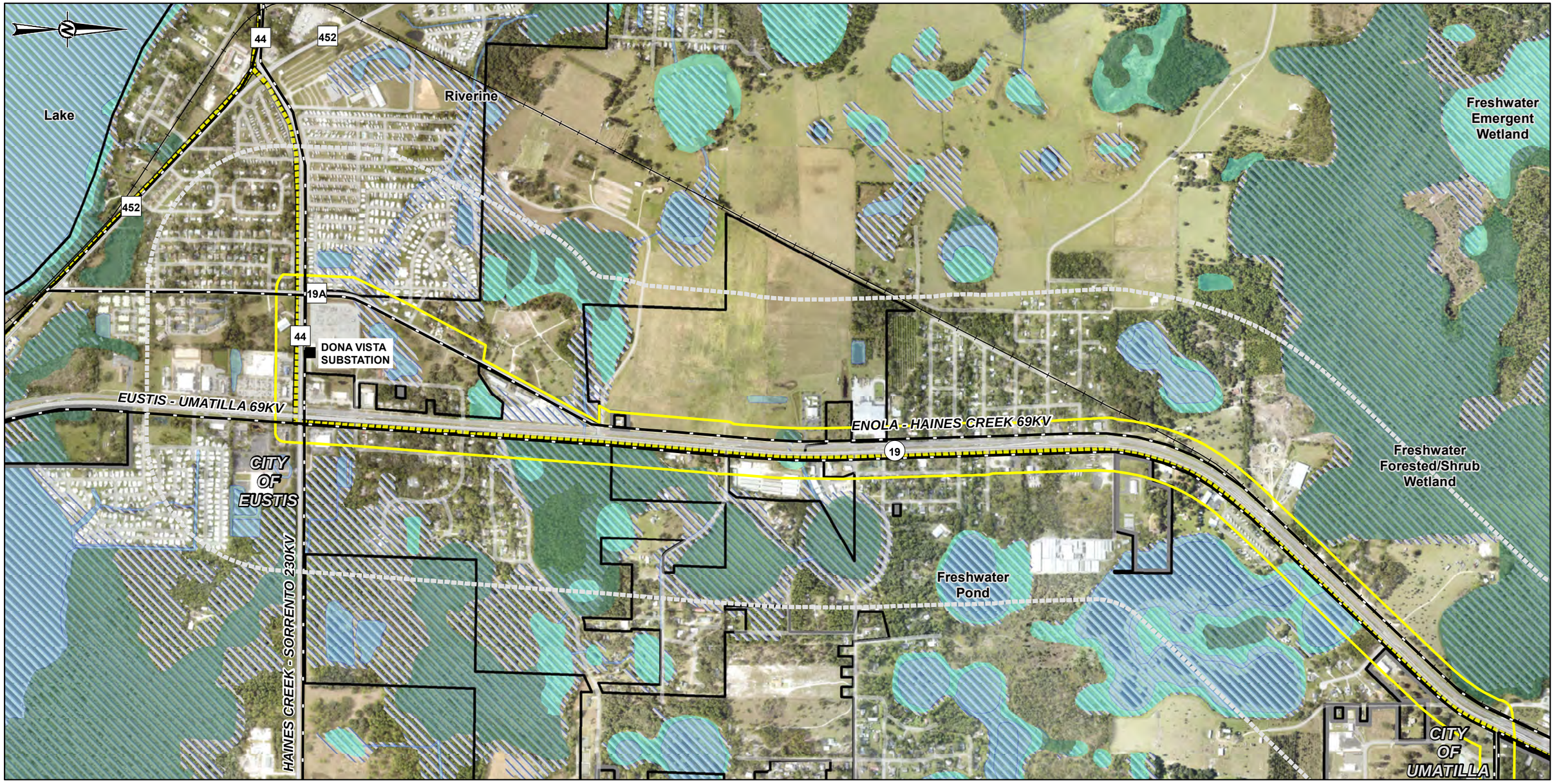
| YYYY-MM-DD | 2025-08-15 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021K013 | 0 | 2-10 (10 OF 11) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAVK - TLSA Application\map documents\31404342021K013.mxd PRINTED ON: 2025-08-15 AT: 3:33:56 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B




- Existing Substation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Quarter-mile Buffer of DWDV Corridor
- DWDV Corridor
- Municipal Boundary
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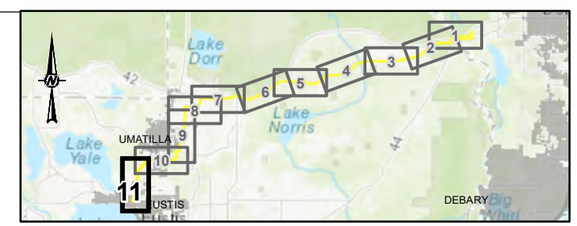
1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. WETLANDS: NATIONAL WETLANDS INVENTORY, 2016
2. FLOODPLAINS: FEDERAL EMERGENCY MANAGMENT AGENCY, 2016
3. BASE IMAGERY: 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

SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**WATERS, WETLANDS, AND FLOODPLAINS**

DUKE ENERGY®

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| YYYY-MM-DD | 2025-08-15 |
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| PREPARED | JWT |
| REVIEWED | GFD |
| APPROVED | MM |

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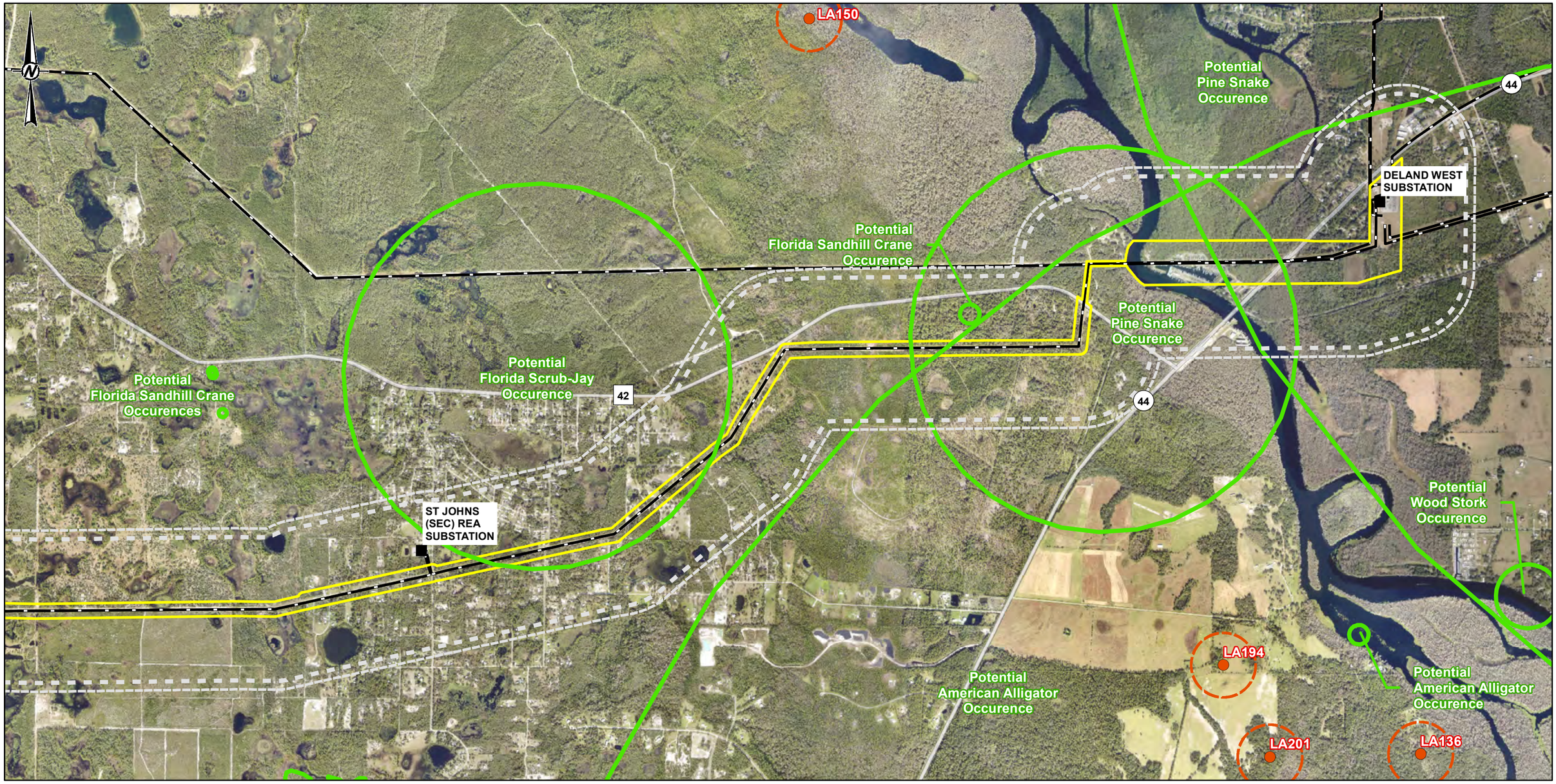


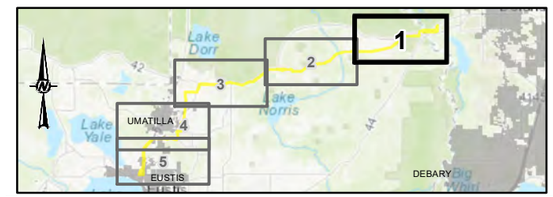

- Existing Substation
- Eagle Nest Observation
- Existing DEF Transmission Line
- Quarter Mile Buffer of DWDV Corridor
- 1500ft Buffer of DWDV Corridor
- DWDV Corridor
- Eagle Nest Observation Buffer (660 Ft)
- Protected Species Element Occurrence Area

2,000 1,000 0 2,000 Feet

1:24,000

**NOTE(S)**

THE DWDV CORRIDOR IS WITHIN USFWS WILDLIFE CONSULTATION AREAS FOR THE EVERGLADES SNAIL KITE, FLORIDA SCRUB JAY, RED-COCKADED WOODPECKER, SAND SKINK, AND THE WEST INDIAN MANATEE.




**REFERENCE(S)**

1. SPECIES ELEMENT OCCURENCE: FLORIDA NATURAL AREAS INVENTORY, 2022
2. FLORIDA SAND SKINK HABITAT: FLORIDA GEOGRAPHIC DATA LIBRARY, 2020
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DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
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DUKE ENERGY®

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Potential Sand Skink Habitat

Potential Red-cockaded Woodpecker Occurence

Potential sand butterfly pea Occurence

Potential Gopher Tortoise Occurence

Potential Florida Scrub-Jay Occurences

Potential Florida Scrub-Jay Occurence

Potential Gopher Tortoise Occurence

Potential Gopher Tortoise Occurence

Potential Gopher Tortoise Occurences

Potential Gopher Tortoise Occurence

Potential Florida Scrub-Jay Occurences

Potential Gopher Tortoise Occurence

Potential Gopher Tortoise Occurence

Potential Florida Scrub-Jay Occurence

Potential Gopher Tortoise Occurence

LA148

42

PAISLEY (SEC) REA SUBSTATION

- Existing Substation
- Eagle Nest Observation
- Existing DEF Transmission Line
- Quarter Mile Buffer of DWDV Corridor
- 1500ft Buffer of DWDV Corridor
- DWDV Corridor
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- Sand Skink Habitat

2,000 1,000 0 2,000 Feet

1:24,000

**NOTE(S)**

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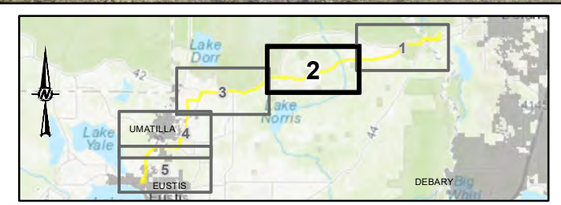


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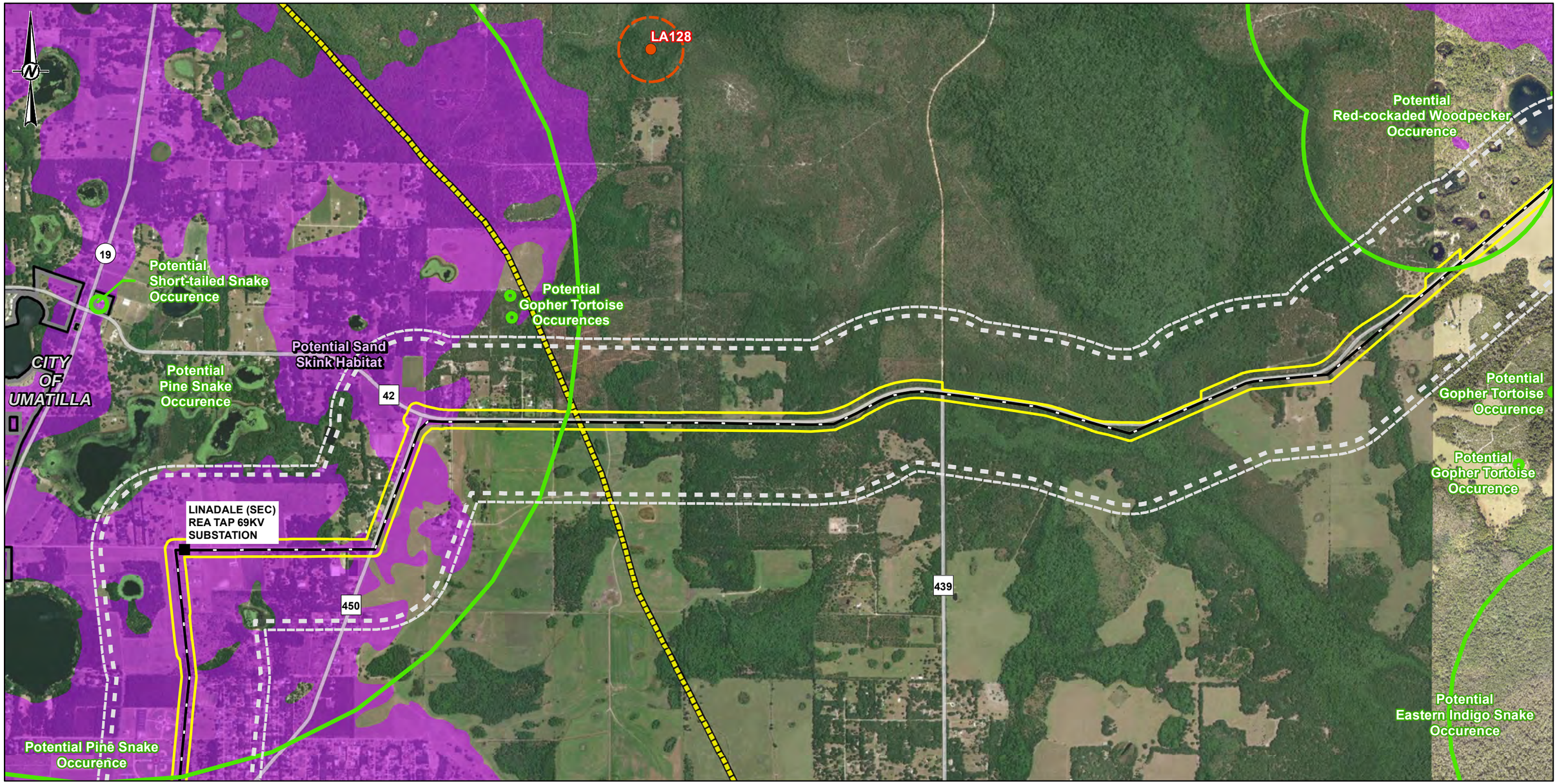


- Existing Substation
- Eagle Nest Observation
- Existing DEF Transmission Line
- Natural Gas Pipeline
- Quarter Mile Buffer of DWDV Corridor
- 1500ft Buffer of DWDV Corridor
- DWDV Corridor
- Eagle Nest Observation Buffer (660 Ft)
- Protected Species Element Occurrence Area
- Municipal Boundary
- Sand Skink Habitat

2,000 1,000 0 2,000 Feet

1:24,000

**NOTE(S)**

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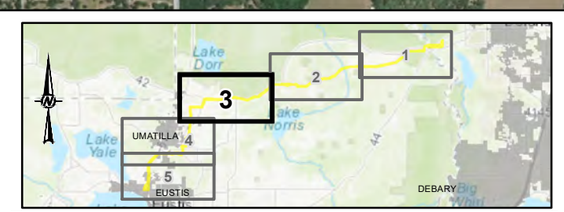


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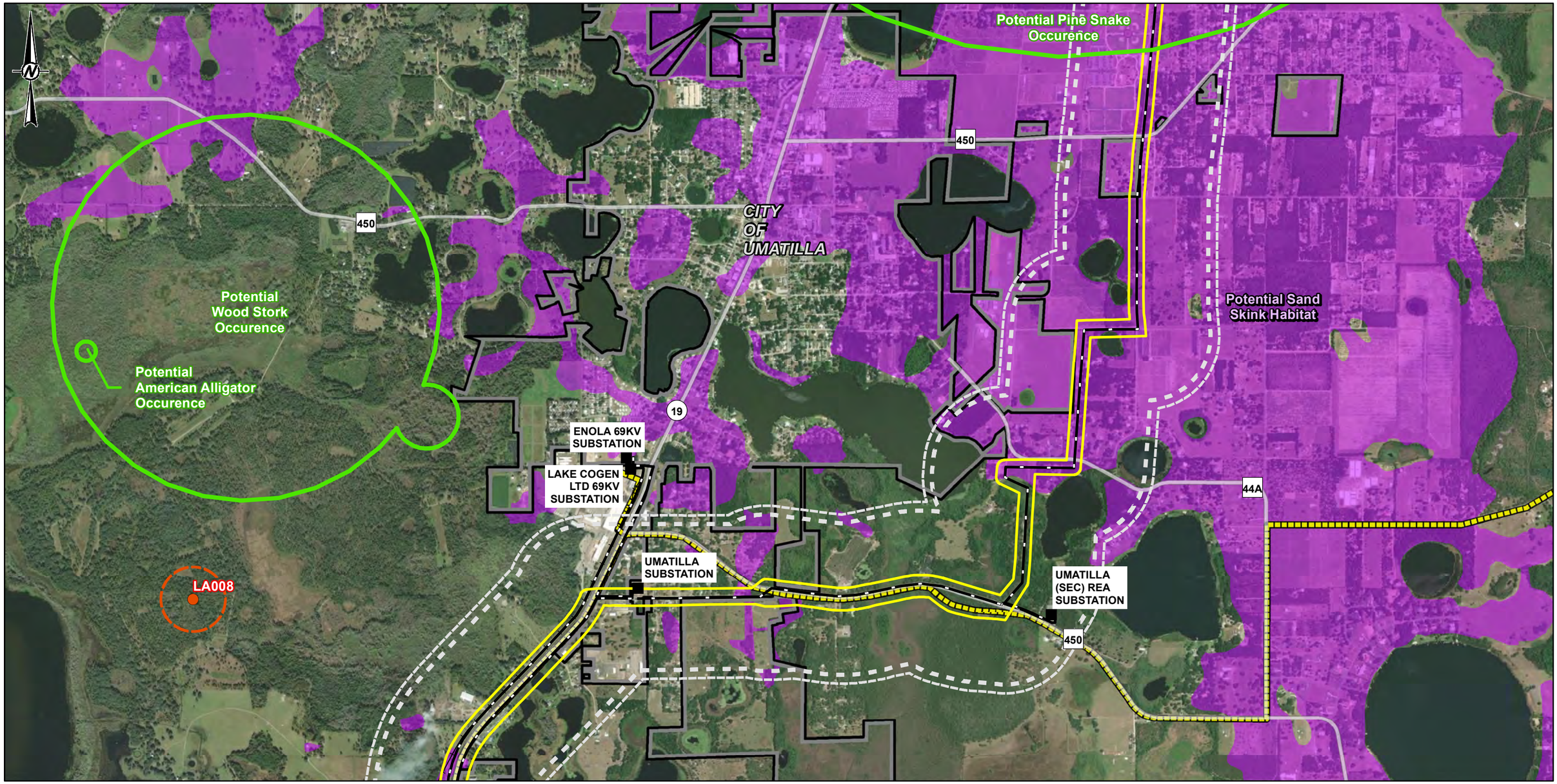


- Existing Substation
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- rails_2017
- Natural Gas Pipeline
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- Sand Skink Habitat

2,000 1,000 0 2,000 Feet

1:24,000

**NOTE(S)**

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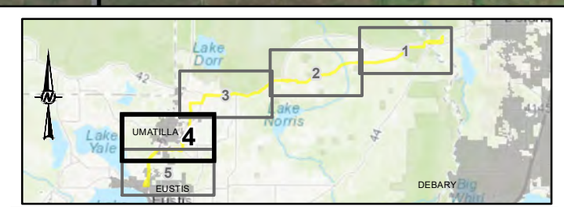


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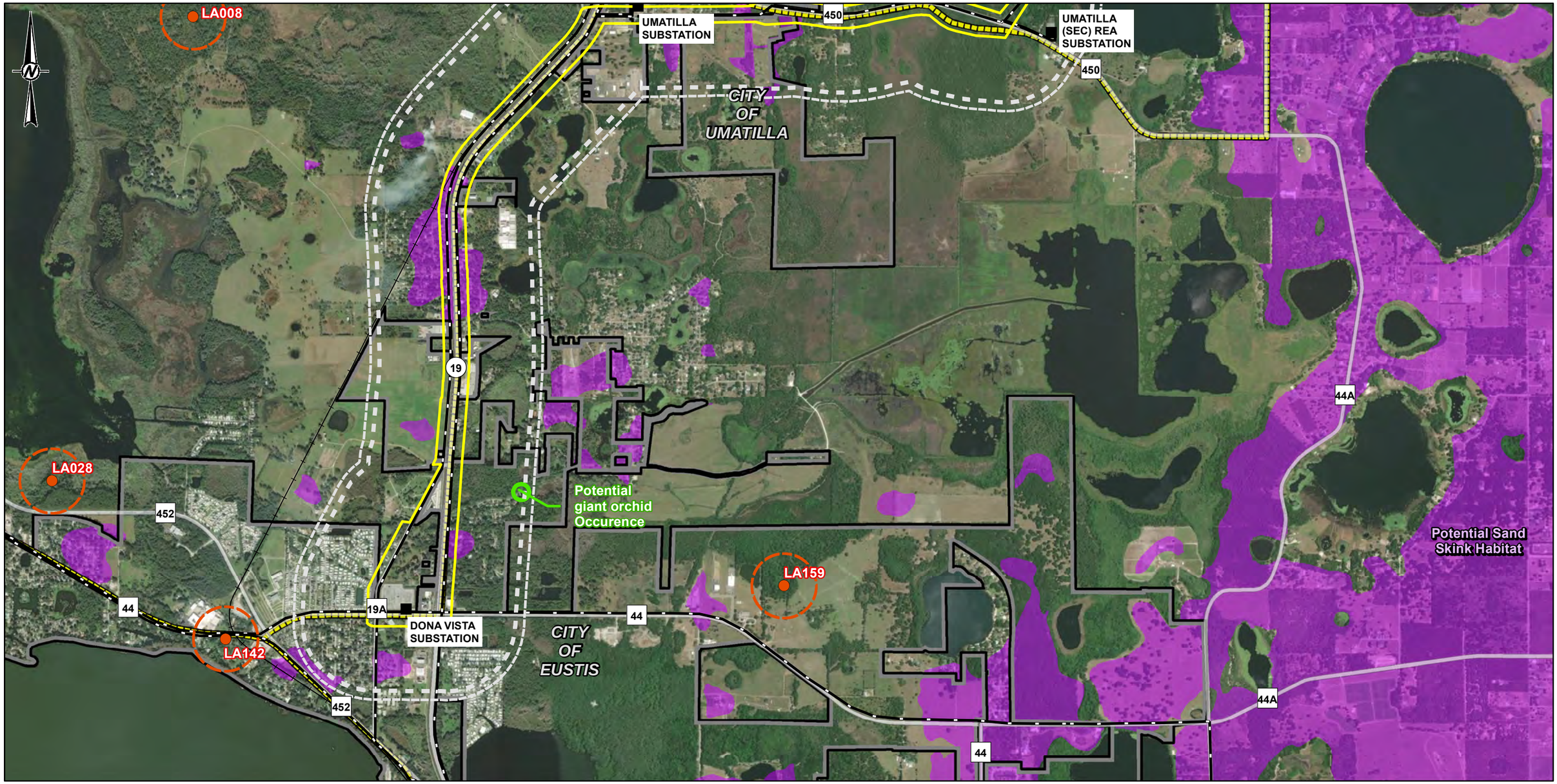


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- Sand Skink Habitat

2,000 1,000 0 2,000 Feet

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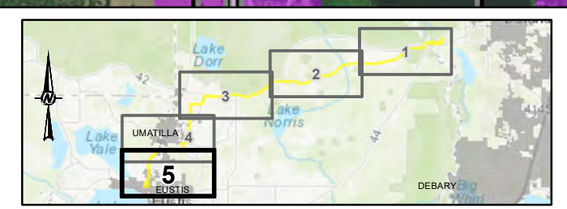


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**APPENDIX A**

# PSC Approval of Petition for Determination of Need - Final Order

FILED 7/29/2025
DOCUMENT NO. 06984-2025
FPSC - COMMISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

| | |
|---|---|
| In re: Petition for determination of need for DeLand West-Dona Vista Transmission Line in Volusia and Lake Counties, by Duke Energy Florida, LLC. | DOCKET NO. 20250078-EI<br>ORDER NO. PSC-2025-0291-FOF-EI<br>ISSUED: July 29, 2025 |

The following Commissioners participated in the disposition of this matter:

MIKE LA ROSA, Chairman
ART GRAHAM
GARY F. CLARK
ANDREW GILES FAY
GABRIELLA PASSIDOMO SMITH

FINAL ORDER APPROVING DETERMINATION OF NEED
FOR AN ELECTRICAL TRANSMISSION LINE

APPEARANCES:

DIANNE M. TRIPLETT, MATTHEW R. BERNIER and STEPHANIE A. CUELLO, ESQUIRES, 299 First Avenue North, St. Petersburg, Florida 33701
On behalf of Duke Energy Florida, LLC (DEF).

JENNIFER AUGSPURGER, ESQUIRE, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850
On behalf of the Florida Public Service Commission (Staff).

MARY ANNE HELTON, ESQUIRE, Deputy General Counsel, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850
Advisor to the Florida Public Service Commission.

ADRIA E. HARPER, ESQUIRE, General Counsel, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850
Florida Public Service Commission General Counsel.

BY THE COMMISSION:

## BACKGROUND

On May 9, 2025, pursuant to Section 403.537, Florida Statutes (F.S.), Chapter 120, F.S., and Rules 25-22.075, 25-22.076, and 28-106.201, Florida Administrative Code (F.A.C)., Duke Energy Florida, LLC (DEF) filed its Notice of Intent to File Petition for Determination of Need for Electrical Transmission Line. On June 9, 2025, DEF filed its Petition to Determine Need for Electrical Transmission Line concerning the proposed DeLand West – Dona Vista 230 kilovolt (kV) transmission line.

In this docket, the Florida Public Service Commission (Commission) makes that need determination. Separate public hearings will be scheduled before an Administrative Law Judge of the Division of Administrative Hearings to consider environmental and other impacts of the DeLand West – Dona Vista 230 kV transmission line, as required by the Florida Electric Transmission Line Siting Act, Sections 403.52-403.5365, F.S.

An Order Establishing Procedure, Order No. PSC-2025-0182-PCO-EI, was issued on May 30, 2025. A Prehearing Conference was held on July 14, 2025. The administrative hearing was held on July 22, 2025, and no issue was contested. By our bench decision, we approved an affirmative stipulation of all issues, as set forth below.

## DECISION

**1. Is there a need for Duke Energy Florida, LLC's proposed DeLand West - Dona Vista 230 kV transmission line, taking into account the need for electric system reliability and integrity, as prescribed in Section 403.537, Florida Statutes?**

As evidenced in the record, DEF has demonstrated that if it does not add transmission capacity in the projected service area there are sufficient transmission risks that would result in power outages in the event of a double contingency event in Lake, Volusia, Seminole, and Orange Counties. While DEF has implemented an Under Voltage Load Shedding (UVLS) scheme to prevent a larger, more catastrophic collapse of the larger electric grid, the customers in the area would experience extended outages. If a double contingency event occurred today, the record indicates that an estimated 29,000 customers would experience extended power outages due to the UVLS activation. Over the next 10 years, DEF demonstrated that the Dona Vista areas' load will grow by an average of 25%, which would further exacerbate this issue.

The record further supports the necessity for this 230 kV transmission line based on its ability to: (a) improve the reliability of service for DEF customers connected to the existing 230 kV circuits in Lake, Volusia, Seminole, and Orange Counties; (b) increase north-to-south power transfer capabilities, providing an additional transmission path and optimizing power flow distribution within Volusia and North Orlando areas; (c) mitigate potential overloads and address low voltage conditions during system contingencies; and (d) decrease the loading on existing transmission circuits. Therefore, we find that DEF has demonstrated a need for the proposed

DeLand West to Dona Vista 230 kV transmission line project, taking into account the need for electric system reliability and integrity.

**2. Is there a need for Duke Energy Florida, LLC's proposed DeLand West - Dona Vista 230 kV transmission line, taking into account the need for abundant, low cost electrical energy to assure the economic well-being of the citizens of the State, as prescribed in Section 403.537, Florida Statutes?**

DEF has demonstrated that the selected project is the most cost-effective and efficient alternative that provides improved reliability for customers served in DEF's service area. Therefore, we find that the proposed DeLand West to Dona Vista 230 kV Transmission Line is needed, taking into account the need for abundant, low-cost electrical energy to assure the economic well-being of the residents of the state.

The approximate cost of the selected project, with its starting and ending points at DeLand West Substation and the Dona Vista Substation, respectively, has a projected in-service cost of $165 million. As supported by the record, these starting and ending points would enable the new transmission line to stay primarily within the existing corridor, potentially reducing the need for new easements. DEF considered four alternative transmission projects which were subsequently rejected for various reasons such as costs or siting concerns.

**3. Are Duke Energy Florida, LLC's DeLand West Substation in Volusia County and its Dona Vista Substation in Lake County the appropriate starting and ending points for the proposed DeLand West - Dona Vista 230 kV transmission line?**

DEF has demonstrated that a new transmission line sited from DEF's existing DeLand West Substation in Volusia County to DEF's existing Dona Vista Substation in Lake County would be the most reliable, cost-effective means to serve the existing and projected load growth within the area. The record demonstrates that these starting and ending points would enable the new transmission line to stay primarily within the existing corridor, potentially reducing the need for new easements. Therefore, we find that the appropriate starting and ending points are the DeLand West Substation and the Dona Vista Substation, respectively. The proposed transmission line's corridor would be approved under the Transmission Line Siting Act (TLSA), with final approval resting with the Transmission Line Siting Board, or, if undisputed, the Florida Department of Environmental Protection (FDEP).

**4. Should the Commission should grant Duke Energy Florida, LLC's petition for determination of need for the proposed DeLand West - Dona Vista 230 kV transmission line project?**

We find that DEF has demonstrated that the DeLand West to Dona Vista 230 kV Transmission Line Project is needed taking into account the need for system reliability and integrity and the need for the delivery of abundant, low-cost electrical energy to retail customers. The appropriate starting and ending points of the line are the existing DeLand West Substation in Volusia County and the Dona Vista Substation in Lake County. The corridor within

which the proposed 230 kV transmission line will be sited will be determined under the TLSA, with final approval resting with the Transmission Line Siting Board, or, if undisputed, the FDEP.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that there is a need for Duke Energy Florida, LLC's proposed DeLand West – Dona Vista 230 kV transmission line project, taking into account the need for electric system reliability and integrity, in accordance with Section 403.537(1)(c), Florida Statutes. It is further

ORDERED that there is a need for Duke Energy Florida, LLC's proposed DeLand West – Dona Vista 230 kV transmission line project, taking into account the need for abundant, low cost electrical energy to assure the economic well-being of the residents of the state, in accordance with Section 403.537(1)(c), F.S. It is further

ORDERED that Duke Energy Florida, LLC's DeLand West Substation in Volusia County and Dona Vista Substation in Lake County are the appropriate respective starting and ending points of the proposed DeLand West – Dona Vista 230 kV transmission line project, in accordance with Section 403.437(1)(c), F.S. It is further

ORDERED that Duke Energy Florida's petition for determination of need for the proposed DeLand West – Dona Vista 230 kV transmission line project is hereby granted. It is further

ORDERED that this docket shall be closed after the time for filing an appeal has run.

By ORDER of the Florida Public Service Commission this 29th day of July, 2025.

ADAM J. TEITZMAN
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399
(850) 413-6770
www.floridapsc.com

Copies furnished: A copy of this document is provided to the parties of record at the time of issuance and, if applicable, interested persons.

JLA

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Office of Commission Clerk, and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

**APPENDIX B**

# Information Distributed to the Public

## APPENDIX B - INFORMATION DISTRIBUTED TO THE PUBLIC

*List of Documents*

1) Mailer Letter – Project Announcement
2) Mailer – Postcard Invite
3) Public Comment Form / Questionnaire
4) Project Fact Sheet
5) Frequently Asked Questions
6) Project Map
7) Typical Structure Example
8) Understanding the Electric Delivery System Information Sheet
9) Selecting Potential Routes for Transmission Lines Information Sheet
10) Construction of New Lines Information Sheet
11) Management and Use of Transmission Easements Information Sheet
12) Undergrounding Transmission Lines Information Sheet
13) Electric and Magnetic Fields Information Sheet
14) Vegetation Management Information Sheet
15) Environmental Stewardship Information Sheet
16) Examples of Typical Line Construction Methods – Open House Display Board
17) Open House Display Boards
    a. Project Timeline,
    b. Community Benefits
    c. Environmental Responsibility and Stewardship
    d. Stay Connected
    e. Factors Considered When Routing Transmission Lines
    f. Vegetation Management
    g. Our Commitment to Your Community

**Duke Energy**
NP4B | 3300 Exchange Place
Lake Mary, FL 32746
duke-energy.com

March 28, 2025

##

## ## ## **********AUTO**MIXED AADC 400 NO
OWNER NAME
STREET ADDRESS
CITY NAME FL ZIPCODE

## New Open House Date

### DeLand West to Dona Vista Reliability Upgrade Project | Lake and Volusia Counties

Dear Neighbor,

We are writing to inform you of the new date of our upcoming project open house, which will now be held on **Thursday, May 29, 2025**.

As part of Duke Energy's commitment to improving electric reliability and ensuring a secure energy grid for Florida, we have identified the need for a new transmission line in your area. This line will span approximately 27 miles between our DeLand West Substation located at 2801 W. New York Ave. in DeLand and our Dona Vista Substation located at 480 W. County Road 44 in Eustis. The new 230-kilovolt (kV) transmission line will add capacity to help support projected energy demand for the area and help improve electric reliability to homes, businesses and community resources such as schools and hospitals.

The majority of the new transmission line will be located in an existing Duke Energy corridor where the current poles will be rebuilt to accommodate the new line. In some locations, new land rights will be needed. Our goal is to minimize the overall potential impact on homes, businesses, the environment and cultural resources. Because you own or lease property within 500 feet of the corridor for the new transmission line, we invite you to join us for an informational open house to learn more about this important project and to provide your input.

### Please join us!

**Thursday, May 29, 2025 | 4:30-7 p.m.**
First Baptist Church of Umatilla
550 Hatfield Drive | Umatilla, FL 32784

You'll have the opportunity to visit Duke Energy representatives at several information stations that address various aspects of the project. Please stop by at your convenience. Your RSVP to attend the informational meeting using the QR code below is appreciated.

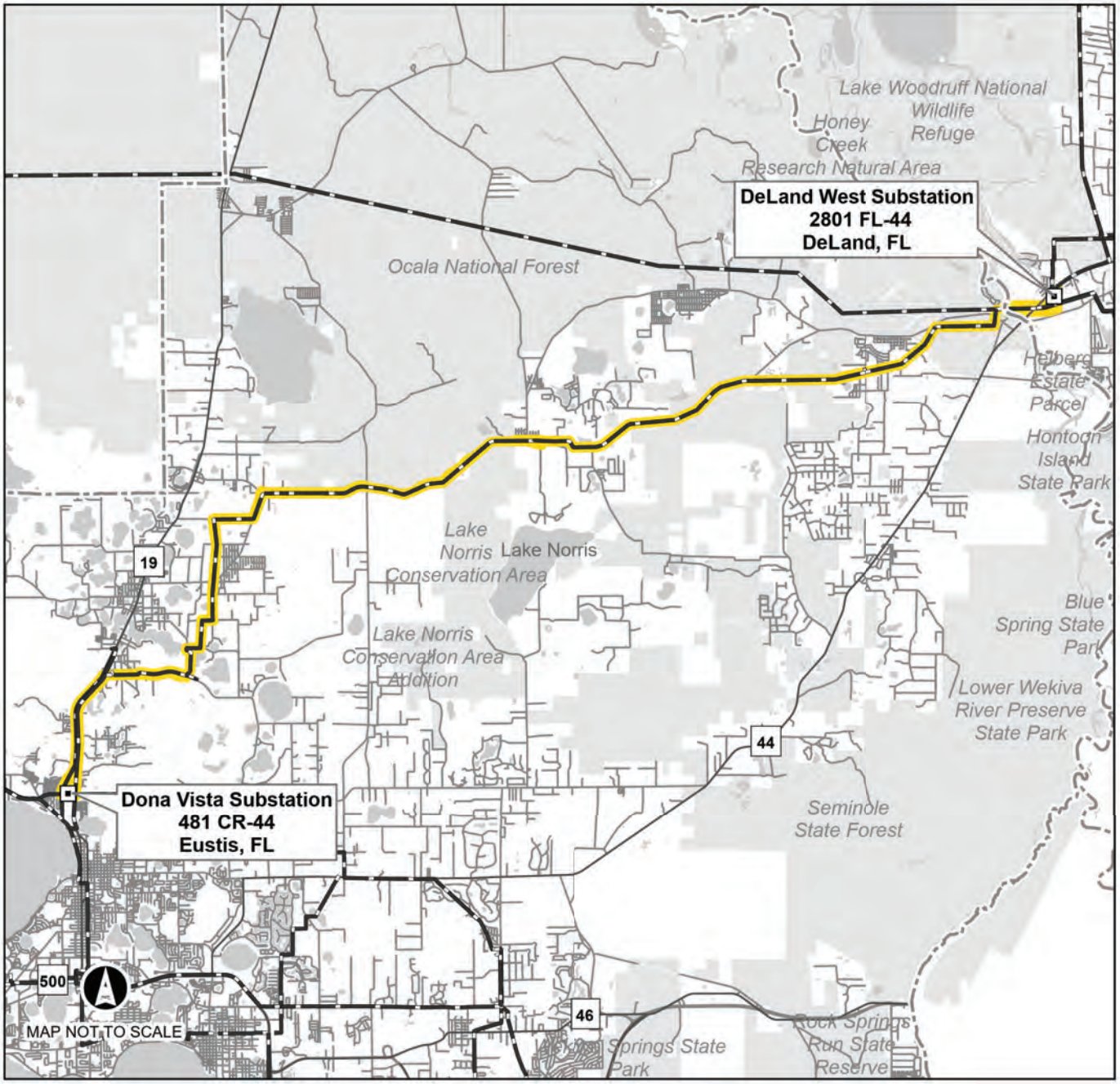
If you have questions about this event or the project, please call 877.840.0101 or email us at FLTransmissionEnhancements@duke-energy.com. Please include the project name (noted above), your name, property address and a phone number where we may reach you. All information available at the information meeting can also be found at duke-energy.com/DeLandDonaVista.

