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April 11, 2017

Macallan Properties, LLC
1642 Powers Ferry Road, SE, Suite 250
Marietta, GA 30067

Attn: Mr. Heath Milligan
Mr. Jay Rhoden

Via Email: ***jay.rhoden@macallengroup.com***;
heath@macallanre.com

RE: Report of Stream and Wetland Investigation
Gravel Springs Road
Gravel Springs Road and Brown Road
Buford, Gwinnett County, Georgia
Project No. 2017.1076.03

Dear Mr. Milligan and Mr. Rhoden:

Per your request, United Consulting has completed a wetland and stream investigation on the above-referenced property, hereinafter referred to as the Project Site. The Project Site consisted of an approximate 83-acre tract located in Buford, Gwinnett County, Georgia. The general site location is shown on Figure 1 of this report.

Approach:

United Consulting's evaluation included conducting background research of available topographic, wetland, and soils maps for the Project Site, as well as conducting a on-site investigation of the property for wetlands and other jurisdictional waters of the U.S. in accordance with the U.S. Army Corps of Engineers (USACE) 1987 *Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region*, dated April 2012.

In addition, the on-site drainage features were evaluated for possible classification as state waters, as defined in the Official Code of Georgia Annotated (OCGA), Volume 10, 12-7-3: Definitions, (13) "State waters" and interpreted by the Georgia Environmental Protection Division (EPD). According to the EPD rules concerning state waters and buffers, a stream feature must contain 'normal stream flow' (which has been interpreted to mean 'base flow') in order to be subject to the buffer requirements. Evaluations concerning state waters were based on the Georgia Environmental Protection Division (EPD) rules concerning the identification of state

waters and the GA Department of Natural Resources *Field Guide for Determining the Presence of State Waters That Require a Buffer.*

Map Research:

The U.S. Geological Survey 7.5 Minute Series Topographic Map of the area (*Hog Mountain, Georgia, 1992*) was reviewed prior to the site visit. Prominent drainage features were located on the northern and southwestern portions of the Project Site. No actual streams were mapped on the Project Site. A copy of the USGS topographic map showing the Project Site boundaries is attached as Figure 2.

The National Wetland Inventory (NWI) Digital Map was reviewed to determine if any known wetlands or other jurisdictional waters were mapped on the Project Site. Based on the NWI Digital Map, no previously mapped wetland areas were shown on the Project Site. A copy of the NWI map is attached as Figure 3.

The USDA Digital Web Soil Survey was reviewed to determine if any known hydric soils have been mapped on the Project Site. The soil survey map indicated seven soil map units located on the Project Site. These included soils within the Appling complex, urban land, and Toccoa complex. The soil types identified on the Project Site were not associated with hydric soils. A copy of the soil survey map is attached as Figure 4.

Following completion of the in-office research, the Project Site was then investigated for visual evidence of wetlands and other jurisdictional waters.

Field Investigation:

A field delineation was conducted on the Project Site on February 16 and 20, 2017. United Consulting walked the Project Site to identify features which may be considered jurisdictional. For features which may be classified as jurisdictional, United Consulting conducted a field delineation and mapping of the features using a Trimble GeoXH global positioning system (GPS). The delineation included flagging the features with pink flagging tape; each flag was given a unique alpha-numeric designation.

At the southern end of the Project Site, United Consulting observed a stream channel (S-1) which flowed west-northwest and off the southwestern boundary of the Project Site. The channel averaged three to four feet in width with substrates of sand, silt, pebbles, and bedrock. The stream began at a head-cut just below a small wetland area (W-1) with surface waters and saturated surface soils. There were two other channels north of S-1 which also began as similar wetland areas (W-2 and W-3). These two streams (S-2 and S-3) were similar to S-1. These channels also sloped west-northwest. There was intermittent flow at the upstream end of these features, with more consistent flow as the channels sloped down-gradient. Streams S-2 and S-3 merged, continued to flow west-northwest and off the southwest end of the Project Site. Within the northern third of the Project Site, United Consulting observed a fourth wetland area (W-4). Two streams (S-4 and S-5) with intermittent flow emerged from this wetland area. These streams had more sand and silt substrate than the southern streams.

