US Army Corps of Engineers

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 29 Nov 2017

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Jacksonville, Hudson Grove, SAJ-2017-03030

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: Florida County/parish/borough: Duval City: Jacksonville
Approximate center coordinates of site (in degree decimal format): Latitude 30.4694°, Longitude – 81.5946°
Universal Transverse Mercator Zone:
Name of nearest waterbody: Dunn Creek
Name of nearest Traditional Navigable Water TNW into which the aquatic resource flows: Dunn Creek
Name of watershed or Hydrologic Unit Code (HUC):
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office Desk) Determination – Date:
☒ Field Determination – Date(s): November 29, 2017

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **are** "*waters of the U.S.*" within Clean Water Act CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   ☐ TNWs, including territorial seas
   ☐ Wetlands adjacent to TNWs
   ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   ☒ Non-RPWs that flow directly or indirectly into TNWs
   ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   ☒ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   ☐ Impoundments of jurisdictional waters
   ☐ Isolated (interstate or intrastate waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: 450 linear feet: 12 to 15 width ft) and/or 0.16 acre Ditch 2)
   Wetlands: 11.96 acres (W1, W2A, and W2B)

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Refer to Section III regarding isolated wetland (W3), isolated borrow pits (Ponds 1, 2 and 3), and upland-cut ditch (Ditch 1).

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months) if there is a significant nexus. A wetland that directly abuts an RPW is also jurisdictional if there is a significant nexus. A wetland that is adjacent to but that does not directly abut an RPW also requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary (and its adjacent wetlands if any) and a traditional navigable water.

If a significant nexus is required, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If a significant nexus is required, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 130 **acres**
Drainage area: 130 **acres**
Average annual rainfall: 51 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
a) Relationship with TNW:
☒ Tributary flows directly into TNW.
☐ Tributary flows through tributaries before entering TNW.

Project waters are **1 (or less)** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **1 (or less)** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[4]: Ditch 2 flows into wetland W2A which flows south into wetland W1 which then flows south under New Berlin Road into a small tributary that flows into Dunn Creek.
Tributary stream order, if known: .

b) General Tributary Characteristics (check all that apply :
Tributary is: ☒ Natural lower portion is natural offsite)

[4] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

☐ Artificial (man-made). Explain: .
☒ Manipulated man-altered). Explain: upper portion immediately north of W1) is ditched, Ditch 2 is a ditch.

Tributary properties with respect to top of bank estimate):
Average width: 15 feet
Average depth: 2 feet
Average side slopes: **3:1.**

Primary tributary substrate composition check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: relatively stable.
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **relatively straight at upper end and meandering at lower end**
Tributary gradient (approximate average slope): <2 %

c Flow:
Tributary provides for: **seasonal flow**
Estimate average number of flow events in review area/year: **11-20**
Describe flow regime: flows during rainy seasons.
Other information on duration and volume: .

Surface flow is: **discrete and confined.** Characteristics: .

Subsurface flow: **unknown**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply :
☒ Bed and banks
☒ OHWM[5] (check all indicators that apply :

☒ clear, natural line impressed on the bank	☐ the presence of litter and debris
☒ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☒ abrupt change in plant community
☐ other list):	

☐ Discontinuous OHWM.[6] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply :

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other list):	

(iii) Chemical Characteristics:
Characterize tributary e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: water is relatively clear; watershed is partially developed for low density single family homes and partially undeveloped.
Identify specific pollutants, if known: some fertilizer and some livestock.

(iv) Biological Characteristics. Channel supports (check all that apply):
☒ Riparian corridor. Characteristics (type, average width): downstream end (offsite) is bordered by forested wetlands that range in width from 100 to 200 feet.

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[5]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices . Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[6]Ibid.

☒ Wetland fringe. Characteristics: upper end that is ditched (immediately north of W1) is bordered by narrow strip of forested wetland.

☒ Habitat for:

☐ Federally Listed species. Explain findings: .

☒ Fish/spawn areas. Explain findings: channel provides habitat for small fish.

☐ Other environmentally-sensitive species. Explain findings: .

☒ Aquatic/wildlife diversity. Explain findings: very limited habitat onsite; moderate amount of habitat offsite/downstream.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size:11.96 acres (W1, W2A, and W2B)

Wetland type. Explain: forested.

Wetland quality. Explain: moderate quality.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **intermittent**. Explain: wetlands sheet flow into non-TNW following prolonged heavy rains.

Surface flow is**: overland sheetflow**

Characteristics: .

Subsurface flow: **unknown**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☒ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **1 (or less)** river miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from TNW.

Flow is from: **wetland to navigable waters.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: water color is tannin stained and of relatively good quality.

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☒ Riparian buffer. Characteristics (type, average width):hydric pine flatwoods, average 50 feet in total width.

☒ Vegetation type/percent cover. Explain: hydric pine flatwoods, inland ponds and sloughs, and wetland forested mixed.

☒ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☒ Aquatic/wildlife diversity. Explain findings: habitat for various birds, small mammals, water snakes, frogs.

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **2**

Approximately 11.70 acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
W1	0.31	W2A and W2B	0.43 and 11.22

Summarize overall biological, chemical and physical functions being performed: contiguous wetlands provide habitat for various species of aquatic and wetland dependent species and contribute nutrients to downstream waters

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands if any , have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands if any , provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands if any , have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands if any , have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: Ditch 1 is upland-cut and does not connect to any wetlands upstream

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Ditch 2 was excavated along the edge of a forested wetland and is essentially a part of that wetland. During higher water conditions, water in the ditch will gradually flows from the northeast to the southwest before discharging into the offsite extension of the same wetland. The offsite extension of the wetland overlaps the project boundary near New Berlin Road and comprises wetland (W1). Wetland W1 flows southwest through a culvert under New Berlin Road and discharges into an unnamed tributary of Dunn Creek.

3. **Significant nexus findings for an RPW where the RPW flows directly or indirectly into a TNW.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

4. **Significant nexus findings for wetlands adjacent to an RPW where the RPW flows directly or indirectly into a TNW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

   Provide estimates for jurisdictional waters in the review area check all that apply :
   - ☐ Tributary waters: linear feet width ft).

☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[7] that flow directly or indirectly into TNWs.**
☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area check all that apply :
☒ Tributary waters: **450** linear feet **12 to 15** width ft) Ditch 2 (0.16 acre).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: **.**

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **.**

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☒ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: **11.96** acres.

7. **Impoundments of jurisdictional waters.[8]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[9]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce
☐ which are or could be used for industrial purposes by industries in interstate commerce
☐ Interstate isolated waters - Explain:
☐ Other factors - Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area check all that apply :
☐ Tributary waters: linear feet width ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: **.**
☐ Wetlands: acres.

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[7]See Footnote # 3.
[8] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[9] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☒ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **.**
- ☐ Other: explain, if not covered above): **.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture; i.e., SWANCC Decision), using best professional judgment check all that apply :

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width ft).
- ☐ Lakes/ponds: acres.
- ☒ Other non-wetland waters: 4.91 acres. List type of aquatic resource: Pond 1 (0.38 acre), Pond 2 (4.30 acres), Pond 3 (0.23 acre).
- ☒ Wetlands: 0.04 acre (wetland W3 .