Our electrical system is essential to meeting the community's energy needs and we are working to ensure that it is resilient and secure – now and in the future.

Sincerely,

Wen Tong
Project Manager

# DELAND WEST TO DONA VISTA RELIABILITY UPGRADE PROJECT




**Legend**

- Existing Substation Location
- Existing Duke Energy Transmission Line
- Transmission Line Corridor
- Lakes and Ponds
- Conservation Land
- County Boundary

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**Transmission – Public Engagement**
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Lake Mary, FL 32746

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# Working today for a smarter tomorrow.

### ### **********AUTO**MIXED AADC 400
OWNER NAME
STREET ADDRESS
CITY NAME FL ZIPCODE

###

# Join us for an open house.

Duke Energy is making important investments to enhance the reliability of the energy grid in Volusia and Lake counties. One of these investments is to build an approximately 27-mile new transmission line between our DeLand West Substation located at 2801 W. New York Ave. in Deland and our Dona Vista Substation located at the intersection of 481 W. County Road 44 in Eustis. The majority of the new line will be located in an existing Duke Energy corridor where the current poles will be rebuilt to accommodate the new line.

We invite you to learn more about the project and what to expect during construction when it begins in early 2027.

Date: Thursday, May 29 – 4:30 – 7:00 p.m. (drop in anytime during this time frame)

Location: First Baptist Church of Umatilla, 550 Hatfield Drive, Umatilla, Florida 32784

You may also visit our website, where you will find details about the project, including a virtual information session, interactive map, schedule and informational videos.

For more information about the project:

Email: **FLTransmissionEnhancements@duke-energy.com**

Call: **877.840.0101**

Web: **duke-energy.com/DeLandDonaVista**

Project Name: DeLand West to Dona Vista Reliability Upgrade Project

We are committed to keeping you informed and to answering your questions.

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# Comment Form

Deland West to Dona Vista Transmission Line Project, Lake and Volusia Counties, FL
New 230kV Transmission Line

**Public participation is a vital part of Duke's process for selecting routes for new transmission lines. Our goal is to inform the public about our project, and to select a route for the new transmission line with the least overall impact to homes, businesses and the community. Please complete this comment form after you have reviewed the information provided at the open house or on our website. Your answers will help the team at Duke Energy understand public interests and concerns and we will incorporate this information into our comprehensive route selection and planning process. Thank you for your input.**

This comment form is designed to help identify issues related to a new 230kV transmission line in Lake and Volusia Counties.

1. Which of the following best describes you (mark all that apply)?

   ____Homeowner ____Business owner _____Property owner ____Governmental agency
   ____Active member of interest group (e.g., environmental, neighborhood association)

2. Which of the following best describes your area of interest in relation to the project?

   ____Potential transmission line route is near my home/farm/business
   ____Not affected by any potential transmission line routes
   ____Other, please specify_____

3. Who is your electrical service provider? ___Sumter Electric ___Duke Energy

**PROJECT NEED**

4. Do you believe the need for the new transmission line has been explained effectively?

   _____Yes _____No _____Uncertain

**LINE ROUTING CONSIDERATIONS**

5. The routing of a transmission line involves many considerations.
   Please circle the number that corresponds to the level of importance each routing factor is to you.

| Question | Rating | | |
|---|---|---|---|
| | Not Important | Somewhat Important | Very Important |
| a) Proximity to residential homes | 1 | 2 | 3 |
| b) Proximity to community facilities (schools, local parks, churches) | 1 | 2 | 3 |
| c) Minimize new route impact by placing new facilities alongside other existing linear infrastructures (e.g., roads, railroads) | 1 | 2 | 3 |
| d) Minimize new route impact by placing new facilities alongside other Duke Energy existing transmission lines | 1 | 2 | 3 |
| e) Impact to protected species | 1 | 2 | 3 |
| f) Impact to federal, state, local lands or other environmentally sensitive areas | 1 | 2 | 3 |
| g) Impact to streams and wetlands | 1 | 2 | 3 |
| h) Impact to historic and archaeological resources | 1 | 2 | 3 |
| i) Impact to forested areas (non-state/federal lands) | 1 | 2 | 3 |
| j) Impact to undeveloped lands (including pasture, groves, etc.) | 1 | 2 | 3 |
| k) Impact to commercial/industrial properties | 1 | 2 | 3 |
| l) Maintaining reliable electric service | 1 | 2 | 3 |
| m) Minimize total length of line (reducing the total cost) | 1 | 2 | 3 |

6. Do you know of any specific location or resource (e.g., building, family cemetery, or landmark) and its location within the routing study area that could be considered important and should be considered in the routing evaluation? If so, please provide a description in the area below and any applicable information, such as property address or owner's name. Also, if you are attending the open house, please visit our GIS interactive stations to identify the area(s) to one of our representatives.

_____

_____

_____

7. If you have a concern with a particular location along the transmission line route, please describe the area of concern and describe your concern.

| **Area Designation** | **Concern** |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

8. Do you have any unanswered questions?

_____

_____

9. If you attended the Open House, how did you learn of the Open House?

____ Direct mail ____ Duke Energy web site ____Newspaper advertisement

____ Discussion with someone that was aware of the Open House Other_____

10. Was there adequate notification for the Open House? ____ Yes ____No

11. What suggestions do you have to improve our public notification and information process?

_____

_____

12. Do you feel that your comments were taken seriously, and your questions were adequately answered?

____ Yes ____No

**CONTACT INFORMATION (optional)**

**Personal information will be kept confidential.**

Name _____ Phone _____

Email _____ Date _____

Address _____

City _____ State _____ ZIP _____

Contact Information:
877-840-0101
www.duke-energy.com/DeLandDonaVista
FLTransmissionEnhancement@duke-energy.com

# DeLand West to Dona Vista Reliability Project
## Lake and Volusia Counties
Creating a stronger, more resilient grid

Duke Energy is committed to providing reliable, safe and increasingly clean energy. We're improving our transmission infrastructure – the backbone of our state's energy system – powering communities and helping to build a smarter, cleaner energy future.

### About the Project

We have identified a need to construct a new approximately 27-mile transmission line between our DeLand West Substation in Volusia County and our Dona Vista Substation in Lake County.

### Project Details

- Construct a new transmission line between our DeLand West Substation located at 2801 W. New York Ave. in DeLand and our Dona Vista Substation located at the intersection of 481 W. County Road 44 in Eustis.
- The majority of the new transmission line will be located in an existing Duke Energy corridor where the current poles will be rebuilt to accommodate the new line.
- In some locations, new land rights will be needed.
- The steel and concrete poles will have an average height of 90 to 110 feet.

### Benefits to the Community

- Meets the growing energy demand in the region.
- Strengthens the reliability of the electric grid.
- Minimizes impacts by using an existing transmission corridor.

### KEY PROJECT DATES

| | |
|---|---|
| 2025: | Preconstruction activities |
| Early 2027: | Construction begins |
| Summer 2029: | Project complete |

These dates are subject to change based on factors such as weather, availability of crews and equipment and other unforeseen circumstances.

Typical transmission pole

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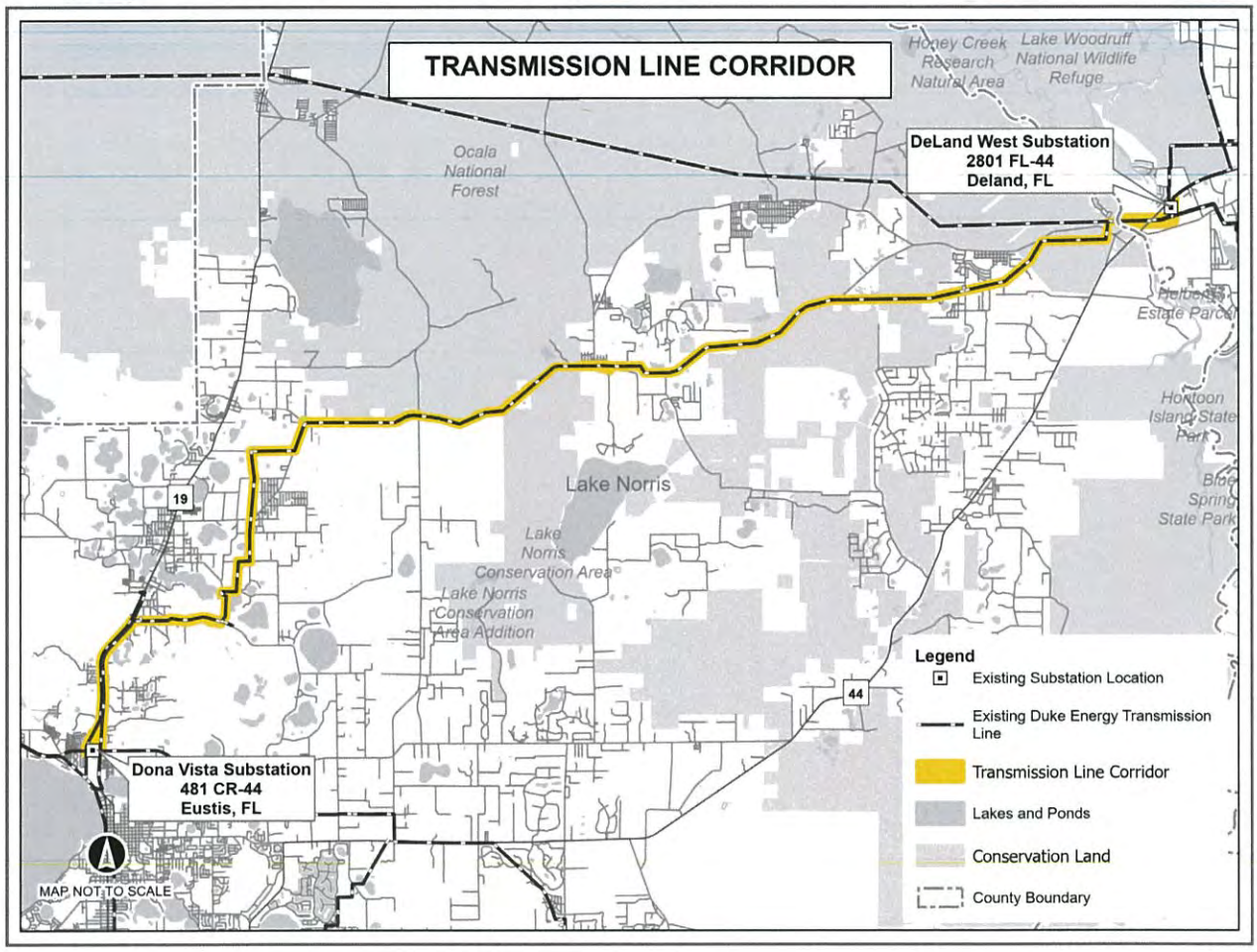
## Project Location

The yellow line below indicates the route for the transmission line.




### For More Information

duke-energy.com/DeLandDonaVista

FLTransmissionEnhancements@duke-energy.com

877.840.0101

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# DeLand West to Dona Vista Reliability Project
# Lake and Volusia Counties
## Frequently Asked Questions

### What is the DeLand West to Dona Vista Reliability Upgrade Project?

Duke Energy is building a new 27-mile, 230-kilovolt transmission line in Lake and Volusia counties. The majority of the new line will be located in an existing Duke Energy transmission corridor where the current poles will be rebuilt to accommodate the new line.

### What is a transmission line?

Transmission lines are a system of electrical wires that carry large amounts of energy over long distances. These wires can run from generation stations to substations where energy is converted to lower distribution levels to serve homes, schools, hospitals and businesses in the community. If you've ever heard a reference to the energy grid, that's the network of the transmission and distribution systems.

### Where will the work take place?

The DeLand West to Dona Vista Reliability Upgrade Project extends from the DeLand West Substation located at 2801 W. New York Ave. in DeLand, Fla., to the Dona Vista Substation located at 481 W. County Road 44 in Eustis, Fla.

### Why is this project needed?

As the population grows in Lake and Volusia counties, so do the energy needs. That's why it's essential that Duke Energy makes improvements to the electric grid, the backbone of the energy system, to help ensure reliable power to homes and businesses in this region in the years ahead.

### Who will benefit from this project?

This reliability improvement project will enhance the resilience and strength of the grid in Lake and Volusia counties. The new power line will increase capacity to help meet the projected demand for energy, reduce the risk of outages, and improve electric reliability to homes, businesses and the community.

### What will the new transmission line look like?

The new transmission line will be approximately 27 miles long and built with single steel or concrete poles (monopoles). The height of these structures typically ranges from 90 to 110 feet but can reach up to 140 feet in some locations, such as when crossing roads or other existing facilities. The base diameter of the poles generally measures between 3 and 4 1/2 feet. The distance between each structure averages approximately 600 to 700 feet.

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### What is the timeline for this project and when will it be complete?

Construction is scheduled to start in 2027 and will be completed in phases. The project is expected to be completed in the summer of summer 2029.

### How will this project impact me?

By utilizing an existing transmission corridor and rebuilding the current poles to accommodate the new line, we can minimize overall impacts on homes, businesses and the community. We also actively work to reduce as much as possible any temporary inconveniences caused to the sensitive areas within the project work zones, including residential communities and areas with historical and cultural significance.

### Will trees or vegetation be trimmed or removed as part of the project?

Our vegetation management specialists will evaluate what vegetation clearing will be needed to accommodate access and equipment for construction, and for the continued safe and reliable operation of the line.

If significant clearing is needed on specific properties to safely install new equipment, we will proactively contact property owners.

### What can I expect during construction?

Following the selection of the line route, engineering design and preconstruction activities such as surveying and soil testing will begin. The first phase of construction involves clearing trees and vegetation from the transmission corridor to allow safe access for the crews during construction and to help ensure the reliability of the line during operation. During this phase, workers may also construct access roads and place protective construction mats.

Crews will then begin pouring structure foundations and erecting structures. Neighbors should anticipate the presence of large trucks equipped with drilling equipment or concrete mixers in the easement area. The structure materials arrive in sections and may be assembled on the ground before installation.

The final construction activity involves stringing the wires. Typically, trucks carrying large reels of conductor are used, with a winch pulling the conductor through. Lineworkers will then attach the wires to the structures. In some cases, helicopters may be used to string wires.

### What if I have other questions?

If you have questions or need more information, please call us at **877.840.0101** or email **FLTransmissionEnhancements@duke-energy.com**. We will respond to you in a timely manner. We will also provide updates throughout the project.

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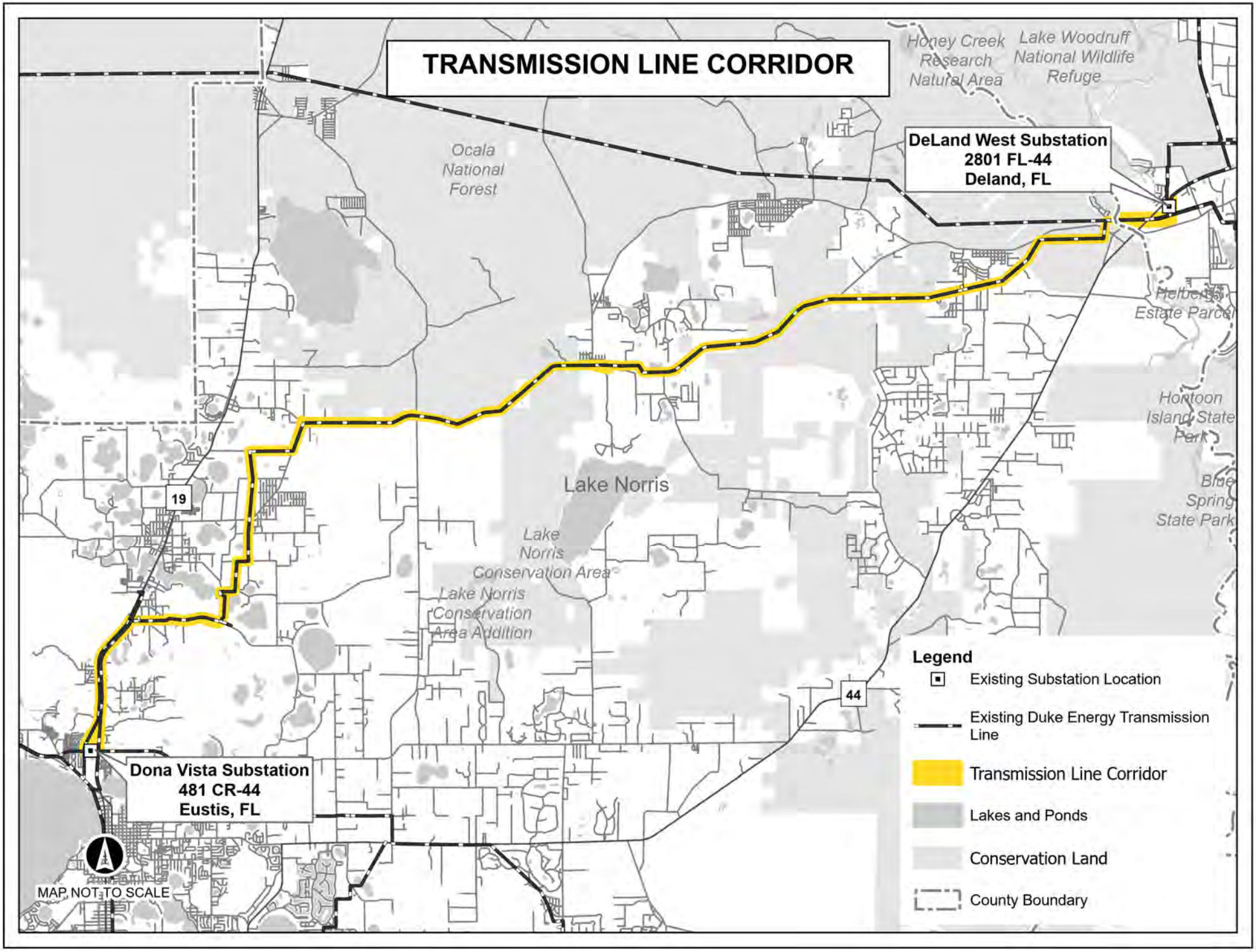
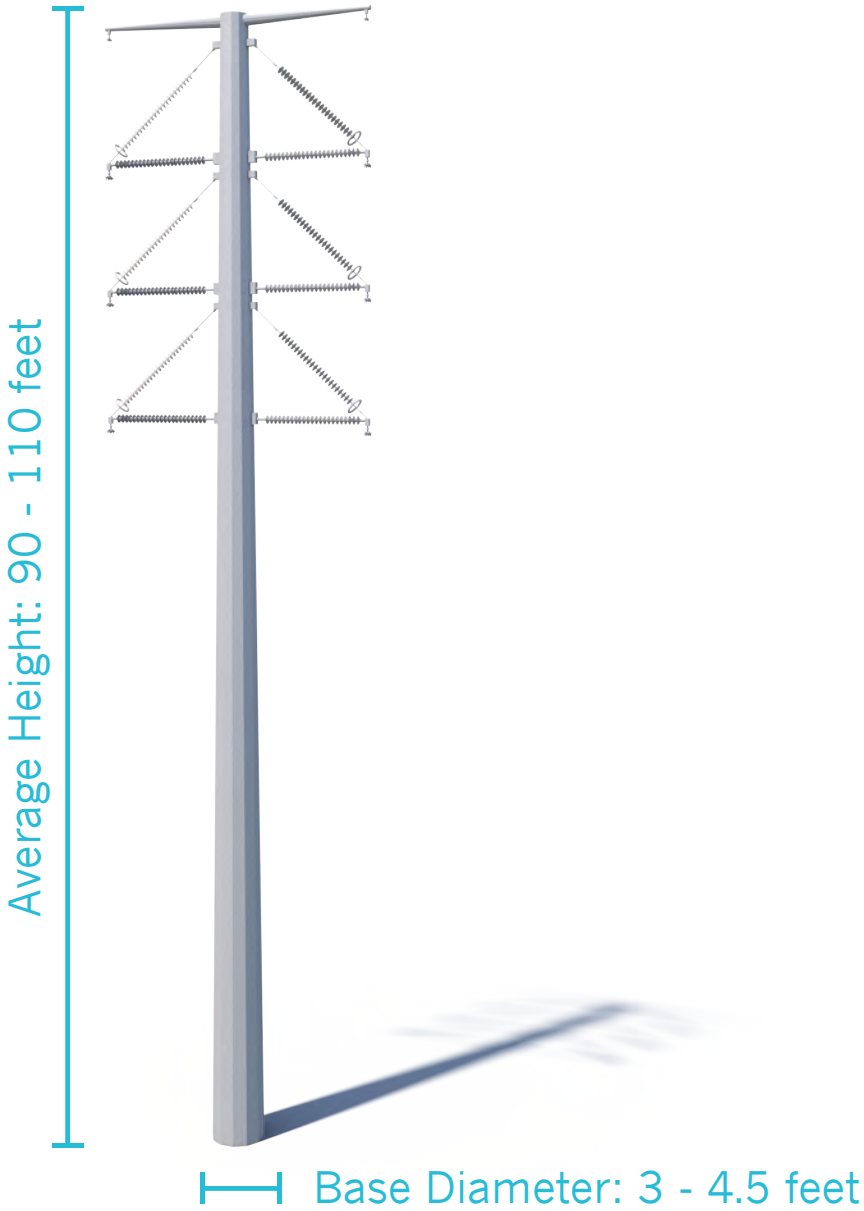

TRANSMISSION LINE CORRIDOR
Honey Creek Research Natural Area
Lake Woodruff National Wildlife Refuge
DeLand West Substation
2801 FL-44
Deland, FL
Ocala National Forest
Helbert Estate Parcel
Hontoon Island State Park
Blue Spring State Park
Lake Norris
Lake Norris Conservation Area
Lake Norris Conservation Area Addition
19
44
Dona Vista Substation
481 CR-44
Eustis, FL
MAP NOT TO SCALE
Legend
Existing Substation Location
Existing Duke Energy Transmission Line
Transmission Line Corridor
Lakes and Ponds
Conservation Land
County Boundary

# Typical
## Structure




**Exact structure, height, and right-of-way requirements may vary.*

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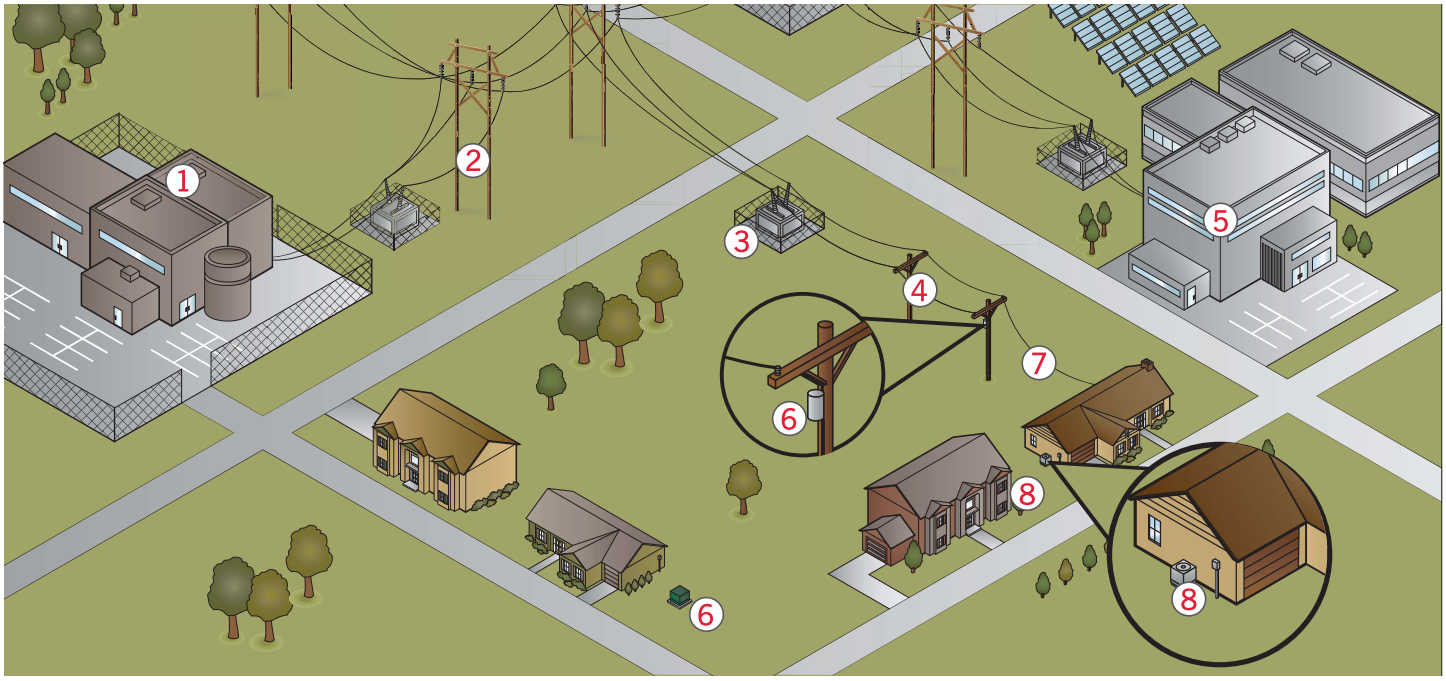
# Delivering Electricity to You

## Understanding the Electric Delivery System




**Electricity — everyone uses it.** Power generation is a complex process and delivering electricity to your home or business is dependent on sophisticated distribution systems. Duke Energy wants you to have a general understanding of our electric power production process and how the combination of generating stations, poles and power lines work together to make your days and nights more comfortable and convenient.

### Power Generating Stations (1)

Duke Energy produces electricity at our nuclear, fossil-fueled, solar and hydroelectric generation stations.

### Transmission Lines (2)

From the generating stations, large amounts of electricity are transported on high-voltage transmission lines to local substations. Duke Energy's transmission lines, rated at volts to 525 kilovolts, extend throughout our service territories and also connect our utilities with surrounding electric utilities to promote greater reliability of the regional grid systems.

### Substations (3)

Next, substations — banks of electrical equipment — convert the transmission line voltage to lower levels that are appropriate for use in local communities. Substations also control the flow of electricity and protect the lines and equipment from damage.

### Distribution Power Lines (4)

Distribution power lines, which can be installed above or underground, carry between 4 and 25 kilovolts of electricity to your neighborhood.

### Your Home or Business (5)

A (6) transformer converts the distribution level voltage to levels that can be used inside your home or business (120 to 480 volts). Voltage is carefully measured to meet the customer's needs. Transformers can be mounted on poles or placed on the ground. This voltage is carried from the transformer through an underground or overhead power line — also referred to as a (7) service drop to (8) individual meters.

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# Selecting potential routes for transmission lines

Duke Energy's goal is to minimize impacts on the environment, cultural resources and communities as we address transmission needs. In selecting potential routes for transmission lines, the company balances many factors – such as community input, environmental impact, safety, cost and reliability. The company uses a transparent and thoughtful process that considers many elements.

- Duke Energy involves the public early in the planning process – before selecting any specific transmission routes. Community input improves the process and provides a better result.
- A team of scientists, planners and engineers develops the list of criteria used to identify potential corridors. Community input, as well as ecological, physical, real estate and land use information, is collected and used to evaluate the corridors and determine viable routes (the actual easement areas for the new transmission lines).
- We look for corridors and routes that minimize the impact on homes, the community and the environment, while meeting the legal and engineering requirements of the project and minimizing the costs to customers.
- After an intensive study, Duke Energy identifies a number of potential routes for the new transmission lines.
- Duke Energy will host community informational meetings to engage local residents and key stakeholders for input on the potential routes and to share information about the project.
- Experts from Duke Energy will also be available at the community meetings to answer questions. We will incorporate information gathered from these outreach activities into our planning process.
- Crews then conduct further field and aerial research. Duke Energy will continue to review the corridors until a final determination is made.
- When the transmission routes are ultimately selected, rights of way will be acquired.
- Following rights-of-way acquisition, Duke Energy will begin engineering and design of the line. Specific placement of poles or other structures will be determined prior to construction.

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# Construction of New Lines

Installing transmission structures and lines can be similar to a typical construction site, with numerous crews, trucks and other equipment. Generally, homeowners can anticipate skilled contractors and trade workers, who are subject to specific requirements, to work during daylight hours. We typically do not work during nighttime hours. A Duke Energy employee is assigned to each project as an inspector.

In deciding specific locations and types of structures, the company considers many factors, including property boundaries, nearby roads, cultural and archaeological sites, terrain, potential environmental impacts and avoiding structures.

There may be lulls between the phases of activity, but in general, homeowners can expect these stages of construction:

### Surveying

Small survey crews will be on the site several times during the project.

### Clearing and grading

Probably the most noticeable portion of construction involves clearing the easement to provide a safe area to work. The right of way must be clear during the construction process. Workers also may build access roads during this phase.

### Foundations and installing structures

Homeowners can expect large trucks with drilling equipment or a concrete mixer in the right of way. The concrete is poured at the bottom of a deep hole to form the foundation. The structure materials arrive in sections and may be assembled on the ground before being installed.

### Stringing lines

Trucks carrying large reels of conductor are typically used, with a winch to pull the conductor through. Linemen attach the wires to the structures. Later, crews install “ground rods” to the structures. Homeowners’ power is typically not affected when the line is energized.

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# Management and Use of Transmission Easements

Duke Energy's electric transmission lines are in both urban and rural areas. Typically, the company does not own the land on which the facilities are located but has easement rights that allow Duke Energy to use another person's property to construct, operate, maintain, repair, replace electrical facilities and maintain access to those facilities and keep the easement area clear of interferences and obstructions. The landowner may continue to use the easement area so long as the use is not inconsistent with the easement.

Duke Energy understands landowners may want to use transmission easements for many purposes. We encourage uses that are safe for the public and our employees that do not interfere with the reliable operation and maintenance of the line.

- These compatible uses may include farming, grazing, gardening, biking, hiking and parking.
- In some cases, low-growing shrubs, bushes, hedges, flowers, grasses or other plants may be planted within Duke Energy transmission easements.
- If you are not sure if your intended plans are compatible, we encourage you to speak with a Duke Energy Asset Protection Specialist.

Any incompatible use by the landowner is called an encroachment because it may compromise the safe and reliable operation of the line and/or interfere with maintenance or outage restoration efforts. Incompatible uses include but are not limited to:

- Permanent or temporary structures and buildings, garages, sheds, satellite systems, intersections, cul-de-sacs, entrances, streets, swimming pools, decking, playground equipment, graves, billboards, dumpsters, signs, wells, deer stands, retaining walls, septic systems or tanks
- Mounding or stockpiling any material, such as spoils, dirt, logs, construction or building material, wrecked or disabled vehicles
- Fences or utilities that cross the easement in multiple segments in a non-continuous alignment from outside edge of the easement to the opposite side of the easement at angles less than 30 degrees or greater than zero degrees
- Parking or lighting facilities that affect clearances, access or Duke Energy's ability to make full use of its easement
- Placement of combustible materials and/or fire pits, or the burning of anything

## Management of Transmission Line Corridors

- Duke Energy's vegetation management program is designed around an integrated vegetation management (IVM) strategy that targets the removal of incompatible vegetation to minimize potential outages to the transmission system and to help ensure necessary access, and staging/working areas for large, heavy equipment within all transmission easement areas.
- IVM promotes and conserves sustainable plant communities that are compatible with the intended use of the site and manages incompatible plants that may conflict with that intended use. This approach is recognized as an industry best management practice and aligns with the ANSI A300 Part 7 standard.
- Incompatible vegetation for above-ground transmission lines – Vegetation within or outside of the transmission easement that will at any time now or in the future mature to a height or size that will pose a grow-in, fall-in, or blowing-together threat to the transmission conductor (typical maximum mature height greater than 15 feet within the transmission easement depending on location and voltage).
- Incompatible vegetation for underground transmission lines – Vegetation within or outside of the transmission easement that at any time now or in the future is capable of posing a threat (e.g., root systems, etc.) to the underground transmission conductor by a) causing damage to the underground pipes/cables or b) reducing the moisture in the soil, thus altering the thermal properties of the surrounding soil/backfill and thereby negatively impacting the cable ampacity rating (typical maximum mature height within the easement – greater than 3 feet depending on location and voltage).
- Incompatible vegetation for safe and reliable operation and access on all transmission lines – Vegetation that does or will limit or block access, limit the safe and reliable operation, emergency restoration, or maintenance of the transmission facilities, limit the full use of the transmission easement for its intended purposes or vegetation, which is typically within a horizontal distance of 25 feet of any Duke Energy facilities (towers, poles, guy wires, guy anchors, manholes, dip-poles, substation equipment, etc.).

For more information and contact information for a local Asset Protection Specialist, please go to **duke-energy.com/TransmissionROWGuidance**.

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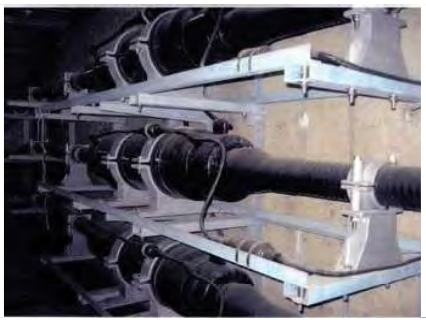
# Undergrounding Transmission Lines



**Distribution lines, the power lines that connect directly to homes and businesses, are often placed underground. So why not bury transmission lines too?**

### The answer is complicated:

Duke Energy carefully evaluates each transmission project to determine whether an overhead or underground installation is most suitable. Burying transmission lines presents significantly different challenges than overhead construction.

- The construction of underground transmission lines demands the use of more expensive materials and requires precise installation and testing. This, along with other additional costs such as real estate acquisition and relocation of underground utilities, results in costs that are generally 10 to 15 times more than the cost of overhead transmission lines, depending on the specific project.
- Installation requires extensive digging that can have a significant impact on natural resources such as wetlands and wildlife habitats. Typically, that means a 16-foot-wide trench that's 6 to 9 feet deep. Also, burying lines does not preclude the need to remove trees, and construction impacts would be considerable – with heavy construction equipment, blasting and the need to build access roads and other facilities.
- Mountainous terrain poses additional installation and environmental challenges for underground lines, likely requiring shorter distances between manholes, cable reinforcement and special construction processes, adding to the costs of the line.
- The size of the duct bank in which the transmission cables are placed can vary depending on the voltage, power requirements and number of transmission circuits.
- Manholes for cable pulling and splicing are buried 10 feet deep and are 8 feet wide and 24 feet long. Manhole spacing is normally 1,500 to 2,000 feet but can vary significantly depending on the features and obstructions of the underground route.
- Though underground transmission lines are protected from trees, they are still subject to damage. When a fault does occur, it takes much longer to repair, resulting in longer restoration times.

While the installation of transmission lines underground presents a number of challenges, we will continue to evaluate each transmission project to determine the safest, most effective installation for our customers and our communities.

### More information and contact:

duke-energy.com/transmission-projects

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# Electric and Magnetic Fields

Duke Energy is committed to safely providing electric service for our customers and ensuring a safe working environment for our employees. The company funds, participates in and monitors research aimed at answering questions and addressing property owners' questions and concerns about electric and magnetic fields (EMF).

- Electric fields are created by voltage. You will find an electric field near any electrical appliance that is plugged in, even when it is switched off. Magnetic fields, by contrast, are created by current or electricity flowing through a wire. So, an appliance must be plugged in and operating to create a magnetic field.
- Because electricity is so common in daily life, most of us are in contact with electric and magnetic fields virtually all the time. Examples include power poles, electrical wiring in buildings, electric motors and appliances, TVs, computers, hair dryers, etc.
- Numerous studies have been conducted over the past 30 years in an attempt to determine whether an association exists between exposure to magnetic fields and human health.
- There have been studies that pointed to some association between EMF and human health, and others that found no association at all. Association does not mean cause and effect.
- Virtually all laboratory studies on animals and cells have failed to establish an association between EMF and human health.
- International Agency for Research on Cancer (IARC) states: "All known human carcinogens that have been studied adequately for carcinogenicity in experimental animals have produced positive results in one or more animal species." No positive results (causing animal cancers) have been found from magnetic fields exposure.
- An EMF report completed by the National Institute of Environmental Health Sciences to the U.S. Congress states: "The lack of connection between the human data and the experimental data (animal and mechanistic) severely complicates the interpretation of these results." Given the limitations of current scientific knowledge, we are not able to determine the potential effect of EMF on human health.
- Magnetic fields from power substation equipment, measured at the substation fence, are generally negligible. However, measurements at the substation fence can reflect the magnetic fields from nearby power lines entering and exiting the substation and generally do not exceed measured values for overhead transmission and distribution lines located elsewhere.

## Related Topics

Various organizations, including most prominently the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and the Institute for Electrical and Electronic Engineers (IEEE), issue guidelines and standards recommending exposure limits that protect against electrostimulation.

### General Public Exposure Limits for Power Frequency Fields

| Organization | Magnetic Field (mG) | Electric Field (kV/m) |
|---|---|---|
| ICNIRP | 2,000 | 4.2 |
| IEEE | 9,100 | 5.0 (10 on ROW) |

Note: The unit of measure for electric fields is volts per meter (V/m). Kilovolts per meter (kV/m) is the unit most commonly used directly beneath transmission lines where the field is typically in the thousands of volts. The unit of measure for the magnetic field is the gauss (abbreviated as G), with exposure expressed in milligauss or mG (1/1,000th of a gauss).

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## Electromagnetic Hypersensitivity (EHS)

Some individuals experience a wide range of nonspecific symptoms such as headaches and sleep disturbance that can be debilitating, which they ascribe to EMF exposure. Further, some of these individuals believe they can sense the presence of high fields that trigger their symptoms. The consensus of the scientific community is that while some of these individuals clearly have health conditions and may be reacting to factors in their environment, their symptoms are not related to EMF. This conclusion is based mostly on carefully conducted laboratory tests in which self-identified EHS individuals could not detect the presence of fields.