Wetland areas around the southern streams were often poorly defined in topography and field characteristics and would likely be difficult to determine in dry seasons. The areas did contain hydric soils, wetland vegetation, and other wetland indicators.

Conclusions and Recommendations:

United Consulting has completed a delineation of jurisdictional features on the Project Site. This included delineating and mapping the location of the streams and wetland areas on the Project Site. In our opinion, the streams and wetlands on the property are regulated as federal jurisdictional waters by the USACE under Section 404 of the Clean Water Act. Disturbance to these areas would require approval from the USACE. The permitting and review process is dependent on the extent of any proposed impacts.

The streams would also be considered state waters requiring a buffer and are subject to the state 25-foot buffer and additional county buffer requirement. Encroachment into the state buffer (except for road crossings) would require a variance from the GA EPD. The variance process typically takes 4 to 6 months to obtain approval. Additional mitigation requirements could be required by the EPD.

United Consulting believed the up-gradient reaches of the channels containing S-1, S-2, and S-3 to contain wetlands which formed into streams at the locations shown on Figure 5 as the stream start. These wetland areas up-gradient of the start of the streams are jurisdictional features but would not be subject to the state and county buffer requirements in our opinion. If disturbance of this area is anticipated, further assessment and coordination with the appropriate agencies may be necessary to verify the buffer requirements.

Limitations:

The information provided in this report and shown on Figure 5 represents our opinion based on professional experience. Please note that official determinations regarding federal jurisdictional waters and state waters requiring a buffer are made by the USACE and county, respectively. We recommend that official determinations and proper permits be obtained prior to disturbance of these areas. No warranty is expressed or implied.

We appreciate the opportunity to assist you with this project. Please call if you have any questions concerning this report, including questions regarding permitting or buffers.

Sincerely,

UNITED CONSULTING

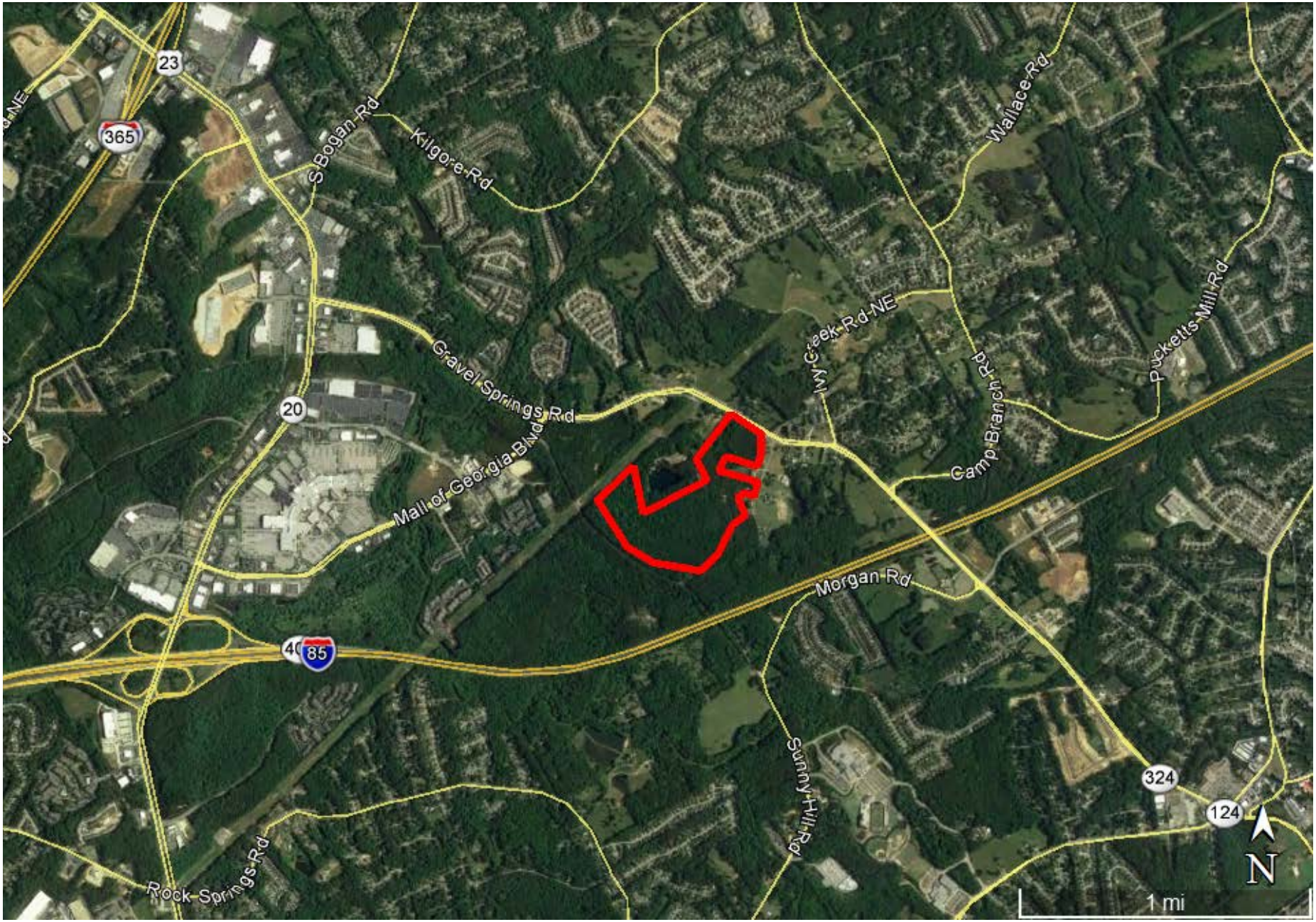
Michael G. Abernathy
Project Environmental Specialist