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard (i.e., Rapanos Decision), where such a finding is required for jurisdiction (check all that apply):

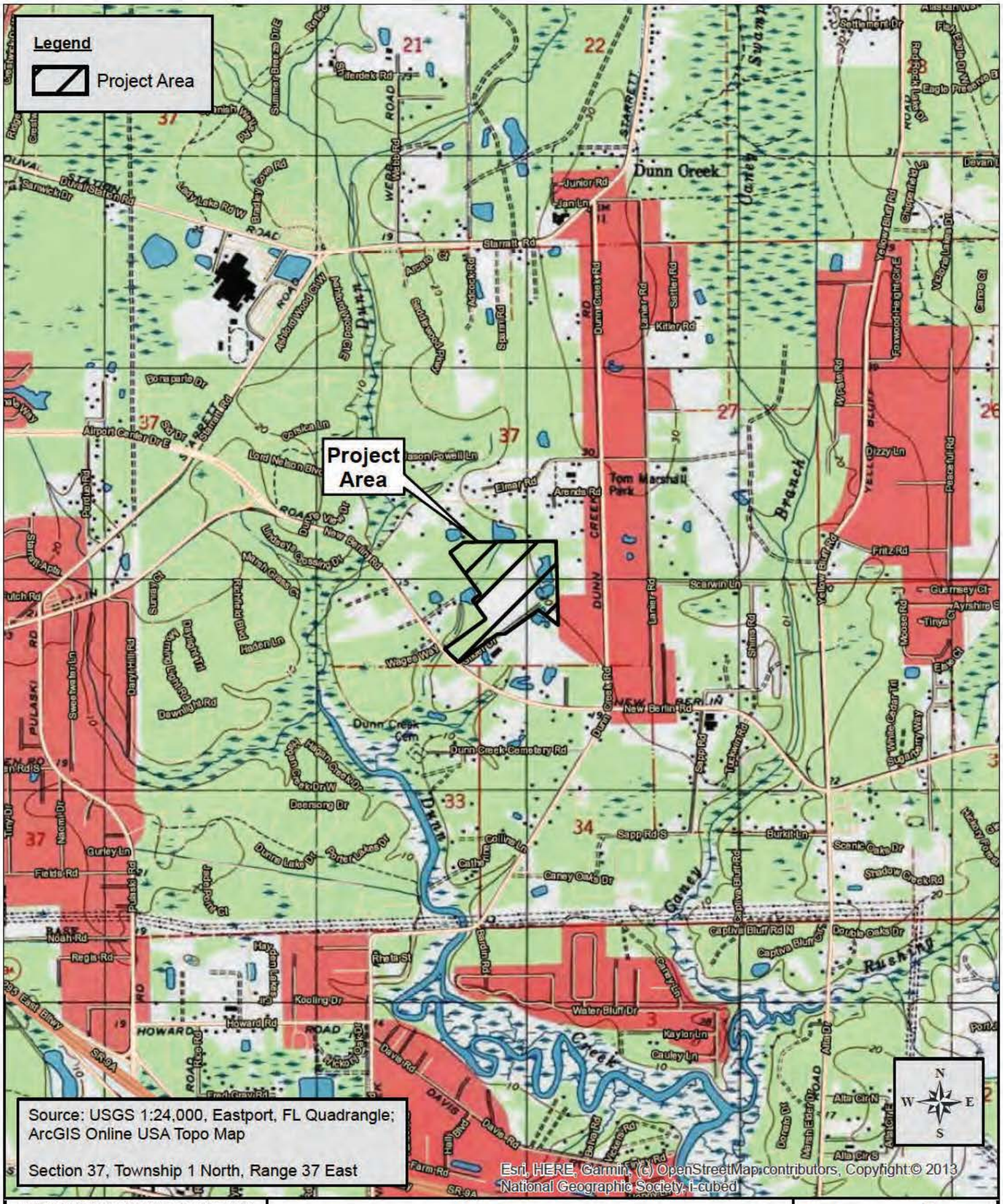
- ☒ Non-wetland waters (i.e., rivers, streams): **780** linear feet, **12 to 15** width (ft) Ditch 1 (0.28 acre .
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☒ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data
  - ☐ USGS 8 and 12 digit HUC maps
- ☒ U.S. Geological Survey map(s). Cite scale quad name: 1" 2000', Eastport, FL
- ☒ USDA Natural Resources Conservation Service Soil Survey: Soil Survey City of Jacksonville, Duval County, Florida
- ☒ National wetlands inventory map(s): Eastport, FL
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☒ 100-year Floodplain Elevation: 8
- ☒ Photographs: ☒ Aerial: FDOT 2018
  or ☐ Other:
- ☐ Previous determination(s):
- ☐ Applicable/supporting case law:
- ☐ Applicable/supporting scientific literature:
- ☐ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:



PEACOCK CONSULTING GROUP, LLC
12058 San Jose Boulevard, Suite 604, Jacksonville, Florida 32223
(904) 268-1766 phone (904) 268-1729 fax

Hudson Grove

Duval County, Florida

Location/Topographic Map

Figure: 1

Date: 1-4-20

0 2,000'

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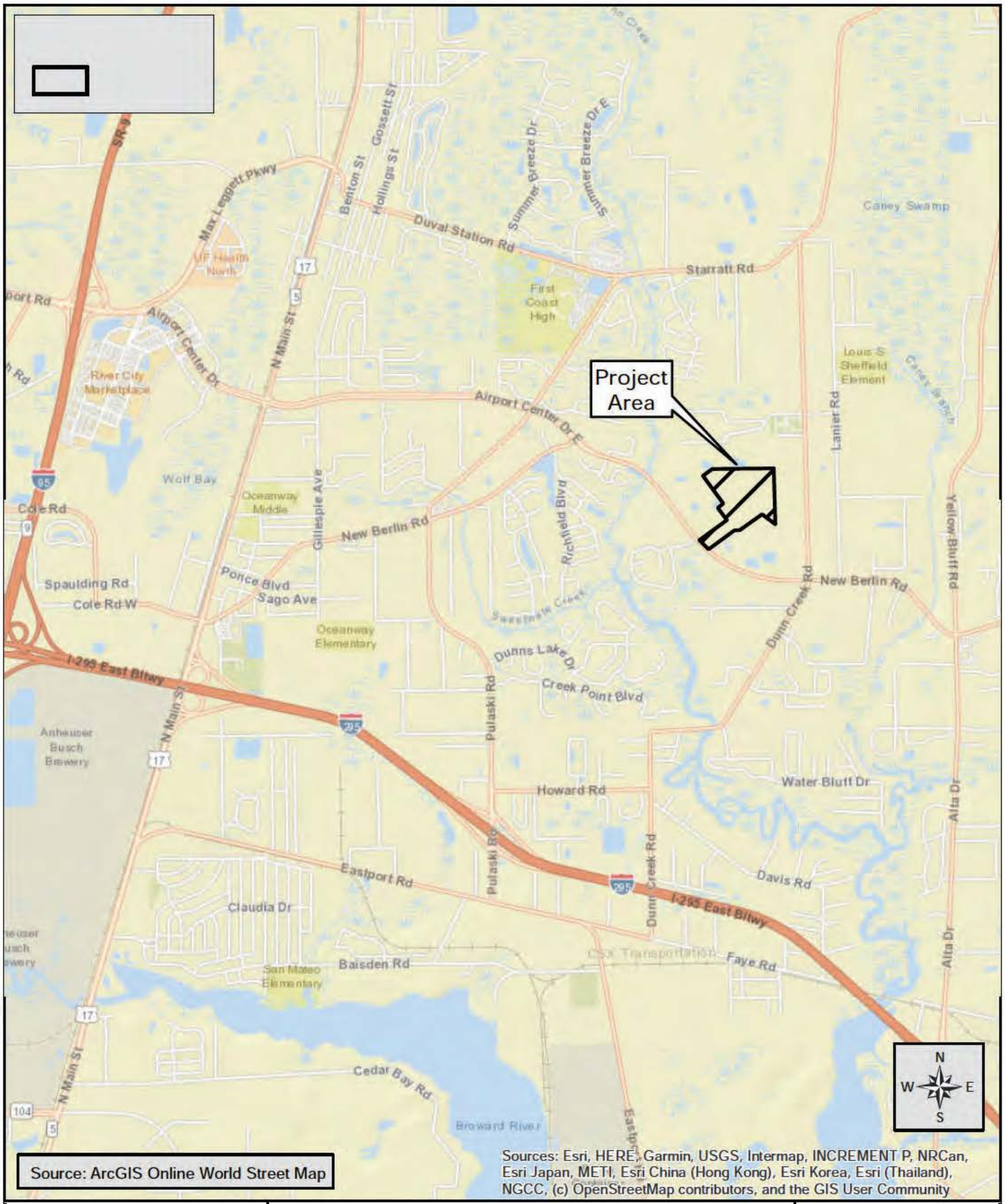

