Via Email: Karen@loperconstruction.com

March 16, 2026

Karen Llewllyn
Project Manager
Loper Construction

Re: Wetland Assessment Report
Lot 24 Harbor Drive., Ono Island, Baldwin County, AL
WSI Reference #2026-165

Dear Ms. Llewllyln,

As requested, Wetland Sciences, Inc. has completed a field wetland assessment within an approximate ±1.34-acre parcel of property located at Lot 24 Harbor Drive on Ono Island in Baldwin County, Alabama. The property is identified by the Baldwin County Revenue Commission by the following identification numbers: 118441 (See Site Location Map in Exhibit A).

The purpose of the wetland assessment was to determine whether wetlands or Waters of the United States (WOTUS) are present and, if so, to identify their boundaries. The wetland delineation was conducted in accordance with the 1987 Corps of Engineers Wetland Delineation Manual and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Federal – Corps). The following is a summary of our findings.

Desktop Review

Before performing the delineation, several remote data sources were reviewed to assist with identifying potential Waters of the United States (WOTUS) and other potentially regulated wetland and or stream areas at the site. Each data source is described in detail below.

Natural Resource Conservation Service Soil Survey

WSI reviewed the Natural Resources Conservation Service (NRCS) online Web Soil Survey (WSS) to identify soil types within the subject property. According to data produced by the United States Department of Agriculture (USDA), two (2) soil types are present within the subject property: Lakewood sand and Leon sand. These soils are fully described in the custom soil report, which is appended as Exhibit B.

Leon sand is considered moderately hydric with a hydric rating of 54% (See Hydric Soil Rating Map – Exhibit C). This rating indicates the percentage of map units that meet the criteria for hydric (wetland) soils. Map units are composed of one or more map unit components or soil types, each of which is rated as a hydric soil or a non-hydric soil. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower

positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation. The NTCHS definition identifies general soil properties that are associated with wetness. To determine whether a specific soil is hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria have been established to identify those estimated soil properties unique to hydric soils (Federal Register, 2002). These criteria are used to identify map unit components that are usually associated with wetlands. The criteria used are selected estimated soil properties described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006), as well as in the "Soil Survey Manual" (Soil Survey Division Staff, 1993). If soil is sufficiently wet for a prolonged period to be considered hydric, it should exhibit specific properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt & Vasilas, 2006).

Aerial Photograph

WSI reviewed aerial photographs to identify suspected wetland areas on the site and to determine changes in wetland areas over time. Suspected wetland areas were noted within the subject parcel (See current aerial in **Exhibit D**).

National Wetland Inventory Map

The US Fish and Wildlife Service (FWS) is the principal US Federal agency tasked with providing the public with information on the status and trends of our Nation's wetlands. The US FWS National Wetlands Inventory (NWI) is a publicly available resource that provides general information on the abundance, characteristics, and distribution of wetlands in the US. Before our field inspection of the property, Wetland Sciences, Inc. researched the U.S. Fish and Wildlife Service's National Wetland Inventory Data.

The NWI identifies palustrine forested wetlands (PFO1C and PFO4C) in the area north of Harbor Drive, which are dominated by broad-leaved deciduous and needle-leaved evergreen vegetation under seasonally flooded conditions. Immediately adjacent to the northern shoreline area, the NWI also maps estuarine intertidal wetlands (E2EM1P) and unconsolidated bottom estuarine habitat (E1UBL) associated with nearby coastal waters. These features indicate the presence of an estuarine marsh and tidal aquatic habitat connected to the surrounding coastal system.

No NWI wetlands are mapped directly within the boundaries of the subject parcel, although mapped palustrine wetlands occur near the north of the site (See National Wetland Inventory Map in **Exhibit E**).

USGS Quadrangle Map

The USGS 7.5-minute quadrangle map was reviewed (**Exhibit F**). The U.S. Geological Survey (USGS) quadrangle map indicates that the subject parcel is located within a low-lying coastal landscape in southern Baldwin County, Alabama, near the shoreline of a large estuarine waterbody located

immediately north of the assessment area. The quadrangle map depicts the project site along a developed roadway corridor with surrounding residential development and coastal features. Topographic contours on the map indicate minimal relief across the project area, typical of coastal environments along the northern Gulf of Mexico. The gently sloping terrain generally grades toward the adjacent estuarine waters to the north, suggesting that surface drainage in the vicinity ultimately flows toward these coastal waters.

While the quadrangle map does not depict mapped wetlands within the boundaries of the assessment area, the proximity of coastal waters and low-lying topography suggests that hydrologic conditions conducive to wetland formation may occur in the surrounding landscape.