David P. Huetter
Director of Ecological Services

MGA/DPH/slv

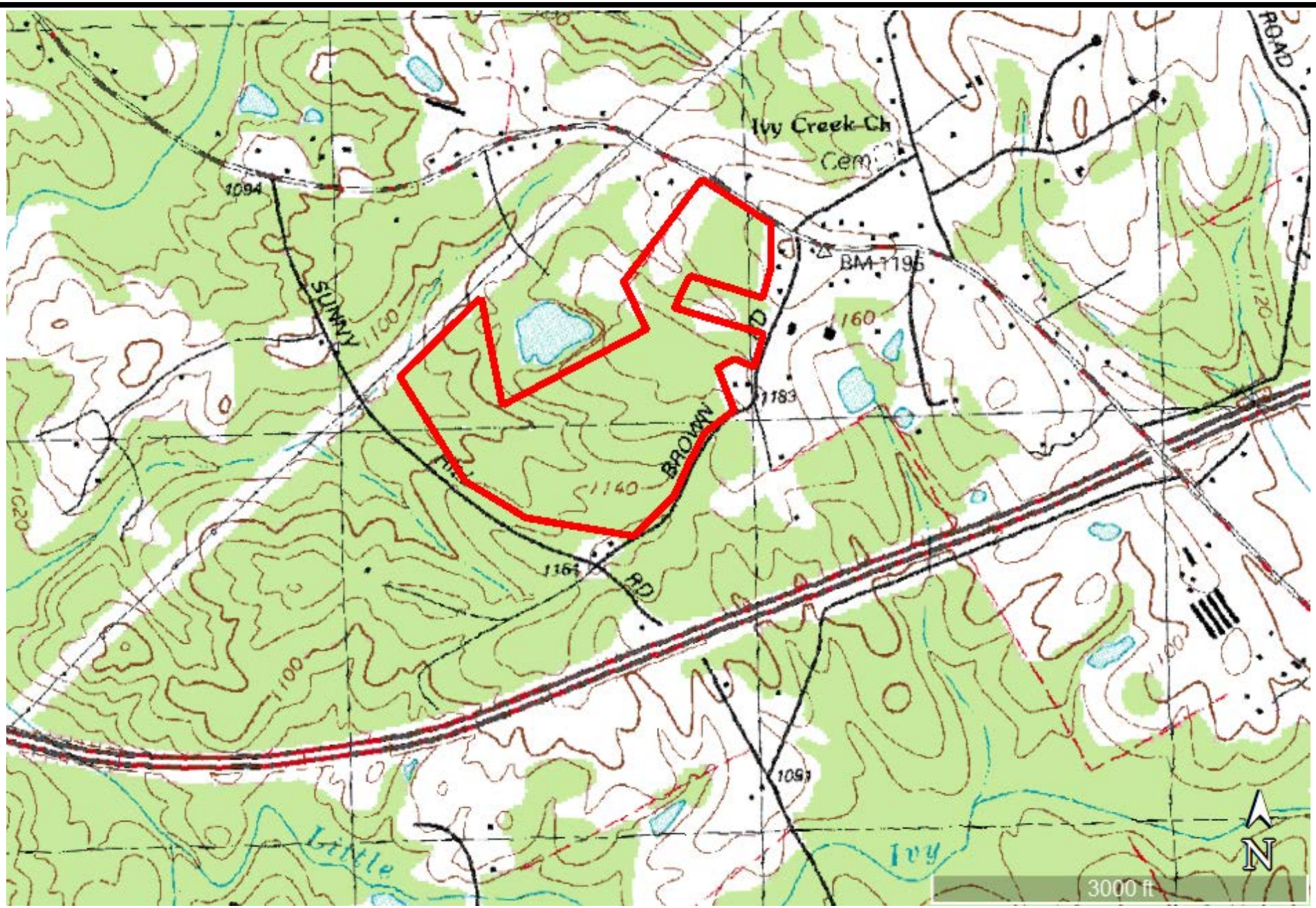
SharePoint:2017.1076.03.WL

Attachments: Figure 1 – Site Location Map
Figure 2 – USGS Topographic Map
Figure 3 – USFWS Wetland Inventory Map
Figure 4 – USDA Soil Survey Map
Figure 5 – Wetland Delineation Map
Site Photographs



UNITED CONSULTING — We're here for you	N	Scale:	As Shown	Notes:	Client: Macallan Properties, LLC
		Prepared:	MGA		Site: Gravel Springs Road-150 Lots
		Checked:	DPH		
		Project No.:	2017.1076.03		Title: Site Location Map