## Implanted Devices

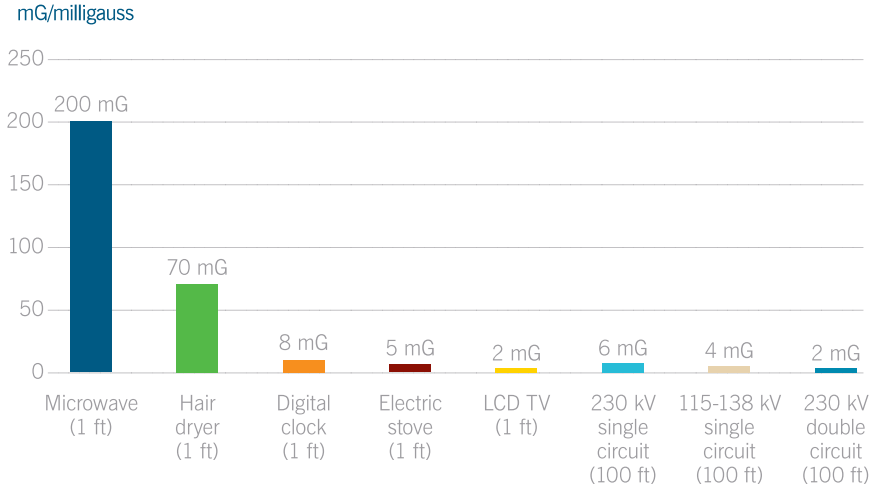
Pacemakers and other medical devices: Cardiac pacemakers and defibrillators are the most commonly implanted medical devices, and research has indicated that they may be susceptible to interference under certain high field conditions. The sensitivity varies by manufacturer, the design and how they are used by the patient. Metallic case shielding, filters and bipolar sensing have contributed to improved immunity to interference. In practice, interference is very rare. International immunity standards call for implanted medical devices to maintain an immunity to power frequency magnetic fields of 1 gauss (1,000 mG) and electric fields of 5 kV/m (5,000 V/m).

## Occupational Studies

Studies of workers can offer a useful opportunity to examine environmental EMF exposure at higher levels than occur in residential settings. Many occupational studies of electrical workers and others exposed to higher magnetic fields have examined both cancer and other diseases. Overall, those studies do not support a link between magnetic field exposure and any form of cancer or adverse effects.

The chart compares the magnetic field strength at 100 feet from 230-kV and 115-kV lines and the median magnetic field strength 1 foot away from common electrical appliances.

### Magnetic Field Comparisons

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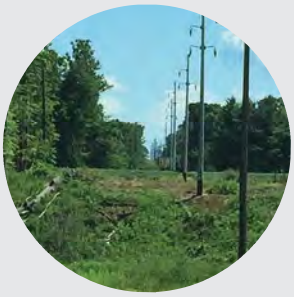
# Why must Duke Energy remove trees?

## Reliable electricity is important to our customers



### Vegetation Management For Planned Work

Duke Energy uses an Integrated Vegetation Management (IVM) strategy. The IVM strategy is accomplished by using qualified personnel to monitor the condition of the utility rights of way and perform various vegetation management practices to reduce, control or eliminate incompatible growth. This strategy helps to provide safe and reliable service to our customers by limiting or eliminating the possibility of contact by vegetation which has grown toward or could fall into the overhead power lines. The reason for IVM is to create, promote, and conserve sustainable plant communities that are compatible with the intended use of the site, and manage incompatible plants that may conflict with the intended use of the site to reduce the likelihood of tree and power line conflicts, as well as service interruptions. This approach is recognized as an industry best management practice and is in alignment with ANSI A300 Part 7 standard.

### Transmission rights of way

High-voltage transmission lines provide large amounts of electricity over long distances. The transmission lines in your community are part of the larger, interconnected grid system that powers an entire region, not just the community through which the lines run. Federal rules are more stringent for some transmission lines, depending on the voltage, and may include fines up to $1 million per day for tree-related outages. We manage our grid to provide reliable operation of transmission facilities while adhering to regulations and easement rights.

### Distribution rights of way

Distribution lines carry electricity throughout a town or community from substations to the homes and businesses that we serve. Duke Energy maintains vegetation along distribution rights of way to help provide reliable delivery of electricity.

### Vegetation Management methods

We use an Integrated Vegetation Management approach, which includes pruning, selective herbicide application, mowing and tree removal. This allows us to proactively evaluate power line areas and determine the best method for maintaining reliable service. The objective of an Integrated Vegetation Management program is to maintain the lines – before the trees and brush are close enough to cause outages – in a manner that's consistent with good arboricultural practices.

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## Managing rights of way

Well managed rights of way help prevent power outages and allow our vehicles and personnel to safely access our electrical equipment for operations, maintenance and storm response. By maintaining vegetation around our equipment, we can get our customers' power restored more efficiently and safely.

## Easements (Rights of Way)

Easements are land rights we have purchased to allow us to safely and reliably construct, operate and maintain our facilities without interference so we can deliver safe, reliable power to our customers. They also allow us the space we need to build new equipment to meet the future energy demands of our customers.

Sometimes public and private entities plant trees in the easements that impede our ability to operate and maintain these critical assets. Trees planted outside of a right of way also can grow into our easement and endanger our equipment. We recommend that you only plant grass in an electric transmission rights of way or easement.

## Why trimming doesn't always work

We're often asked why we remove some trees instead of trimming them. Trimming is not always healthy for the trees.

Duke Energy has thousands of miles of right of way to manage; even with the latest technology, some fast-growing tree species can outpace our ability to keep them in check. When we have to cut down trees, we take care to leave the area as close as possible to its original condition.

Before planting, visit our right-of-way website at **duke-energy.com/TransmissionROWGuidance**. To report trees growing into power lines, visit **duke-energy.com/customer-service/request-tree-trimming** and fill out the online form.

## Questions?

Please call **866.385.3675** to ask for a Duke Energy transmission forester to contact you.

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# Environmental Stewardship

## Overview

At Duke Energy, we are committed to responsibly protecting and managing natural resources. We feel this is essential for contributing to a cleaner environment and the quality of life in the communities we serve.

Overhead transmission lines can be sited and built to span many environmentally sensitive areas without directly impacting them. For example, overhead transmission lines may span streams, rivers and wetlands, although streams and wetlands are avoided as much as possible to ensure these environments are not disturbed during construction and operation. Additional steps during construction are meant to minimize disturbances and prevent erosion.

Duke Energy also surveys the rights of way areas for rare plant species and avoids areas where these species grow. Employees follow the optimal survey window for the area's federally threatened and endangered plant species.

Our environmental team developed a successful process to identify and protect endangered animal species and their habitats.

Duke Energy supports community efforts in environmental education, protection and conservation and engages in collaborations that address common issues and promote sound public policy.

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# Examples of Typical Line Construction Methods

Before constructing and installing lines, field data will be collected and used to prepare for the work. These activities include land surveying and staking, soil sampling and environmental surveying.

Trees, vegetation and other obstructions will be removed to allow for safe access and construction.

Some transmission structures are supported by concrete foundations. Concrete is delivered to the locations of each structure. It may take several hours to pour each foundation.

Large trucks with excavation equipment, concrete mixers and other trucks will be on-site during the process of pouring concrete for foundations to support the new poles.

Poles, construction matting and other materials needed for transmission line construction are often delivered and temporarily stored in the easement area.

Poles may arrive at the site in sections and be assembled on the ground before being installed.

Structures are assembled in sections near the structure location and lifted into place with a crane. The structures will be approximately 90 to 100 feet tall on average.

Cranes place and secure some of the poles in the concrete foundations. Depending on soil conditions, some poles are directly imbedded into the ground without a poured foundation.

Large reels of conductors (wire) are installed using a pulley system. A grounding wire and/or communication cable may also be installed.

Wire stringing crews attach equipment to the poles. Then, trucks carrying large reels of conductor (wire) are used to pull the conductor through attachments on the poles with a winch where it is secured. Later, crews install ground rods to the poles.

Restoration is the final activity. Equipment and matting is removed, and the easement is restored as closely as possible to its original condition.

This work may include leveling, seeding, laying straw on affected areas, and the removal of construction materials and debris.

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# DeLand West to Dona Vista Reliability Upgrade
# **Project Timeline**

2025 2026 2027 2028 2029 2030

**Begins 2025**

**Preconstruction Activities**
including surveying, staking,
soil boring and vegetation removal

**Begins Early 2027**

**Line Construction (in phases)**

**Summer 2029**

**Project Completion and Restoration**

Timeline is subject to change based on factors such as weather, availability of crews and equipment, or unforeseen circumstances that may impact the schedule.

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# Community Benefits

**The DeLand West to Dona Vista 230-kV transmission line will help:**

- Meet the growing energy demand in the region
- Strengthen the reliability of the electric grid
- Minimize impacts by using an existing transmission corridor

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# Environmental Responsibility and Stewardship

Environmental responsibility and stewardship are core values of Duke Energy. We are committed to excellence in our environmental practices and performances.

We acknowledge our responsibility to be a good steward of the natural resources entrusted to our care while providing affordable and reliable energy to our customers. Environmental factors are an integral part of planning, design, construction and operational decisions.

Duke Energy in Action

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DeLand West to Dona Vista Reliability Upgrade

# Stay Connected

Get timely information and updates via email, text or phone. Use your smartphone to scan the QR code to allow us to send you updates. You'll be able to provide your contact information safely and securely.

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# Factors Considered When Routing Transmission Lines

**Community/Public Input**
Open houses, surveys, informational meetings, toll-free lines, email comments/suggestions and customer letters

**Land Use**
Residential, commercial, industrial, major developments, schools, conservation lands and parks, existing linear facilities, airports and managed lands

**Land Cover**
Forest woodland, mixed forest, grassland/pasture, freshwater urban development and urban residential

**Cultural Resources**
Archaeological resources, historic resources, historic districts and cemeteries

**Natural Resources**
State and federal rare, threatened and endangered species

**Safety/Reliability/Cost**
Protection from undue risks, compliance with regulations and established design criteria, ensuring uninterrupted availability of power

**Water Resources**
Wetlands, streams and flood plains

**Occupied Buildings**
Number of single-family residences in proximity of a planned route

**Visual Resources**
View shed analysis

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# Vegetation Management

Duke Energy uses an integrated vegetation management (IVM) strategy. This strategy helps to provide safe and reliable service to our customers by reducing the risk of contact by vegetation that has grown toward or could fall into the overhead power lines.

## Why must Duke Energy remove trees?

- Limits the possibility of contact by vegetation and power interruption
- Helps to ensure safe and reliable operation of transmission facilities
- Helps provide reliable delivery of electricity

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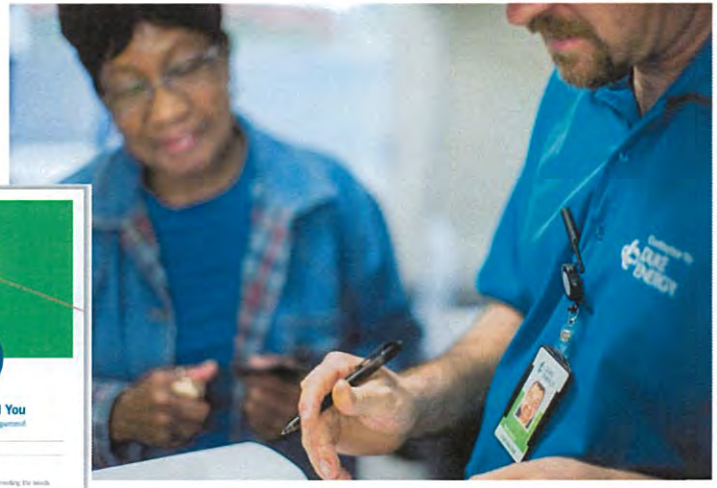
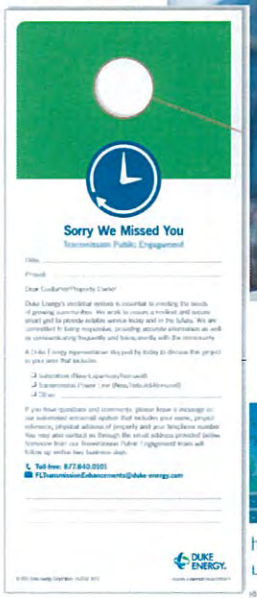
# Our Commitment to Your Community

- Frequent updates to community and local officials
- Postcards and letters .25 mile from the substation
- Project webpage
- Field Representatives – door to door
- Automated calls and texts






Watch Videos to Discover More

he Energy
uperhighway ›
arn about the importance of transmission infrastructure and how it plays a vital role in powering our communities

Preconstruction Activities ›
Learn what occurs during the preconstruction phase of an electric transmission project

Vegetation Management ›
See why it's important to keep easement areas free and clear of any vegetation

## Contact Us

FLTransmissionEnhancements@duke-energy.com
877.840.0101

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**APPENDIX C**

# County and Municipal Future Land Use and Overlay Maps

## APPENDIX C - COUNTY AND MUNICIPAL FUTURE LAND USE AND OVERLAY MAPS

*List of Documents*

1) Volusia County Future Land Use Map
2) Volusia County Comprehensive Plan Appendix 1 Maps and Figures (Updated June 9, 2025)
3) Lake County 2030 Future Land Use Map
4) Lake County 2030 Comprehensive Plan Chapter 1 Future Land Use Map Series (Updated March 4, 2025)
5) City of Umatilla 2035 Future Land Use Map
6) City of Umatilla 2035 Comprehensive Plan Chapter 1 Future Land Use Element Maps (Updated November 2022)
7) City of Eustis 2035 Future Land Use Map

**Figure 1-11 (North)**

# FUTURE LAND USE

**PREPARED BY: VOLUSIA COUNTY GROWTH & RESOURCE MANAGEMENT DEPARTMENT**

**Updated Dec 20, 2023 (through CPA 23-26)**

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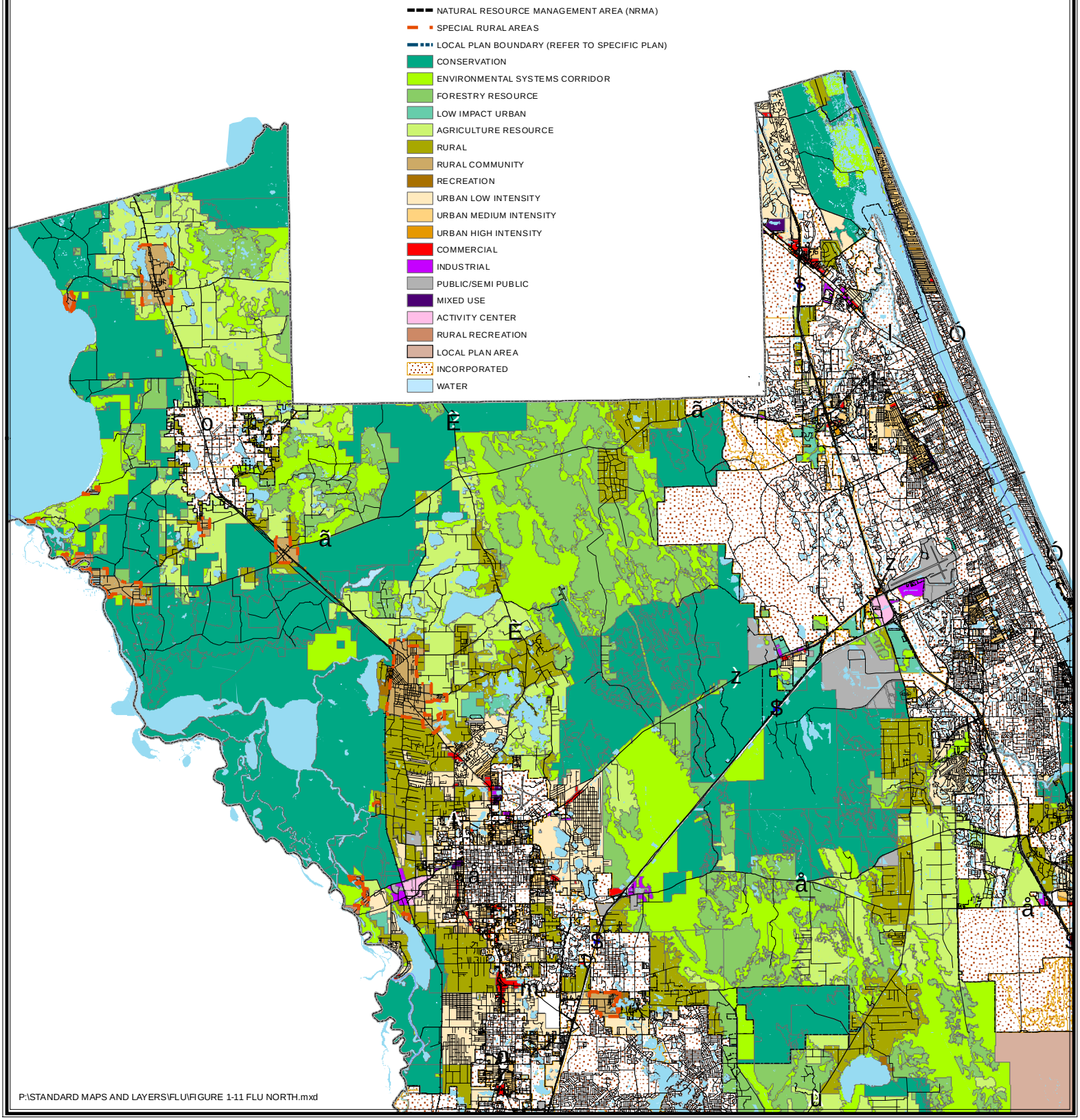
**1 in = 4.5 miles**

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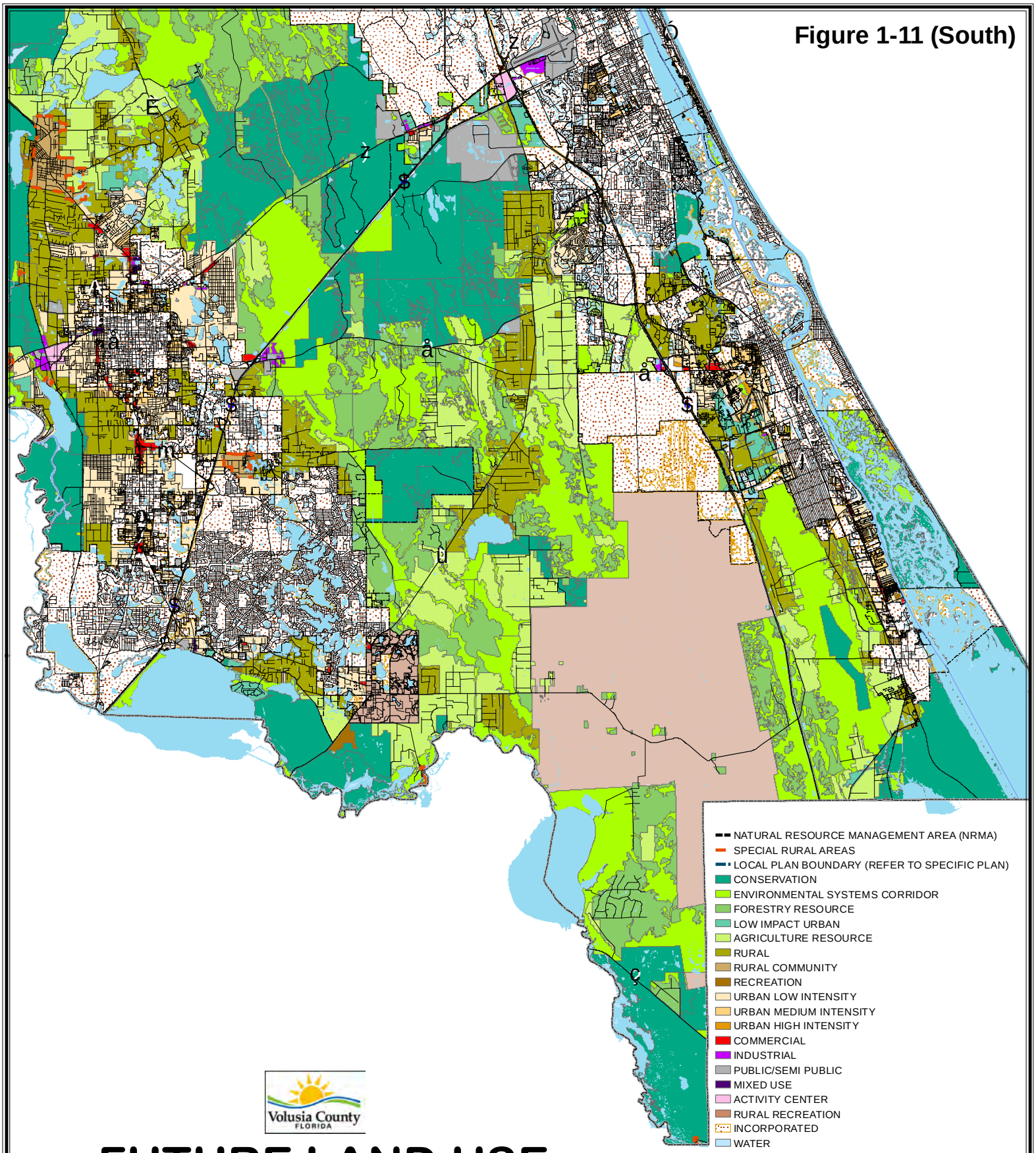


Volusia County
FLORIDA

# FUTURE LAND USE

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1 in = 4.5 miles

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**Updated Dec 20, 2023 (through CPA 23-26)**

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# Volusia County
# Comprehensive Plan

**Growth and Resource Management Department**
**Comprehensive Planning Division**

Updated: June 09, 2025

# MAPS AND FIGURES

All maps and figures contained in Appendix 1 are attached hereto and a part herewith of the Volusia County Comprehensive Plan.  Said maps and figures are adopted as part of the Comprehensive Plan unless otherwise specified.

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Figure 1-3 Major Wetland Systems
Figure 1-4 General Soil Categories
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- Figure 1-12N Farmton Local Plan
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**Reference – Chapter 6 Sanitary Sewer Element**

Figure 6-1 Utility Service Providers
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**Reference – Chapter 10 Natural Groundwater and Aquifer Recharge Element**

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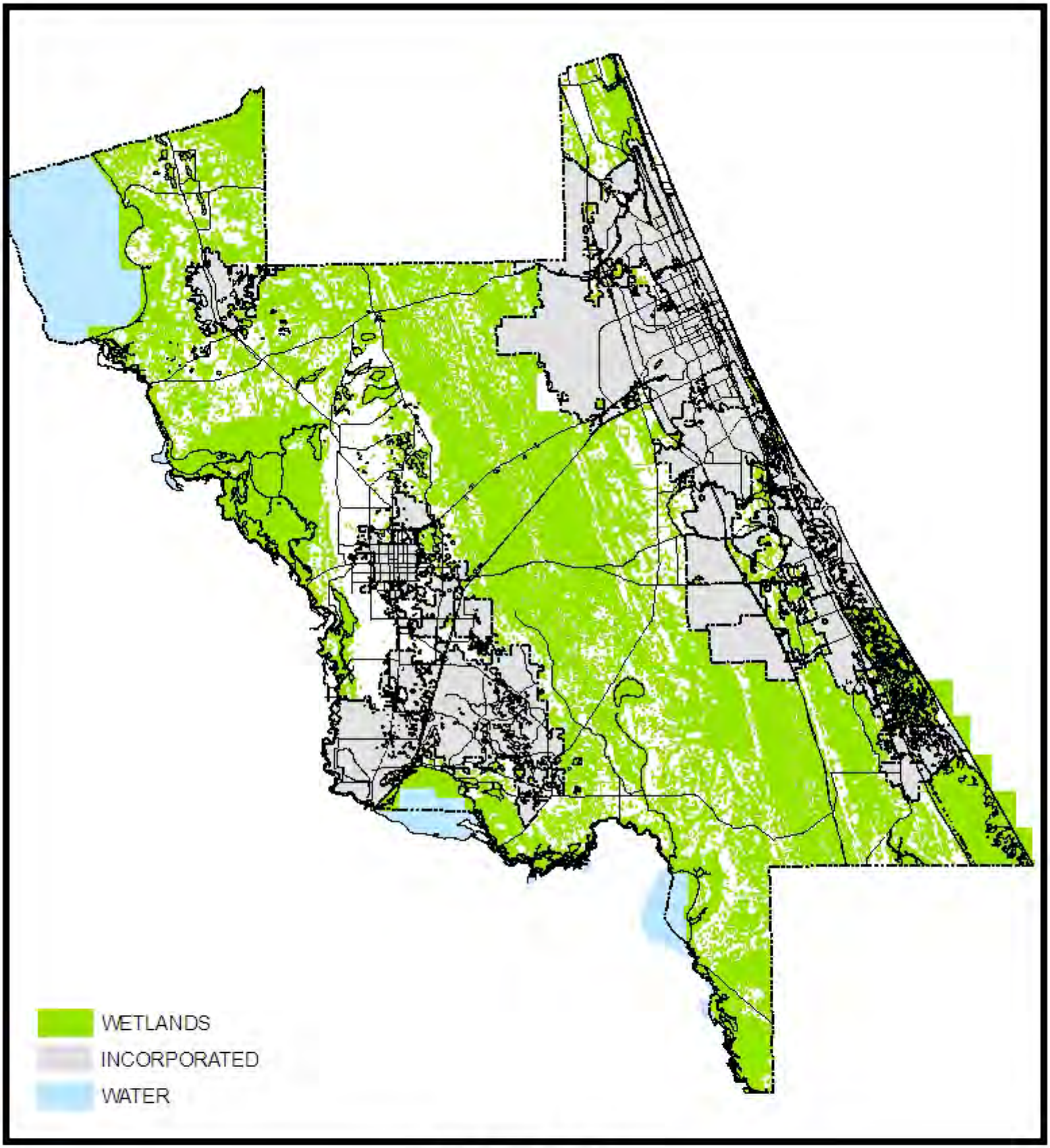


**FIGURE 1-3**

# MAJOR WETLAND SYSTEMS

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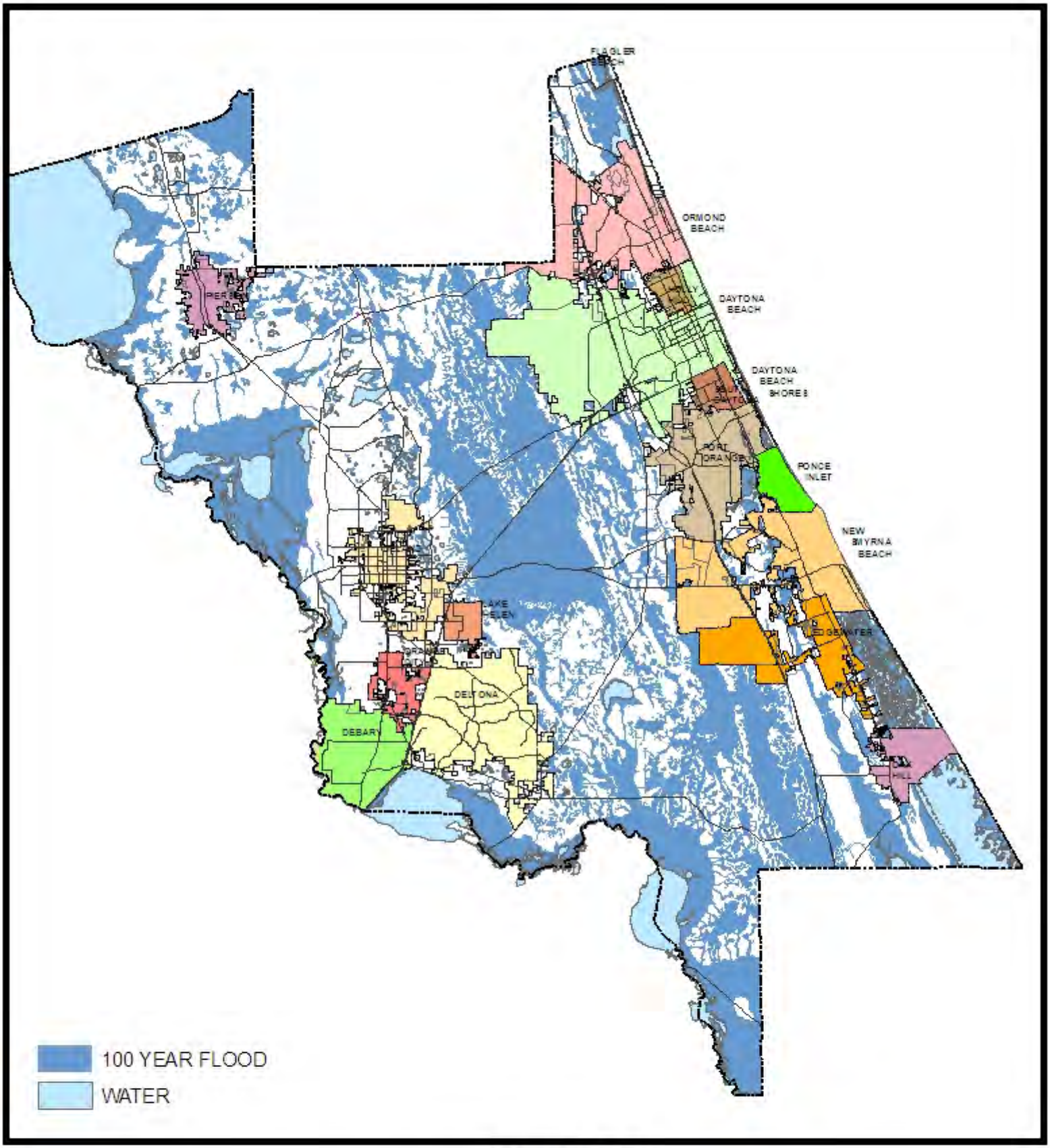


**FIGURE 1-9**

# 100 YEAR FLOOD PLAIN UNINCORPORATED VOLUSIA COUNTY

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**Figure 1-11 (North)**

Volusia County
FLORIDA

# FUTURE LAND USE

**PREPARED BY: VOLUSIA COUNTY GROWTH & RESOURCE MANAGEMENT DEPARTMENT**

**Updated Dec 20, 2023 (through CPA 23-26)**

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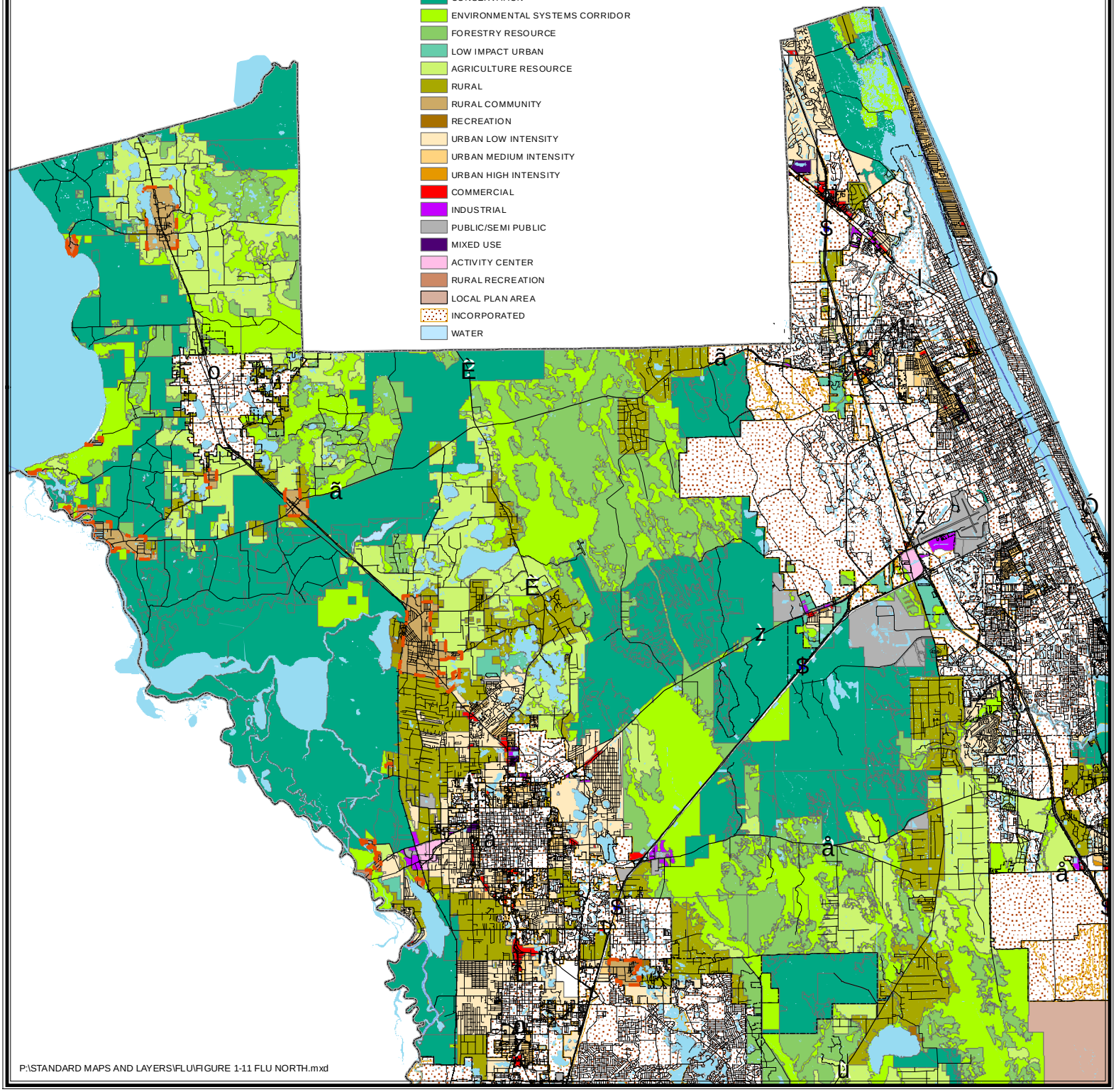
**1 in = 4.5 miles**

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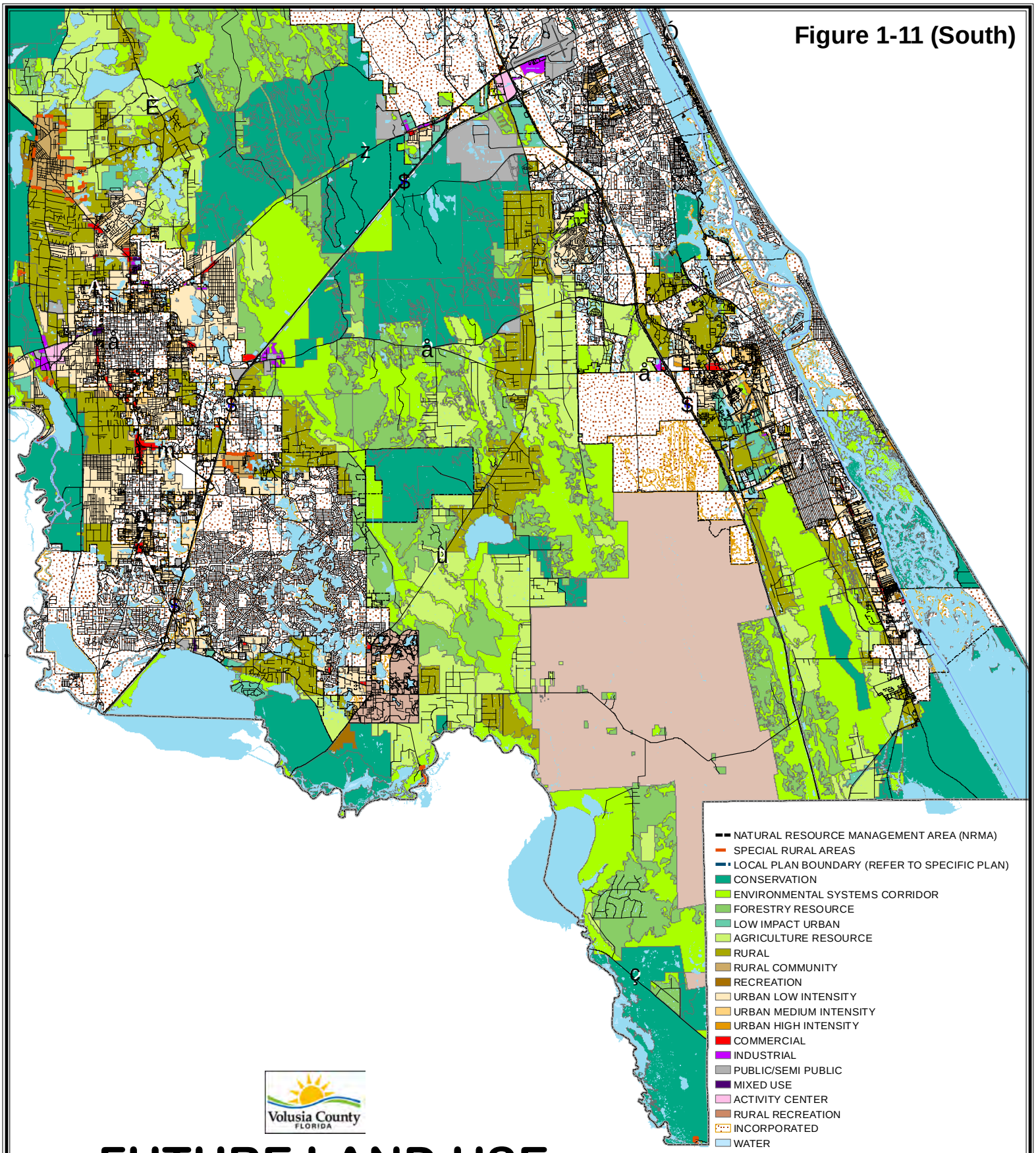


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1 in = 4.5 miles

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**Updated Dec 20, 2023 (through CPA 23-26)**

P:\STANDARD MAPS AND LAYERS\FLU\FIGURE 1-11 FLU SOUTH.mxd

## 1-11. Future Land Use Map/Plan Notations

***Note: The following Future Land Use Map Notations have been adopted as a component of the Future Land Use Map.***

| Map Notation | Parcel Numbers or Legal Description | Acres | Adopted FLU Designation | Restriction | Ordinance |
|---|---|---|---|---|---|
| 1 | 01-16-31-00-00-0010 | 20.92 | Industrial | Development of the parcel shall be limited to a Floor Area Ratio of 0.6. | 2007-46 |
| 2 | 01-16-31-00-00-0010 | 5.14 | Industrial | Development of the parcel shall be limited to a Floor Area Ratio of 0.6. | 2008-19 |
| 3 | 30-15-33-11-00-0010, 25-15-32-11-00-0010, 25-15-32-11-00-0020, 25-15-32-07-00-0021, 25-15-32-07-00-0020, 25-15-32-07-00-0010, 25-15-32-00-00-0049, 25-15-32-00-00-0048, 25-15-32-00-00-0040, 36-15-32-00-00-0039, and that part of 39-15-32-53-01-0010 to the east and south of Bellevue Ave. approximately 460 feet to the west of the west ROW line of Clyde Morris Blvd. | 226.00 | Public/Semi-Public | Development of the parcels taken together shall be limited to a maximum of 118,583 Average Daily Trips.<br><br>This property will not be zoned residential or non-aeronautical industrial. | 2008-28 |
| 4 | 28-16-30-00-00-0410<br>28-16-30-00-00-0070<br>28-16-30-01-00-0050 | 17.31 | Commercial | Commercial uses shall not exceed 116,552 square feet. | 2010-09 |
| 5 | 26-13-31-00-00-0020, 26-13-31-00-00-0024, 26-13-31-00-00-0025, and 26-13-31-00-00-0026 | 144.83 | Mixed Use Zone - Planned | Development of parcels taken together shall generate no more than 8,808 daily external project trips. | 2006-24 |
| 6 | That part of 25-16-30-00-00-0032 that is the western most 420.16 feet | 8.8 | Commercial | Development of this expansion shall be limited to 76 Average Daily Trips and 8 p.m. Peak-Hour trips | 2018-19 |
| 7 | 11-17-30-11-12-0040 | 4.69 | Commercial | The development shall be limited to 89,900 square feet of mini warehouse and self-storage space. | 2022-30 |