Field Review

A pedestrian survey of the property was conducted following completion of the desktop review. The site was inspected on March 13, 2026. Wetland Sciences, Inc. (WSI) scientists used established technical criteria, field indicators, historical aerial photography, and other available information to evaluate site conditions. The assessment followed the Routine On-Site Determination Method described in the Corps of Engineers Wetland Delineation Manual (1987) and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region.

Wetland delineations conducted under these guidance documents follow a three-parameter approach that evaluates vegetation, soils, and hydrology. Areas are classified as wetlands when indicators of hydrophytic vegetation, hydric soils, and wetland hydrology are present under normal circumstances. The techniques used to evaluate each parameter are summarized below.

Hydric Soils Assessment

Several soil test holes were excavated across the site to evaluate soil conditions and identify field indicators of hydric soils. WSI applied the hydric soil definition established by the National Technical Committee for Hydric Soils (NTCHS) and evaluated soils using the field indicators described in the Regional Supplement.

A soil unit is not considered hydric solely because it appears on a hydric soil list; rather, hydric soils must be confirmed through the presence of one or more recognized hydric soil indicators.

Field observations confirmed the presence of hydric soil indicators within portions of the subject property.

Wetland Hydrology Assessment

At each observation point, visual indicators of wetland hydrology were recorded. Indicators considered during the assessment include surface saturation, inundation, aquatic vegetation, drift deposits, water marks, sediment deposition, aquatic fauna, morphological plant adaptations, moss trim lines, and other primary or secondary hydrologic indicators as described in the Regional Supplement.

Both primary and secondary hydrologic indicators were observed within the delineated wetland area. Indicators noted during the site visit included surface saturation, shallow inundation, aquatic fauna, morphological plant adaptations, and moss-trimmed lines.

Plant Community Structure

The plant community within the wetland area is best described as a forested/shrub wetland transitioning to marsh conditions in localized areas. Dominant canopy species include Chinese Tallowtree (*Triadica sebifera*) and Slash Pine (*Pinus elliottii*). Shrub species observed include St. John's-wort (*Hypericum fasciculatum*) and Inkberry (*Ilex glabra*).

The herbaceous layer includes species such as Red Root (*Lachnanthes caroliniana*) and Yellow-eyed Grass (*Xyris ambigua*), which are commonly associated with wet pine flatwoods and marsh transition zones in coastal Alabama.

Field Identification of Wetlands

Based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology, Wetland Sciences, Inc. identified a wetland feature within the subject parcel (see attached sketch – **Exhibit G**).

The wetland boundary was delineated in the field by locating points along the upland/wetland interface at approximately 15–20-foot intervals, or at locations corresponding to directional changes in the boundary. Each point was marked with pink flagging labeled "Wetland Delineation." Each flagged location contains a unique alphanumeric identifier for reference.

WSI used Real-Time Kinematic (RTK) Global Positioning System (GPS) equipment to record the location of each delineation point. As with all GPS-derived mapping products, several factors may influence positional accuracy. Therefore, the wetland boundary depicted in the attached exhibit should be considered approximate unless verified by a licensed land surveyor or other appropriate means.

Jurisdictional Considerations

The delineated wetland appears to be **geographically isolated from other surface waters and does not appear to directly abut or maintain a continuous surface connection to Waters of the United States (WOTUS).**

Recent regulatory guidance and case law, including Sackett v. Environmental Protection Agency (598 U.S. 651, 2023) and Rapanos v. United States (547 U.S. 715, 2006), emphasize that wetlands must maintain a continuous surface connection to a jurisdictional waterbody such that it is difficult to determine where the water ends and the wetland begins in order to be considered adjacent wetlands subject to federal jurisdiction.

Based on site observations, the delineated wetland does not appear to directly abut or maintain a continuous surface connection to a jurisdictional waterbody, and no ephemeral or intermittent stream channels were observed within the subject parcel.

Therefore, in our professional opinion, the identified wetland feature may not be subject to federal jurisdiction under Section 404 of the Clean Water Act. However, only the U.S. Army Corps of Engineers can make a final jurisdictional determination.

Local governments, including Baldwin County, may regulate wetlands or require buffers regardless of federal jurisdiction.

Agency Verification

The wetland boundary and jurisdictional interpretations presented in this report are preliminary and should not be considered final or binding until reviewed and confirmed by the U.S. Army Corps of Engineers. The delineated boundary and associated conclusions may be subject to revision following agency review.

Closing

This concludes our findings regarding the subject property. Please contact our office if you have any questions regarding this assessment.