FIG.1



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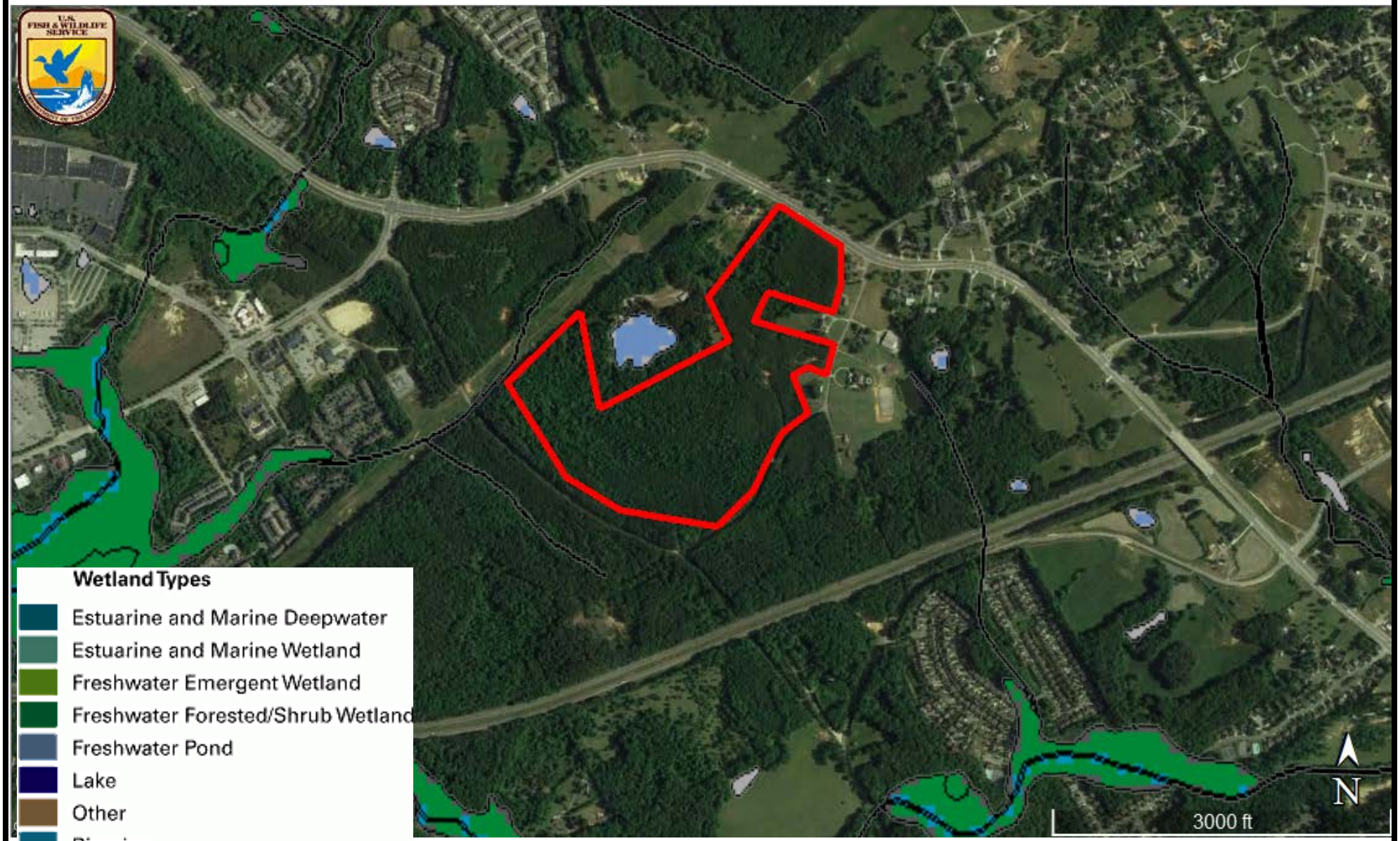
		Checked:	DPH		
		Project No.:	2017.1076.03		Title: USGS Topographic Map