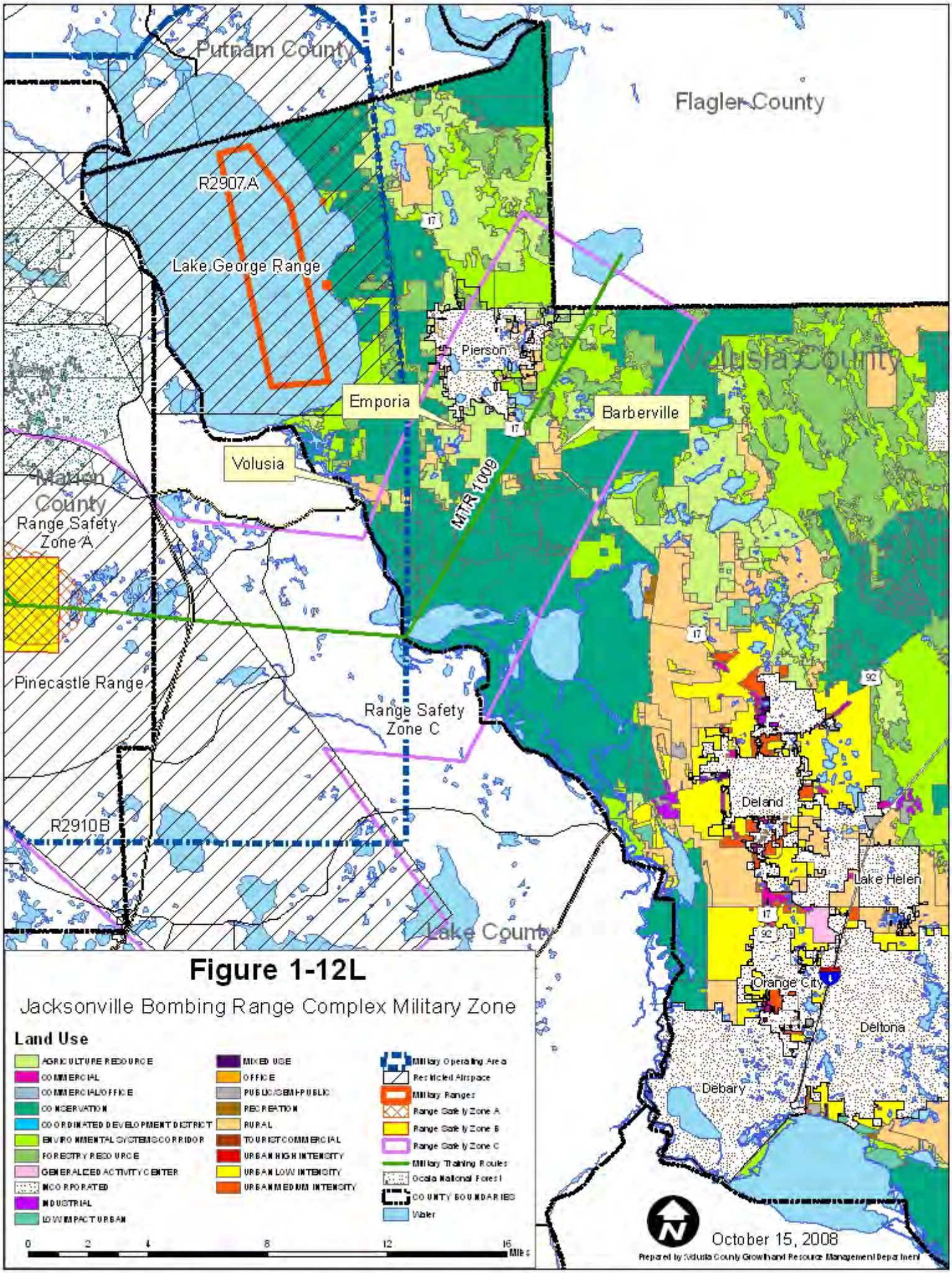
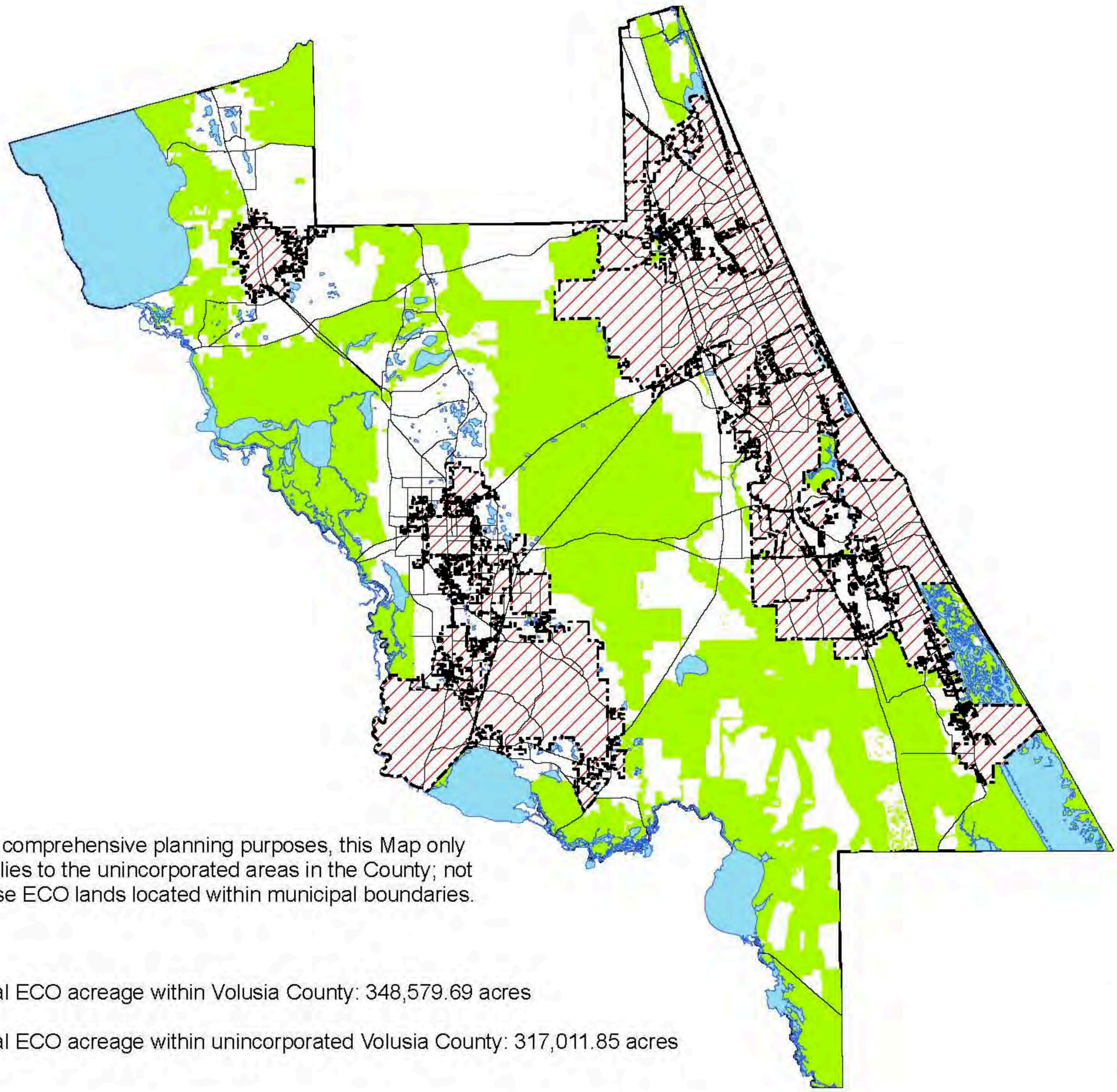



**Figure 1-12L**

Jacksonville Bombing Range Complex Military Zone

Figure 1-13

# Unincorporated portion of the Environmental Core Overlay (ECO) within Volusia County




For comprehensive planning purposes, this Map only applies to the unincorporated areas in the County; not those ECO lands located within municipal boundaries.

Total ECO acreage within Volusia County: 348,579.69 acres

Total ECO acreage within unincorporated Volusia County: 317,011.85 acres

Cities

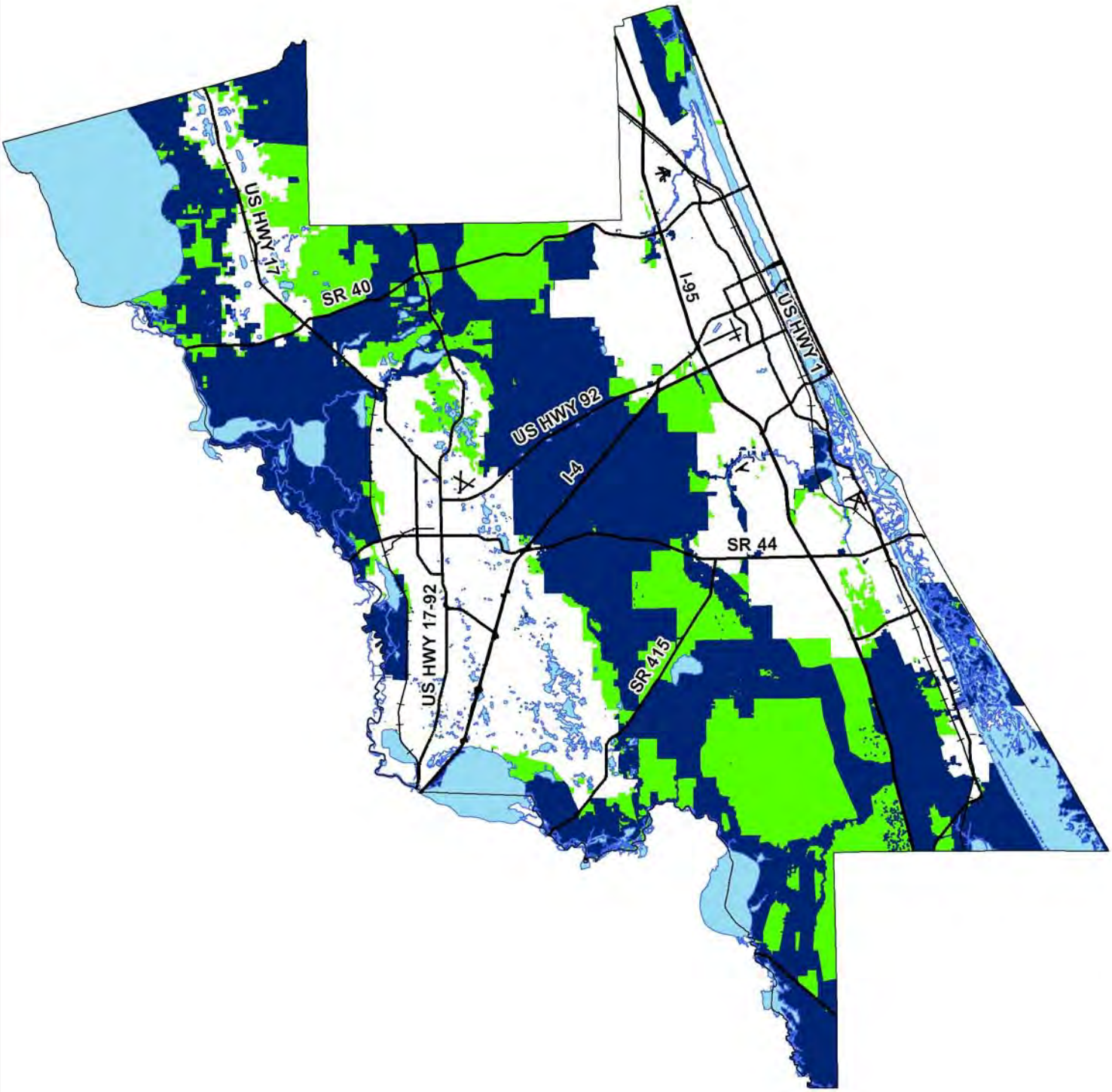
Environmental Core Overlay

Amended February 18, 2010

Adopted December 4, 2008

Figure 1-14

# Energy Conservation Area Map




**Legend**

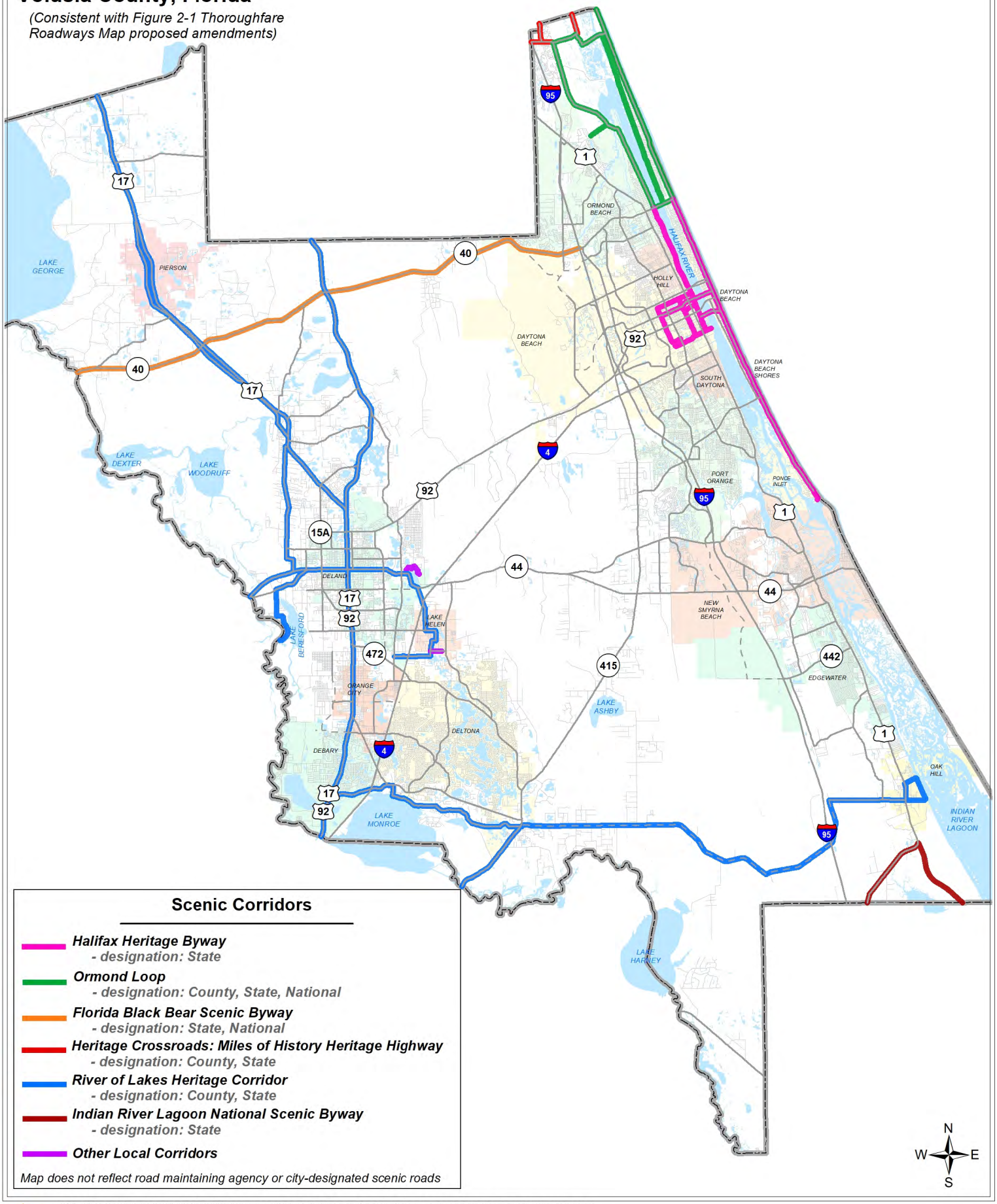
- Environmental Core Overlay (unincorporated)
- Natural Resource Management Area

N
W E
S

Version 8.21.09

# Figure 2-5 *(Final with Adoption)*
# Scenic Corridors 2035 Map
# Volusia County, Florida

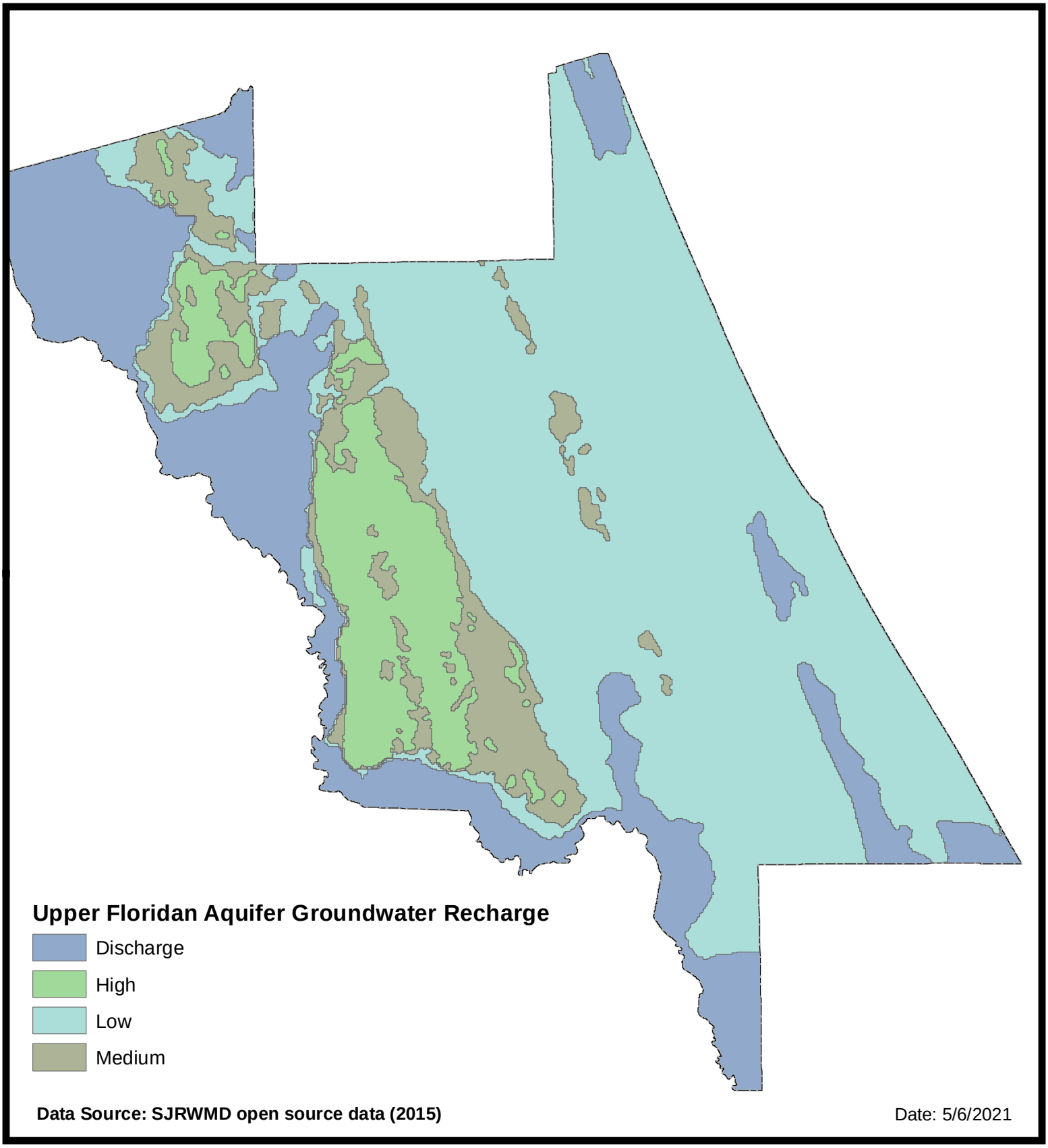
*(Consistent with Figure 2-1 Thoroughfare Roadways Map proposed amendments)*




NOTE: PROPOSED THOROUGHFARES DEPICTED ON THE SUBJECT MAP DO NOT REPRESENT THE ACTUAL ALIGNMENT OR CREATION OF RIGHT- OF - WAYS. ALIGNMENTS WILL BE FORMULATED AND RIGHT - OF - WAYS CHOSEN, CONSISTENT WITH COMPREHENSIVE PLAN POLICIES. TO AFFORD PROTECTION TO NATURAL RESOURCES AND LIMIT IMPACTS TO NATURAL RESOURCES.

Volusia County FLORIDA

Prepared by: County of Volusia Public Works/skm
Date: 11/13/20 Comprehensive Plan
:\Ongoing\TrafficEng\ComprehensivePlan\Cycle 19-02\




# FIGURE 10-1
# FLORIDAN AQUIFER RECHARGE AREA

N

**PREPARED BY: VOLUSIA COUNTY GROWTH & RESOURCE MANAGEMENT DEPARTMENT**

Document Path: P:\PROJECTS_COMP PLAN\Comp Plan Report Maps\Chapter 10 - Aquifer Recharge Element\Figue 10-1.mxd

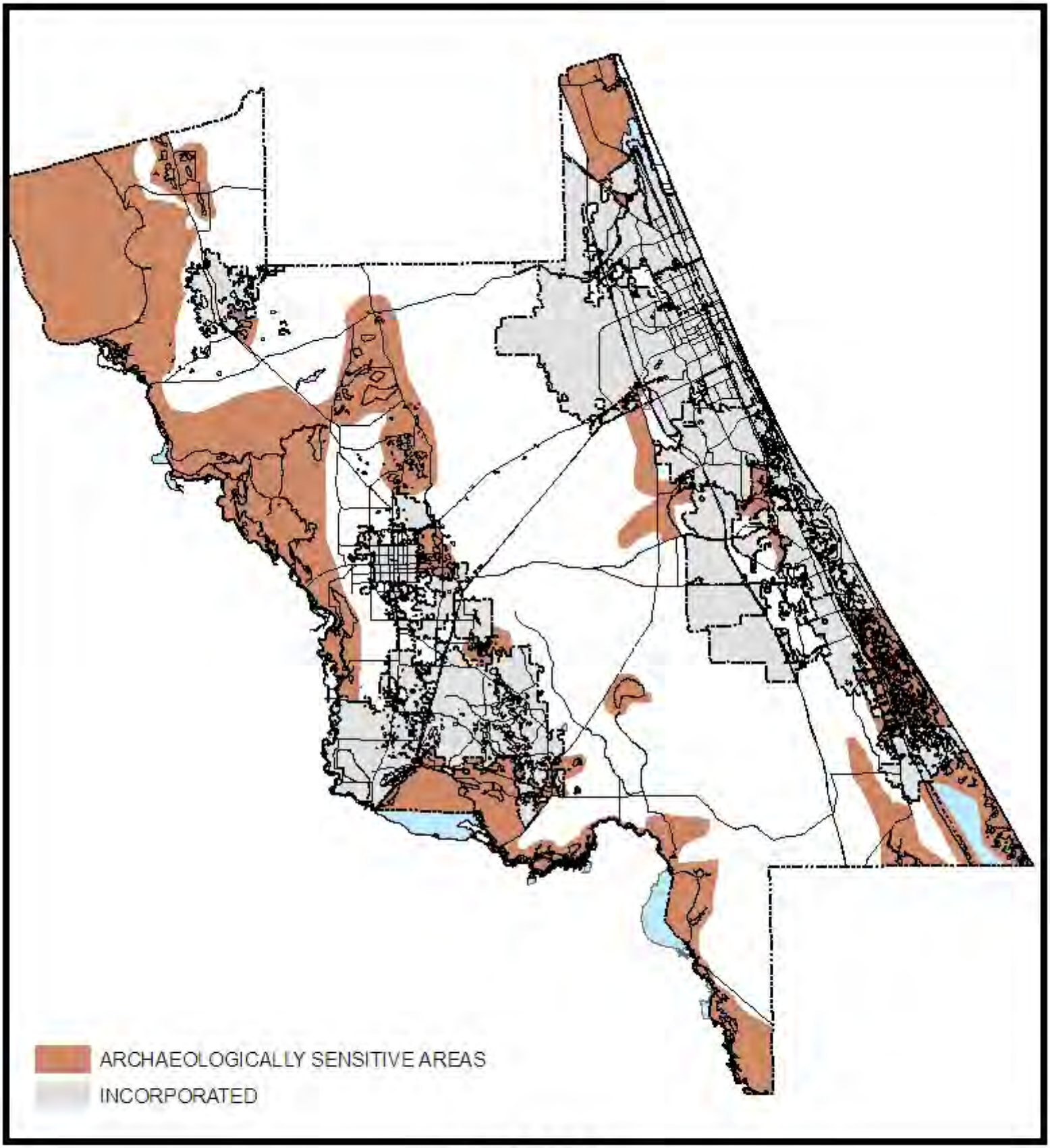



**FIGURE 17-1**

**ARCHAELOLGICALLY SENSITIVE AREAS in UNINCORPORATED VOLUSIA COUNTY**

N

PREPARED BY: VOLUSIA COUNTY GROWTH & RESOURCE MANAGEMENT DEPARTMENT

# 2030 ADOPTED FUTURE LAND USE

## PLANNING HORIZON 2030

## LAKE COUNTY FLORIDA

***Amended Ordinances***

Ordinance #2011-40 (Clonts Groves - R to UL)
Ordinance #2011-44 (Nola Land Company - Annexed to Clermont)
Ordinance #2011-46 (WD Long Family Farms - Remove South Lake Overlay)

Ordinance #2012-32 (Pine Lakes Rural Support Corridor)

Ordinance #2013-15 (Collina Bay Area - RT to UL)
Ordinance #2013-34 (Barrington Estates - RT to UL)
Ordinance #2013-35 (Custer Trucking/Store - RT to I)
Ordinance #2013-36 (Honda - RO to RC)
Ordinance #2013-37 (Villa City East - RT & UL to RO)
Ordinance #2013-59 (Renningers - UL to RC)

Ordinance #2014-12 (US 27 Major Commercial Corridor Extension)
Ordinance #2014-20 (LCFR #11 - C to PSFI)
Ordinance #2014-38 (Fire Station #109 - C to PSFI)
Ordinance #2014-39 (Fire Station #110 - C to PSFI)
Ordinance #2014-40 (Fire Station #111 - C to PSFI)
Ordinance #2014-41 (Florida Rock - PSFI to I)
Ordinance #2014-42 (Nola Land Company)
Ordinance #2014-43 (Mt Plymouth Gated Communities)
Ordinance #2014-44 (Sorrento Commons Property)
Ordinance #2014-45 (Yalaha Rural Support Corridor)
Ordinance #2014-46 (Jones Property - Mt Plymouth-Sorrento Neighborhood to Mt Plymouth-Sorrento Main Street)
Ordinance #2014-47 (Bella Collina FLU Category - RT to Bella Collina)
Ordinance #2014-48 (Bella Collina PUD - Rezone 5 acres - LM to PUD for consistency with new Bella Collina FLUC)
Ordinance #2014-49 (Bassett Small-Scale - PSFI to R)
Ordinance #2014-60 (Jackson - RC to UL)
Ordinance #2014-74 (U-Haul Small-Scale - RO to RC)

Ordinance #2015-18 (Senninger Irrigation - RO to RC)
Ordinance #2015-25 (Stine - to UL)
Ordinance #2015-30 (Farley Family Trust - I to R)

Ordinance #2016-1 (Wellness Way Area Plan - Create New FLU Categories & Series)
Ordinance #2016-36 (Menagias Property - C to R)
Ordinance #2016-37 (Moore-Fisher - C to R)
Ordinance #2016-50 (Kapoor - RC to UL)
Ordinance #2016-57 (Summer Bay - UM, UL, RC to Summer Bay)
Ordinance #2016-62 (Cooper - RO to RC)
Ordinance #2016-63 (South Lake Regional Park - C to SLRP)

Ordinance #2017-21 (Cagan Crossings, East 242 acres - Cagan Crossings to UM)
Ordinance #2017-37 (USA FAA - C to R)
Ordinance #2017-57 (Green Swamp Interlachen - GS Rural to GS Interlachen)

Ordinance #2018-18 (Savanna Reserve - GSRC to GSR)
Ordinance #2018-30 (Bella Collina - Amend Bella Collina)
Ordinance #2018-32 (Oasis Of Hope - WW3 to UL)
Ordinance #2018-42 (Doug Corp - RO to RT)
Ordinance #2018-43 (Vista Grande - RT to UL)
Ordinance #2018-47 (Public Safety Communication Tower North 9+/- acres - Cons to PSFI)
Ordinance #2018-50 (Oak Properties (South Part Remains C) - RO to UH)
Ordinance #2018-55 (Walker Property - WW3 to UL)

Ordinance #2019-7 (Planned Unit Development - New Future Land Use Category)
Ordinance #2019-42 (Pandolph - RO to UL)
Ordinance #2019-57 (Hansen - New Future Land Use Category)
Ordinance #2019-58 (Yacht Club at Lake Susan Lodge - New Future Land Use Category)
Ordinance #2019-70 (Vista Grande - RT to UL)

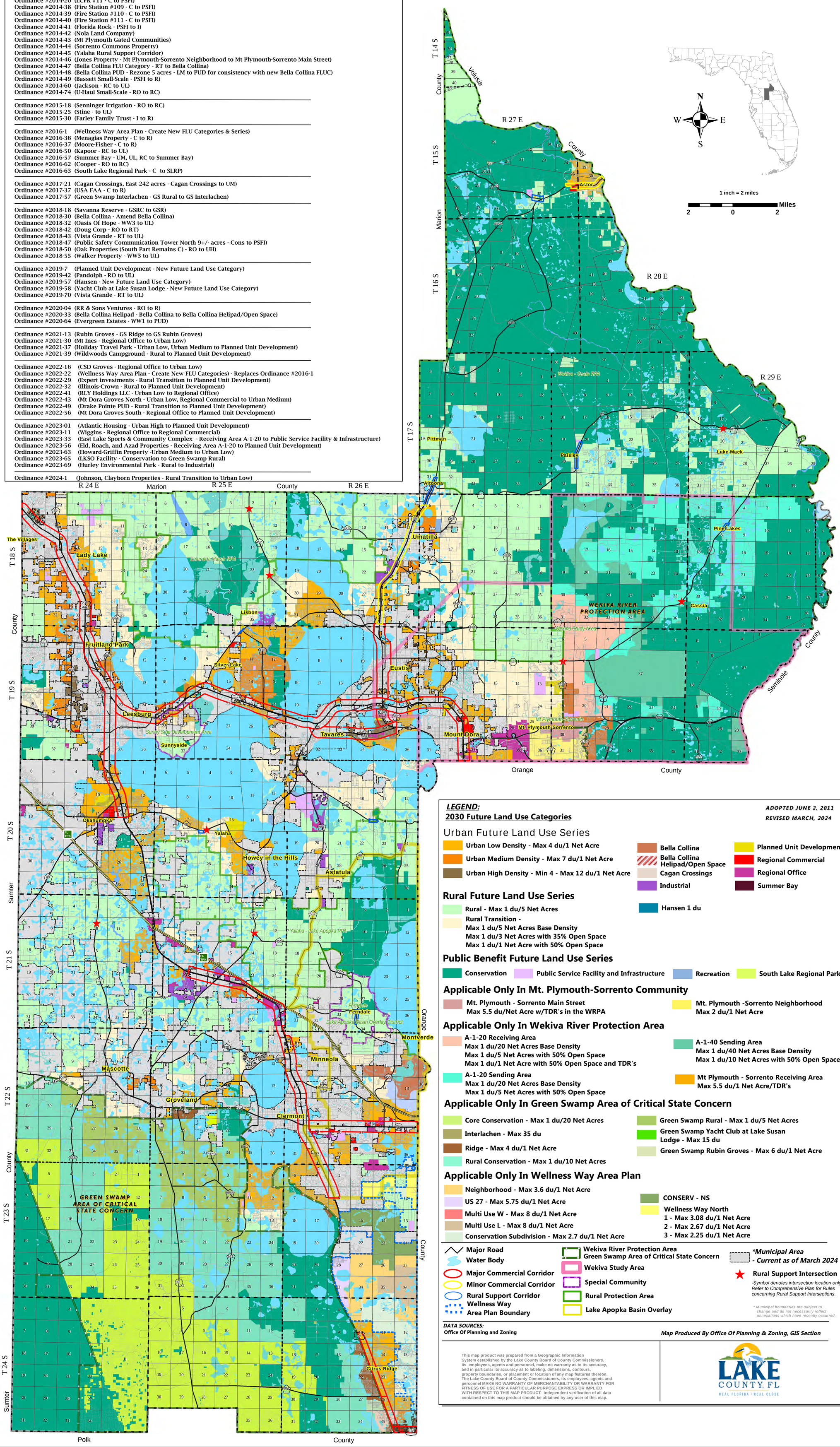
Ordinance #2020-04 (RR & Sons Ventures - RO to R)
Ordinance #2020-33 (Bella Collina Helipad - Bella Collina to Bella Collina Helipad/Open Space)
Ordinance #2020-64 (Evergreen Estates - WW1 to PUD)

Ordinance #2021-13 (Rubin Groves - GS Ridge to GS Rubin Groves)
Ordinance #2021-30 (Mt Ines - Regional Office to Urban Low)
Ordinance #2021-37 (Holiday Travel Park - Urban Low, Urban Medium to Planned Unit Development)
Ordinance #2021-39 (Wildwoods Campground - Rural to Planned Unit Development)

Ordinance #2022-16 (CSD Groves - Regional Office to Urban Low)
Ordinance #2022-22 (Wellness Way Area Plan - Create New FLU Categories) - Replaces Ordinance #2016-1
Ordinance #2022-29 (Expert investments - Rural Transition to Planned Unit Development)
Ordinance #2022-32 (Illinois-Crown - Rural to Planned Unit Development)
Ordinance #2022-41 (RLY Holdings LLC - Urban Low to Regional Office)
Ordinance #2022-43 (Mt Dora Groves North - Urban Low, Regional Commercial to Urban Medium)
Ordinance #2022-49 (Drake Pointe PUD - Rural Transition to Planned Unit Development)
Ordinance #2022-56 (Mt Dora Groves South - Regional Office to Planned Unit Development)

Ordinance #2023-01 (Atlantic Housing - Urban High to Planned Unit Development)
Ordinance #2023-11 (Wiggins - Regional Office to Regional Commercial)
Ordinance #2023-33 (East Lake Sports & Community Complex - Receiving Area A-1-20 to Public Service Facility & Infrastructure)
Ordinance #2023-56 (Eld, Roach, and Azad Properties - Receiving Area A-1-20 to Planned Unit Development)
Ordinance #2023-63 (Howard-Griffin Property -Urban Medium to Urban Low)
Ordinance #2023-65 (LKSO Facility - Conservation to Green Swamp Rural)
Ordinance #2023-69 (Hurley Environmental Park - Rural to Industrial)

Ordinance #2024-1 (Johnson, Clayborn Properties - Rural Transition to Urban Low)




2030 FUTURE LAND USE

This document, titled **2030 LAKE COUNTY COMPREHENSIVE PLAN – Updated 3/4/2025**. If you wish to request an accessible version of this document, please contact publicrecords@lakecountyfl.gov.

# COMPREHENSIVE PLAN

## PLANNING HORIZON 2030

This document is the Adopted Comprehensive Plan with revisions approved by the Board of County Commissioners on May 25, 2010, by Ordinance #2010-25, settlement agreements approved by the Board of County Commissioners on July 26, 2011, and all amendments approved by the Board of County Commissioners through March 4, 2025.

Original Effective Date: September 22, 2011.