Source: ArcGIS Online World Street Map

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

PEACOCK CONSULTING GROUP, LLC
12058 San Jose Boulevard, Suite 604, Jacksonville, Florida 32223
(904) 268-1766 phone (904) 268-1729 fax

Hudson Grove

Duval County, Florida

Vicinity Map

Figure:	2
Date:	1-4-20

0 3,000'

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(904) 268-1766 phone (904) 268-1729 fax

Hudson Grove

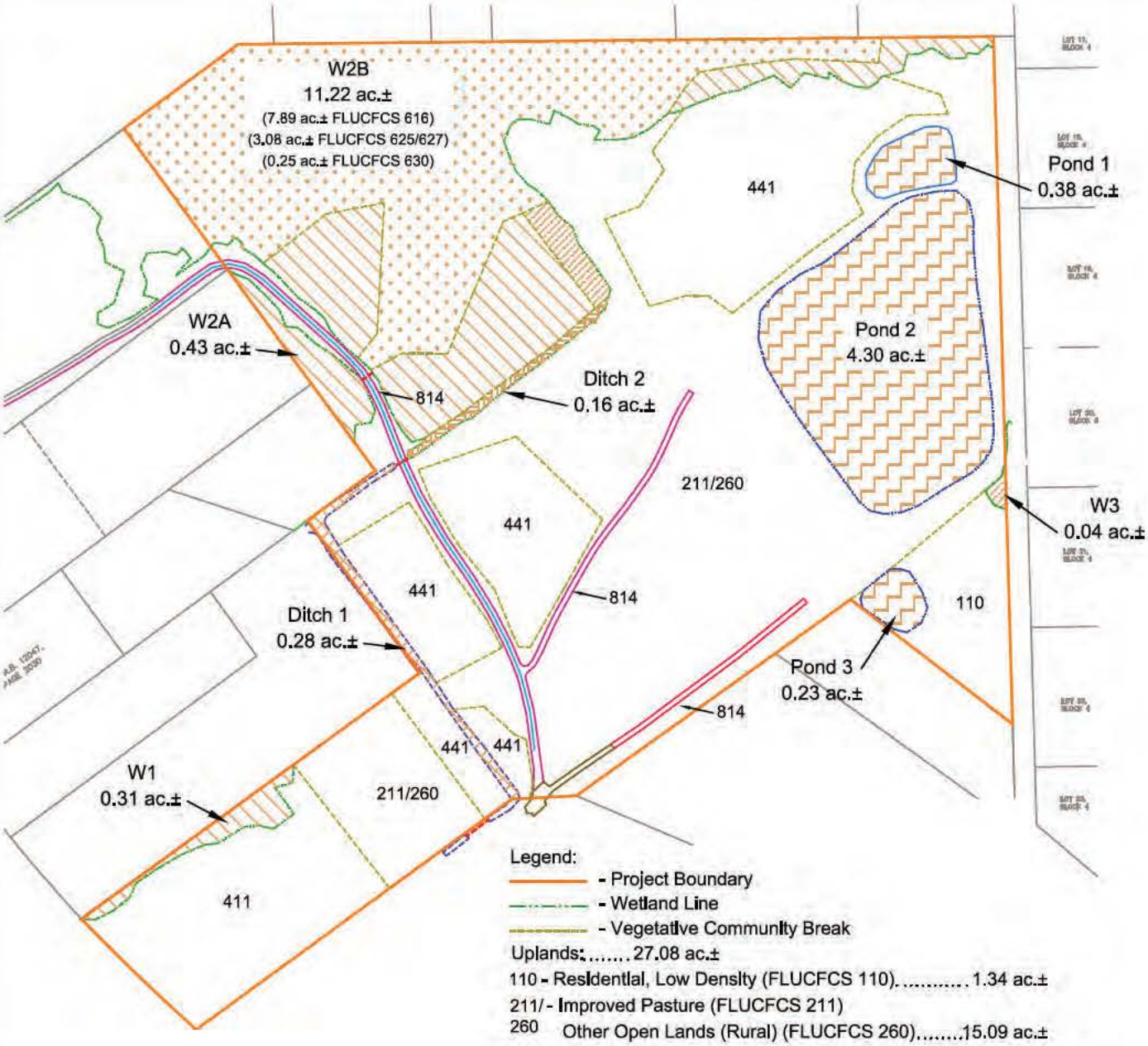
Duval County, Florida

Current Aerial Photograph

Figure:	3
Date:	1-4-20

0 300'

C:\Users\bfdf7\OneDrive\BFDF\PCG\2019\New_Berlin_Rd_SD\mxd\New_Berlin_Hudson_Grove_aerial_1-4-20.mxd



Legend:

- Project Boundary
- Wetland Line
- Vegetative Community Break

Uplands:.....27.08 ac.±

110 - Residential, Low Density (FLUCFCS 110).....1.34 ac.±

211/260 - Improved Pasture (FLUCFCS 211)
Other Open Lands (Rural) (FLUCFCS 260).....15.09 ac.±

411 - Pine Flatwoods (FLUCFCS 411).....2.92 ac.±

441 - Pine Plantation (FLUCFCS 441).....7.02 ac.±

814 - Dirt Driveway (FLUCFCS 814).....0.71 ac.±

Wetlands and Other Surface Waters:.....17.35 ac.±

- Upland-Cut Ditch (FLUCFCS 510u).....0.28 ac.±
- Wetland-Cut Ditch (FLUCFCS 510w).....0.16 ac.±
- Reservoirs less than 10 acres (FLUCFCS 534).....4.91 ac.±
- Inland Ponds and Sloughs (FLUCFCS 616).....7.89 ac.±
- Hydric Pine Flatwoods (FLUCFCS 625) / Slash Pine Swamp Forest (FLUCFCS 627).....3.82 ac.±
- Wetland Forested Mixed (FLUCFCS 630).....0.29 ac.±

Total: 44.43 ac.±

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12058 San Jose Boulevard, Suite 604
Jacksonville, Florida 32223
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Duval County, Florida