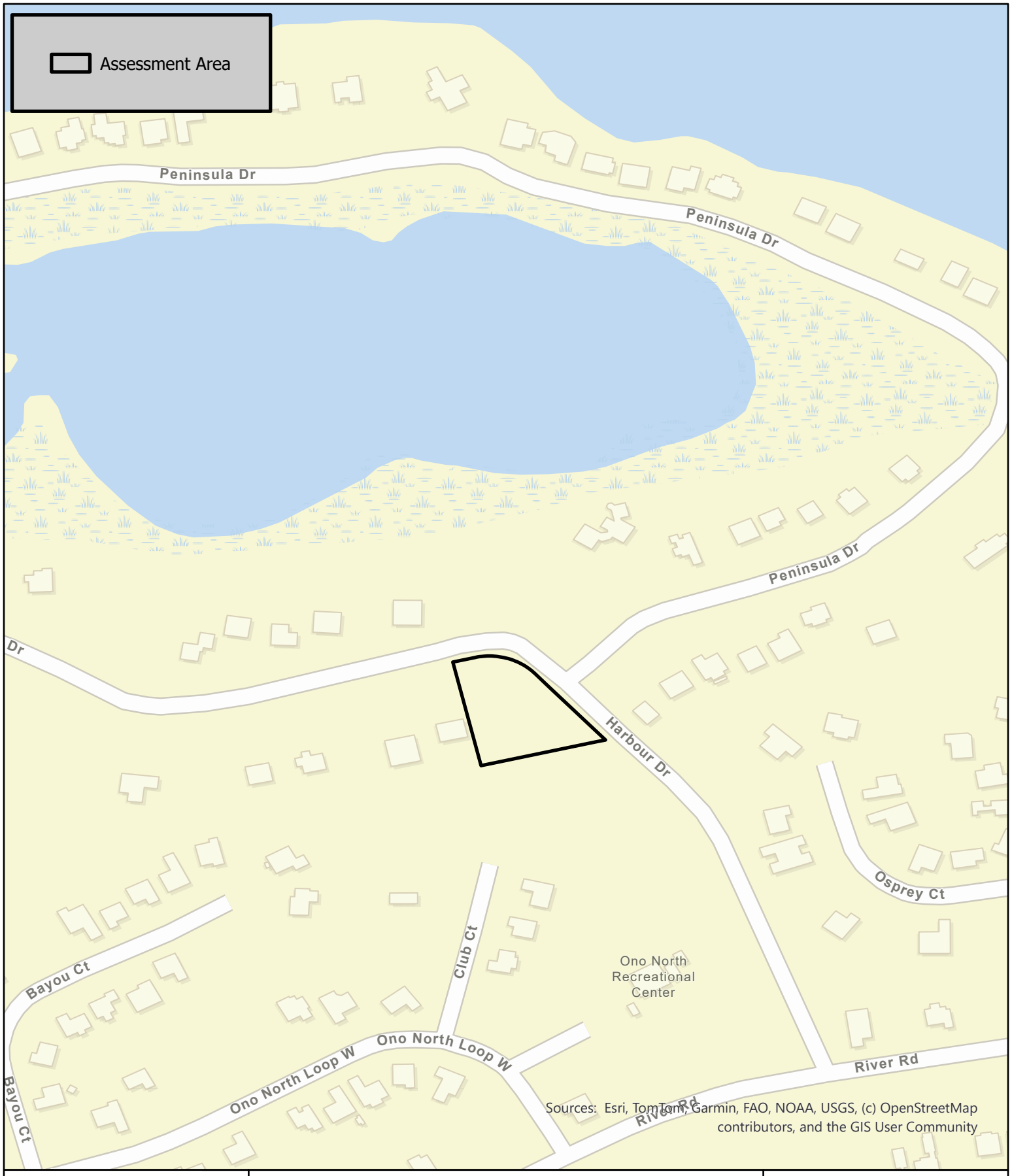
Respectfully,
Wetland Sciences, Inc.