# CHAPTER I: FUTURE LAND USE ELEMENT

## PLANNING HORIZON 2030

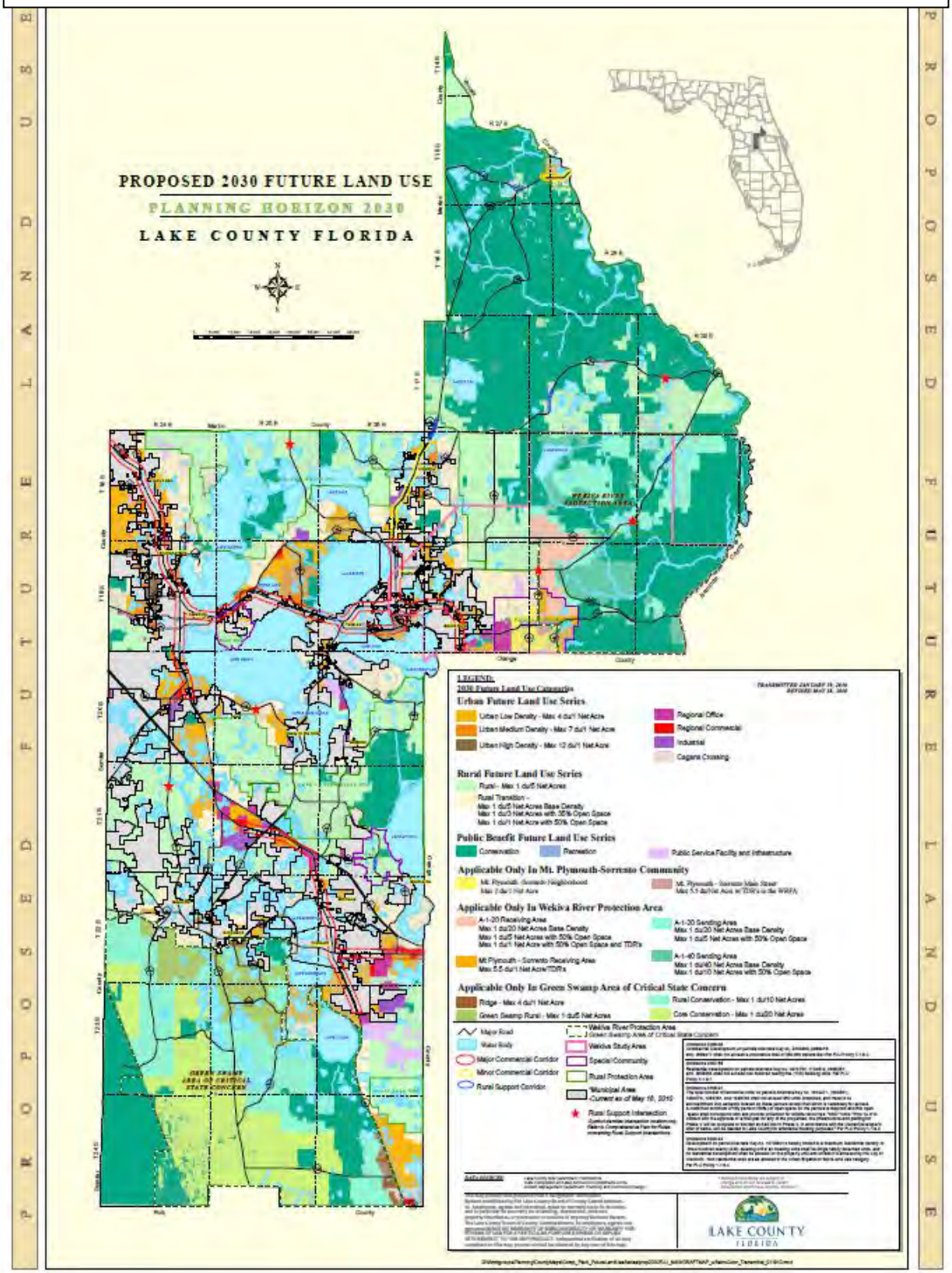
# MAP SERIES

## PLANNING HORIZON 2030

# FUTURE LAND USE - MAP SERIES

| Exhibit | Title |
|---|---|
| 1 | Future Land Use Map |
| 2 | Road Transportation Network |
| 3 | Rivers and Lakes, (100-Year Flood Plain) |
| 4 | General Soils (Soils Classification) |
| 5 | Adopted Joint Planning Areas |
| 6 | Floridan Aquifer Recharge Map/Permitted Public Potable Water Wells |
| 7 | Green House Gas Map |
| 8 | Public and Private Conservation Lands |
| 9 | Wetlands (Wetlands Classification Map) |
| 10 | Military Operations Areas |
| 11 | Trails Master Plan |
| 12 | Wekiva River Protection Area-Wekiva Study Area Most Effective Recharge |
| 13 | Wekiva Study Area Sensitive Habitat |
| 14 | Wekiva Study Area-Wekiva River Protection Area Karst Features |
| 15 | Wekiva Study Area-Wekiva River Protection Area Relative Aquifer Vulnerability |
| 16 | Wekiva Study Area-Wekiva River Protection Area Springs Land Cover |
| 17 | Wekiva Study Area-Wekiva River Protection Area Wetlands |
| 18 | Active Public Supply Consumptive Use Permit and Wellhead Protection Areas |
| 19 | Outstanding Florida Waters and Outstanding Lake Waters |
| 20 | Economic Development Overlay District |
| 21 | Ethylene Dibromide (EDB) Zone |

## Future Land Use Map Series - Exhibit #1

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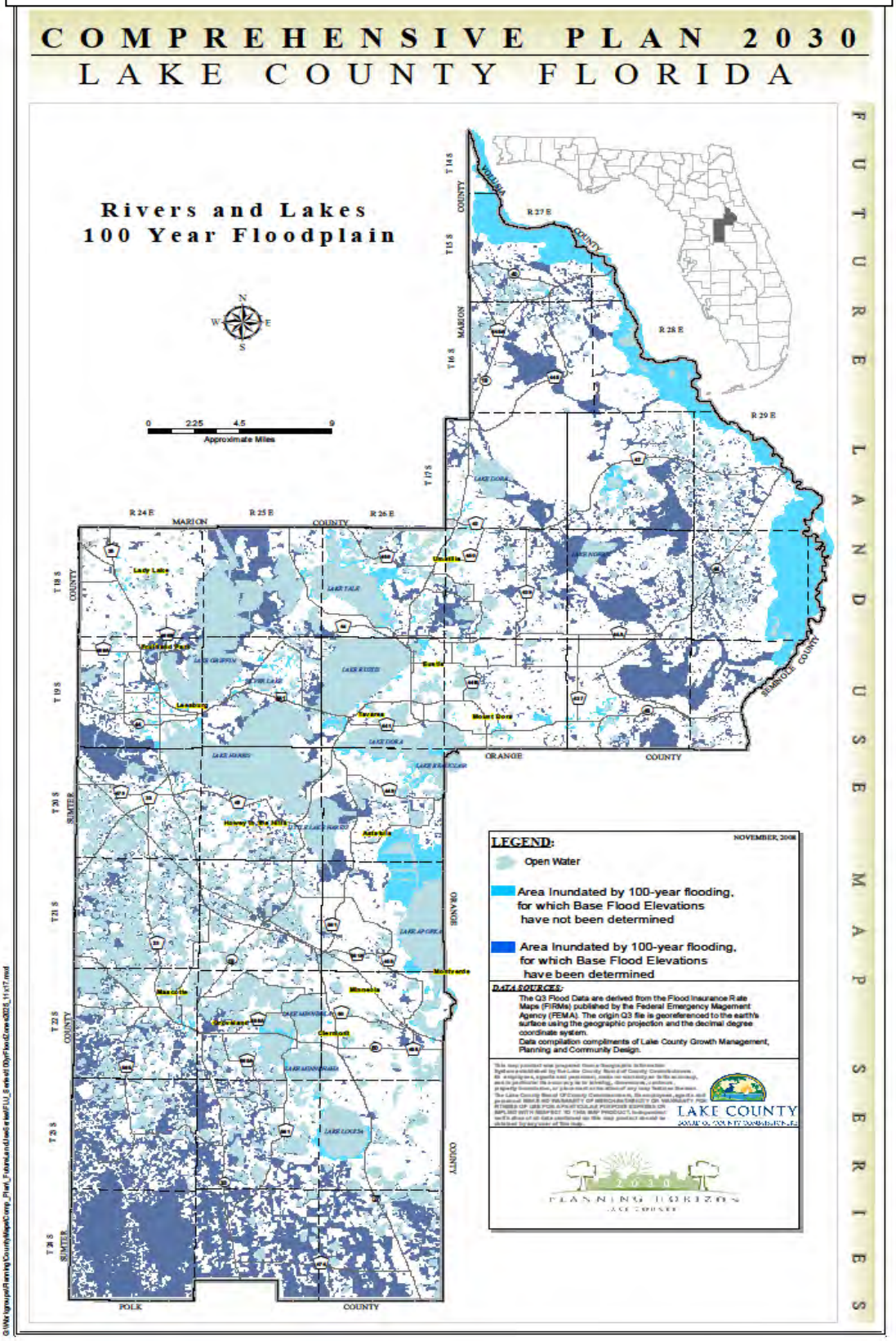
## Future Land Use Map Series - Exhibit #3

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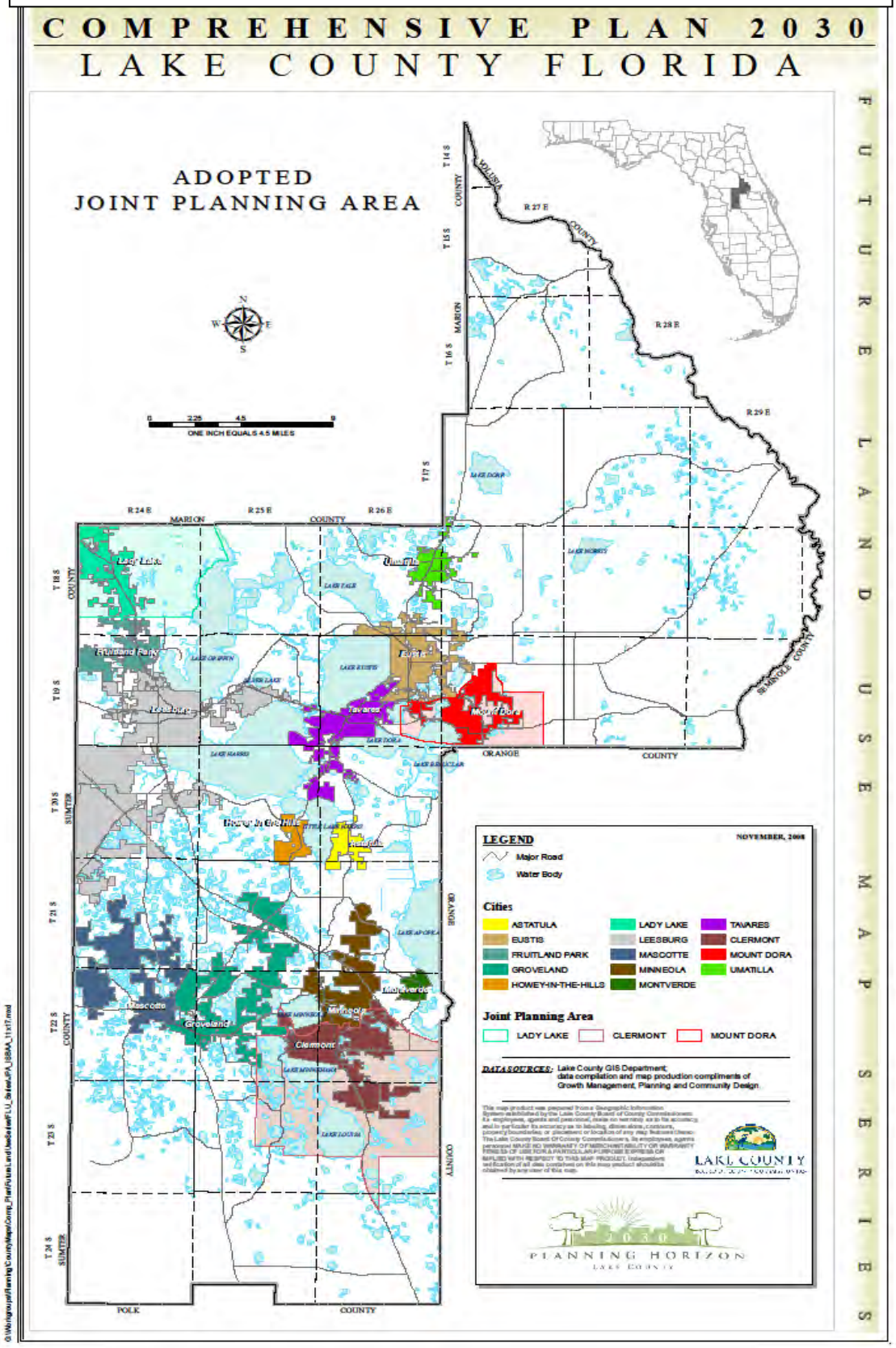
**Future Land Use Map Series - Exhibit #5**

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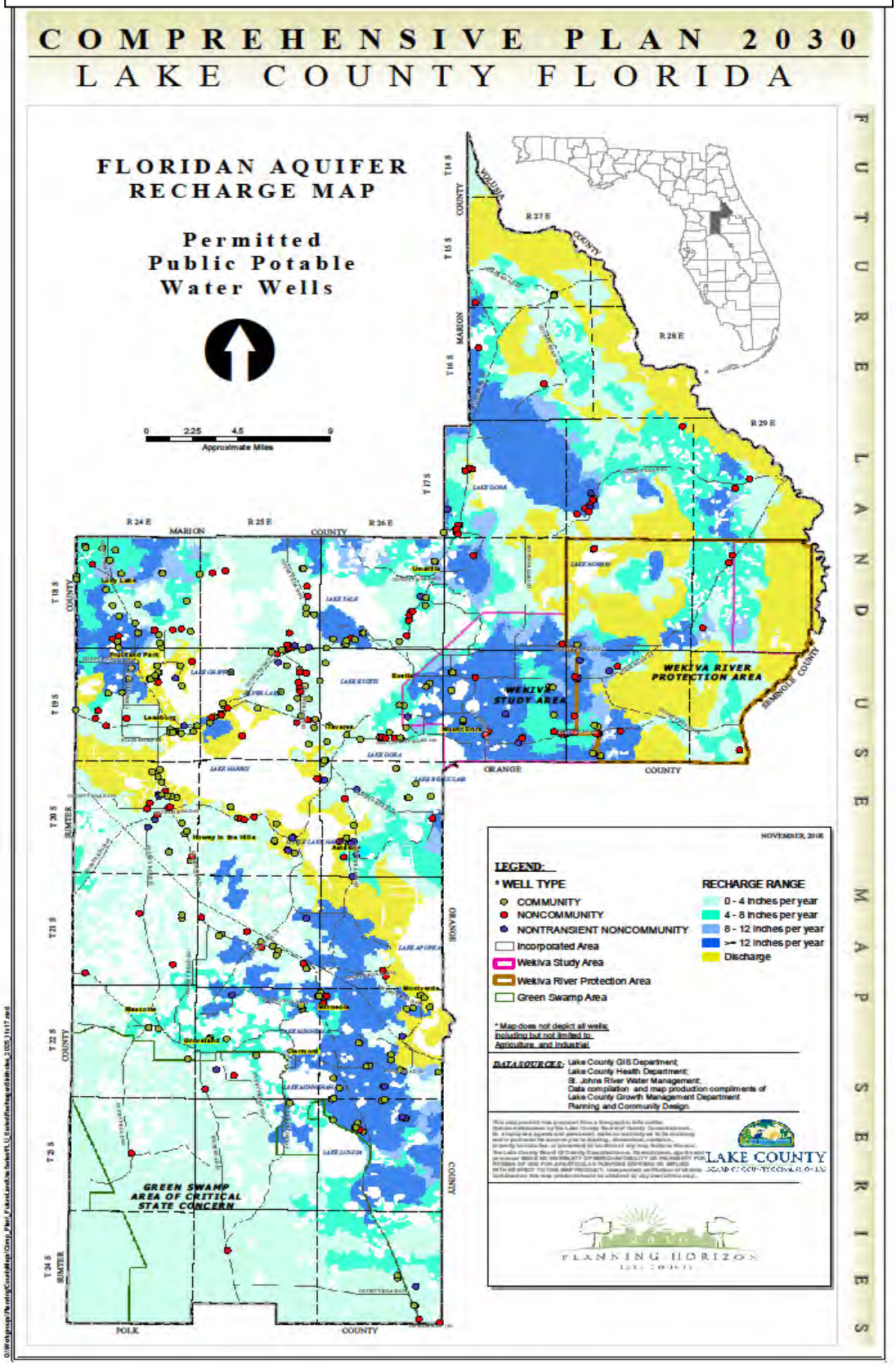
## Future Land Use Map Series - Exhibit #6

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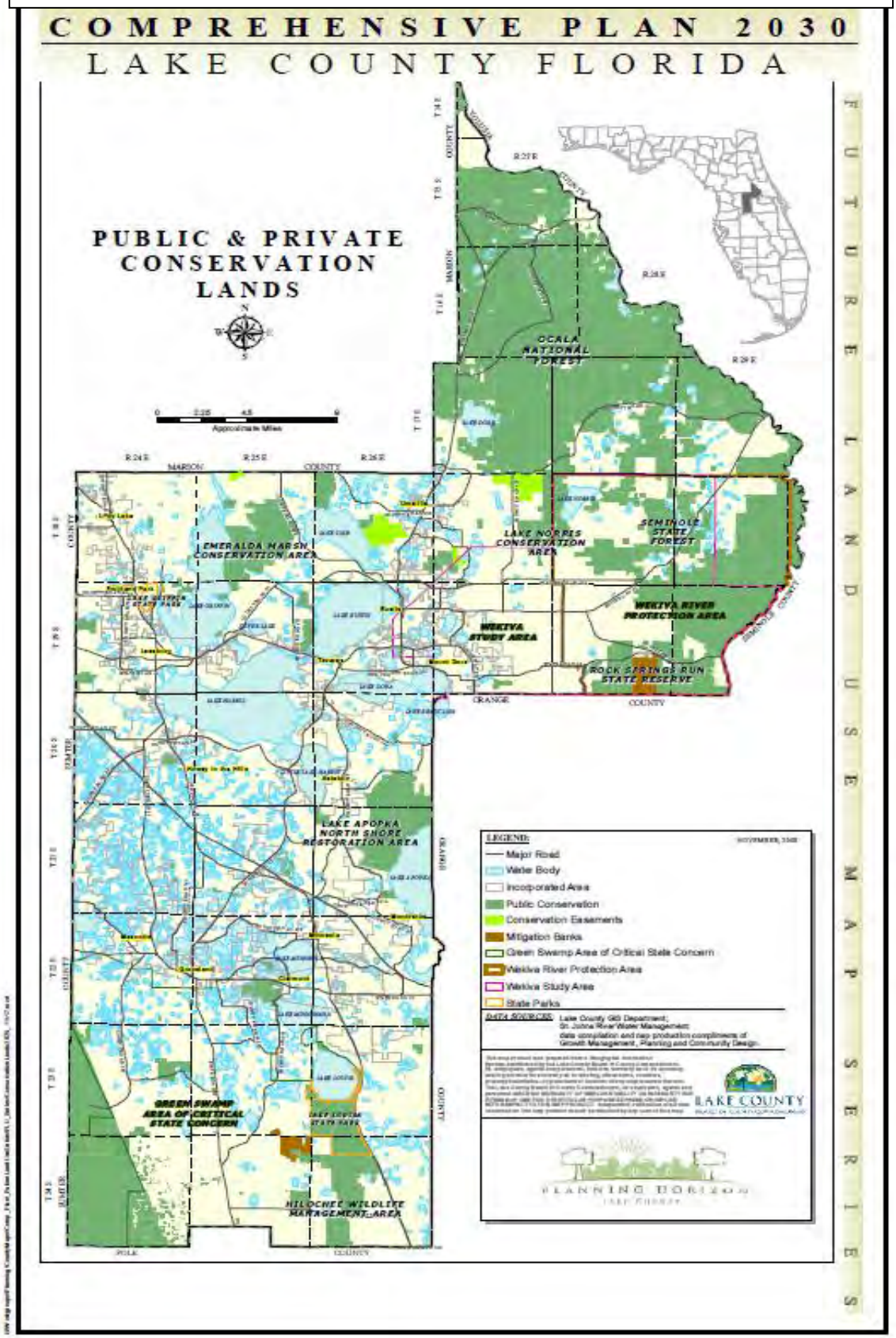
**Future Land Use Map Series - Exhibit #8**

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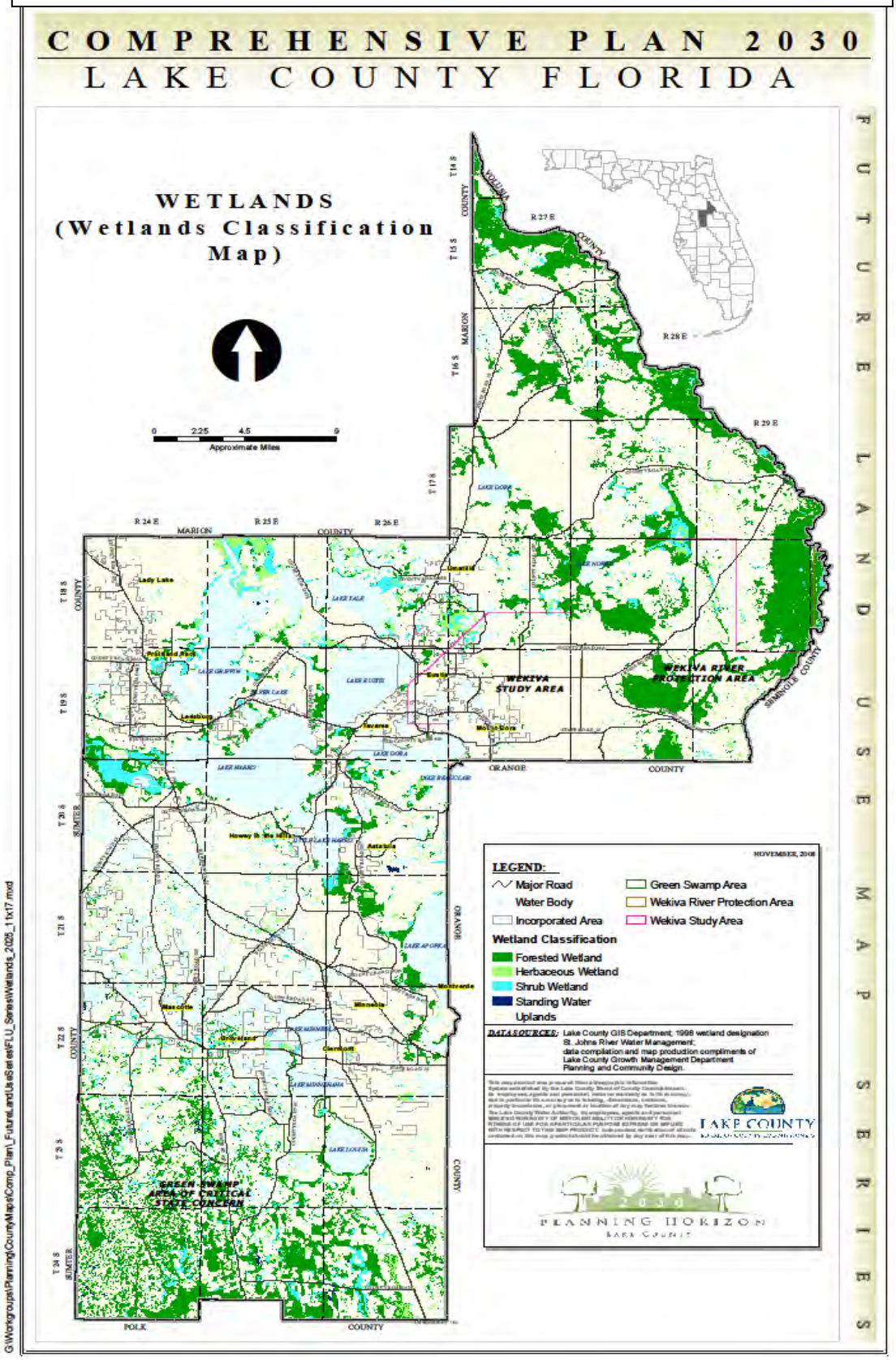
## Future Land Use Map Series - Exhibit #9




G:\Workgroups\Planning\CountyMaps\Comp_Plan_Future_Land_Use_Series\FLU_SeriesWetlands_2025_11x17.mxd

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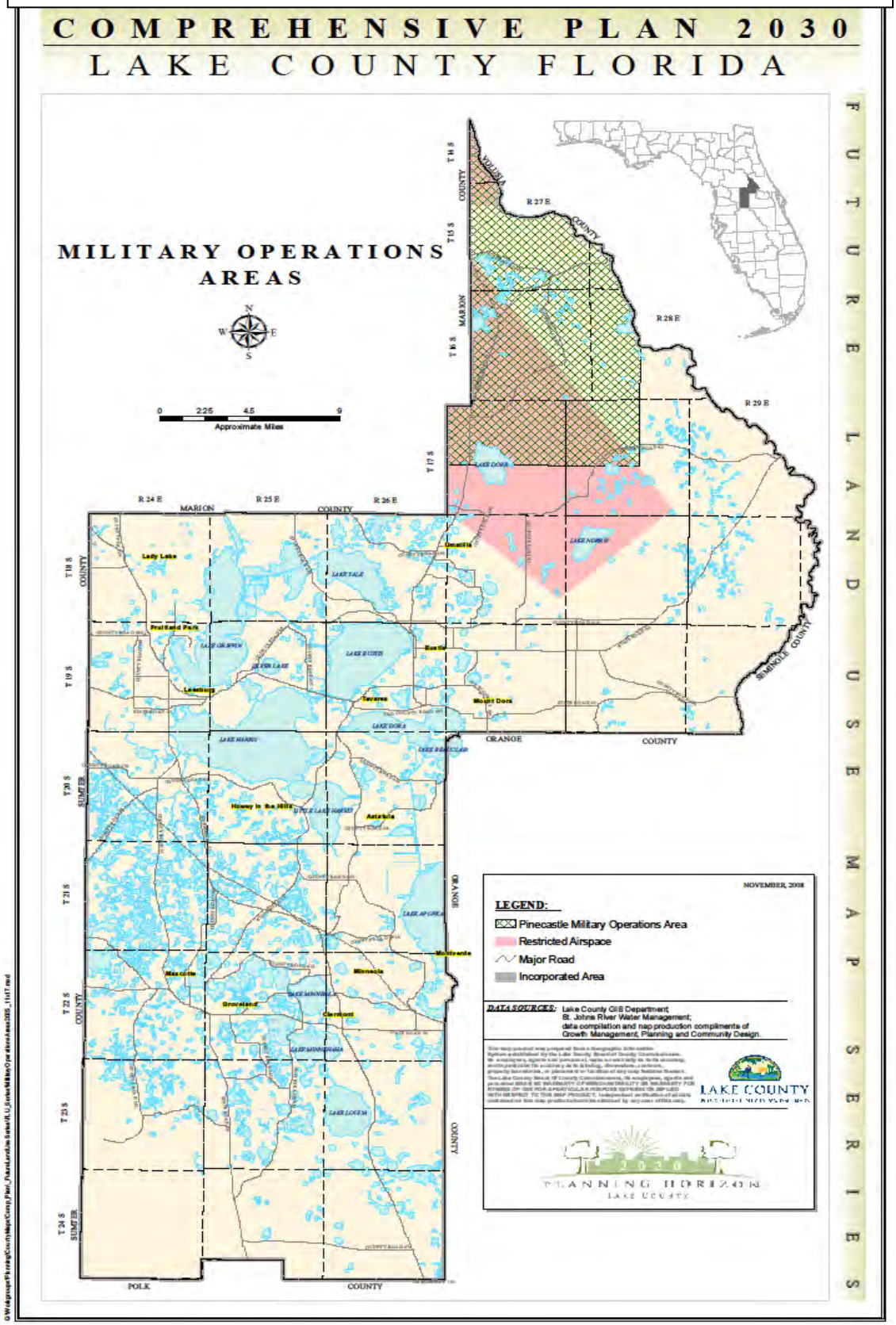
**Future Land Use Map Series - Exhibit #10**

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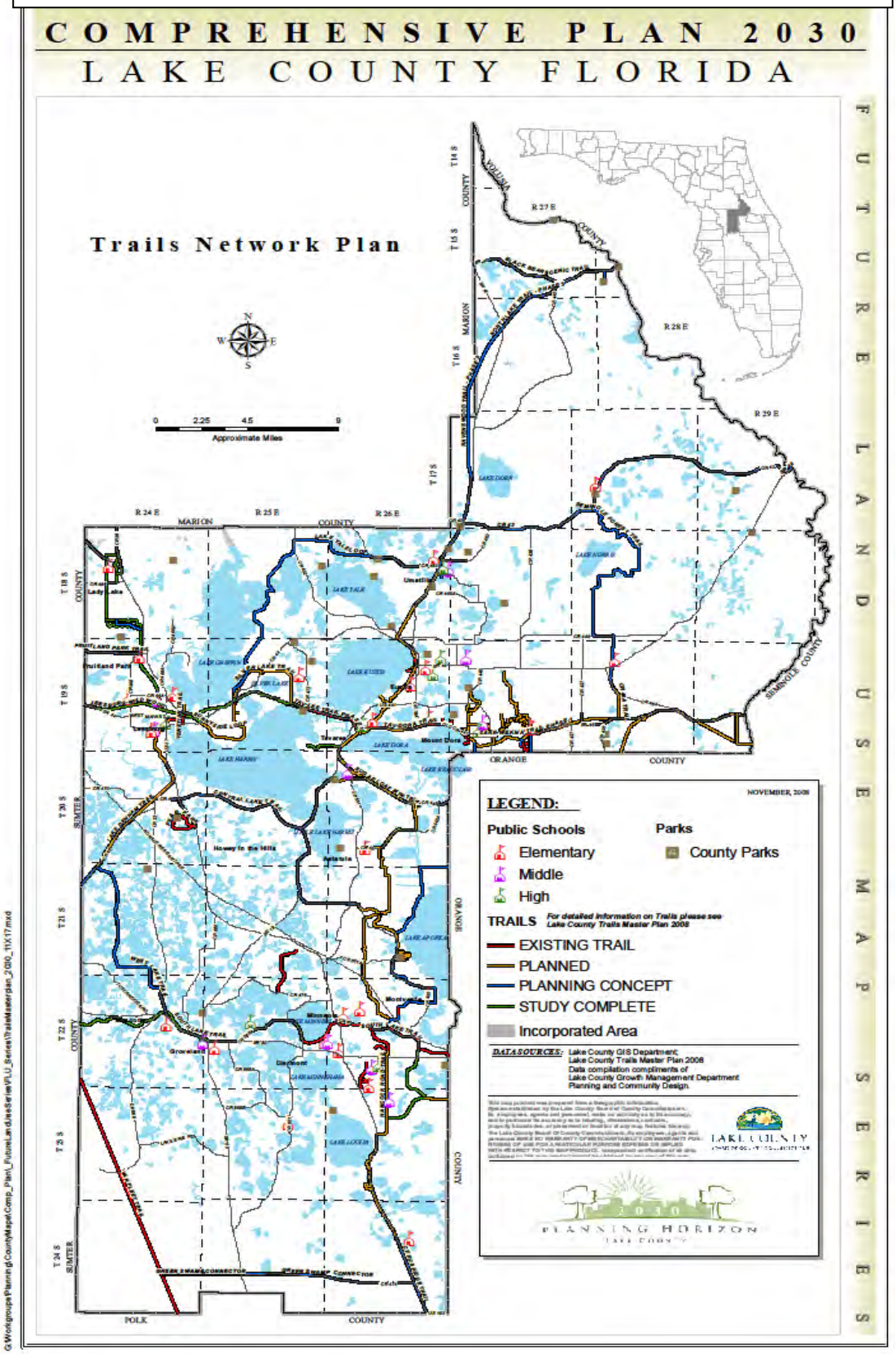
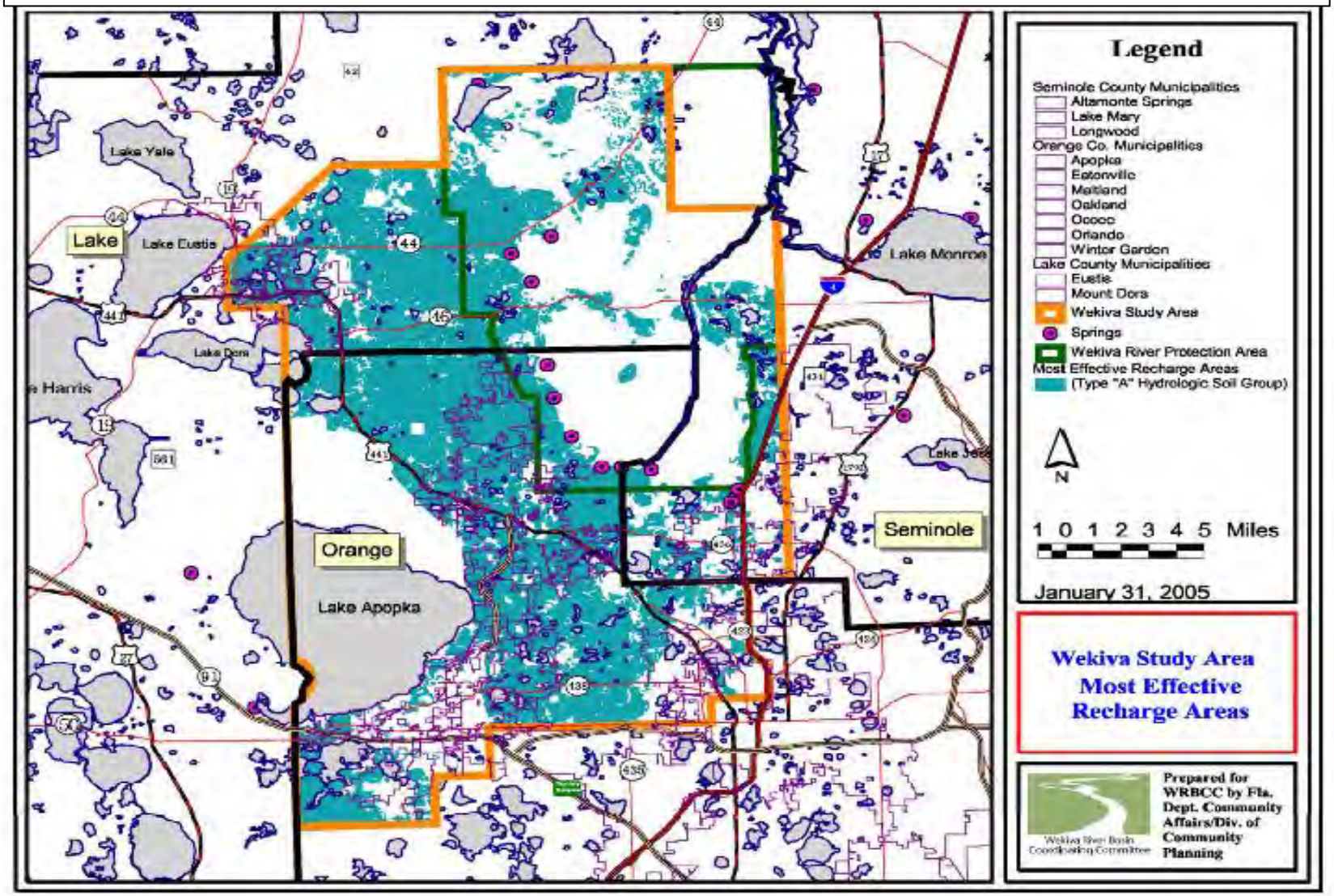
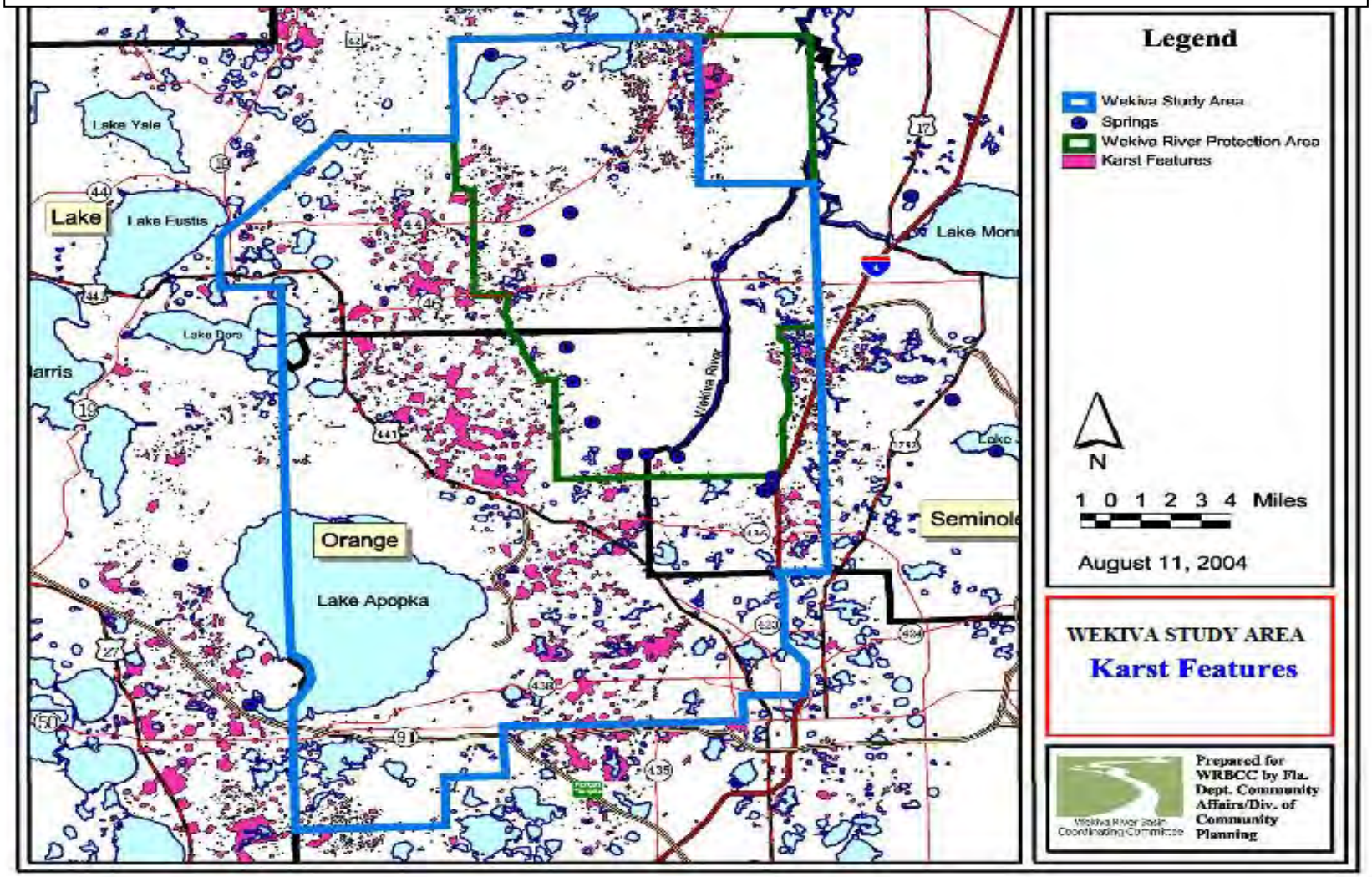
**Future Land Use Map Series - Exhibit #11**



**Future Land Use Map Series - Exhibit #12**

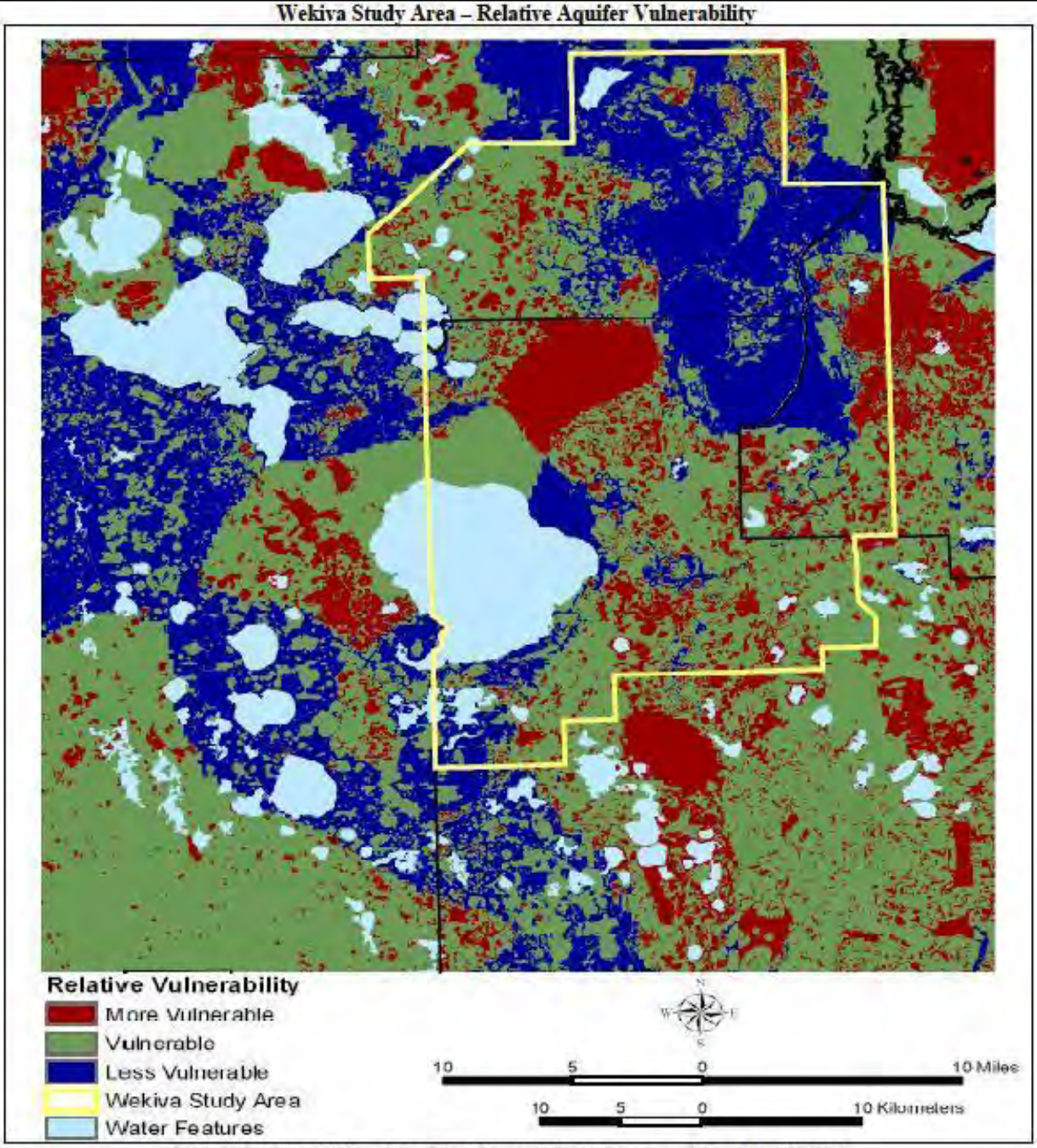


**Future Land Use Map Series - Exhibit #14**



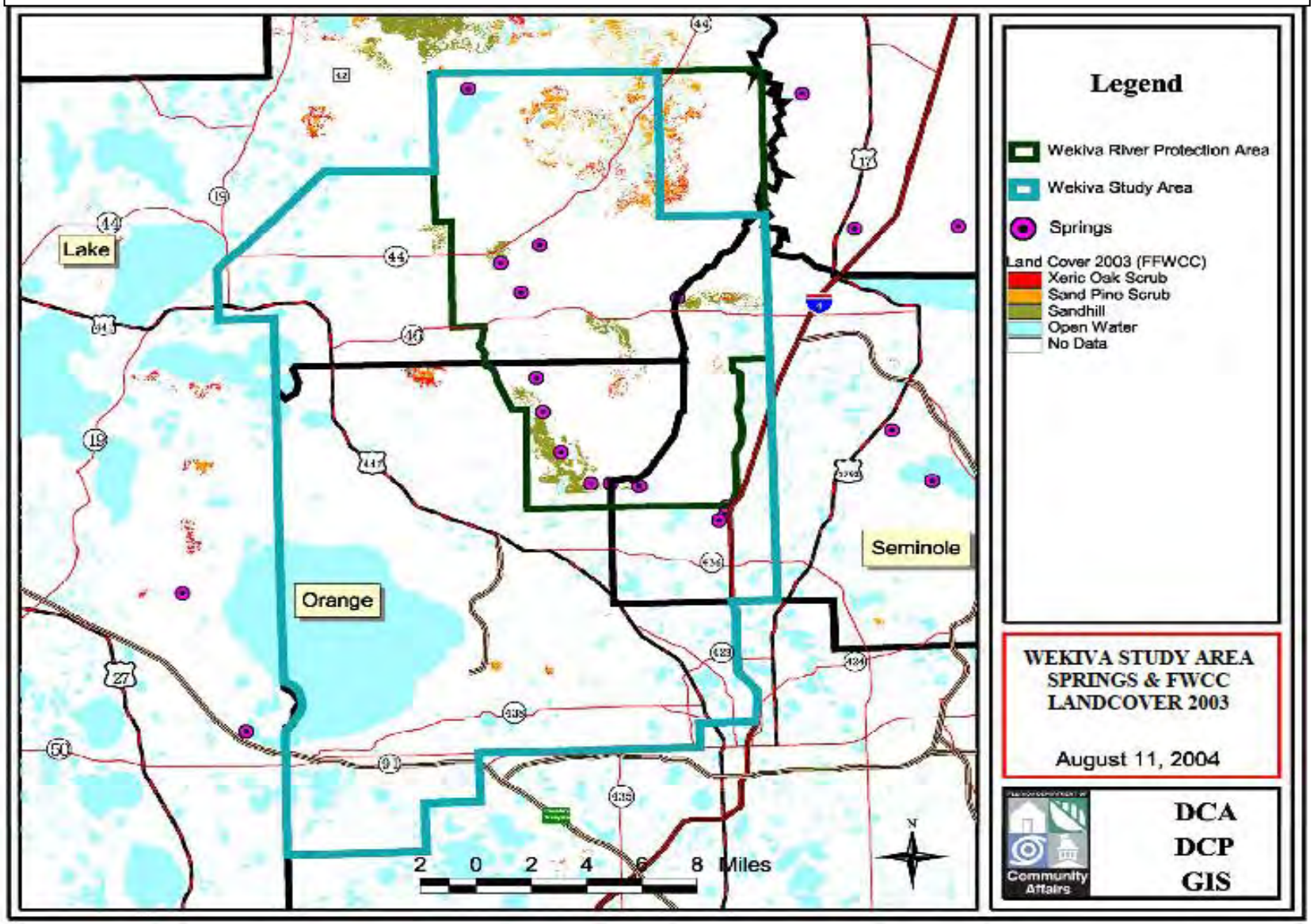
## Future Land Use Map Series - Exhibit #15

Wekiva Study Area – Relative Aquifer Vulnerability

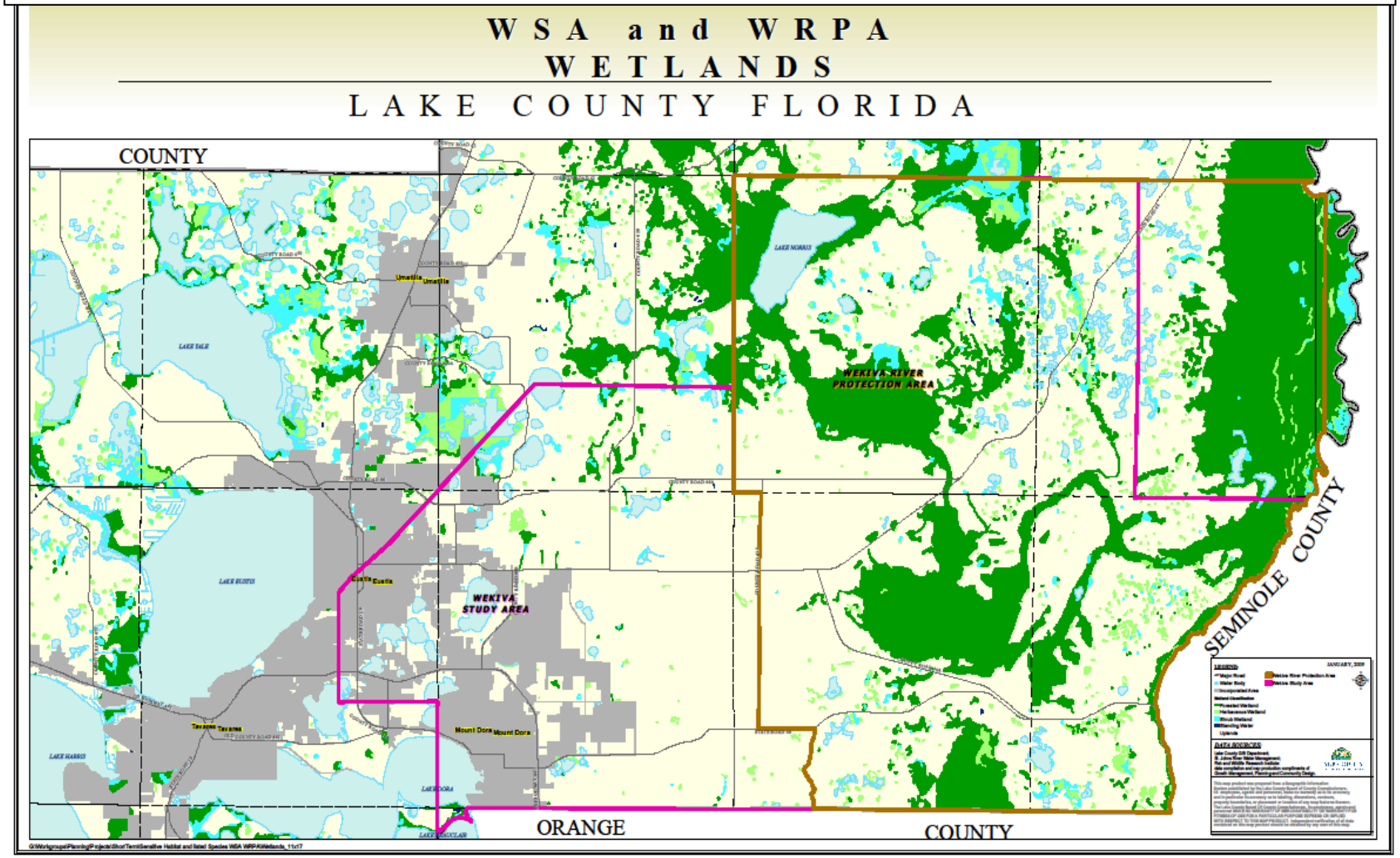



Relative Vulnerability of the Floridan Aquifer System predicted by WAVA
(Florida Geological Survey, Report of Investigation 104, p.23)

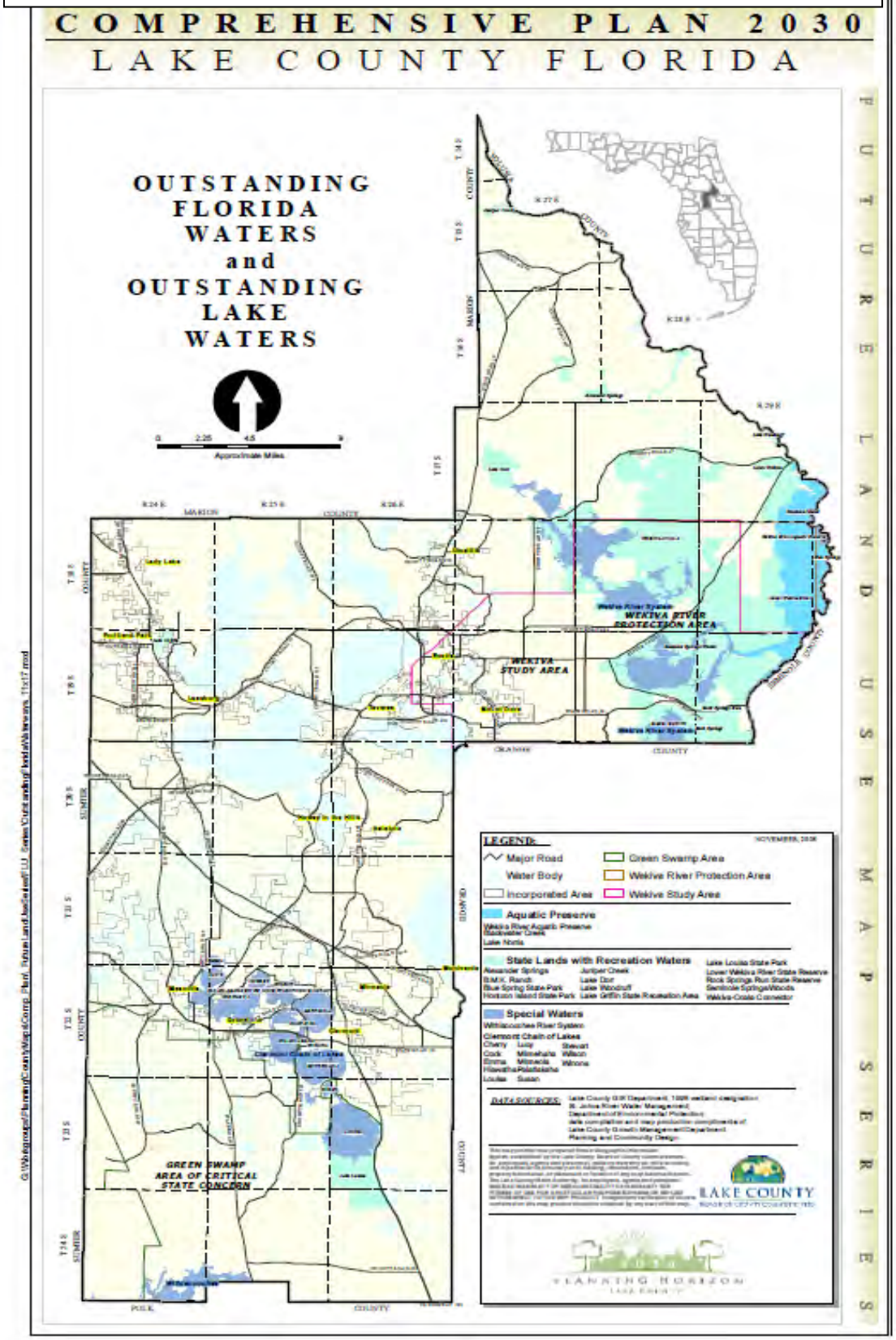
**Future Land Use Map Series - Exhibit #16**



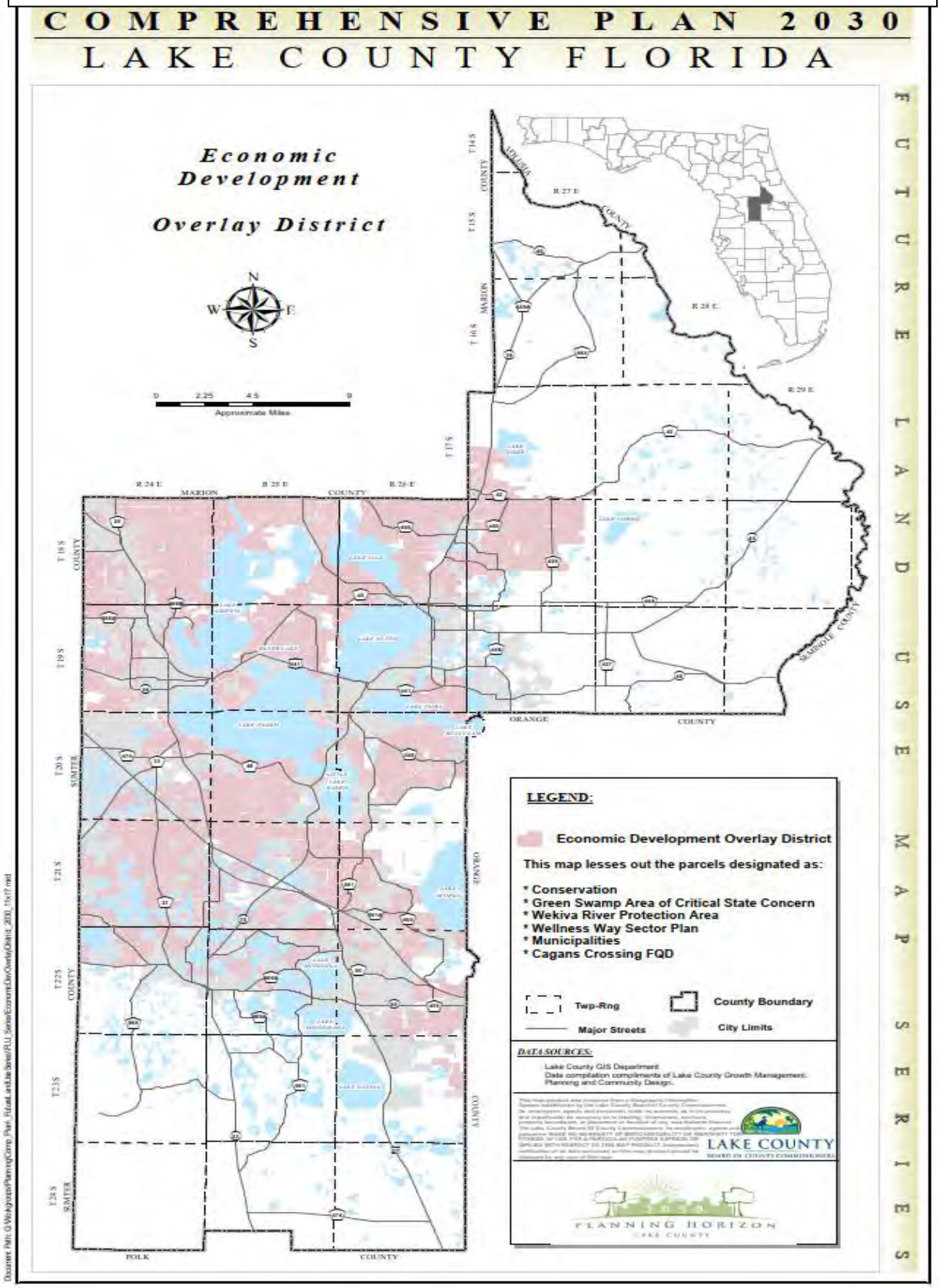
**Future Land Use Map Series - Exhibit #17**

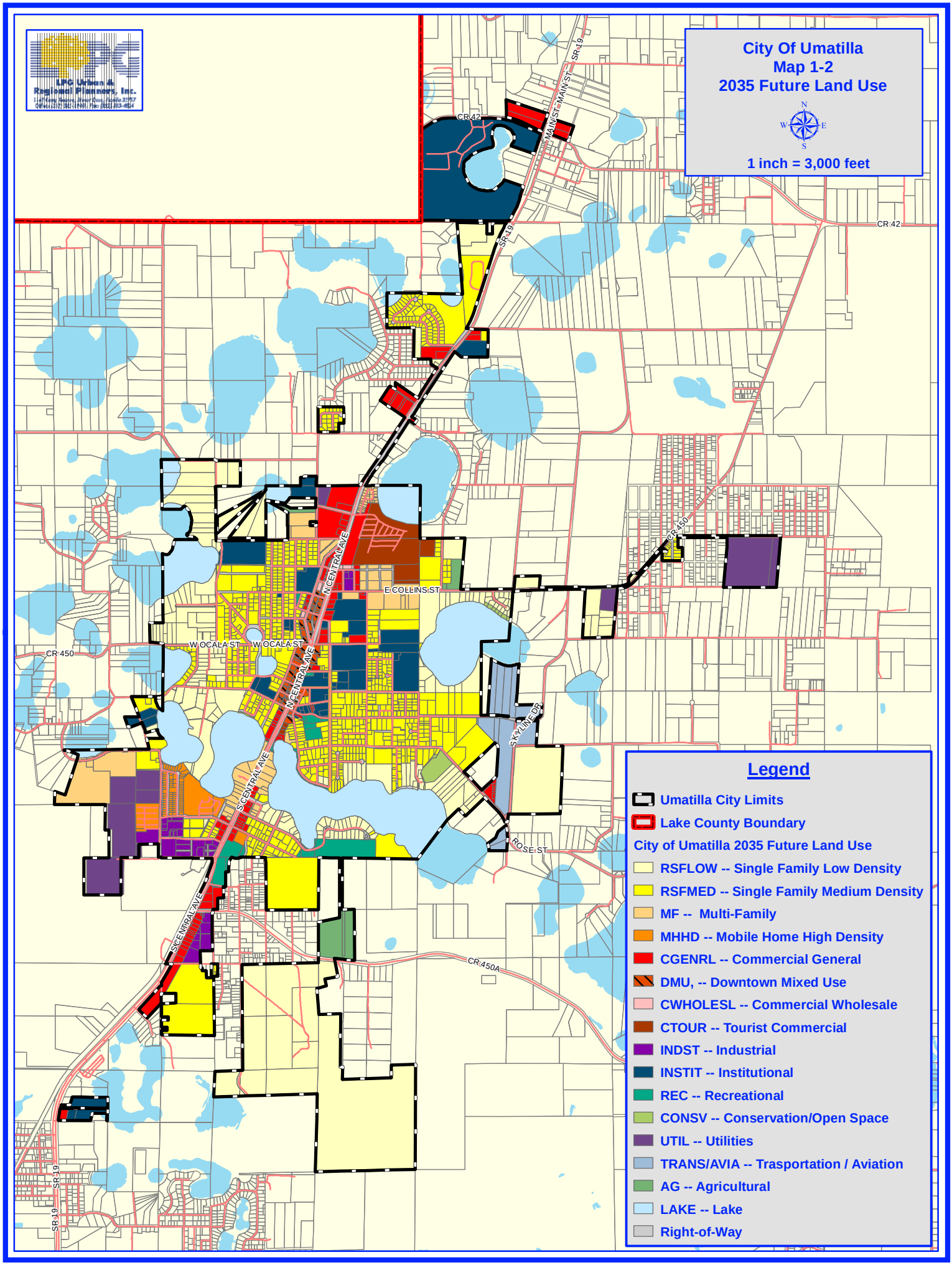


**Future Land Use Map Series - Exhibit #19**



**Future Land Use Map Series - Exhibit #20**




City Of Umatilla
Map 1-2
2035 Future Land Use
N
W
E
S
1 inch = 3,000 feet
CR 42
MAIN ST
SR 19
CR 450
N CENTRAL AVE
E COLLINS ST
W OCALA ST
S CENTRAL AVE
SKYLINE DR
ROSE ST
CR 450A
Legend
Umatilla City Limits
Lake County Boundary
City of Umatilla 2035 Future Land Use
RSFLOW -- Single Family Low Density
RSFMED -- Single Family Medium Density
MF -- Multi-Family
MHHD -- Mobile Home High Density
CGENRL -- Commercial General
DMU, -- Downtown Mixed Use
CWHOLESL -- Commercial Wholesale
CTOUR -- Tourist Commercial
INDST -- Industrial
INSTIT -- Institutional
REC -- Recreational
CONSV -- Conservation/Open Space
UTIL -- Utilities
TRANS/AVIA -- Trasportation / Aviation
AG -- Agricultural
LAKE -- Lake
Right-of-Way

# CHAPTER 1
# FUTURE LAND USE ELEMENT
# DATA, INVENTORY, AND ANALYSIS

## TABLE OF CONTENTS

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DENSITY / INTENSITY OF LAND USE ACREAGE ..... 6
ADJACACENT LAND USES ..... 8
POPULATION PROJECTIONS ..... 8
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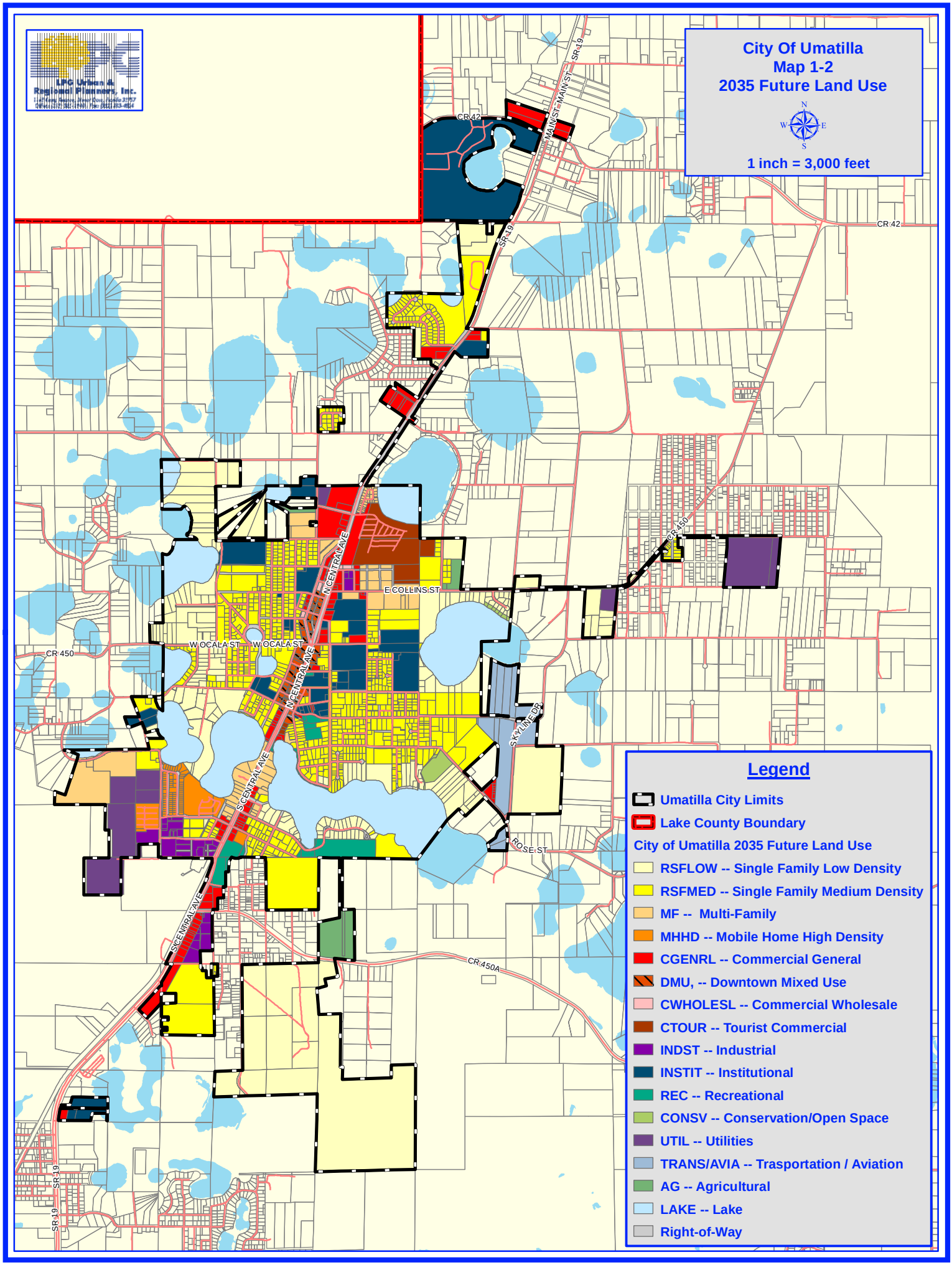
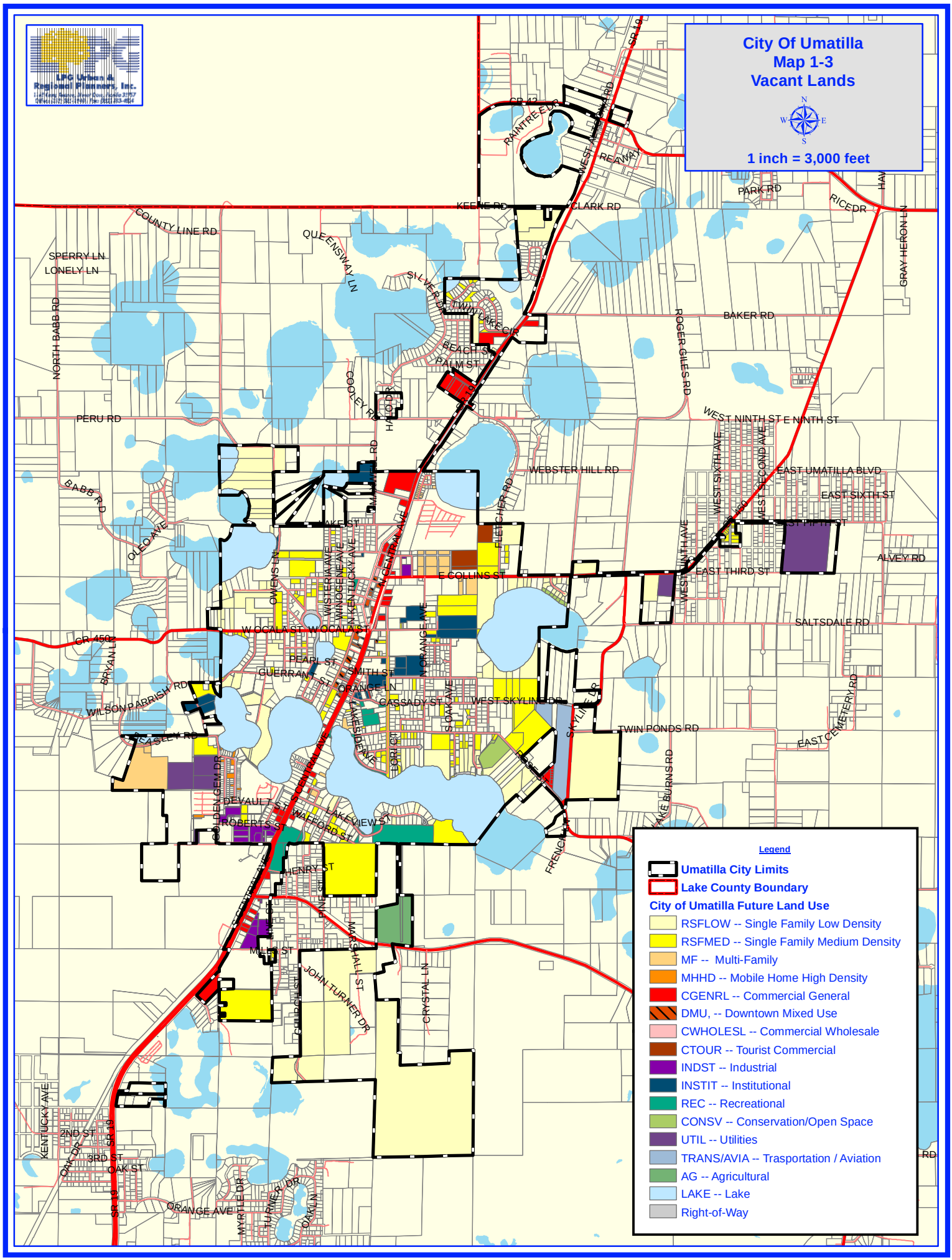
Map 1-7: Soils

Map 1-8: Florida Land Use, Cover, and Classification System

Map 1-9: Lake County Adjacent Land Use

Map 1-10: Vacant Lands of the Joint Planning Area (JPA)


City Of Umatilla
Map 1-2
2035 Future Land Use
N
W
E
S
1 inch = 3,000 feet
CR 42
MAIN ST
SR 19
CR 450
N CENTRAL AVE
E COLLINS ST
W OCALA ST
S CENTRAL AVE
SKYLINE DR
ROSE ST
CR 450A
Legend
Umatilla City Limits
Lake County Boundary
City of Umatilla 2035 Future Land Use
RSFLOW -- Single Family Low Density
RSFMED -- Single Family Medium Density
MF -- Multi-Family
MHHD -- Mobile Home High Density
CGENRL -- Commercial General
DMU, -- Downtown Mixed Use
CWHOLESL -- Commercial Wholesale
CTOUR -- Tourist Commercial
INDST -- Industrial
INSTIT -- Institutional
REC -- Recreational
CONSV -- Conservation/Open Space
UTIL -- Utilities
TRANS/AVIA -- Trasportation / Aviation
AG -- Agricultural
LAKE -- Lake
Right-of-Way


City Of Umatilla
Map 1-3
Vacant Lands
1 inch = 3,000 feet
N
W
E
S
LPG Urban & Regional Planners, Inc.
Legend
Umatilla City Limits
Lake County Boundary
City of Umatilla Future Land Use
RSFLOW -- Single Family Low Density
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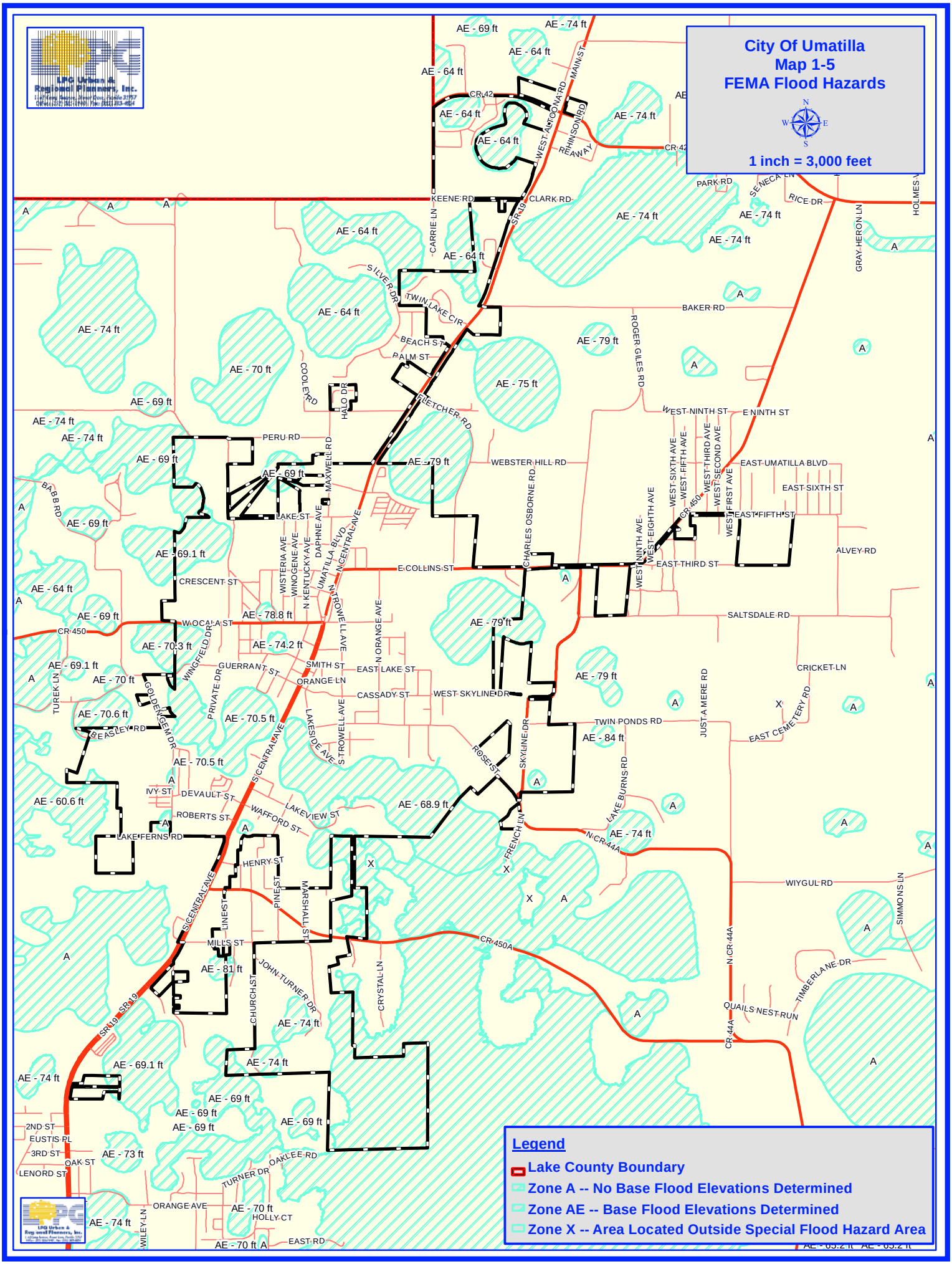
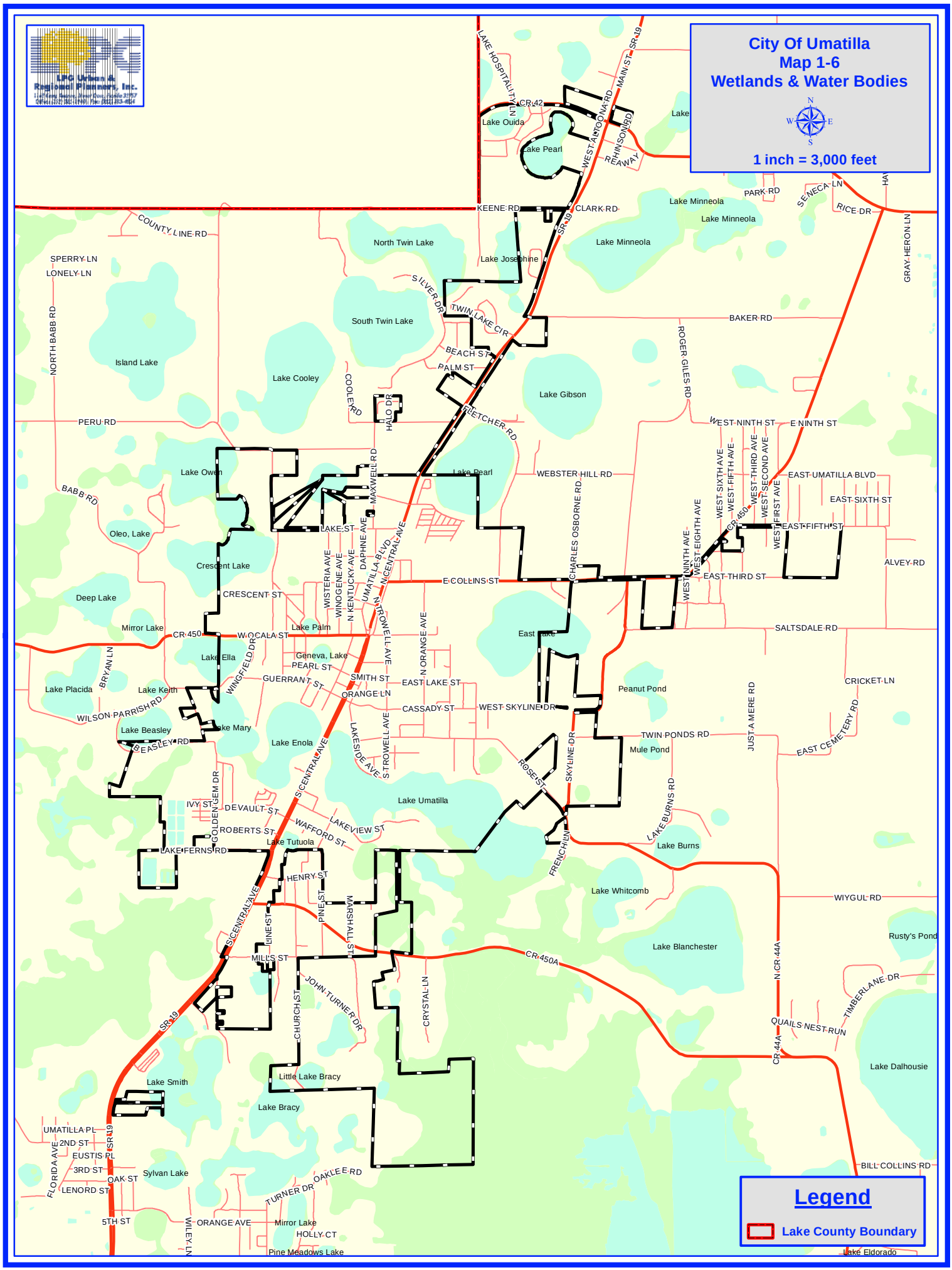
INSTIT -- Institutional
REC -- Recreational
CONSV -- Conservation/Open Space
UTIL -- Utilities
TRANS/AVIA -- Trasportation / Aviation
AG -- Agricultural
LAKE -- Lake
Right-of-Way
COUNTY LINE RD
QUEENSWAY LN
SPERRY LN
LONELY LN
NORTH BABB RD
PERU RD
BABB RD
OLEO AVE
KEENE RD
CLARK RD
PARK RD
RICE DR
GRAY HERON LN
BAKER RD
ROGER GILES RD
WEST NINTH ST
E NINTH ST
WEST SIXTH AVE
WEST SECOND AVE
EAST UMATILLA BLVD
EAST SIXTH ST
EAST FIFTH ST
EAST THIRD ST
ALVEY RD
WEBSTER HILL RD
FLETCHER RD
SALTSDALE RD
E COLLINS ST
W OCALA ST
CR 450
BRYAN LN
WILSON PARRISH RD
PEARL ST
GUERRANT ST
SMITH ST
ORANGE LN
CASSADY ST
WEST SKYLINE DR
TWIN PONDS RD
EAST CEMETERY RD
LAKE BURNS RD
FRENCH LN
SKYLINE DR
LAKE DENT
FORT CR
DEVAUL
ROBERTS ST
WAFFORD ST
LAKEVIEW ST
HENRY ST
MILL ST
JOHN TURNER DR
MARSHALL ST
CRYSTAL LN
KENTUCKY AVE
2ND ST
3RD ST
OAK ST
ORANGE AVE
MYRTLE DR
LUMNER DR
OAK LN
SR 19
CR 19
CR 13
RAINTREE DR
WEST ST
REAVIS
SILVER DR
TWIN LAKES CIR
BEACH ST
PALM ST
COOLEY RD
HALLO DR
MAXWELL RD
LAKE ST
OWENS LN
WISTERIA AVE
WINOGENE AVE
KENTUCKY AVE
CENTRAL AVE
N ORANGE AVE
SOAT AVE
COURTEAU AVE
SCHERER AVE
COLE AVE
GOLDEN GEM DR