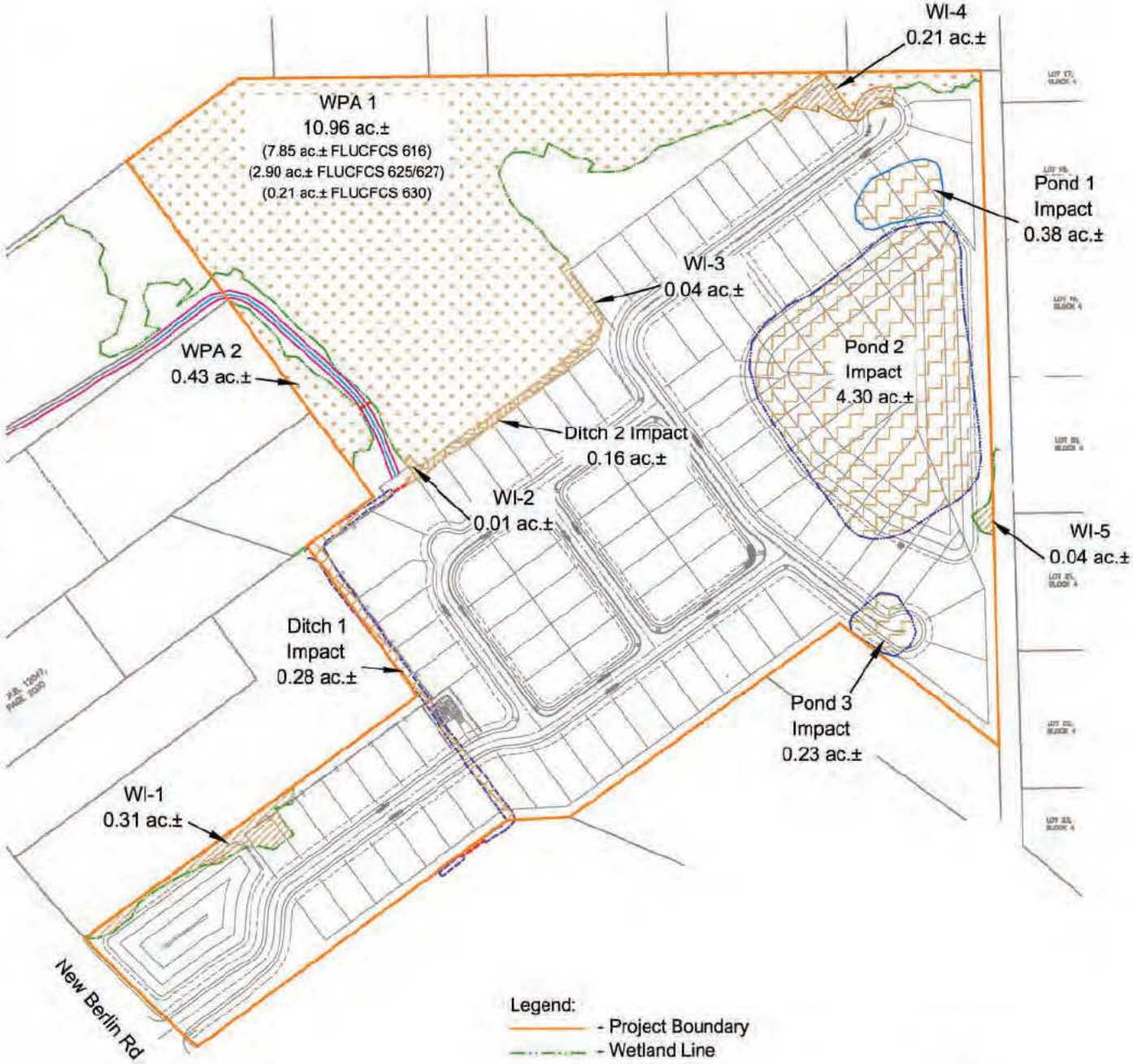
Existing Site Conditions

Figure: 4

Scale: 1" 300'

Date: 1-4-20

C:\Users\bfdf7\OneDrive\BFDF\PCG\2019\New_Berlin_Rd_SD\cad\New_Berlin_Hudson_Grove_existing_1-4-20.dwg, Existing, 1/6/2020 7:40:47 PM



Legend:

- Project Boundary
- Wetland Line
- Upland-Cut Ditch Impacts ..... 0.28 ac.±
- Wetland-Cut Ditch Impacts ..... 0.16 ac.±
- Borrow Pit / Ponds Impacts ..... 4.91 ac.±
- Wetland Impacts ..... 0.61 ac.±
  - FLUCFCS 616 ..... 0.04 ac.±
  - FLUCFCS 625/627 ..... 0.49 ac.±
  - FLUCFCS 630 ..... 0.08 ac.±
- Wetland Preservation Areas ..... 11.39 ac.±
  - FLUCFCS 616 ..... 7.85 ac.±
  - FLUCFCS 625/627 ..... 3.33 ac.±
  - FLUCFCS 630 ..... 0.21 ac.±

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12058 San Jose Boulevard, Suite 604
Jacksonville, Florida 32223
(904) 268-1766 phone (904) 268-1729 fax