Craig Martin
Senior Scientist

Enclosures: As indicated

Exhibit A

Site Location Map



WETLAND SCIENCES INCORPORATED

Site Location Map

Lot 24 Harbor Drive
Baldwin County, AL

0 0.02 0.05 0.09 0.14 0.19
Miles

Data Source: ESRI
Imagery Source: ESRI

N
W E
S

Coordinate System: NAD 1983 Alabama State Plane West

Exhibit B

Custom Soil Survey Report

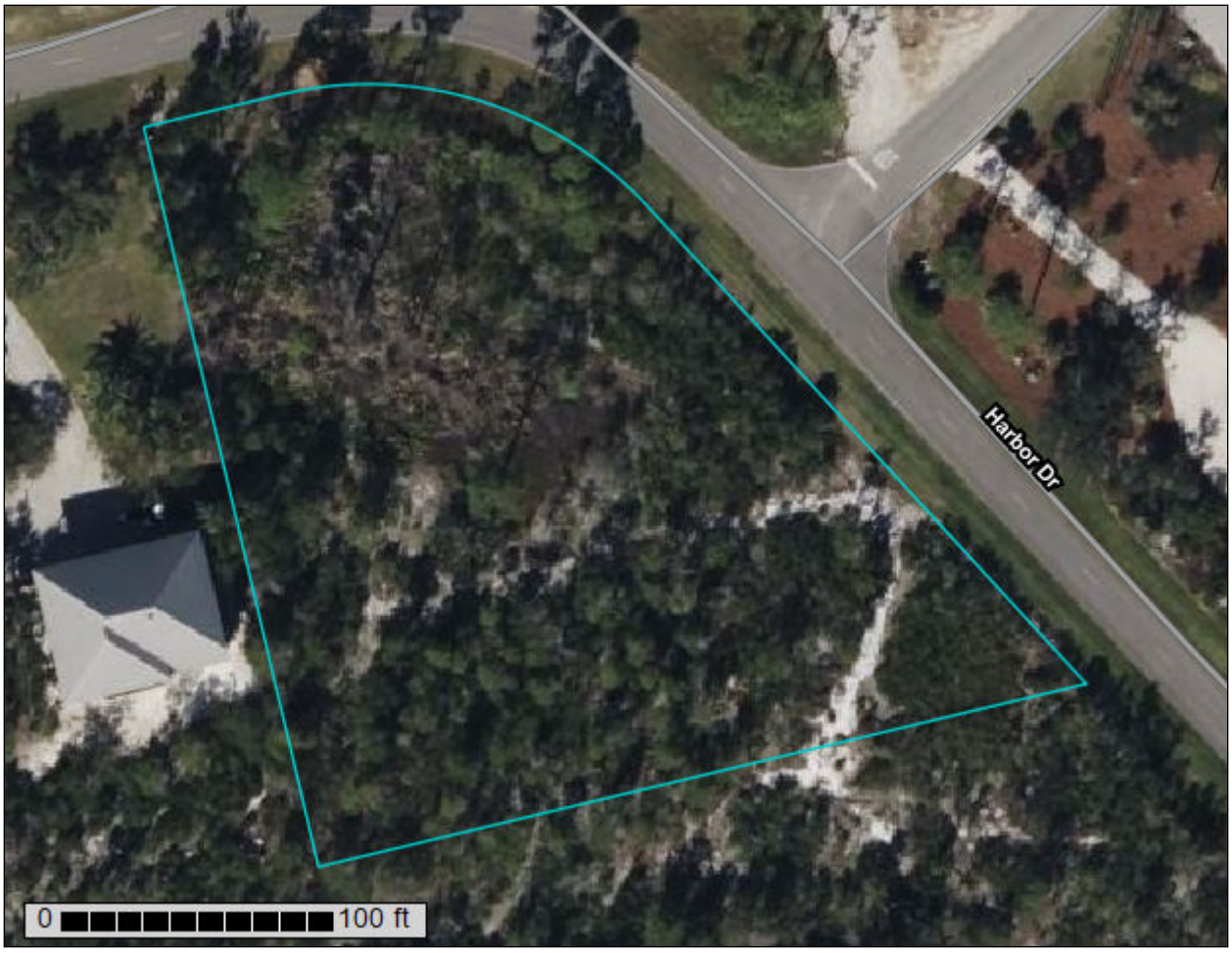
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Baldwin County, Alabama



March 16, 2026

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:742 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

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

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baldwin County, Alabama
Survey Area Data: Version 18, Aug 31, 2025

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

Date(s) aerial images were photographed: Nov 12, 2021—Dec 22, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LkB	Lakewood sand, 0 to 5 percent slopes	0.6	45.4%
Ls	Leon sand	0.7	54.6%
Totals for Area of Interest		**1.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Baldwin County, Alabama

LkB—Lakewood sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: c0gw
Elevation: 0 to 400 feet
Mean annual precipitation: 40 to 67 inches
Mean annual air temperature: 52 to 77 degrees F
Frost-free period: 217 to 270 days
Farmland classification: Not prime farmland

Map Unit Composition

Lakewood, (kershaw), and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lakewood, (kershaw)

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy marine deposits derived from sedimentary rock

Typical profile

H1 - 0 to 80 inches: sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: F152AY205FL - Central Coastal Adjacent Dune
Hydric soil rating: No

Minor Components

Plummer

Percent of map unit: 10 percent
Landform: Marine terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear

Across-slope shape: Linear
Ecological site: F152AY210FL - Central Coastal Adjacent Interdunal Flats
Hydric soil rating: Yes

Bayboro, (pamlico)
Percent of map unit: 5 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: F152AY220FL - Central Coastal Adjacent Tidal Zones
Hydric soil rating: Yes

Ls—Leon sand

Map Unit Setting
National map unit symbol: c0gy
Elevation: 10 to 150 feet
Mean annual precipitation: 40 to 67 inches
Mean annual air temperature: 52 to 77 degrees F
Frost-free period: 217 to 270 days
Farmland classification: Not prime farmland

Map Unit Composition
Leon, (non-hydric), and similar soils: 46 percent
Leon, (hydric), and similar soils: 44 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Leon, (non-hydric)

Setting
Landform: Depressions
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy marine deposits derived from sedimentary rock

Typical profile
H1 - 0 to 2 inches: sand
H2 - 2 to 30 inches: sand
H3 - 30 to 40 inches: sand
H4 - 40 to 60 inches: sand

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 6 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: F152AY210FL - Central Coastal Adjacent Interdunal Flats
Hydric soil rating: No

Description of Leon, (hydric)

Setting

Landform: Depressions
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy marine deposits derived from sedimentary rock

Typical profile

Oa - 0 to 2 inches: muck
H2 - 2 to 15 inches: sand
H3 - 15 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Ecological site: F152AY215FL - Central Coastal Adjacent Flooded Interdunal Flats
Hydric soil rating: Yes

Minor Components

Bayboro, (pamlico)

Percent of map unit: 10 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip

Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: F152AY220FL - Central Coastal Adjacent Tidal Zones
Hydric soil rating: Yes

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

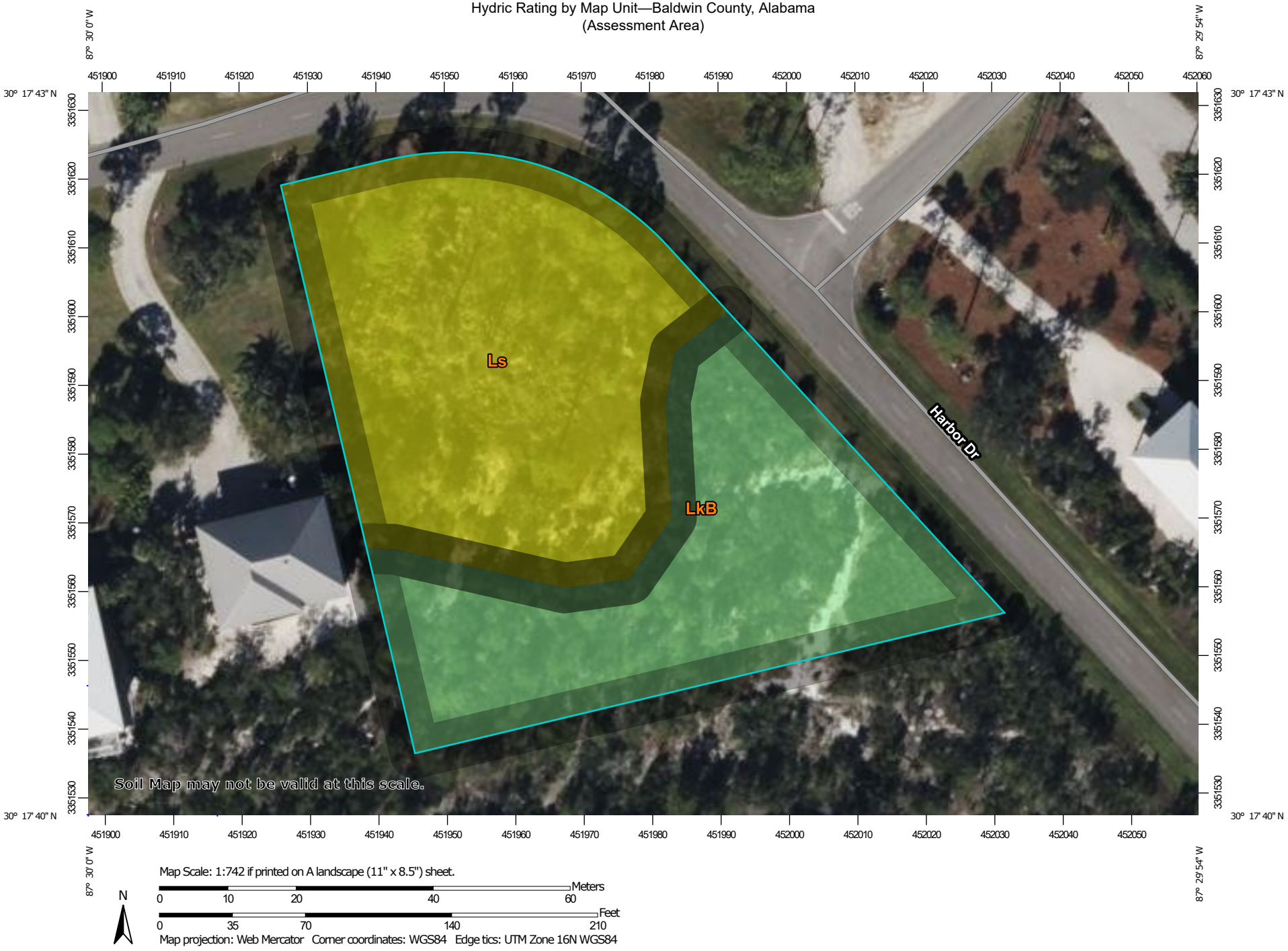
United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Exhibit C

Hydric Soils Map

Hydric Rating by Map Unit—Baldwin County, Alabama
(Assessment Area)



Map Scale: 1:742 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

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

MAP LEGEND

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

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baldwin County, Alabama
Survey Area Data: Version 18, Aug 31, 2025

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

Date(s) aerial images were photographed: Nov 12, 2021—Dec 22, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
LkB	Lakewood sand, 0 to 5 percent slopes	15	0.6	45.4%
Ls	Leon sand	54	0.7	54.6%
Totals for Area of Interest			**1.3**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Exhibit D

Current Aerial

WETLAND SCIENCES INCORPORATED

Current Aerial

Lot 24 Harbor Drive
Baldwin County, AL

0 0.01 0.02 0.04 0.06 0.08
Miles

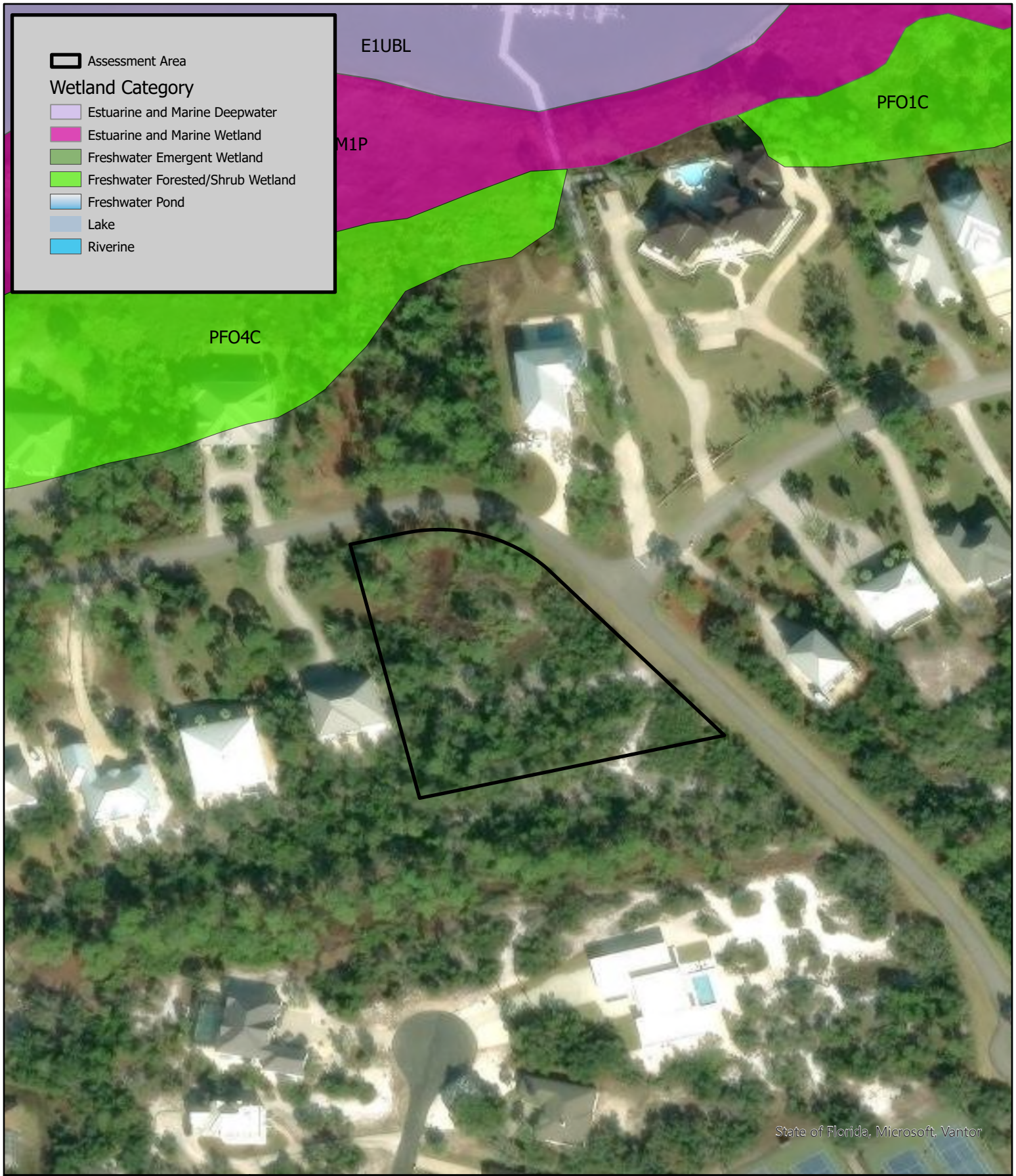
Data Source:
ESRI
Imagery Source:
ESRI

N
W E
S

Coordinate System:
NAD 1983 Alabama
State Plane West

Exhibit E

National Wetland Inventory Map



WETLAND SCIENCES INCORPORATED

National Wetlands Inventory Map

Lot 24 Harbor Drive
Baldwin County, AL

0 0.01 0.02 0.04 0.06 0.08
Miles

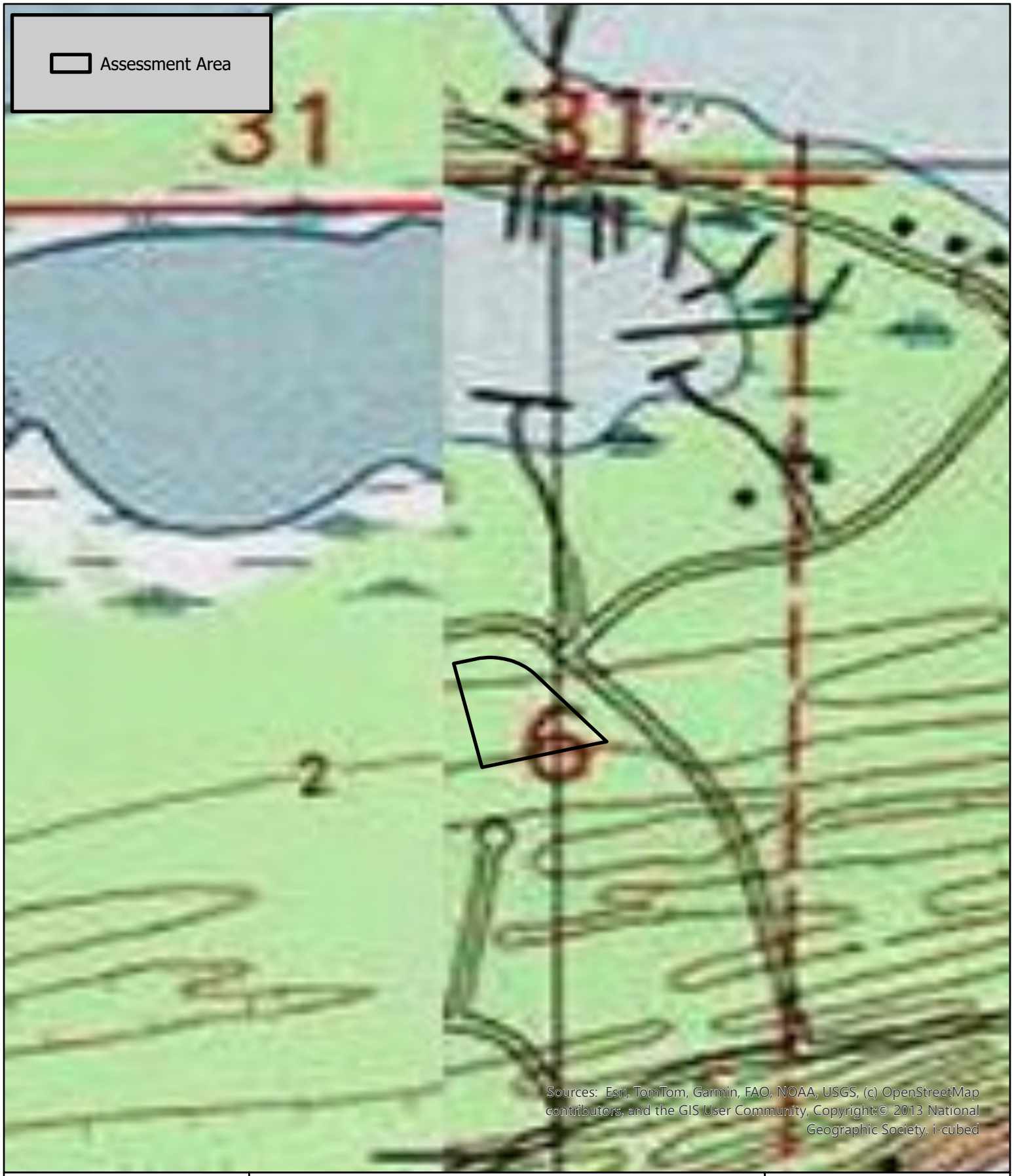
Data Source: USFWS
Imagery Source: ESRI

N
W E
S

Coordinate System: NAD 1983 Alabama State Plane West

Exhibit F

Quad Map



WETLAND SCIENCES INCORPORATED

USGS Quad Map

Lot 24 Harbor Drive
Baldwin County, AL

0 0.02 0.05 0.09 0.14 0.19
Miles

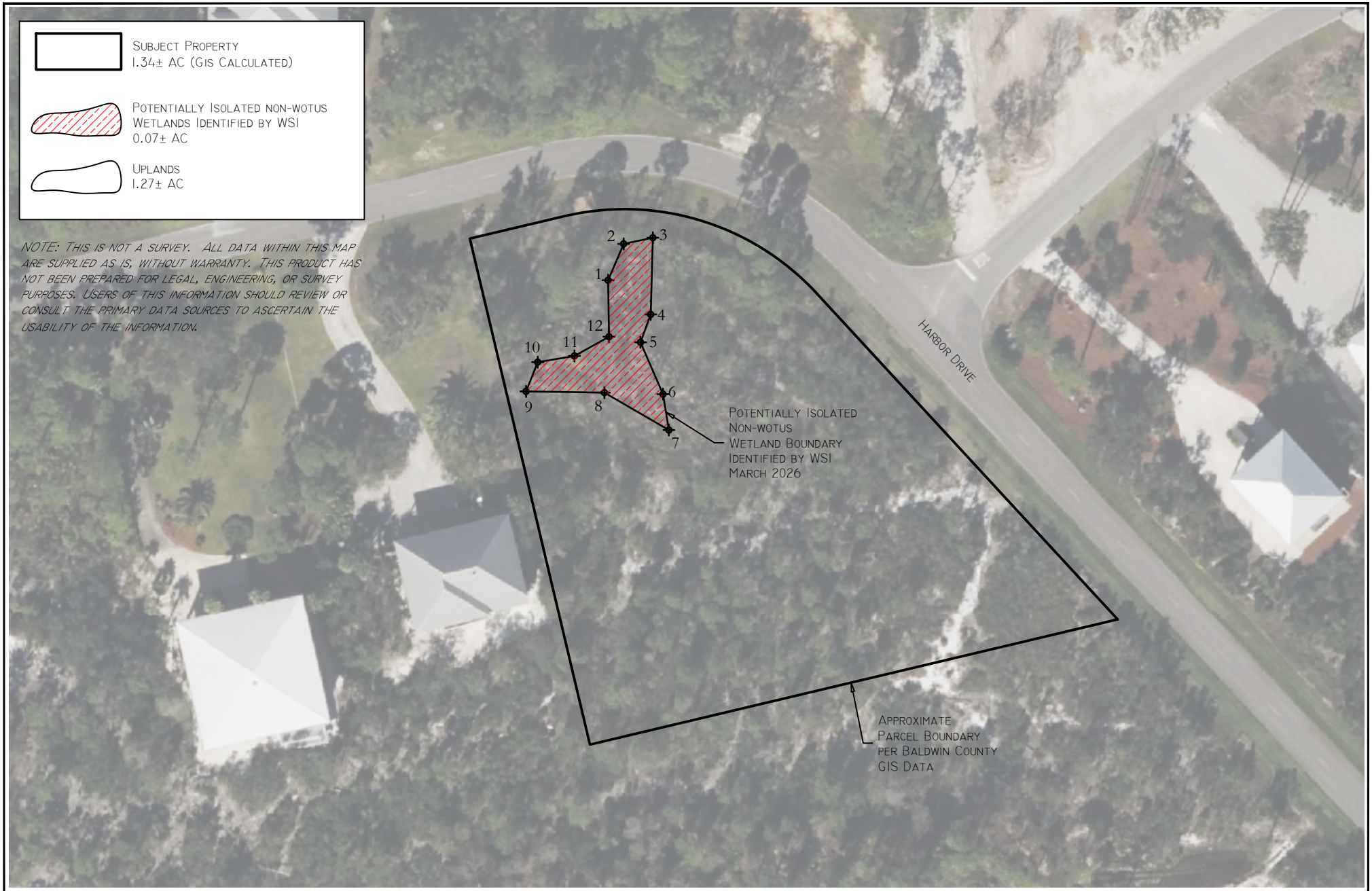
Data Source:
USGS
Imagery Source:
ESRI

N
W E
S

Coordinate System:
NAD 1983 Alabama
State Plane West

Exhibit G

Sketch of Wetland Resources



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PROJECT NAME:	Lot 24 Harbor Drive
	Wetland Sketch
PROJECT NO.:	2026-165
DRAWN BY: JTC	DATE: 03/16/2026
SHEET:	1

N

70 0 35 70

SCALE: 1"= 70 Feet