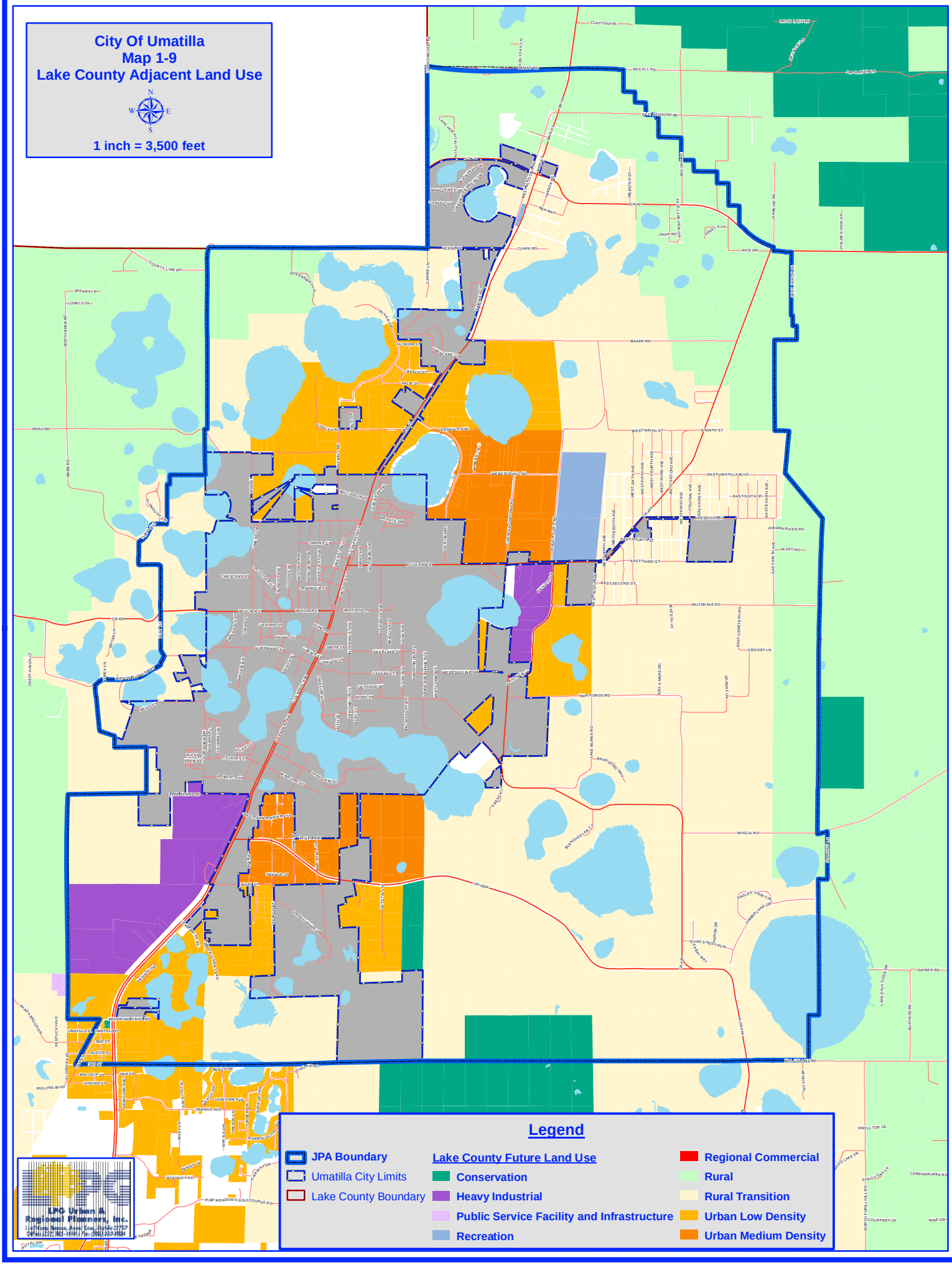

City Of Umatilla
Map 1-5
FEMA Flood Hazards
1 inch = 3,000 feet
Legend
Lake County Boundary
Zone A -- No Base Flood Elevations Determined
Zone AE -- Base Flood Elevations Determined
Zone X -- Area Located Outside Special Flood Hazard Area
KEENE RD
CLARK RD
BAKER RD
PERU RD
WEBSTER HILL RD
E COLLINS ST
SALTSDALE RD
WEST SKYLINE DR
TWIN PONDS RD
WIYGUL RD
CR 450A
N CR 44A
CR 44A
SR 19
S CENTRAL AVE
N CENTRAL AVE
UMATILLA BLVD
MAXWELL RD
FLETCHER RD
CARRIE LN
SILVER DR
TWIN LAKE CIR
BEACH ST
PALM ST
COOLEY RD
HALO DR
ROGER GILES RD
WEST NINTH ST
E NINTH ST
EAST UMATILLA BLVD
EAST SIXTH ST
EAST FIFTH ST
EAST THIRD ST
ALVEY RD
CHARLES OSBORNE RD
WEST EIGHTH AVE
WEST NINTH AVE
WEST SIXTH AVE
WEST FIFTH AVE
WEST THIRD AVE
WEST SECOND AVE
WEST FIRST AVE
CR 450
LAKE ST
WISTERIA AVE
WINOGENE AVE
N KENTUCKY AVE
DAPHNE AVE
N ORANGE AVE
N TROWELL AVE
CRESCENT ST
W OCALA ST
WINGFIELD DR
GUERRANT ST
SMITH ST
EAST LAKE ST
ORANGE LN
CASSADY ST
PRIVATE DR
GOLDENGEM DR
TUREK LN
REASLEY RD
LAKESIDE AVE
S TROWELL AVE
ROSE ST
SKYLINE DR
FRENCH LN
LAKE BURNS RD
JUST A MERE RD
CRICKET LN
EAST CEMETERY RD
IVY ST
DEVAULT ST
ROBERTS ST
WAFFORD ST
LAKEVIEW ST
LAKE FERNS RD
HENRY ST
PINE ST
MARSHALL ST
LINE ST
MILLS ST
CHURCH ST
JOHN TURNER DR
CRYSTAL LN
SIMMONS LN
TIMBERLANE DR
QUAILS NEST RUN
PARK RD
SENECA LN
RICE DR
GRAY HERON LN
HOLMES
2ND ST
EUSTIS PL
3RD ST
OAK ST
LENORD ST
TURNER DR
OAKLEE RD
ORANGE AVE
HOLLY CT
WILEY LN
EAST RD
AE - 69 ft
AE - 74 ft
AE - 64 ft
AE - 79 ft
AE - 75 ft
AE - 70 ft
AE - 69.1 ft
AE - 78.8 ft
AE - 74.2 ft
AE - 70.3 ft
AE - 70.6 ft
AE - 70.5 ft
AE - 60.6 ft
AE - 68.9 ft
AE - 84 ft
AE - 81 ft
AE - 73 ft
A
X

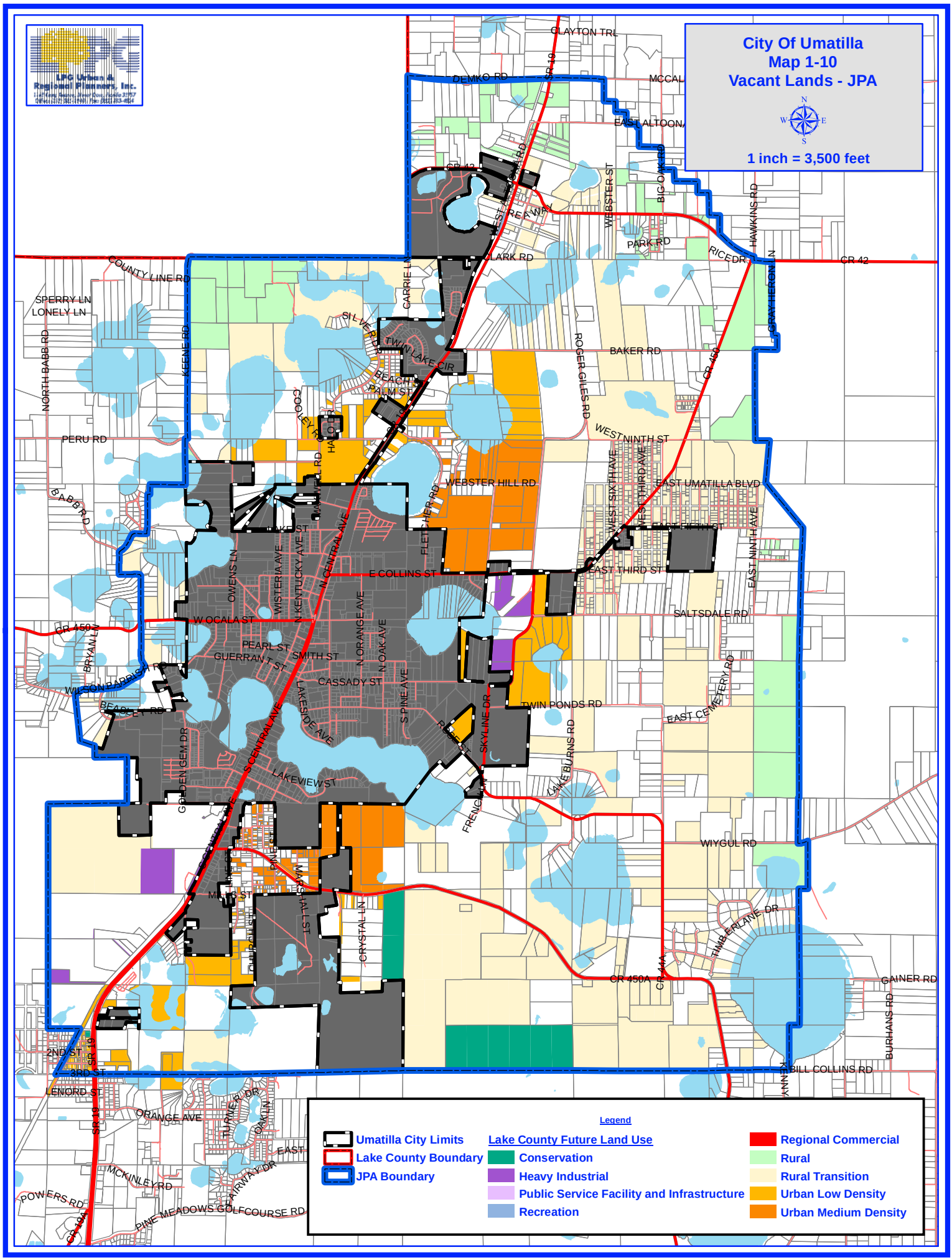

City Of Umatilla
Map 1-6
Wetlands & Water Bodies
1 inch = 3,000 feet
N
S
E
W
LPG Urban & Regional Planners, Inc.
Lake Ouida
Lake Pearl
CR 42
LAKE HOSPITALITY LN
WEST ARTOONA RD
MAIN ST
SR 19
RHINSONRD
REAWAY
Lake Minneola
PARK RD
SENECA LN
RICE DR
KEENE RD
CLARK RD
COUNTY LINE RD
North Twin Lake
Lake Josephine
SPERRY LN
LONELY LN
SILVER DR
TWIN LAKE CIR
BAKER RD
South Twin Lake
NORTH BABB RD
Island Lake
BEACH ST
PALM ST
Lake Cooley
COOLEY RD
HALO DR
Lake Gibson
ROGER GILES RD
GRAY HERON LN
PERU RD
FLETCHER RD
WEST NINTH ST
E NINTH ST
Lake Owen
MAXWELL RD
Lake Pearl
WEBSTER HILL RD
EAST UMATILLA BLVD
BABB RD
WEST SIXTH AVE
WEST FIFTH AVE
WEST THIRD AVE
WEST SECOND AVE
EAST SIXTH ST
Oleo, Lake
LAKE ST
DAPHNE AVE
UMATILLA BLVD
N CENTRAL AVE
CHARLES OSBORNE RD
CR 450
WEST FIRST AVE
EAST FIFTH ST
Crescent Lake
WISTERIA AVE
WINOGENE AVE
N KENTUCKY AVE
E COLLINS ST
WEST NINTH AVE
WEST EIGHTH AVE
EAST THIRD ST
ALVEY RD
Deep Lake
CRESCENT ST
N TROWELL AVE
N ORANGE AVE
Mirror Lake
CR 450
W OCALA ST
Lake Palm
East Lake
SALTSDALE RD
Lake Ella
WINGFIELD DR
Geneva, Lake
PEARL ST
BRYAN LN
Lake Placida
Lake Keith
GUERRANT ST
SMITH ST
EAST LAKE ST
Peanut Pond
CRICKET LN
WILSON PARRISH RD
ORANGE LN
CASSADY ST
WEST SKYLINE DR
Lake Beasley
Lake Mary
BEASLEY RD
Lake Enola
LAKESIDE AVE
S TROWELL AVE
TWIN PONDS RD
JUST A MERE RD
EAST CEMETERY RD
Mule Pond
ROSE ST
SKYLINE DR
S CENTRAL AVE
Lake Umatilla
IVY ST
GOLDEN GEM DR
DEVAULT ST
ROBERTS ST
WAFFORD ST
LAKEVIEW ST
LAKE BURNS RD
Lake Tutuola
LAKE FERNS RD
FRENCH LN
Lake Burns
HENRY ST
Lake Whitcomb
WIYGUL RD
PINE ST
MARSHALL ST
LINE ST
Rusty's Pond
Lake Blanchester
MILLS ST
CR 450A
N CR 44A
TIMBERLANE DR
JOHN TURNER DR
CRYSTAL LN
CHURCH ST
QUAILS NEST RUN
CR 44A
Lake Dalhousie
Lake Smith
Little Lake Bracy
Lake Bracy
UMATILLA PL
2ND ST
EUSTIS PL
3RD ST
OAK ST
Sylvan Lake
FLORIDA AVE
LENORD ST
TURNER DR
OAKLEE RD
BILL COLLINS RD
5TH ST
ORANGE AVE
WILEY LN
Mirror Lake
HOLLY CT
Pine Meadows Lake
Lake Eldorado
Legend
Lake County Boundary

# City Of Umatilla
## Map 1-9
## Lake County Adjacent Land Use

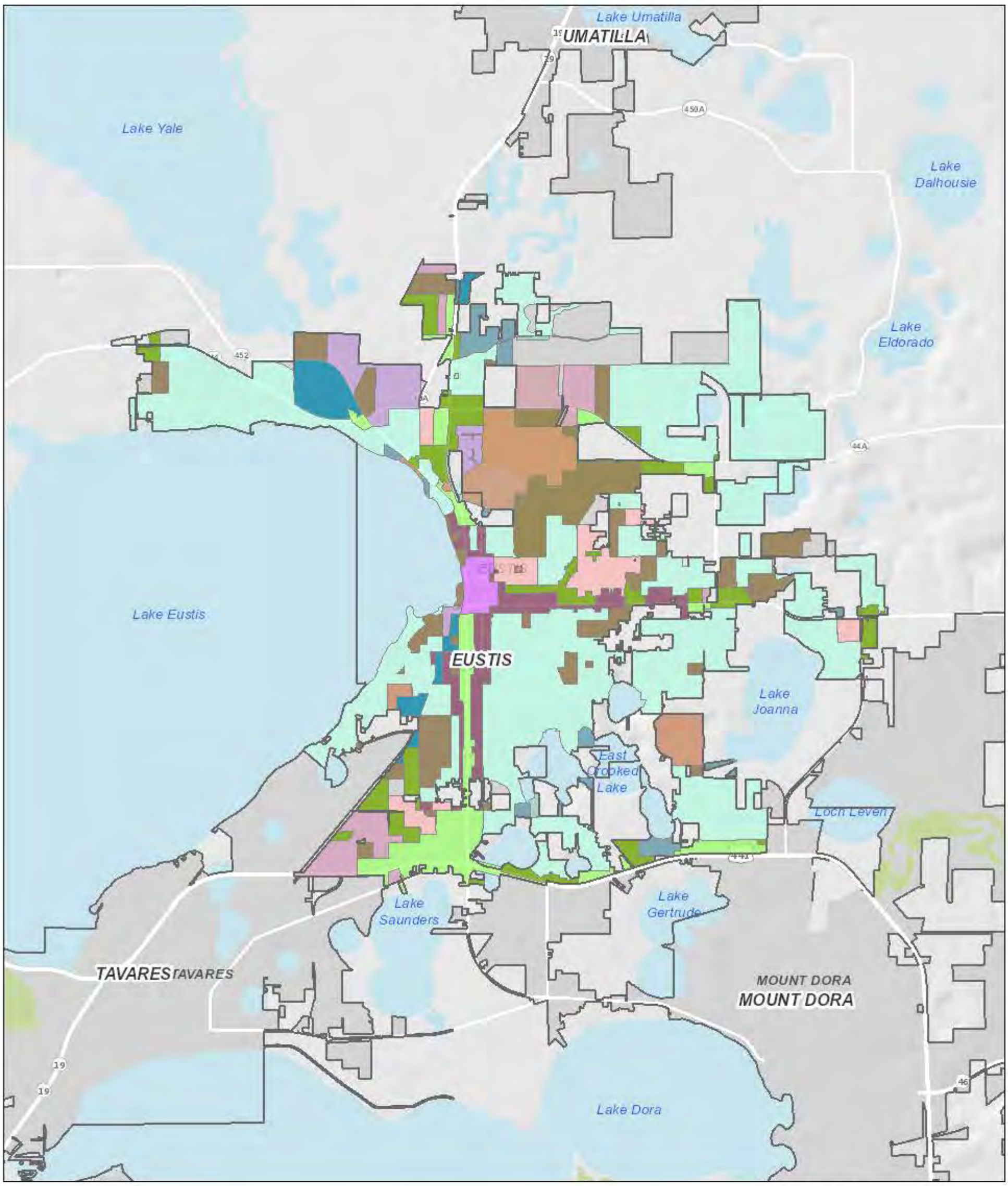
N
W E
S

1 inch = 3,500 feet




City Of Umatilla
Map 1-10
Vacant Lands - JPA
1 inch = 3,500 feet
LPG Urban & Regional Planners, Inc.
Legend
Umatilla City Limits
Lake County Boundary
JPA Boundary
Lake County Future Land Use
Conservation
Heavy Industrial
Public Service Facility and Infrastructure
Recreation
Regional Commercial
Rural
Rural Transition
Urban Low Density
Urban Medium Density
CLAYTON TRL
DEMKO RD
MCCAL
EAST ALTOONA
CR 42
WEST REEVES
WEBSTER ST
BIG OAK RD
HAWKINS RD
PARK RD
RICE DR
CLARK RD
COUNTY LINE RD
SPERRY LN
LONELY LN
CARRIE LN
SILVER RD
TWIN LAKE CIR
BEACH PALM ST
ROGER GILES RD
BAKER RD
GRAY HERON LN
NORTH BABB RD
KEENE RD
COOLEY RD
HALL RD
PERU RD
WEST NINTH ST
WEBSTER HILL RD
EAST UMATILLA BLVD
WEST SIXTH AVE
WEST THIRD AVE
EAST NINTH AVE
BABB RD
FLETCHER RD
E COLLINS ST
EAST THIRD ST
OWENS LN
WISTERIA AVE
N KENTUCKY AVE
N CENTRAL AVE
N ORANGE AVE
N OAK AVE
SALTSDALE RD
W OCALA ST
CR 450
BRYAN LN
PEARL ST
GUERRANT ST
SMITH ST
CASSADY ST
WILSON PARRISH RD
BEASLEY RD
LAKESIDE AVE
S PINE AVE
TWIN PONDS RD
EAST CEMETERY RD
S CENTRAL AVE
SKYLINE DR
LAKE BURNS RD
GOLDEN GEM DR
LAKEVIEW ST
FRENCH AVE
WIYGUL RD
MAIN ST
HALL ST
CRYSTAL LN
TIMBERPLANE DR
CR 450A
GAINER RD
BURHANS RD
2ND ST
3RD ST
SR 19
BILL COLLINS RD
LENORD ST
ORANGE AVE
TURNER RD DR
OAKLIN
EAST
MCKINLEY RD
FAIRWAY DR
POWERS RD
PINE MEADOWS GOLFCOURSE RD

# City of Eustis FLU




July 1, 2025

1:57,478

0 0.5 1 2 mi

0 1 2 4 km

- County Boundary
- City Limits In

**Future Land Use**

- AG
- CBD
- CON
- GC
- GI
- LC
- MCI
- MCR
- MH/RV
- NC
- PI
- RR
- RT
- SR
- UR

Lake County, FL
Various municipalities

Only available online:
https://lcgis.maps.arcgis.com/

**APPENDIX D**

# County and Municipal Zoning Maps

## APPENDIX D - COUNTY AND MUNICIPAL ZONING MAPS

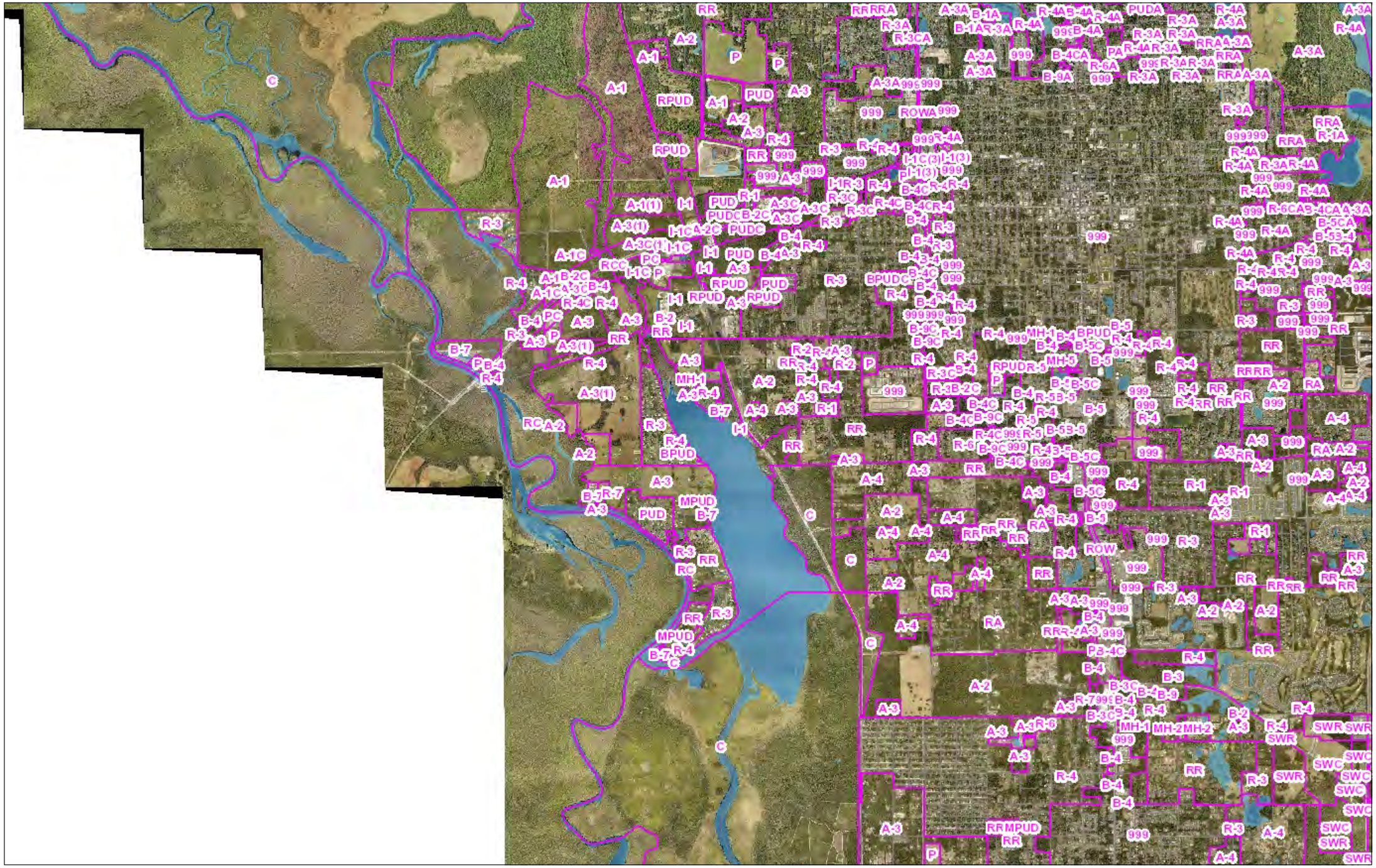
*List of Documents*

1) Volusia County Zoning Map
2) Lake County Zoning Map
3) City of Umatilla Zoning Map

*The City of Eustis regulates land use solely through FLU designations and does not maintain separate zoning districts. Their land use activities are governed by the FLU categories outlined in their comprehensive plan.

Volusia County
Florida

# Volusia County Zoning



Legend

County Zoning

1: 54,631

9,105.2 0 4,552.59 9,105.2 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

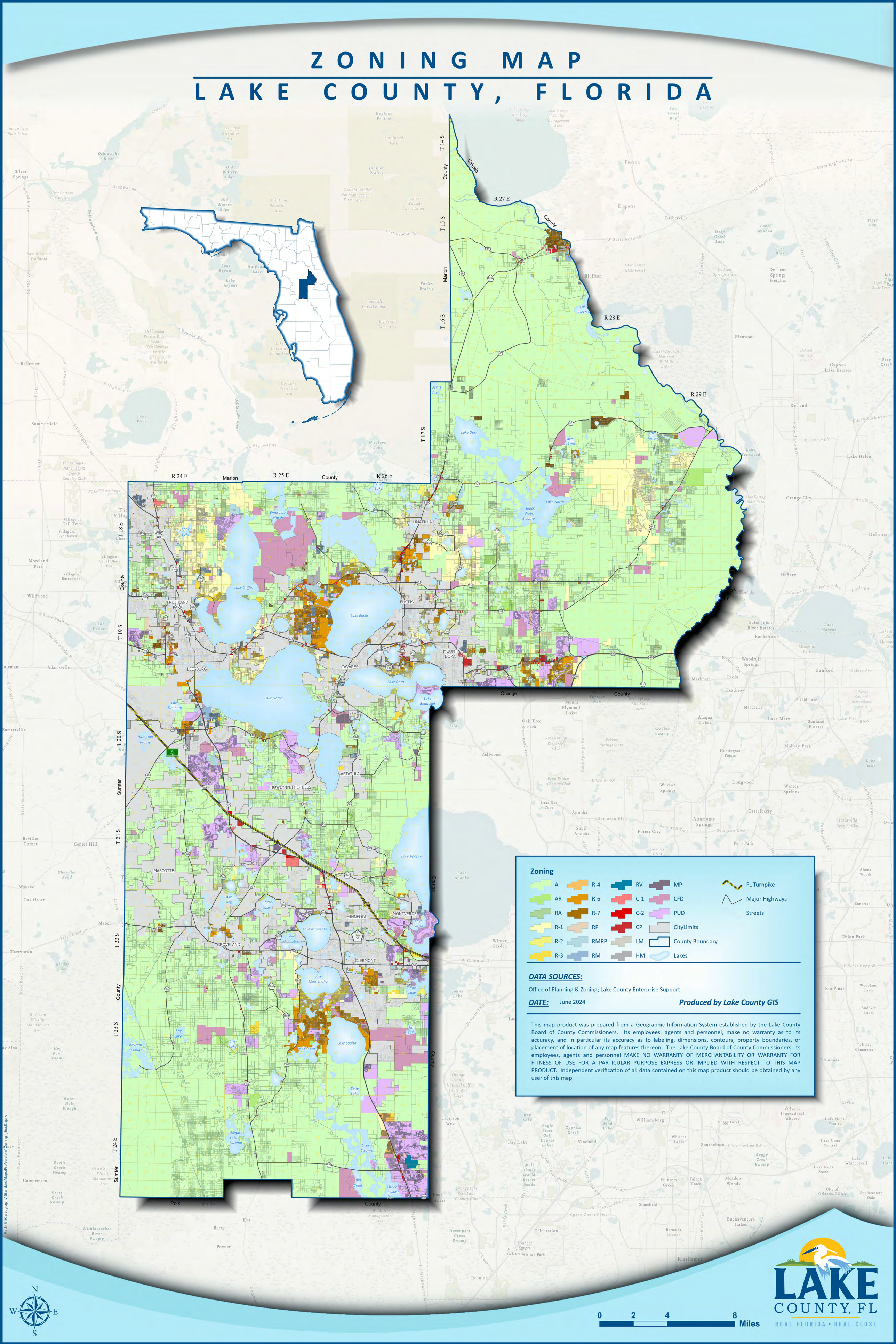
THIS MAP IS NOT TO BE USED FOR NAVIGATION

**Notes**

Only available online: https://imapt.vcgov.org/Html5Viewer/index.html?viewer=Volusia_County_BaseMap.Kiosk

# ZONING MAP

# LAKE COUNTY, FLORIDA



# City of Umatilla Zoning Map

UMATILLA
NATURE'S HOMETOWN
EST. 1904

## Legend

- Streets
- Umatilla City Limits
- Lake County Boundary
- Parcels

**City of Umatilla - Zoning**

- AR-1 -- Agriculture Residential
- R-3 -- Low Density Residential
- R-5 -- Single Family Medium Density Residential
- MF-8 -- Multi-Family Medium Density Residential
- MF-12 -- Multi-Family High Density Residential
- UR-5 -- Urban Residential District
- MHRP-8 -- Mobile Home Rental Park
- MHS-8 -- Manufactured Home Subdivision
- PUD -- Planned Unit Development
- RP -- Residential Professional
- AZ -- Airport Zoning
- PFD -- Public Facilities District
- C-1 -- Neighborhood Commercial
- C-2 -- General Commercial & Warehouse
- TC-12 -- Tourist Commercial
- LM -- Light Manufacturing
- R/W -- Right of Way
- LAKE -- Lake

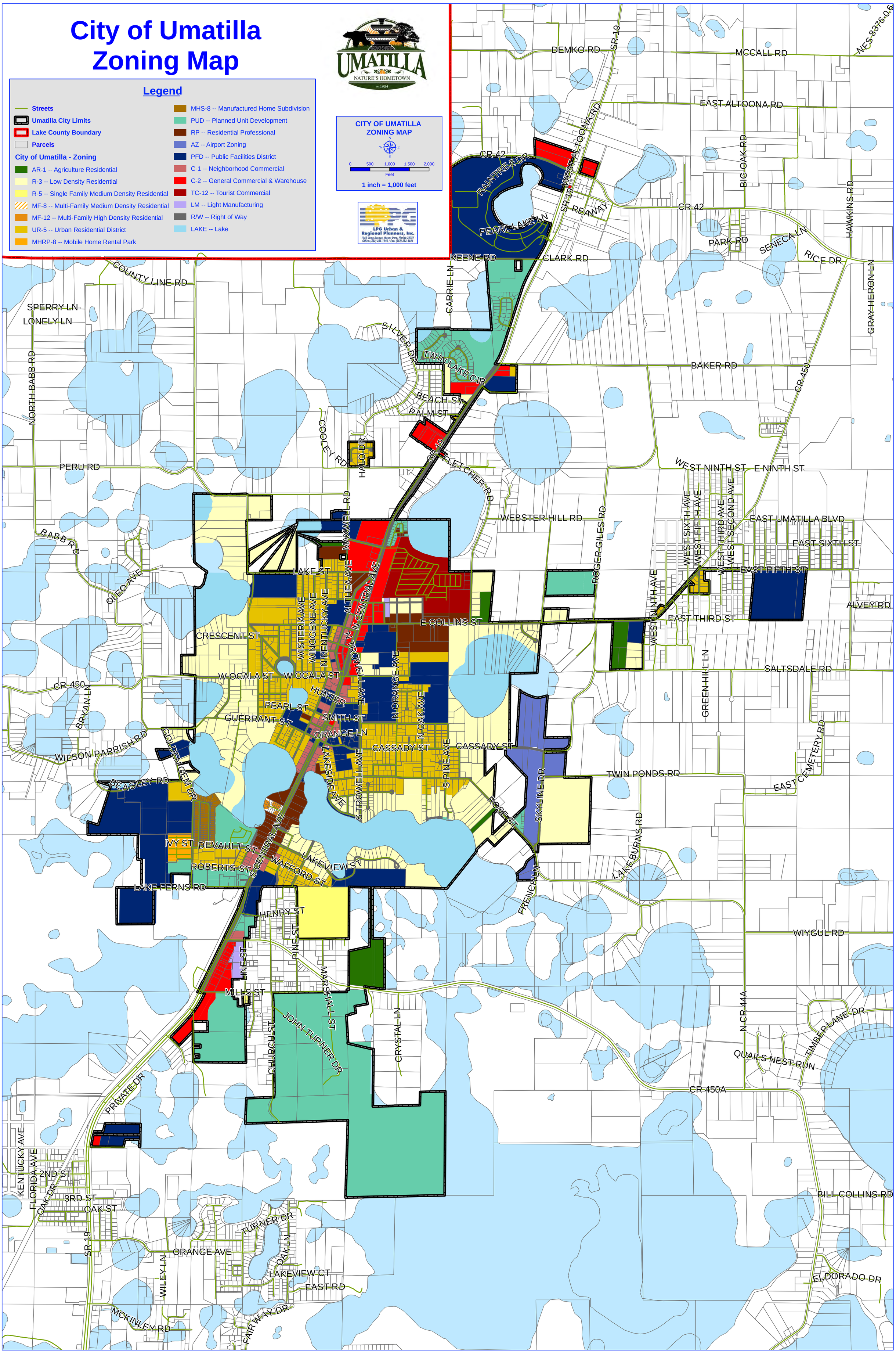
**CITY OF UMATILLA ZONING MAP**

N W E S

0 500 1,000 1,500 2,000
Feet

**1 inch = 1,000 feet**

LPG Urban & Regional Planners, Inc.
1162 Camp Avenue, Mount Dora, Florida 32757
Office: (352) 383-1940 / Fax: (352) 383-4824




M:\399_Umatilla\Umatilla_Zoning.mxd

**APPENDIX E**

# Archaeological and Historical Resources

May 2, 2025 Project No. US-WSP-31404342.021

State Historical Preservation Officer
Florida Division of Historical Resources and State Historic Preservation Office
R.A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250

**RE: CULTURAL RESOURCES EVALUATION FOR DELAND WEST TO DONA VISTA 230-KV TRANSMISSION LINE, VOLUSIA AND LAKE COUNTY, FLORIDA**

Dear Sir/Madame:

On behalf of Duke Energy Florida (DEF), WSP USA Inc. (WSP) is submitting to the Florida Division of Historical Resources (FDHR) a summary of the cultural resource evaluation that was conducted for the DeLand West to Dona Vista 230 kV Transmission Line project. WSP respectively requests FDHR's review of the provided information and concurrence that no additional cultural resources investigation is required to demonstrate compliance with Section 106 of the National Historic Preservation Act (NHPA).

## INTRODUCTION

The DeLand West to Dona Vista (DWDV) transmission line will consist of a single circuit 230 kV transmission line which originates at the existing DeLand West substation located in Volusia County and extends approximately 26 miles, traversing through the Cities of Umatilla and Eustis, and terminates at the Dona Vista substation in Lake County (Figure 1). The new 230 kV transmission line will be co-located with existing DEF 69 kV transmission lines. DEF intends to obtain certification for the DWDV 230 kV transmission line corridor (DWDV corridor) under the Florida Electric Transmission Line Siting Act (TLSA), Sections 403.52 through 403.5365, Florida Statutes (F.S.) and Chater 62-17, Part II, Florida Administrative Code (F.A.C.).

WSP contracted SEARCH, an archaeological and cultural research firm, to conduct a cultural resource evaluation that consisted of a desktop review of publicly available data, a cultural resource probability analysis, and a field reconnaissance conducted from public right-of-way.

## PREVIOUSLY CONDUCTED SURVEYS AND PREVIOUSLY RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA

The Florida Master Site File (FMSF) database, updated January 2025, identifies 23 cultural resource surveys that were previously completed within the DWDV corridor. Eighteen surveys intersect the DWDV corridor and include five road improvement surveys, three transmission line rebuilds, three development surveys, two historic and

architectural surveys, two bridge replacement surveys, one pipeline survey, one archaeological inventory survey, and one cell tower survey.

The FMSF database identifies 45 previously recorded cultural resources within or in the vicinity of the DWDV corridor, including 12 archaeological sites, 28 buildings, one historic bridge divided across the county boundary, one historic district, and three resource groups (Figure 2, Tables 1 and 2). The term 'vicinity' refers to findings that are within a quarter mile of the DWDV corridor.

- Of the 12 cultural resources that were identified during previous surveys, seven are within the DWDV corridor and five are in the vicinity of the DWDV corridor (see Table 1).
- Of the 28 structures listed in the FMSF (see Table 2), seventeen historic structures are within the DWDV corridor and the State Historic Preservation Office (SHPO) has determined that all of these are ineligible for listing in the NRHP. Eleven historic structures are in the vicinity of the DWDV corridor, two of which are residences indicated as being 'abandoned or vacant'. The eleven have been recommended as ineligible for listing in the NRHP by the SHPO.

Based on the information provided, WSP seeks your concurrence that the proposed project may seek approval (certification) under the TLSA without additional professional archaeological or historical investigation. Following the certification of the DWDV corridor and selection of the right-of-way, a cultural resource assessment survey will be conducted that meets the requirements of Chapter 267, F.S., and Chapter 1A-46 (Archaeological and Historical Report Standards and Guidelines), F.A.C. The results of this cultural resource assessment survey will be documented in a report submitted to the Florida Department of Historic Resources (DHR) / State Historic Preservation Office (SHPO). If significant resources are identified, DEF will avoid these resources. If avoidance is not feasible, then DEF will coordinate with the DHR/SHPO to develop a strategy to minimize or mitigate impacts.

If you have any questions, please feel free to contact the undersigned at (813) 287-1717.

Sincerely,

**WSP USA Inc.**

Manitia Moultrie

Manitia Moultrie
*Project Director*

MM/as

Attachments: Table 1 Previously Recorded Cultural Resources in or in vicinity of the DWDV Corridor
Table 2 Previously Recorded Historic Structures in or in vicinity of the DWDV Corridor

Figure 1 Project Location Map
Figure 2 Previously Recorded Cultural Resources in vicinity of the DWDV Corridor

https://wsponline.sharepoint.com/sites/GLD-202227177-DeLandWesttoDonaVista230kVTransmissionLine/Project Files/6 Deliverables/TLSA Corridor - DHR Submittal/DWDV TSLA DHR Submittal 20250421.docx

Table 1: Previously Recorded Cultural Resources in or in vicinity of the DWDV Corridor

Table 2: Previously Recorded Historic Structures in or in vicinity of the DWDV Corridor

**Table 1: Previously Recorded Cultural Resources in or in vicinity of the DWDV Corridor**

| FMSF No. | Name | Time Period/Year Built | SHPO Evaluation of NRHP Eligibility |
|---|---|---|---|
| ***Archaeological Sites*** | | | |
| 8LA00032 | Crow's Bluff Midden | Precontact; Mt. Taylor | Not evaluated |
| | *No Name* | Archaic; Mt. Taylor; St. Johns; St Johns I | Not evaluated |
| 8LA00169 | USFS 82-42 | American, 1821–present | Not evaluated |
| 8LA00180 | USFS 83-47 | American, 1821–present | Not evaluated |
| 8LA00266 | USFS 86-60 OCA/Crows Bluff Swim Area | Paleoindian, 10,000 BC–8500 BC | Insufficient Information |
| 8LA00492 | USFS OCA 91-3 | Precontact, unspecified | Ineligible for NRHP |
| 8LA02781 | Brainard's Farm | American, 1821–present | Not evaluated |
| 8LA04455 | Crow's Bluff Scatter | Archaic, 8500 BC–1000 BC | Ineligible for NRHP |
| 8LA04943 | Historic Smith | American, 1821–present | Insufficient Information |
| 8LA04944 | Burrell | St. Johns, 700 BC–AD 1500 | Insufficient Information |
| 8LA04945 | Burrell 2 | Precontact, unspecified | Insufficient Information |
| 8LA05027 | MP-1 | American, 1900–present | Ineligible for NRHP |
| ***Historic Bridge*** | | | |
| 8LA04372 | SR-44/St. Johns River | ca. 1955 | Ineligible for NRHP |
| 8VO09394 | SR 44/St. Johns River | ca. 1955 | Ineligible for NRHP |
| ***Historic Districts*** | | | |
| 8LA02780 | Ponceannah | 1821–present | Insufficient Information |
| ***Resource Groups*** | | | |
| 8LA00267 | USFS 86-61 OCA/Crows Bluff Tram Road | 1821–present | Insufficient Information |
| 8LA02957 | Seaboard Coast Line RR Grade | 1887–1945 | Eligible for NRHP |
| 8LA04921 | CR 42 | Twentieth Century American | Ineligible for NRHP |

*Highlighted rows indicate the resource is within the DWDV corridor.*

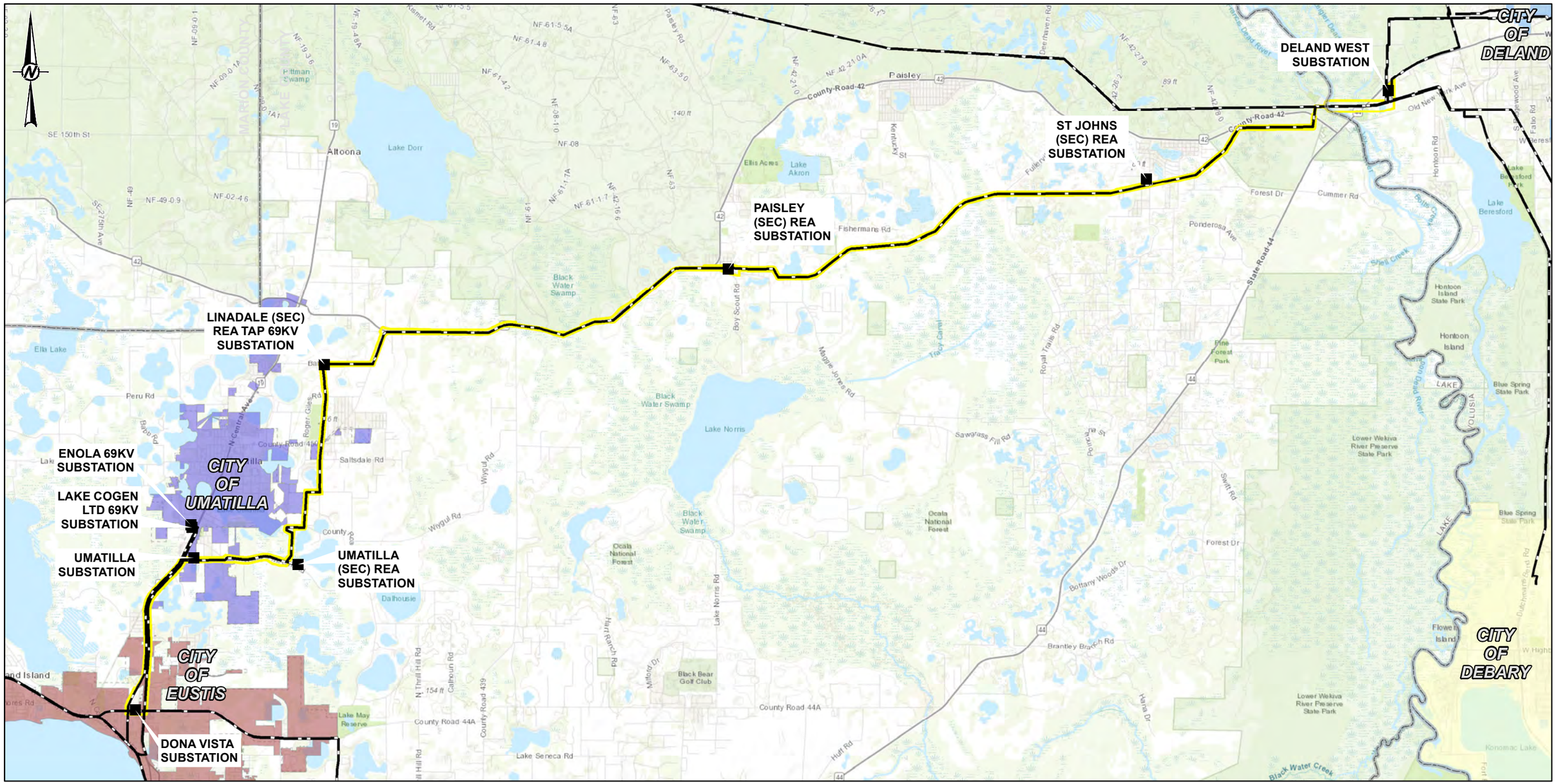
**Table 2: Previously Recorded Historic Structures in vicinity of the DWDV Corridor**

| FMSF No. | Address | Style | Year Built | SHPO Evaluation |
|---|---|---|---|---|
| 8LA04922 | 204 Burrell Road | Masonry Vernacular | ca. 1964 | Ineligible |
| | | | | |
| 8LA04923 | 2368 North SR 19 | Masonry Vernacular | ca. 1971 | Ineligible |
| 8LA04924 | 2354 North SR 19 | Ranch | ca. 1957 | Ineligible |
| 8LA04925 | 2350 North SR 19 | Masonry Vernacular | ca. 1971 | Ineligible |
| 8LA04926 | 2344 North SR 19 | Masonry Vernacular | ca. 1971 | Ineligible |
| 8LA04927 | 2338 North SR 19 | Ranch | ca. 1971 | Ineligible |
| 8LA04934 | 2332 North SR 19 | Ranch | ca. 1957 | Ineligible |
| 8LA04935 | 2326 North SR 19 | Ranch | ca. 1971 | Ineligible |
| 8LA04936 | 2318 North SR 19 | Ranch | ca. 1971 | Ineligible |
| 8LA04937 | 2366 Alice Avenue | Ranch | ca. 1971 | Ineligible |
| 8LA04938 | 2354 Alice Avenue | Ranch | ca. 1959 | Ineligible |
| 8LA04939 | 2346 Alice Avenue | Ranch | ca. 1959 | Ineligible |
| 8LA04940 | 2342 Alice Avenue | Ranch | ca. 1971 | Ineligible |
| 8LA04941 | 113 Haselton Road | Masonry Vernacular | ca. 1959 | Ineligible |
| 8LA05033* | 38241 Marshall Street | Bungalow | 1972 | Not evaluated |
| 8LA05034* | 17235 Mills Street | Frame Vernacular | ca. 1950 | Ineligible |
| 8LA05035 | 17235 Mills Street | Frame Vernacular | ca. 1950 | Ineligible |
| 8LA05036 | 17217 Mills Street | Frame Vernacular | ca. 1944 | Ineligible |
| 8LA05037 | 17207 Mills Street | Frame Vernacular | ca. 1950 | Ineligible |
| 8LA05038 | 38415 Church Street | Ranch | ca. 1966 | Ineligible |
| 8LA05039 | 38305 Church Street | Ranch | ca. 1970 | Ineligible |
| 8LA05040 | 38251 Church Street | Ranch | ca. 1971 | Ineligible |
| 8LA05041 | 38239 Church Street | Ranch | ca. 1971 | Ineligible |
| 8LA05042 | 38231 Church Street | Ranch | ca. 1971 | Ineligible |
| 8VO09448 | 2975 Old New York Avenue | Masonry Vernacular | ca. 1964 | Ineligible |
| 8VO09449 | 2984 Old New York Avenue | Frame Vernacular | ca. 1957 | Ineligible |
| 8VO09450 | 2985 Old New York Avenue | Frame Vernacular | ca. 1959 | Ineligible |
| 8VO09451 | 2888 West New York Avenue | Masonry Vernacular | ca. 1950 | Ineligible |

Highlighted rows indicate structure is within the DWDV corridor.
* House noted as being abandoned or vacant

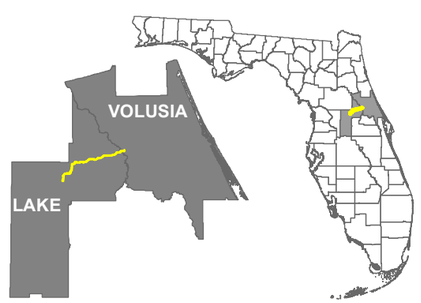
Figure 1: Project Location Map

Figure 2: Previously Recorded Cultural Resources in vicinity of the DWDV Corridor




**LEGEND**

- Substation
- Duke Transmission Line
- DWDV Corridor
- City of Debary Extent
- City of Deland Extent
- City of Eustis Extent
- City of Umatilla Extent
- County Boundary




1.5 0.75 0 1.5 Miles

1:95,040

**REFERENCE(S)**

1. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PROJECT LOCATION**

DUKE ENERGY®

| | |
|---|---|
| YYYY-MM-DD | 2025-04-11 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | KJK |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021L002 | 0 | 1 |

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25mm

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAIL - FL DHR Submittal\map documents\31404342021L002.mxd PRINTED ON: 2025-04-11 AT: 2:28:50 PM

LA00169
Historic refuse / dump

LA00266
Campsite (prehistoric)

LA00267
USFS 86-61 OCA/CROWS BLUFF TRAM ROAD

LA04921
CR 42

LA00492
Single artifact or isolated find

DELAND WEST SUBSTATION

VO09451
c1950

VO09449
c1957

VO09450
c1959

VO09448
c1964

LA00032
Prehistoric shell midden

LA00134
Prehistoric shell midden

LA04455
Campsite (prehistoric)

LA04372
SR-44 / St. Johns River

VOLUSIA COUNTY

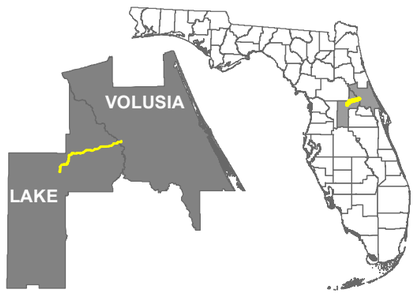
LAKE COUNTY

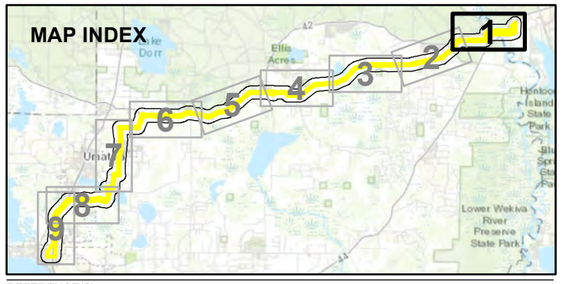
**LEGEND**

- Substation
- Duke Transmission Line
- DWDV Corridor
- County Boundary
- Historic Bridge
- Archaeological Site
- Resource Group

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA MASTER SITE FILE, 2024
2. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PREVIOUSLY RECORDED CULTURAL RESOURCES IN VICINITY OF THE DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-04-21 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | KJK |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021L003 | 0 | 2 (1 of 9) |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

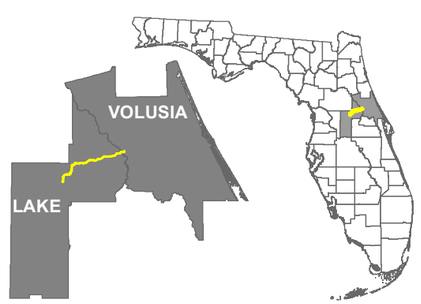
25mm
0

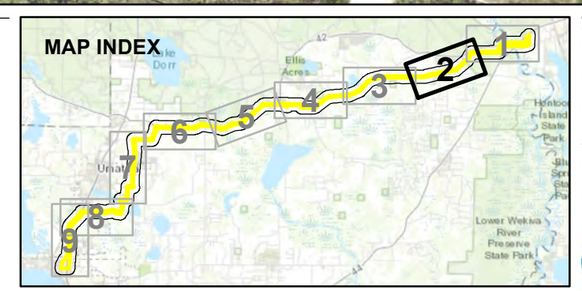
**LEGEND**

- Substation
- Duke Transmission Line
- DWDV Corridor
- County Boundary
- Archaeological Site
- Resource Group

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA MASTER SITE FILE, 2024
2. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PREVIOUSLY RECORDED CULTURAL RESOURCES IN VICINITY OF THE DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-04-21 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | KJK |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021L003 | 0 | 2 (2 of 9) |

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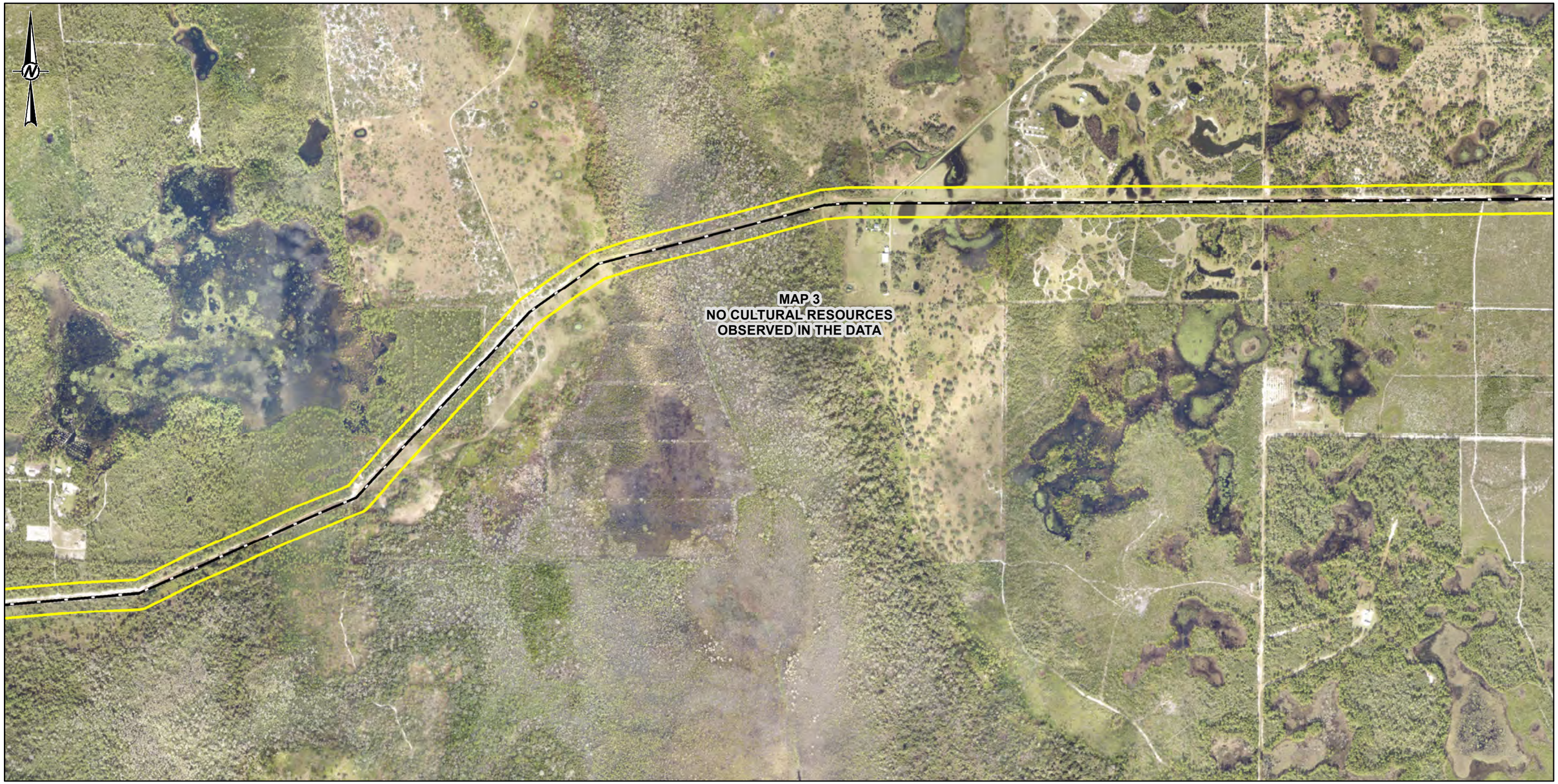
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

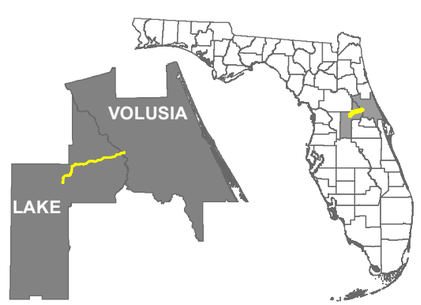


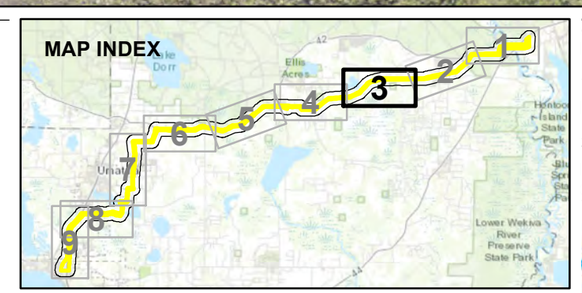

**LEGEND**

- Duke Transmission Line
- DWDV Corridor
- County Boundary

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA MASTER SITE FILE, 2024
2. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PREVIOUSLY RECORDED CULTURAL RESOURCES IN VICINITY OF THE DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-04-21 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | KJK |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021L003 | 0 | 2 (3 of 9) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAIL - FL DHR Submittal\map documents\31404342021L003.mxd PRINTED ON: 2025-04-21 AT: 12:12:10 PM

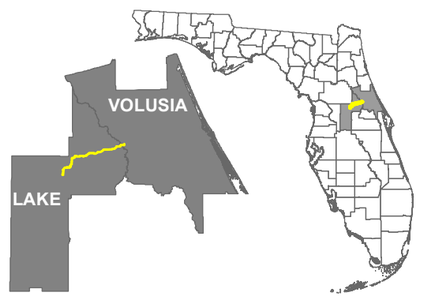
25mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

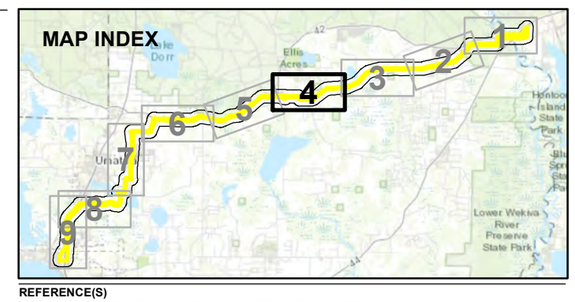
**LEGEND**

- Substation
- Duke Transmission Line
- DWDV Corridor
- County Boundary
- Resource Group

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA MASTER SITE FILE, 2024
2. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PREVIOUSLY RECORDED CULTURAL RESOURCES IN VICINITY OF THE DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-04-21 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | KJK |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021L003 | 0 | 2 (4 of 9) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAIL - FL DHR Submittals\map documents\31404342021L003.mxd PRINTED ON: 2025-04-21 AT: 12:12:19 PM
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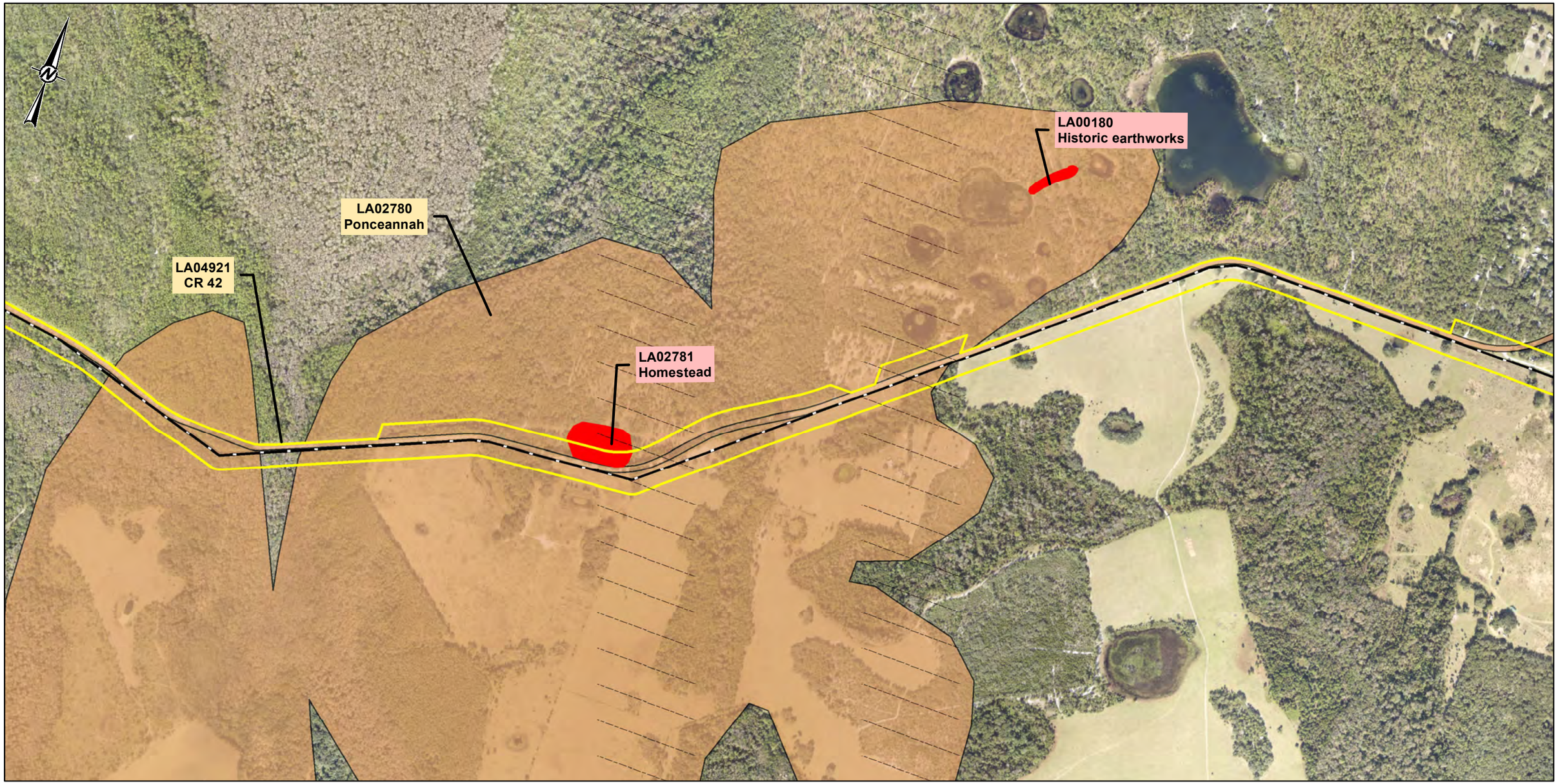
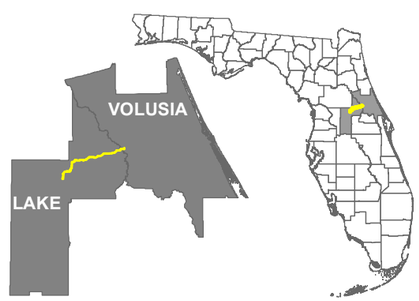


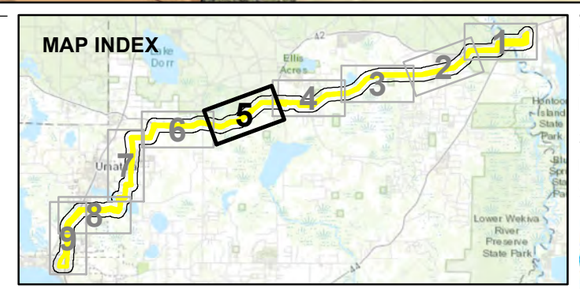

**LEGEND**

- Duke Transmission Line
- DWDV Corridor
- County Boundary
- Archaeological Site
- Resource Group

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA MASTER SITE FILE, 2024
2. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PREVIOUSLY RECORDED CULTURAL RESOURCES IN VICINITY OF THE DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-04-21 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | KJK |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021L003 | 0 | 2 (5 of 9) |

PATH: N:\File\2022\31404342021_Duke_DVDV_TLSAIL - FL DHR Submittal\map documents\31404342021L003.mxd PRINTED ON: 2025-04-21 AT: 12:12:30 PM
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
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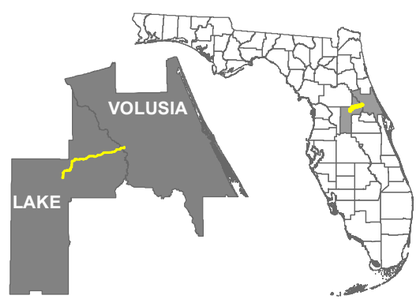
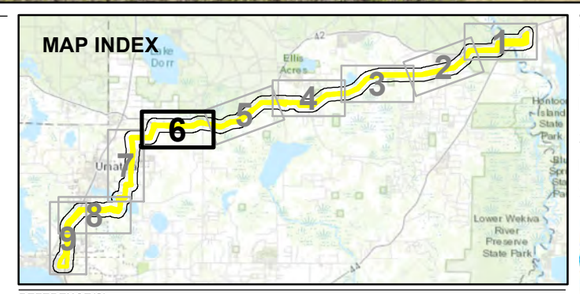
**LEGEND**

- Duke Transmission Line
- DWDV Corridor
- County Boundary
- Resource Group

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA MASTER SITE FILE, 2024
2. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PREVIOUSLY RECORDED CULTURAL RESOURCES IN VICINITY OF THE DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-04-21 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | KJK |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021L003 | 0 | 2 (6 of 9) |

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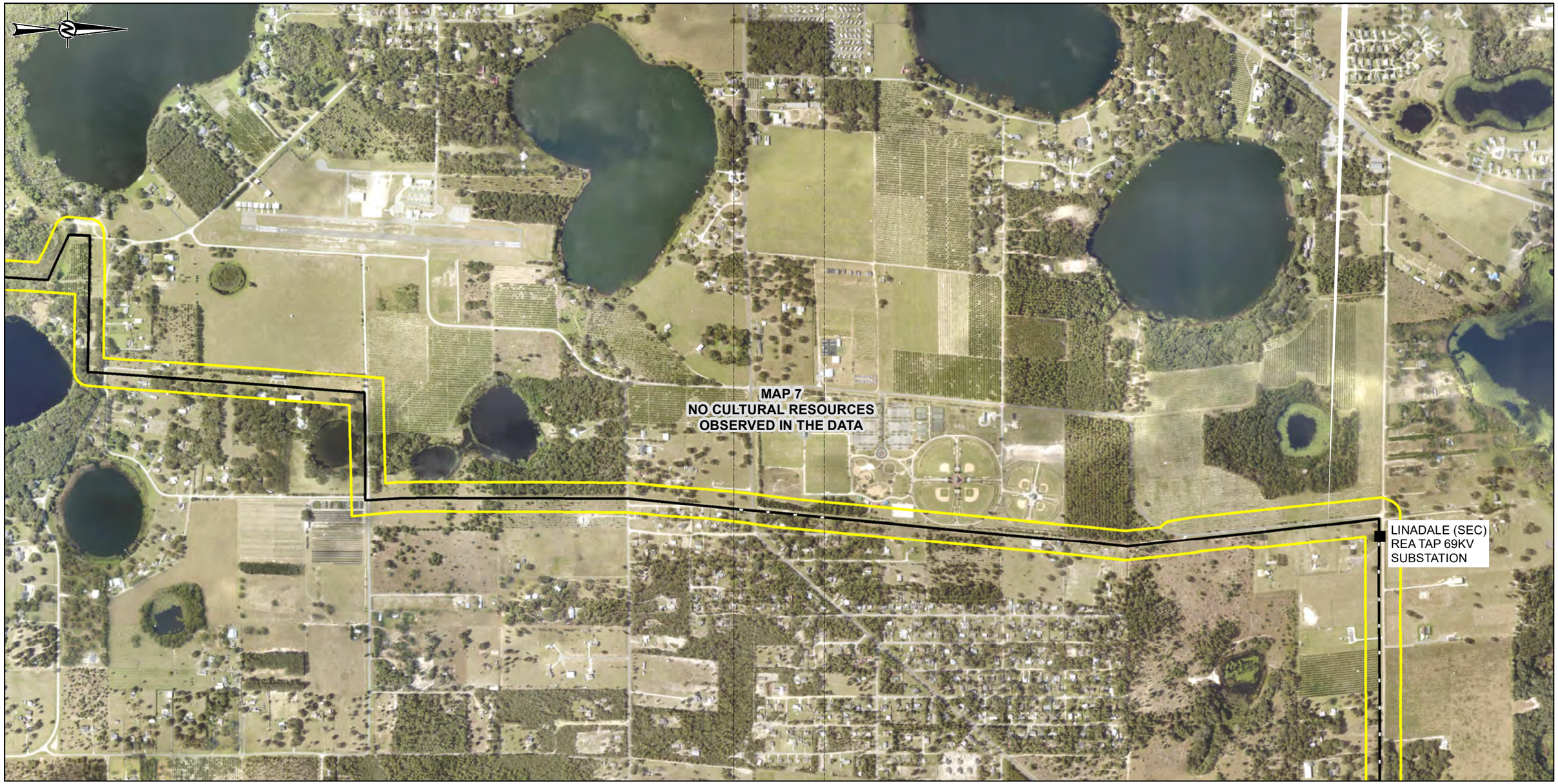
25mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

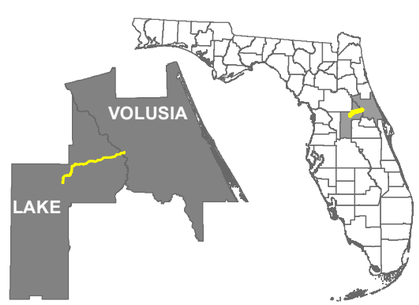


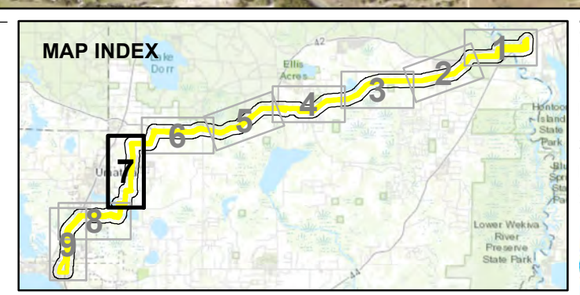

**LEGEND**

- Substation
- Duke Transmission Line
- DWDV Corridor
- County Boundary

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA MASTER SITE FILE, 2024
2. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PREVIOUSLY RECORDED CULTURAL RESOURCES IN VICINITY OF THE DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-04-21 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | KJK |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021L003 | 0 | 2 (7 of 9) |

PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAIL - FL DHR Submittal\map documents\31404342021L003.mxd PRINTED ON: 2025-04-21 AT: 12:12:50 PM
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm

LAKE COGEN LTD 69KV SUBSTATION

LA02957 Seaboard Coast Line RR Grade

LA05036 c1944

LA05037 c1950

LA05035 c1950

UMATILLA SUBSTATION

UMATILLA (SEC) REA SUBSTATION

LA05027 Homestead

LA05038 c1966

LA05034 c1970

LA05039 c1970

LA05033 1972-

LA05040 c1971

LA05041 c1971

LA05042 c1971

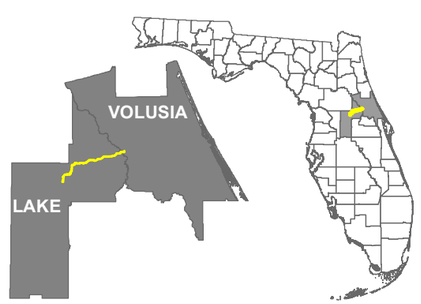
LA04943 Land-terrestrial

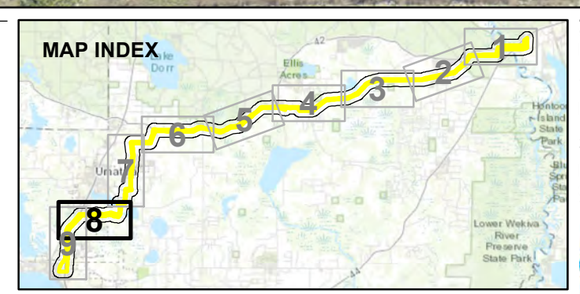
**LEGEND**

- Substation
- Duke Transmission Line
- DWDV Corridor
- County Boundary
- Historic Structure
- Archaeological Site
- Resource Group

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA MASTER SITE FILE, 2024
2. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PREVIOUSLY RECORDED CULTURAL RESOURCES IN VICINITY OF THE DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-04-21 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | KJK |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021L003 | 0 | 2 (8 of 9) |

PATH: N:\File\2022\31404\342\2021_Duke_DVDW_TLSAIL - FL\DHR Submittal\map documents\31404342021L003.mxd PRINTED ON: 2025-04-21 AT: 12:13:01 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

LA04934
c1957

LA04935
c1971

LA04927
c1971

LA04936
c1971

LA04926
c1971

LA04924
c1957

LA04925
c1971

LA02957
Seaboard Coast
Line RR Grade

LA04923
c1971

LA04922
c1964

DONA VISTA
SUBSTATION

LA04944
Campsite (prehistoric)

LA04945
Campsite (prehistoric)

LA04937
c1971

LA04941
c1959

LA04938
c1959

LA04939
c1959

LA04940
c1971

LA04943
Land-terrestrial

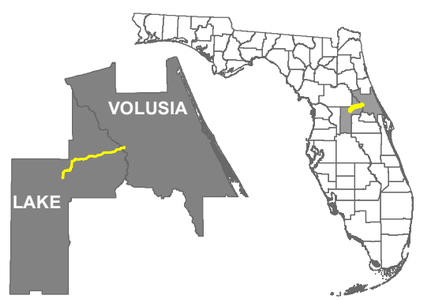
UMATILLA
SUBSTATION

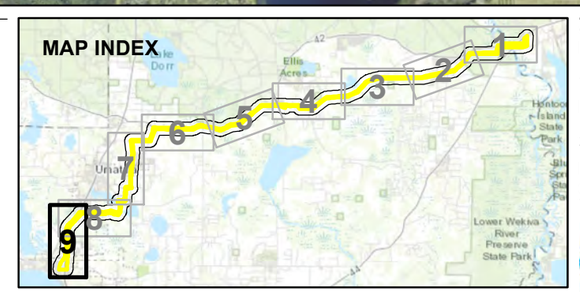
**LEGEND**

- Substation
- Duke Transmission Line
- DWDV Corridor
- County Boundary
- Historic Structure
- Archaeological Site
- Resource Group

1,000 500 0 1,000 Feet

1:12,000




**REFERENCE(S)**

1. CULTURAL RESOURCES: FLORIDA MASTER SITE FILE, 2024
2. BASE IMAGERY: 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

CLIENT
DUKE ENERGY FLORIDA

PROJECT
DELAND WEST TO DONA VISTA PROJECT

TITLE
**PREVIOUSLY RECORDED CULTURAL RESOURCES IN VICINITY OF THE DWDV CORRIDOR**

| | |
|---|---|
| YYYY-MM-DD | 2025-04-21 |
| DESIGNED | JWT |
| PREPARED | JWT |
| REVIEWED | KJK |
| APPROVED | MM |

| PROJECT NO. | CONTROL | REV. | FIGURE |
|---|---|---|---|
| 31404342021 | 31404342021L003 | 0 | 2 (9 of 9) |

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
PATH: N:\File\2022\31404342021_Duke_DVDW_TLSAIL - FL\DHR Submittal\map documents\31404342021L003.mxd PRINTED ON: 2025-04-21 AT: 12:13:11 PM

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