Hudson Grove

Duval County, Florida

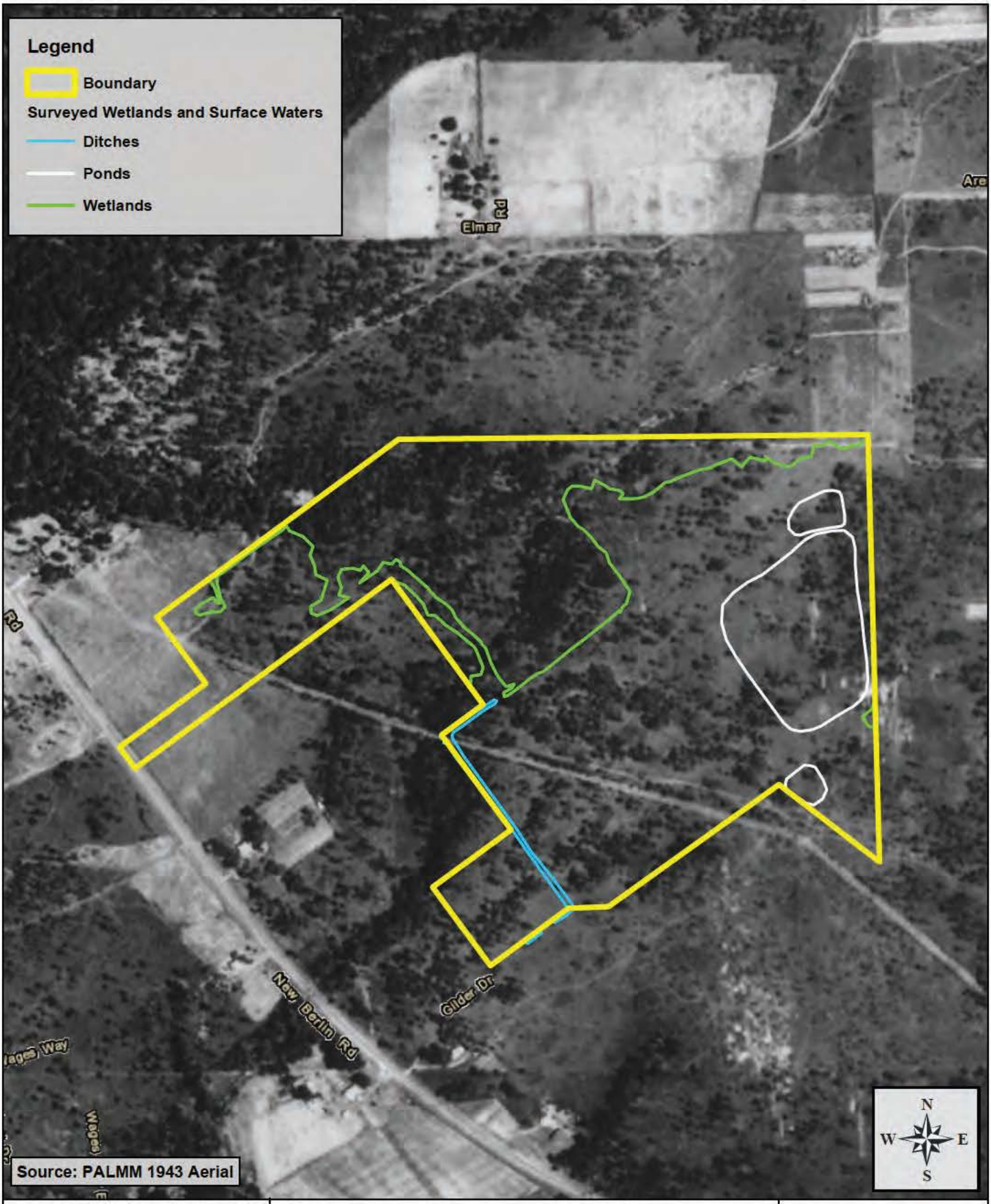
Proposed Site Conditions

Figure: 5

Scale: 1" 300'

Date: 1-4-20

C:\Users\bfdf7\OneDrive\BFDF-PCG\2019\New_Berlin_Rd_SD\cad\New_Berlin_Hudson_Grove_ACOE_proposed_1-4-20.dwg, ACOE Proposed, 1/6/2020 7:43:07 PM



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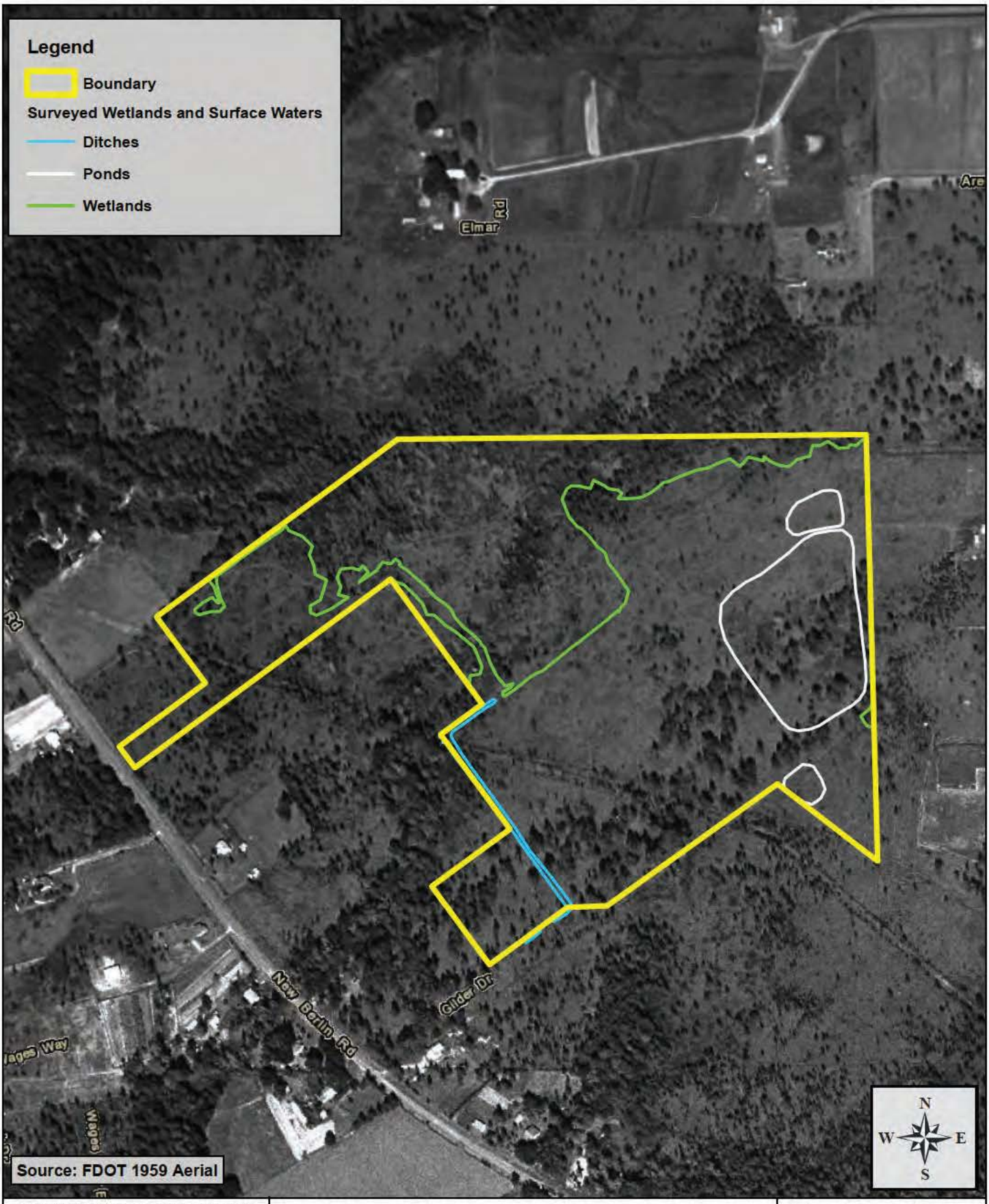
Gilder New Berlin Road