FIG.2



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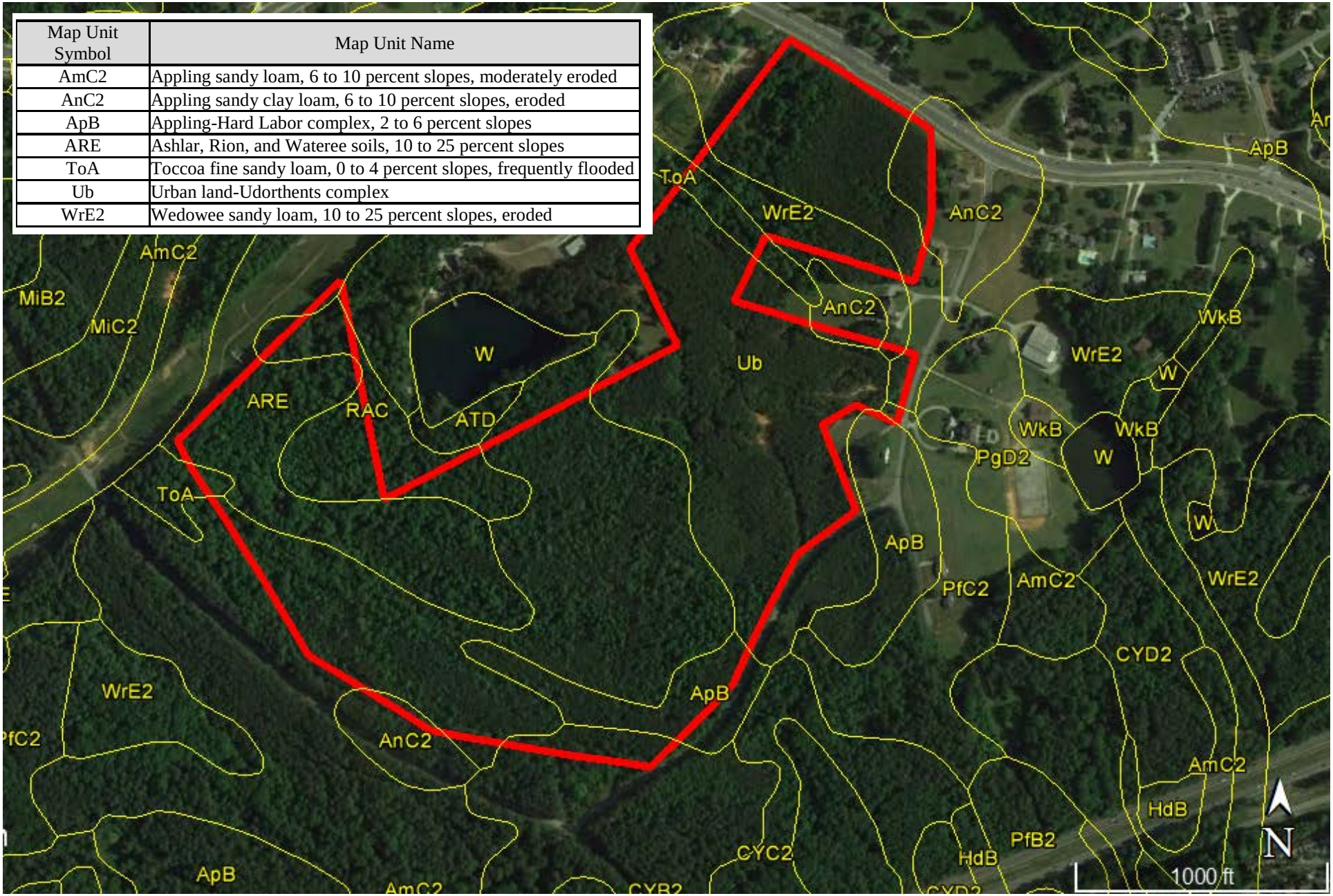
Scale:	As Shown
Prepared:	MGA
Checked:	DPH
Project No.:	2017.1076.03

Notes:

Client:	Macallan Properties, LLC
Site:	Gravel Springs Road-150 Lots
Title:	USFWS Wetland Map

FIG.3

Map Unit Symbol	Map Unit Name
AmC2	Appling sandy loam, 6 to 10 percent slopes, moderately eroded
AnC2	Appling sandy clay loam, 6 to 10 percent slopes, eroded
ApB	Appling-Hard Labor complex, 2 to 6 percent slopes
ARE	Ashlar, Rion, and Wateree soils, 10 to 25 percent slopes
ToA	Toccoa fine sandy loam, 0 to 4 percent slopes, frequently flooded
Ub	Urban land-Udorthents complex
WrE2	Wedowee sandy loam, 10 to 25 percent slopes, eroded



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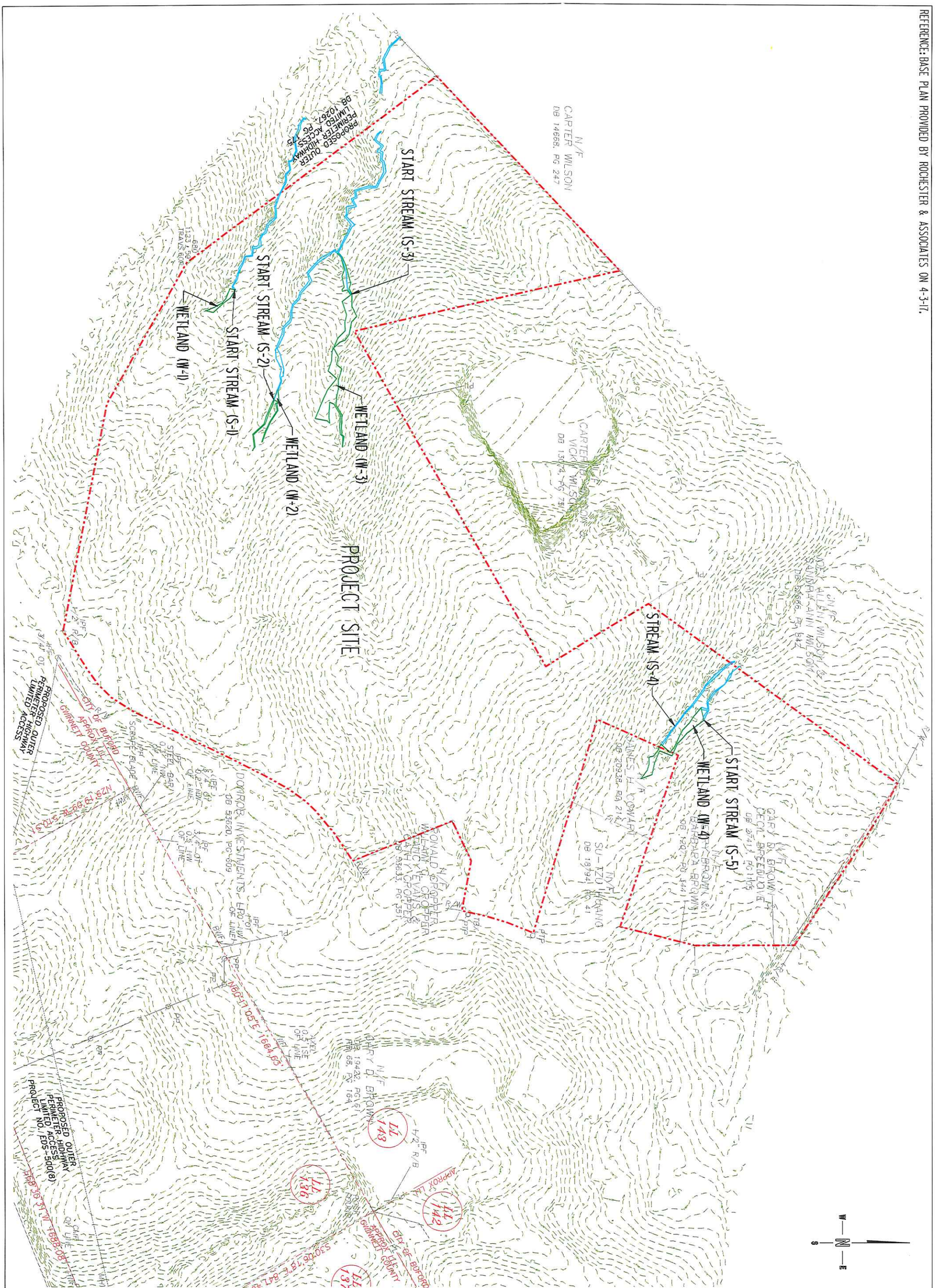
		Prepared:	MGA		Site: Gravel Springs Road-150 Lots
		Checked:	DPH		
		Project No.:	2017.1076.03		Title: Soil Map

FIG.4



REFERENCE: BASE PLAN PROVIDED BY ROCHESTER & ASSOCIATES ON 4-3-17.

SCALE: 1" = 300'	DATE: 4-4-17	PROJECT NO: 2017.1076.03	TITLE: WETLAND DELINEATION MAP GRAVEL SPRINGS ROAD TRACT BUFORD, GWINNETT COUNTY, GEORGIA
PREPARED: VPV	CHECKED: MGA	REVISIONS:	
CLIENT: MACALLAN PROPERTIES			

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FIG. 5

Photo # 1: Wetland area W-4 at the northern end of the Project Site.

Photo # 2:

Photo # 3: Stream channel S-4 located at the northern end of the Project Site.

Photo # 4: Wetland area W-3 located on the southwest corner of the Project Site.

Photo # 5: Stream S-3 on the southwest corner of the Project Site.

Photo # 6: Stream S-1, the southernmost stream channel on the Project Site.

Photo # 7: Portion of wetland area W-2 located in the southwest corner of the Project Site.

Photo # 8: Stream S-2 located on the southeast corner of the Project Site.