Duval County, Florida

Historic Aerial Photograph with Surveyed Wetlands

Figure:	12
Scale:	1 " = 400 '
Date:	April 2018

2018/Gilder_New_Berlin/1943aerial/4-20-18



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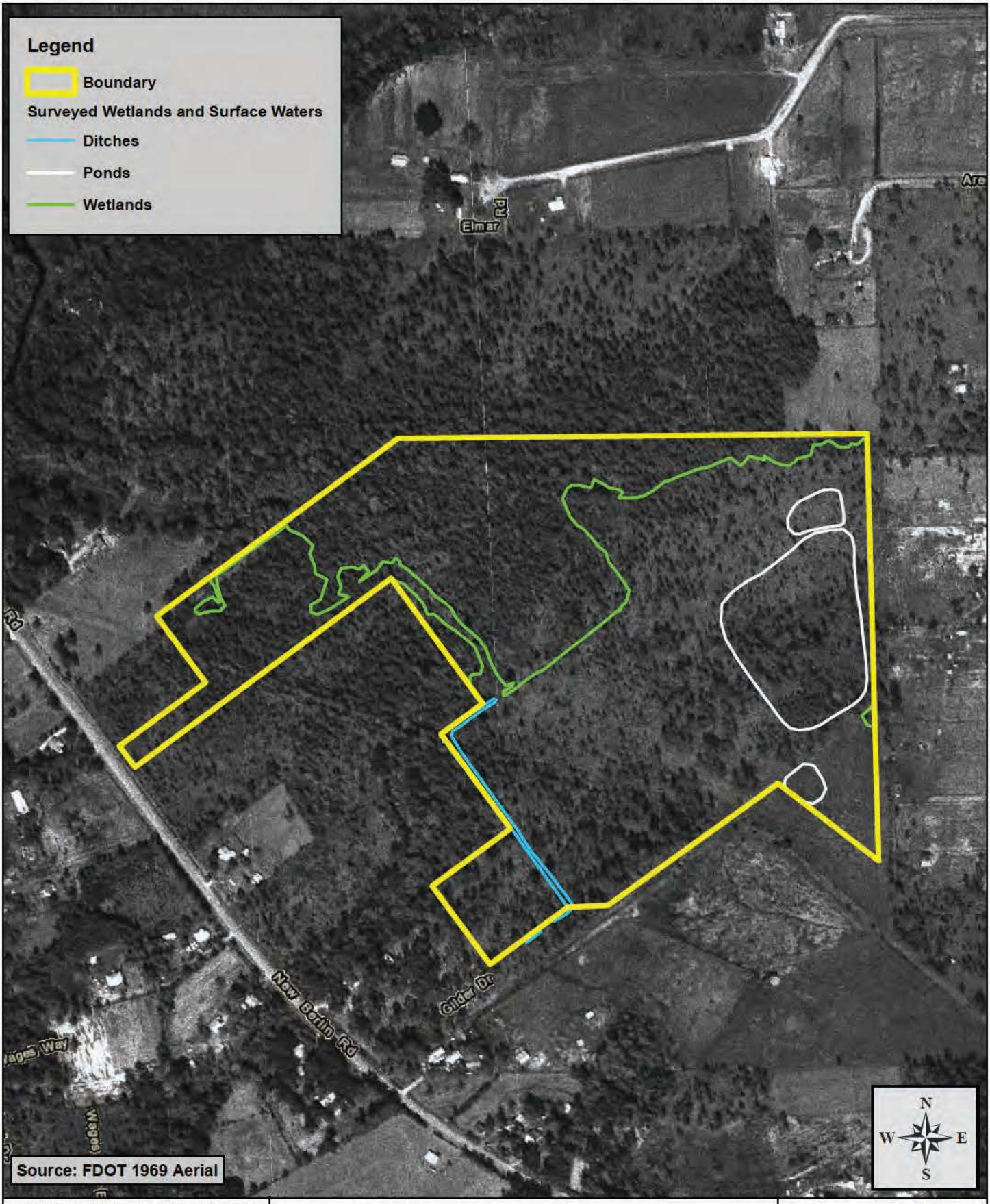
Gilder New Berlin Road

Duval County, Florida

Historic Aerial Photograph with Surveyed Wetlands

Figure:	11
Scale:	1 " = 400 '
Date:	April 2018

2018/Gilder_New_Berlin/1959aerial/4-20-18



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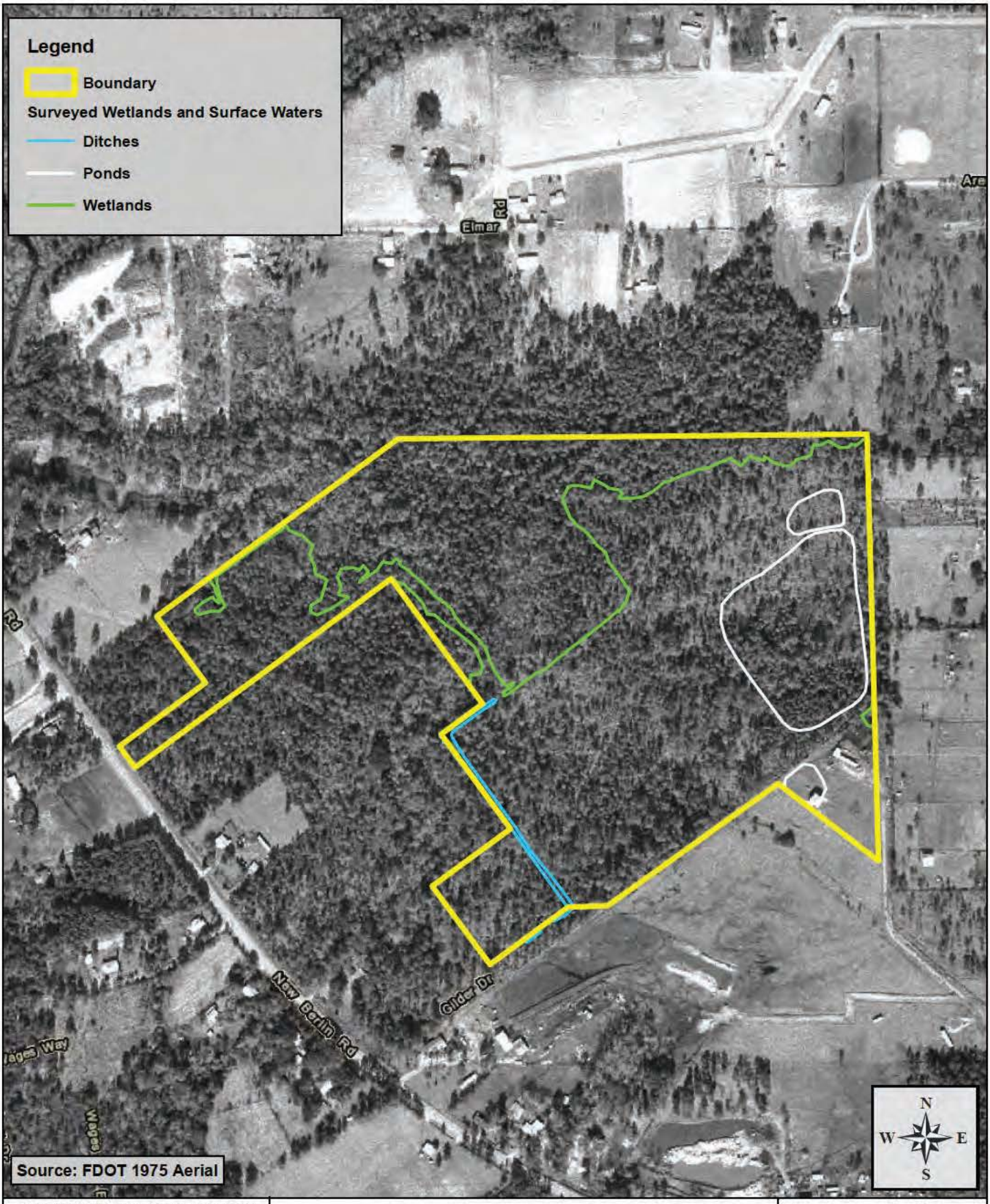
Gilder New Berlin Road

Duval County, Florida

Historic Aerial Photograph with Surveyed Wetlands

Figure:	10
Scale:	1 " = 400 '
Date:	April 2018

2018/Gilder_New_Berlin/1969aerial/4-20-18



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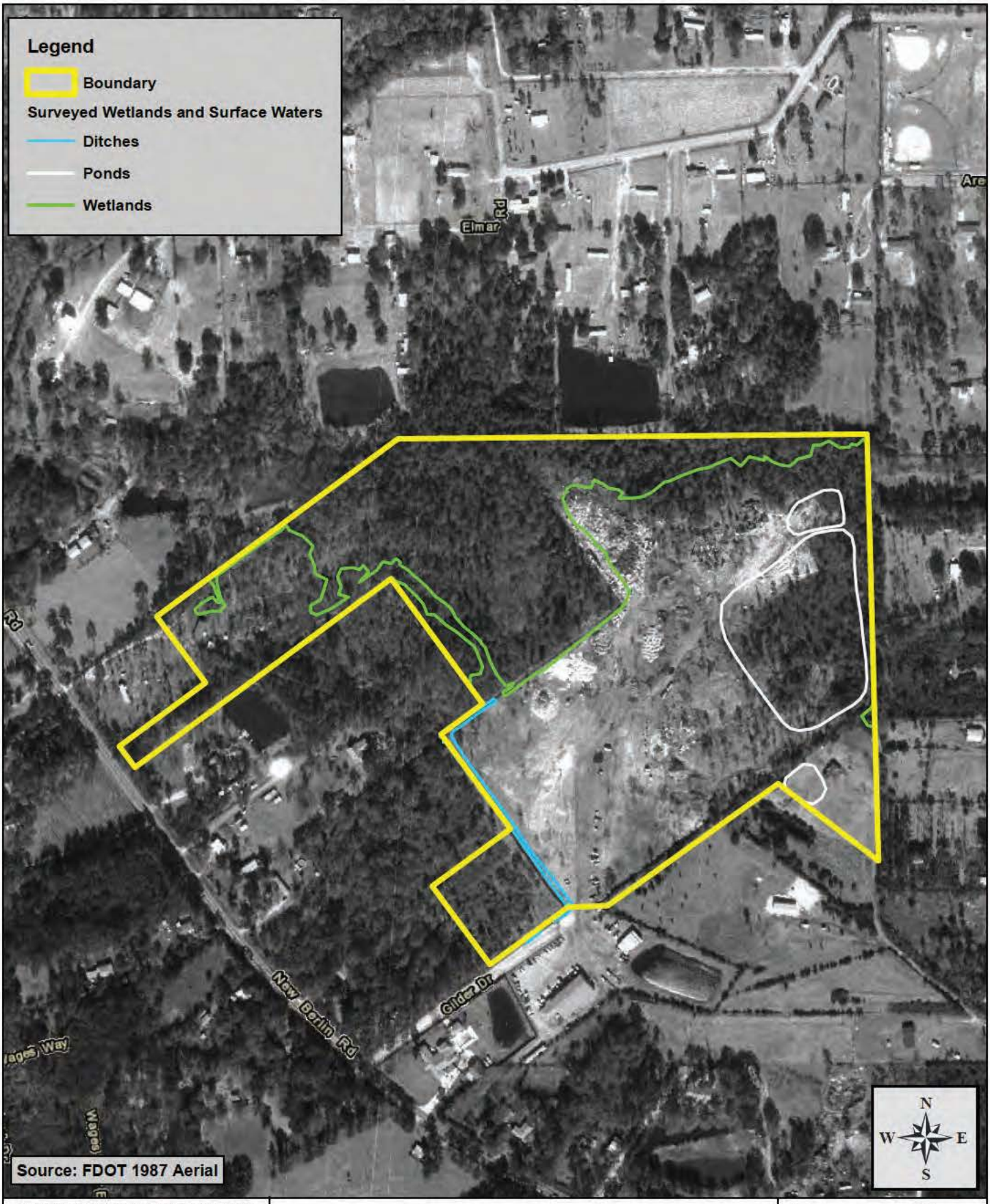
Gilder New Berlin Road

Duval County, Florida

Historic Aerial Photograph with Surveyed Wetlands

Figure:	9
Scale:	1 " = 400 '
Date:	April 2018

2018/Gilder_New_Berlin/1975aerial/4-20-18



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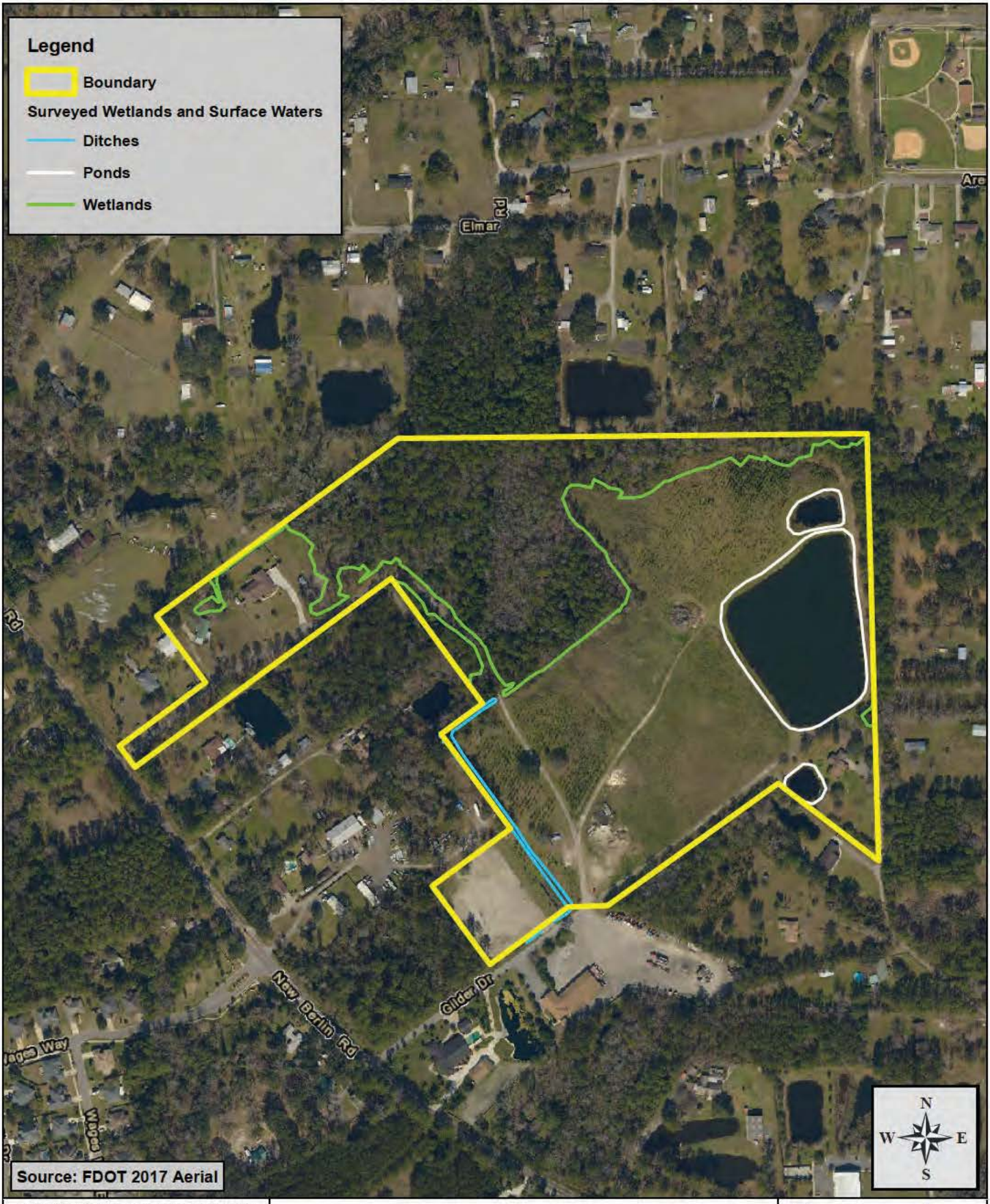
Gilder New Berlin Road

Duval County, Florida

Historic Aerial Photograph with Surveyed Wetlands

Figure:	7B
Scale:	1 " = 400 '
Date:	April 2018

2018/Gilder_New_Berlin/1988aerial/4-20-18



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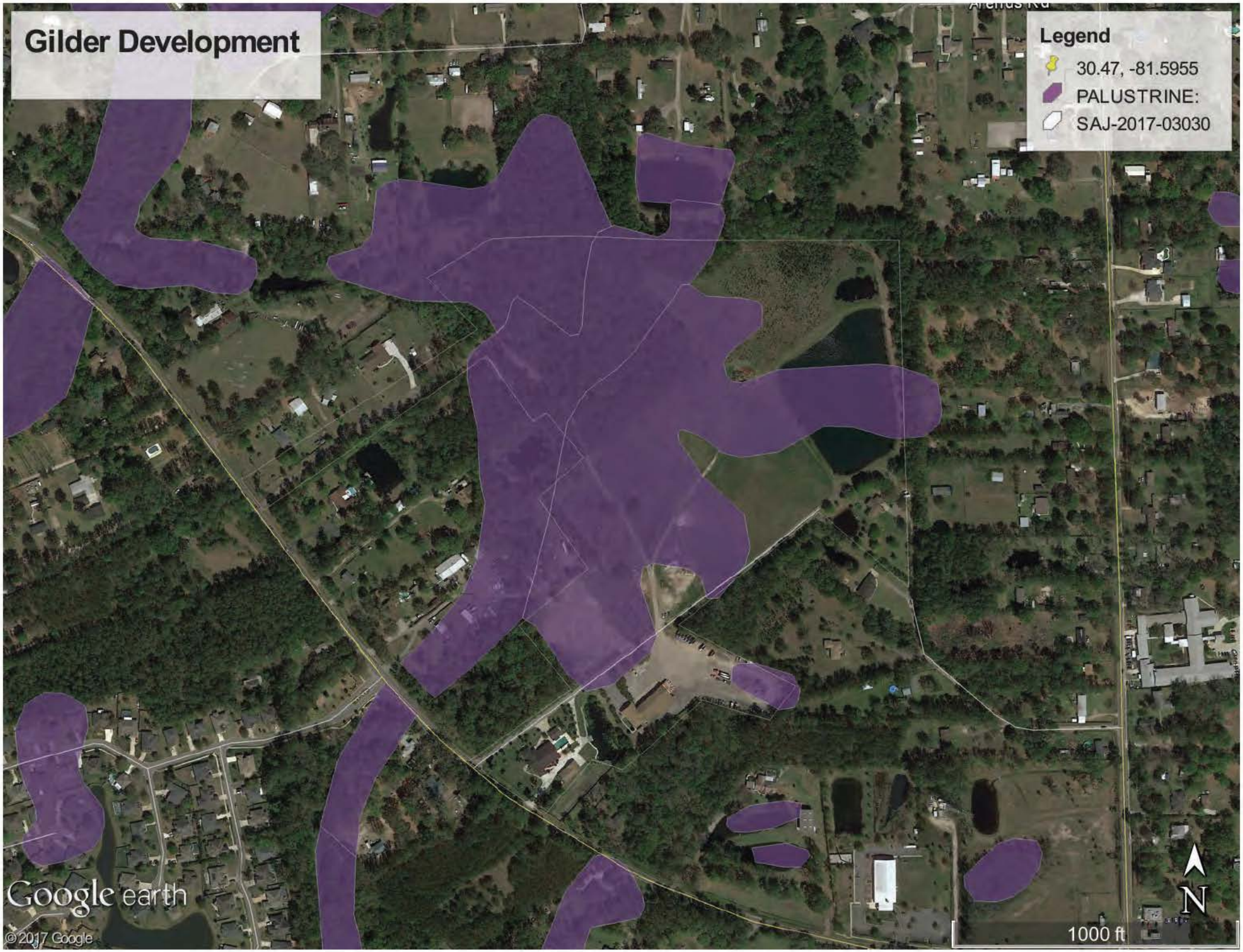
Gilder New Berlin Road

Duval County, Florida

Current Aerial Photograph with Surveyed Wetlands

Figure:	4
Scale:	1 " = 400 '
Date:	April 2018

2018/Gilder_New_Berlin/2017aerial/4-20-18


Gilder Development
Legend
30.47, -81.5955
PALUSTRINE:
SAJ-2017-03030
Google earth
© 2017 Google
1000 ft
N

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: New Berlin Road City/County: Jacksonville/Duval Sampling Date: 11/2/17

Applicant/Owner: KB Home State: FL Sampling Point: downhill #80

Investigator(s): Byron Peacock Section, Township, Range: 37, 1 North, 27 East

Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR or MLRA): LRR T Lat: 30.4694 Long: -81.5959 Datum: _____

Soil Map Unit Name: Surrency fine sandy loam NWI classification: riverine/forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** **Yes** x **No** _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

This section of wetland line runs along the edge of a ditch with a forested wetland on the other side.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Vis ble on Aerial Imagery (B7)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) **(LRR U)**
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes x	No _____	Depth (inches): at surface
Water Table Present?	Yes x	No _____	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes x	No _____	Depth (inches): _____

Wetland Hydrology Present? **Yes** x **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: downhill #80

Tree Stratum (Plot size: 10 square meters)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus elliottii	50	yes	FACW
2. Acer rubrum	50	yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		

50% of total cover: 100 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 10 square meters)			
1. Magnolia virginiana	2	no	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	2 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	_____ = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species	2	x 2 = 4
FAC species	1	x 3 = 3
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	3 (A)	7 (B)

Prevalence Index = B/A = 2.33

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** x **No** _____

Remarks: (If observed, list morphological adaptations below).

SOIL

Sampling Point: downhill #80

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 to 4	10 YR 3/1	100					fibric muck	
4 to 12	10 YR 4/1	100					sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☑ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☑ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: New Berlin Road City/County: Jacksonville/Duval Sampling Date: 11/2/17

Applicant/Owner: KB Home State: FL Sampling Point: downhill #80

Investigator(s): Byron Peacock Section, Township, Range: 37, 1 North, 27 East

Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR or MLRA): LRR T Lat: 30.4694 Long: -81.5959 Datum: _____

Soil Map Unit Name: Surrency fine sandy loam NWI classification: riverine/forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** **Yes** x **No** _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

This section of wetland line runs along the edge of a ditch with a forested wetland on the other side.

HYDROLOGY

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Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Vis ble on Aerial Imagery (B7)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) **(LRR U)**
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

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- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
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- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
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- ☐ Sphagnum moss (D8) **(LRR T, U)**

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Water Table Present?	Yes x	No _____	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes x	No _____	Depth (inches): _____

Wetland Hydrology Present? **Yes** x **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		

50% of total cover: 100 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 10 square meters)			
1. Magnolia virginiana	2	no	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	2 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	_____ = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
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FACW species	2	x 2 = 4
FAC species	1	x 3 = 3
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	3 (A)	7 (B)

Prevalence Index = B/A = 2.33

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___ 1 - Rapid Test for Hydrophytic Vegetation

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Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** x **No** _____

Remarks: (If observed, list morphological adaptations below).

SOIL

Sampling Point: downhill #80

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 to 4	10 YR 3/1	100					fibric muck	
4 to 12	10 YR 4/1	100					sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☑ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☑ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks: