



WOODLAND STEWARDS

A Regional Extension Program for Landowners

Feb. 2 Woodland Management by Objectives:
Taking Stock & Making Plans

Feb. 9 The Digital Toolbox for the Woodland Owner:
There's an App For that!

Feb. 16 Safety Tips for Working in Your Woods

Feb. 23 Getting Started Managing Your Land

TUESDAYS, 1PM ET/ 12 PM CT

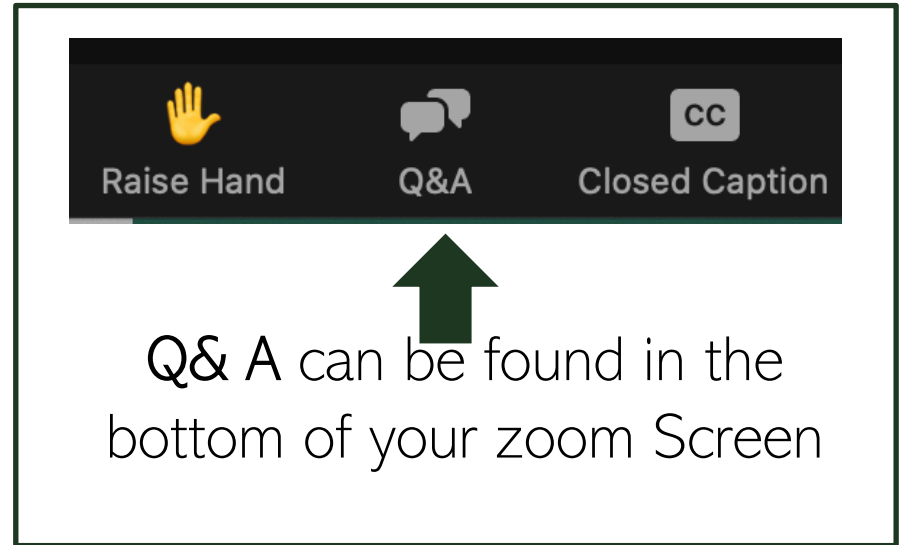
February 2, 9, 16, & 23, 2020

1-hour Sessions

REGISTER FOR EACH
WEBINAR SEPARATELY

find out more here:

<https://sref.info/woodland-stewards/2021>



Please note,
NO CEU's will be awarded for this program



WOODLAND STEWARDS

The Woodland Stewards Webinar Series Program was created by a team of Extension professionals from the following programs:



The Digital Toolbox for the Woodland Owner: There's an App for that!

Ellen Crocker, University of Kentucky

Jeff Fellers, Clemson Cooperative Extension

Jennifer Gagnon, Virginia Cooperative Extension

Derrick Phinney, Clemson Cooperative Extension



WOODLAND STEWARDS

A Regional Extension Program for Landowners

Outline and Objectives for Today

- Digital Aspects and Operating Systems
- Mapping your land: Spatial Maps
- What's on your land?
- What condition is your land in?
- What can I do with my land?
- Wrap up
- Evaluation Survey

Computer Comparison

- Apollo Guidance Computer (AGC)



- 71 lbs. | 24" x 12" x 6"
- Could only store temporary results, so once power was turned off all data was lost.
- Once data was written and saved to ROM, there was no saving over files or room for editing. 2048 words of memory

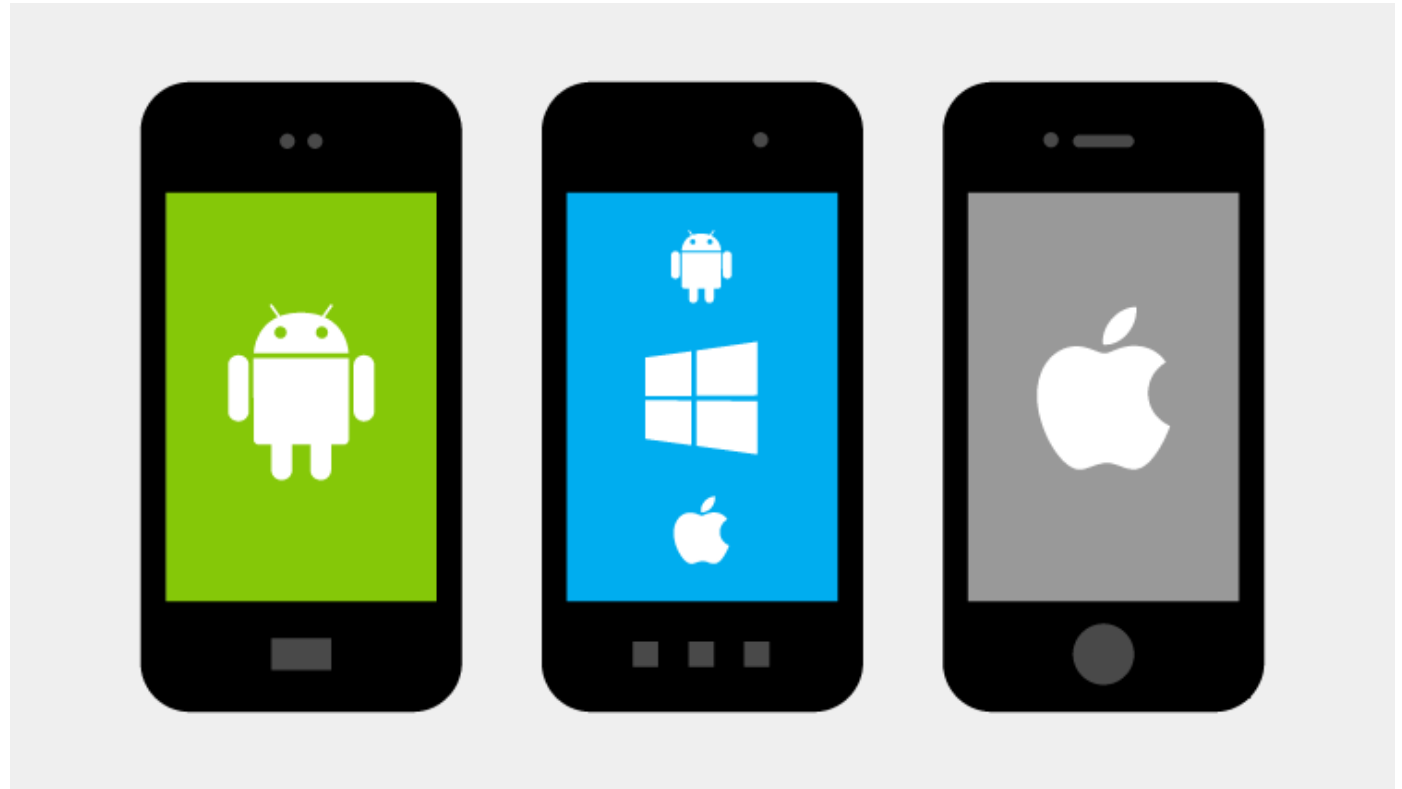
- Modern iPhone



- More than 1 million times more RAM than AGC!
- More than 7 million times more than AGC!
- Smartphone has 100,000 times the processing power of the AGC!

Web-Based vs Mobile Apps

- Laptop Computer
- Modern Phones



Mapping Your Land

Jeff Fellers

fellers@clemson.edu



WOODLAND STEWARDS

A Regional Extension Program for Landowners

Why It Is Important

- Mark Property Boundaries
- Delineate Stand Boundaries
 - Keep Records – Example year planted, year thinned, etc.
- Area Calculation
 - Timber Stands
 - Open Fields
 - Food Plots
- Food Plots
- Imagery
 - Historical Imagery



Programs/Apps Available



Google Earth

<https://www.google.com/earth/>



QGIS

<https://www.qgis.org/en/site/>



onX Hunt

<https://www.onxmaps.com/>



HuntStand

<https://huntstand.com/>



American Forest Foundation

My Land Plan

The woodland owner's resource

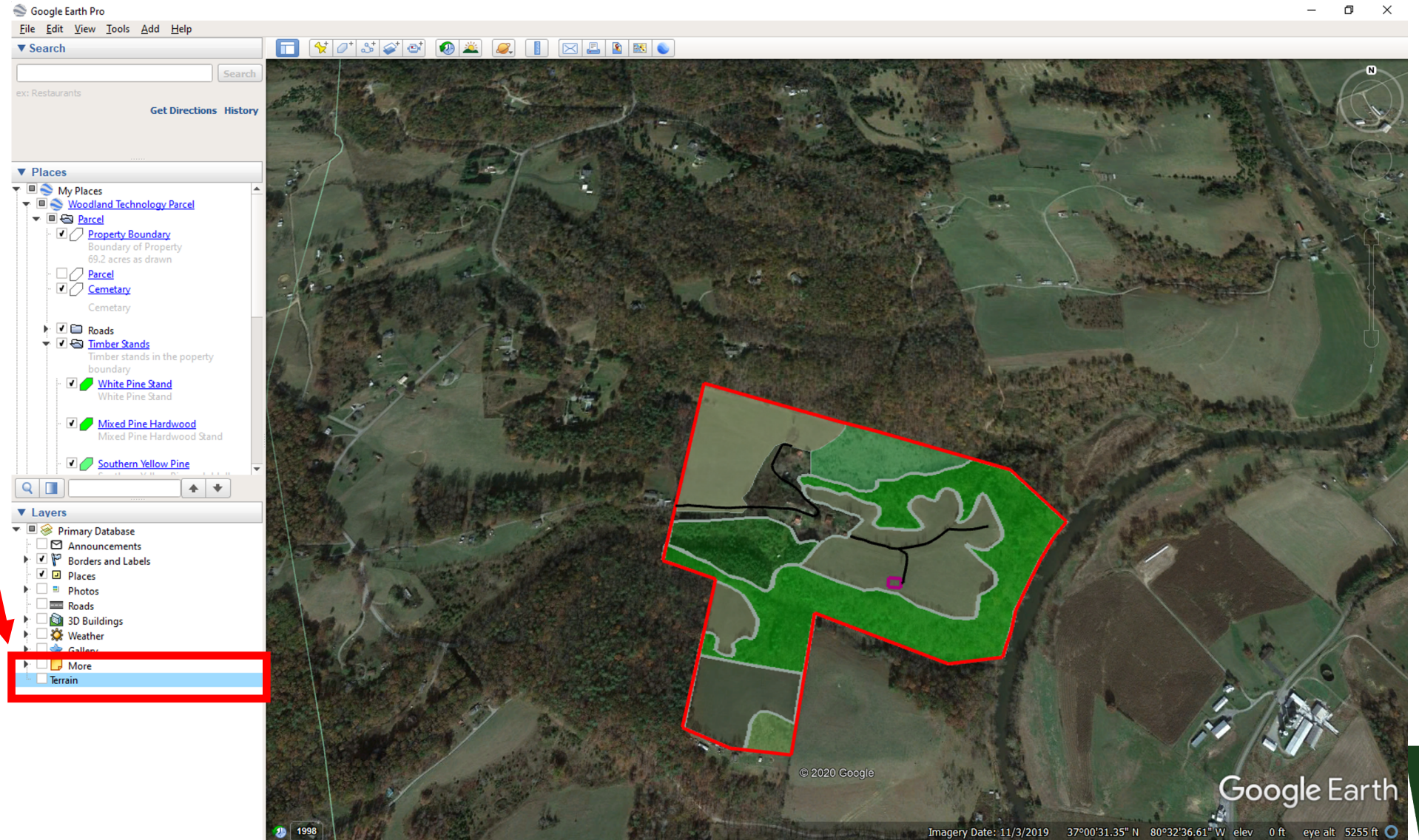
My Land Plan

<https://mylandplan.org/>

Creating Your Map With Google Earth

Pro

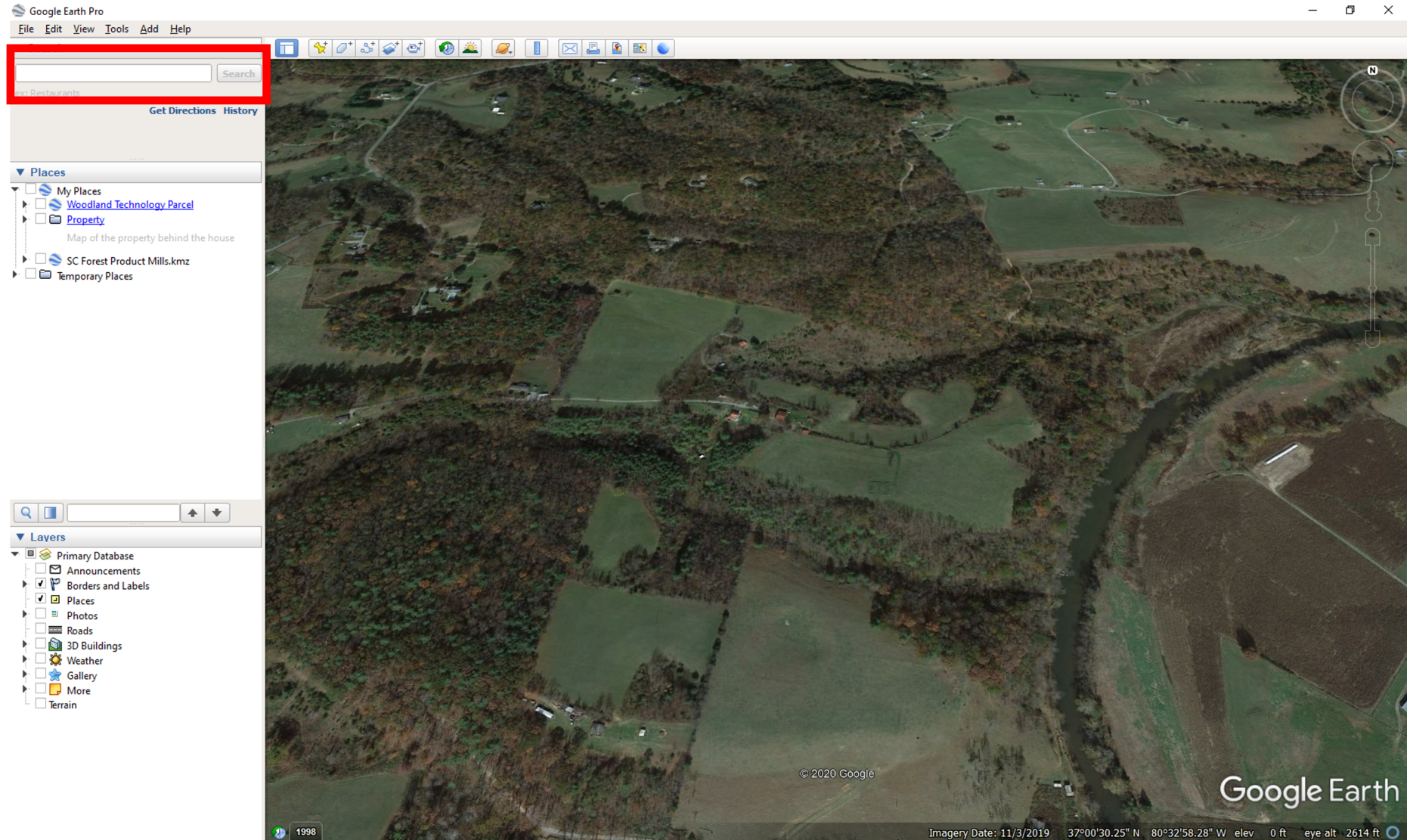
Before starting be sure Terrain is turned off in the layers. If it has a check, left click the check to make it go away. Drawing straight lines will be easier without Terrain showing



Creating Your Map With Google Earth

Pro
Enter your
Address to
locate your
property

Clicking
search
should
take you
close to
that
location

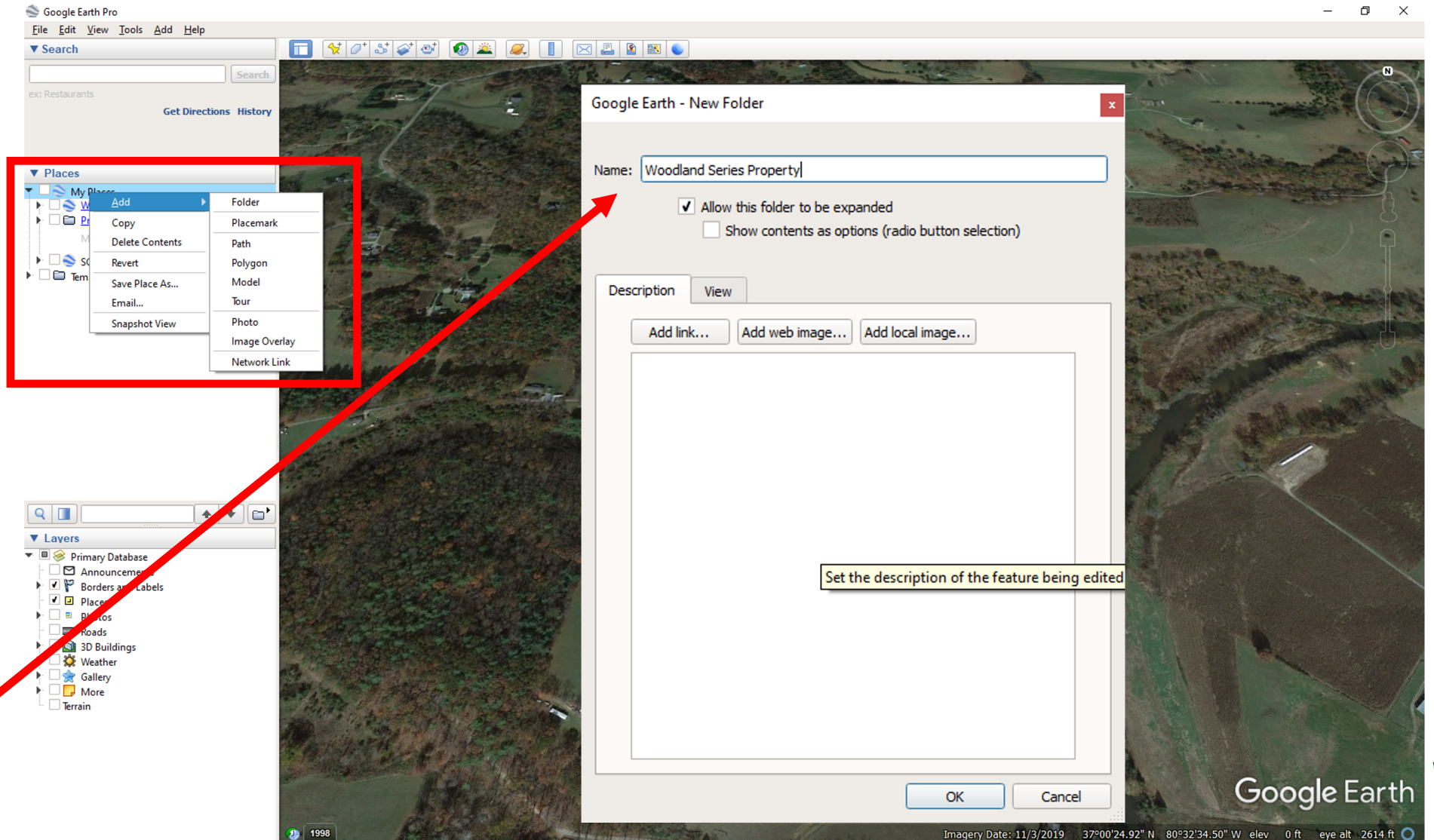


Creating Your Map With Google Earth

Pro

Right Click on My Places and select Add, then select Folder

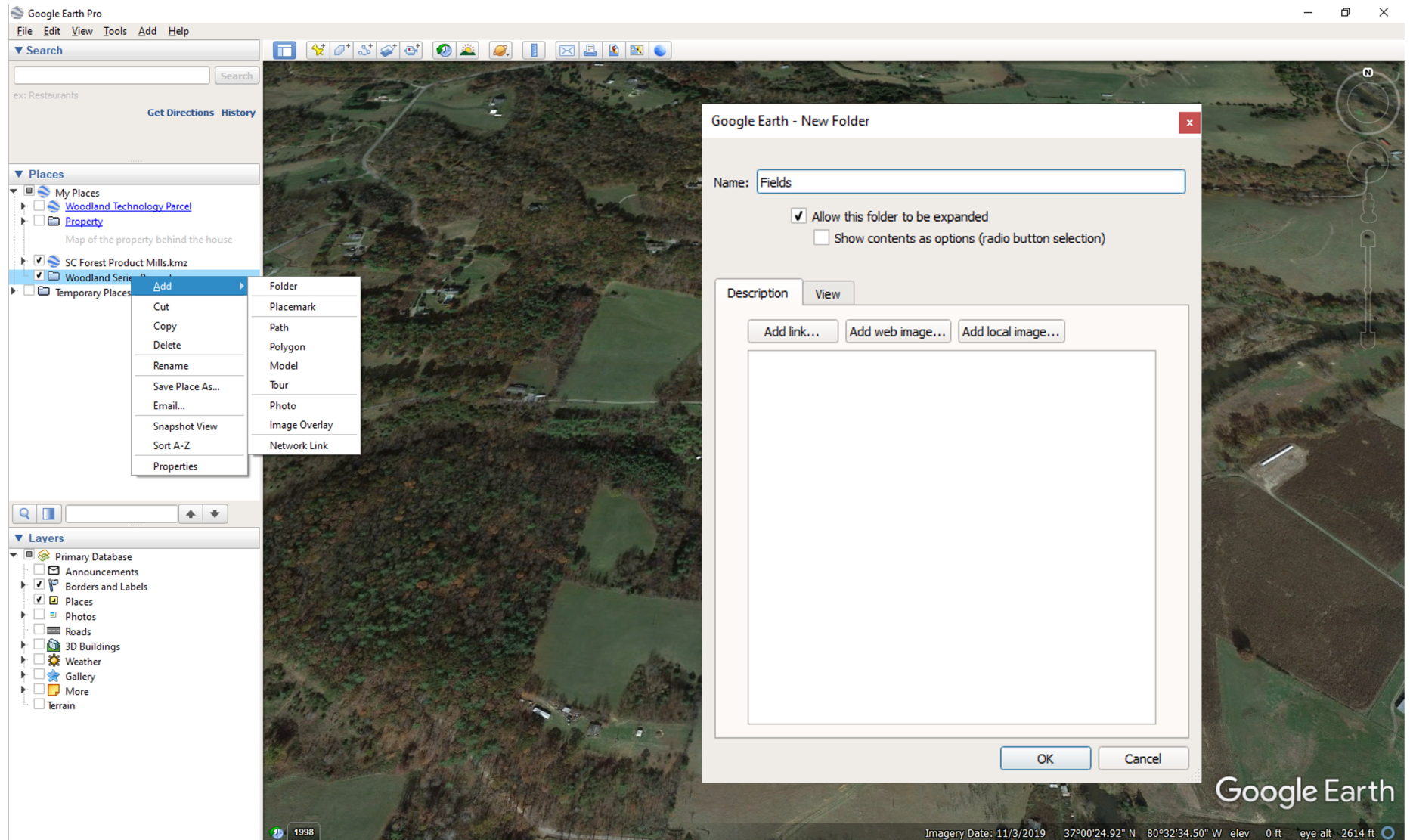
A pop-up box will appear and allow you to create a folder for your property



Creating Your Map With Google Earth

Pro
Right click on the new folder you just created to add another folder.

This is where I add folders for stands, food plots, fields, Etc.

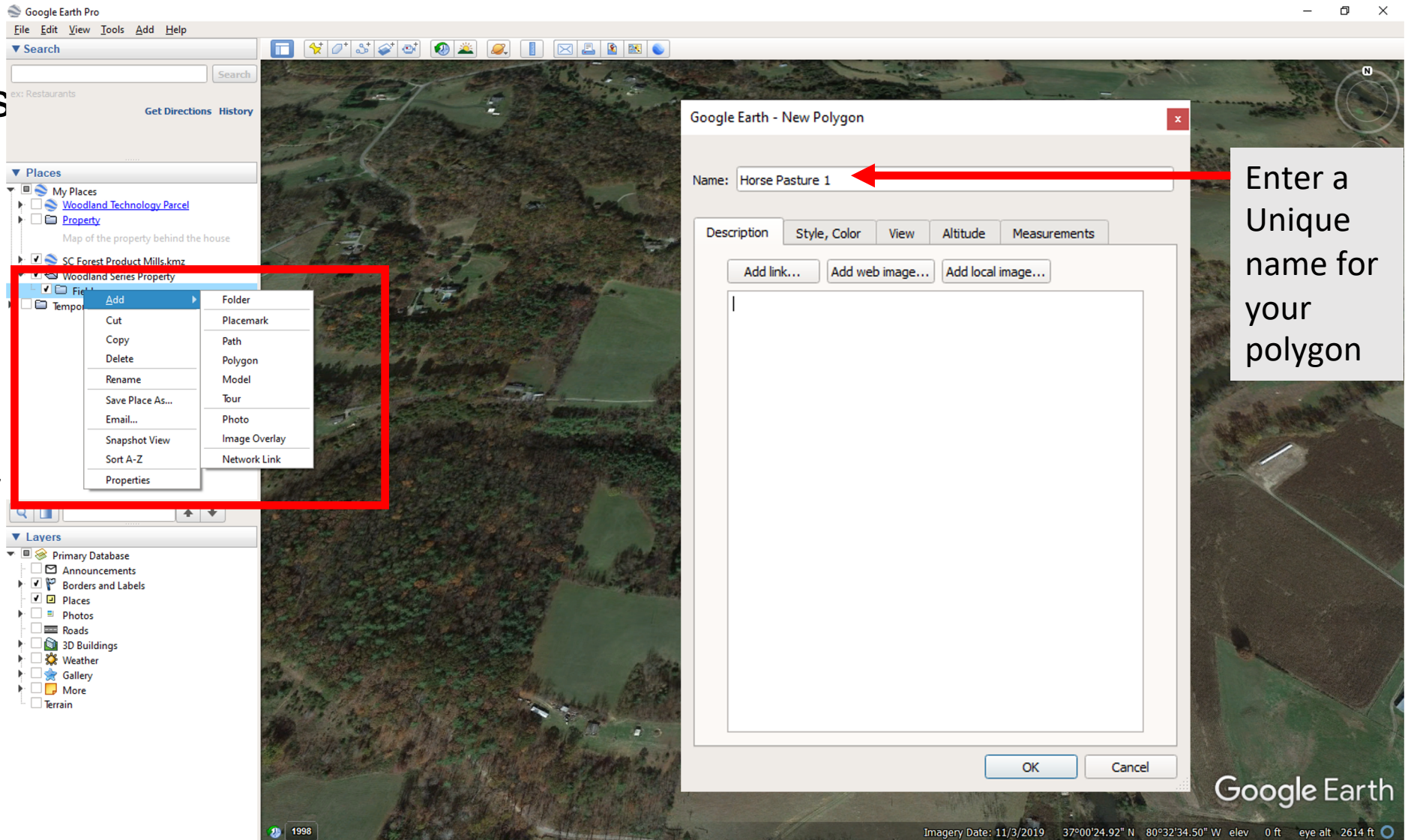


Creating Your Map With Google Earth

Pro

To create map features right click on the folder you want to house the feature in and select polygon.

You are now ready to draw the polygon with this box open

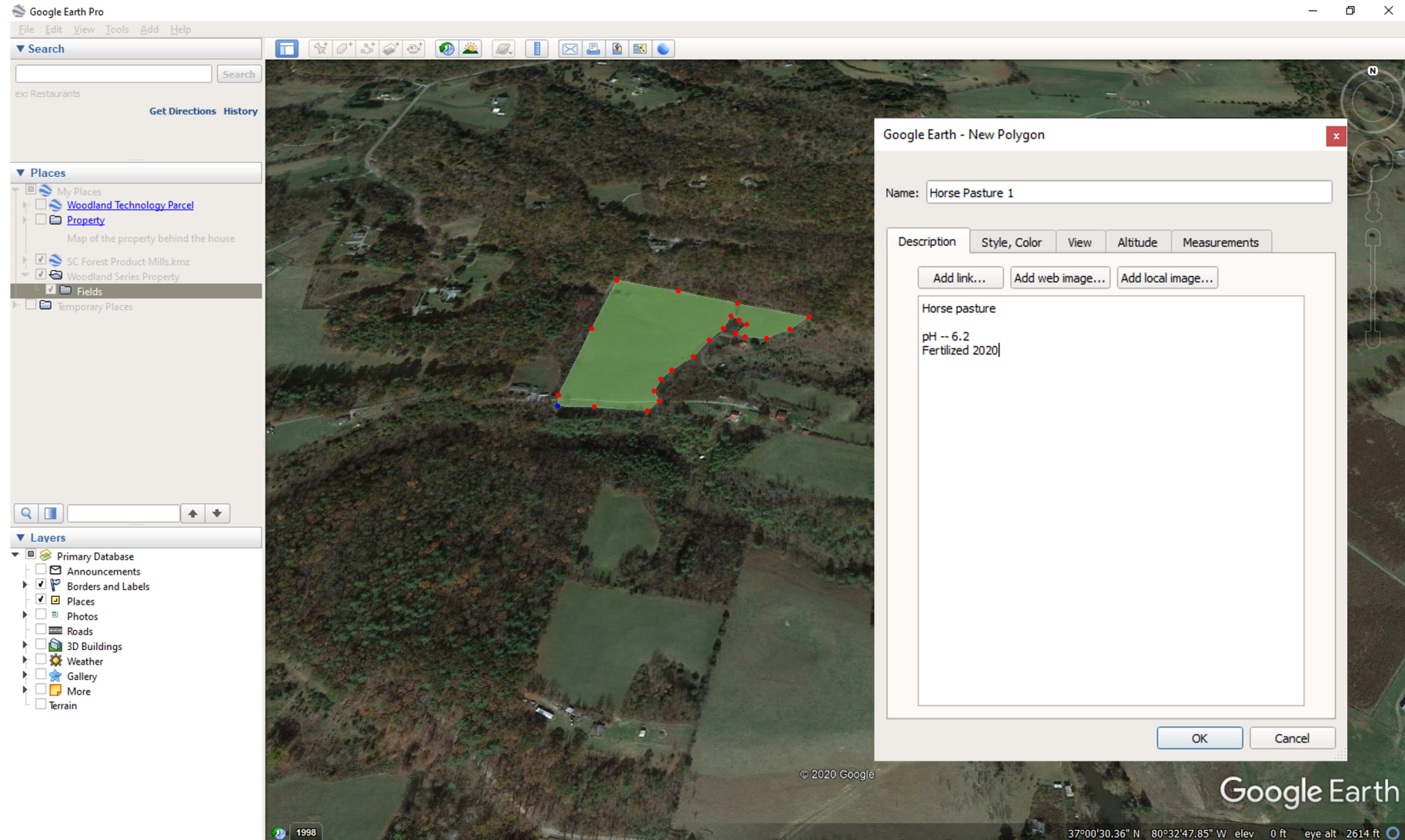


Enter a Unique name for your polygon

Creating Your Map With Google Earth

Pro
Left click with your mouse to drop points around the area of interest.

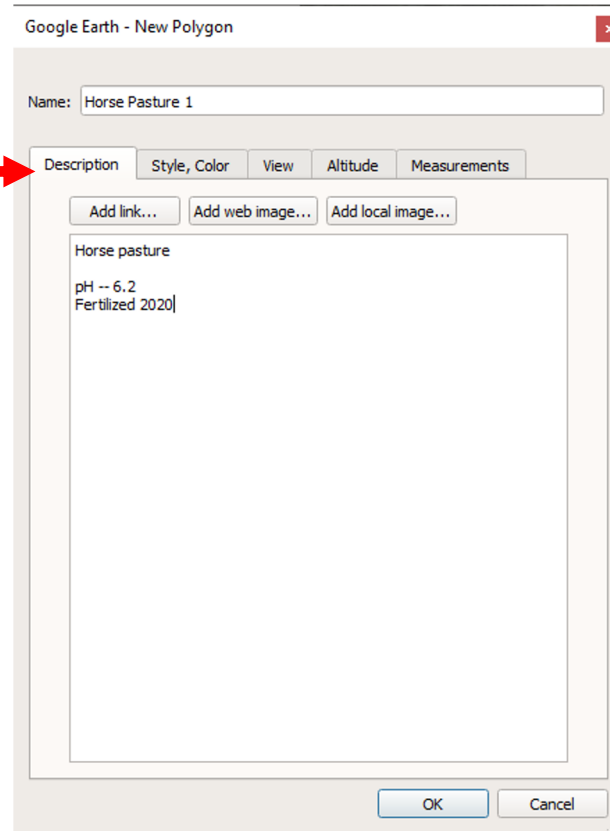
Left clicking ok on the popup window will save and close the edit session.



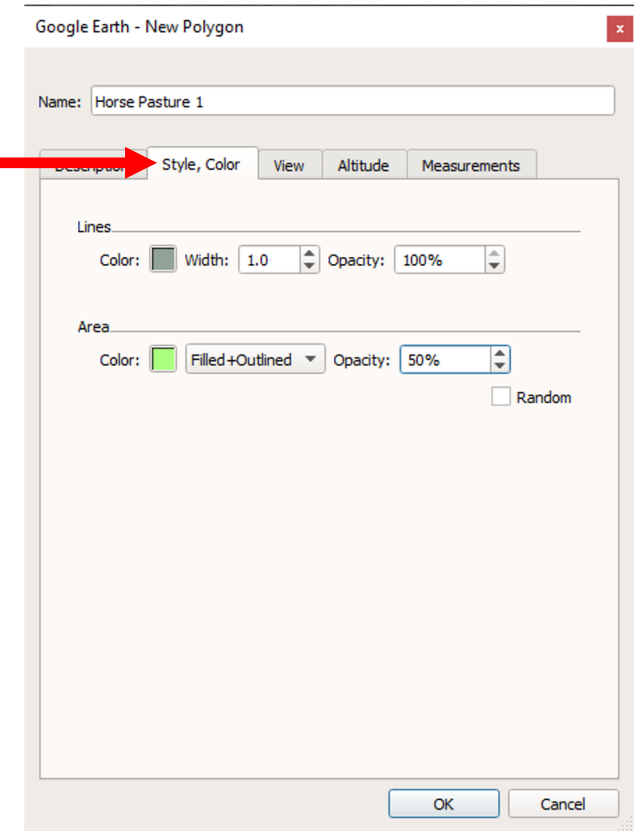
Creating Your Map With Google Earth Pro

The Description tab allows you to enter text for the area of interest.

Left click on the tabs to activate them.

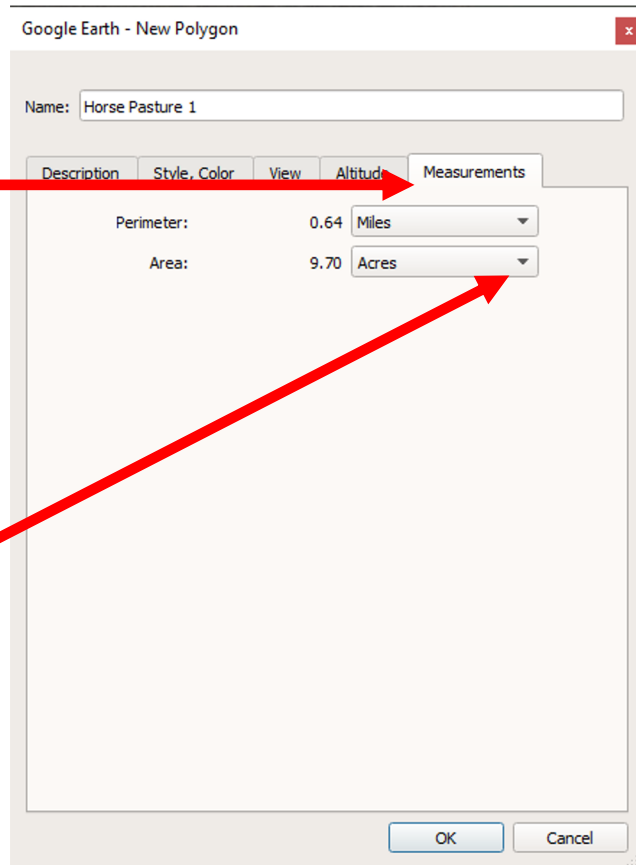


Style and Color will allow you to change the color and set transparency.

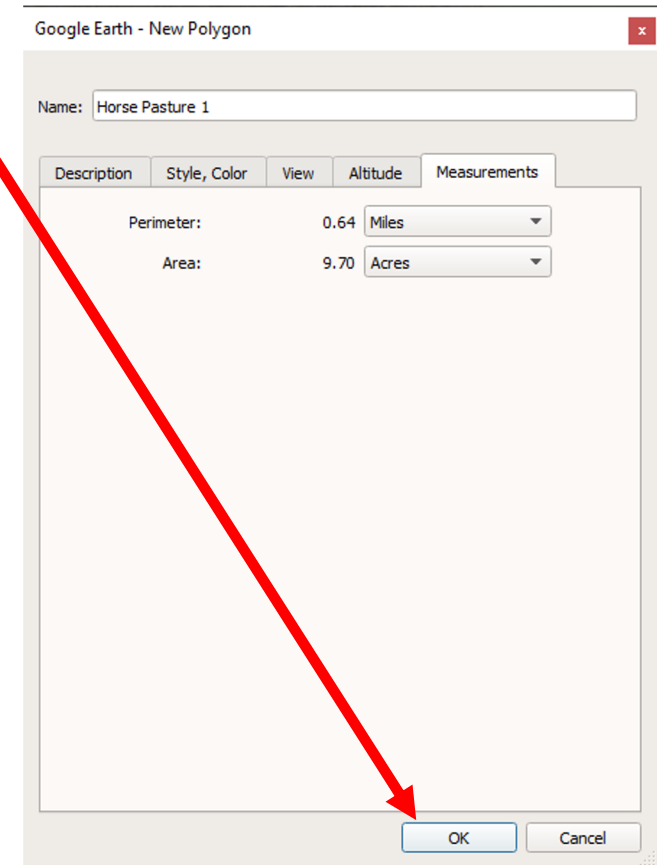


Creating Your Map With Google Earth Pro

The measurement tab will allow you to see the area of the polygon. Left clicking the drop-down arrow will allow you to change the units.



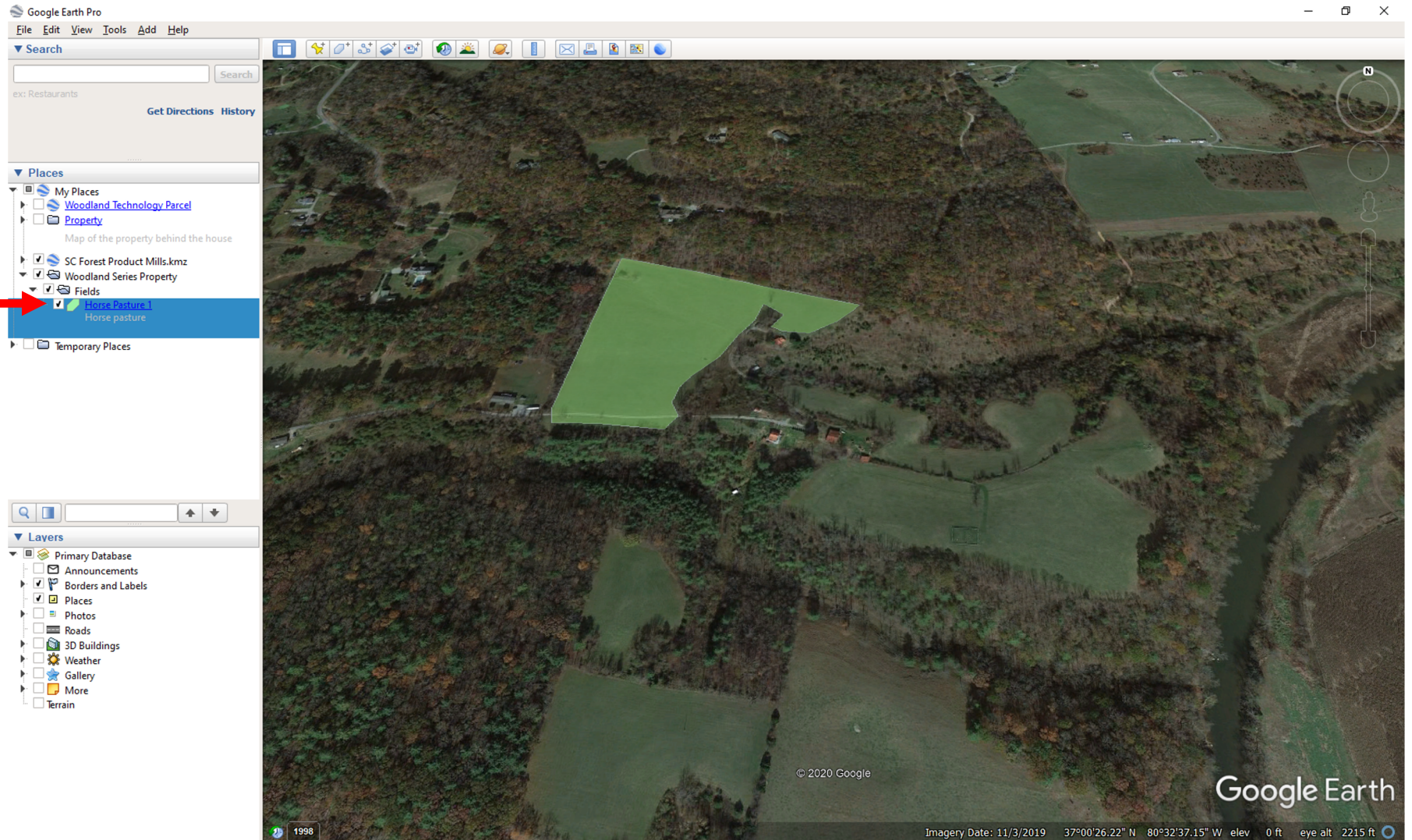
Left click ok to save edits



Creating Your Map With Google Earth

Pro

The feature will now show in the left column of Google Earth Pro. Left click the check box to turn the feature off and on.



Creating Your Map With Google Earth

Pro

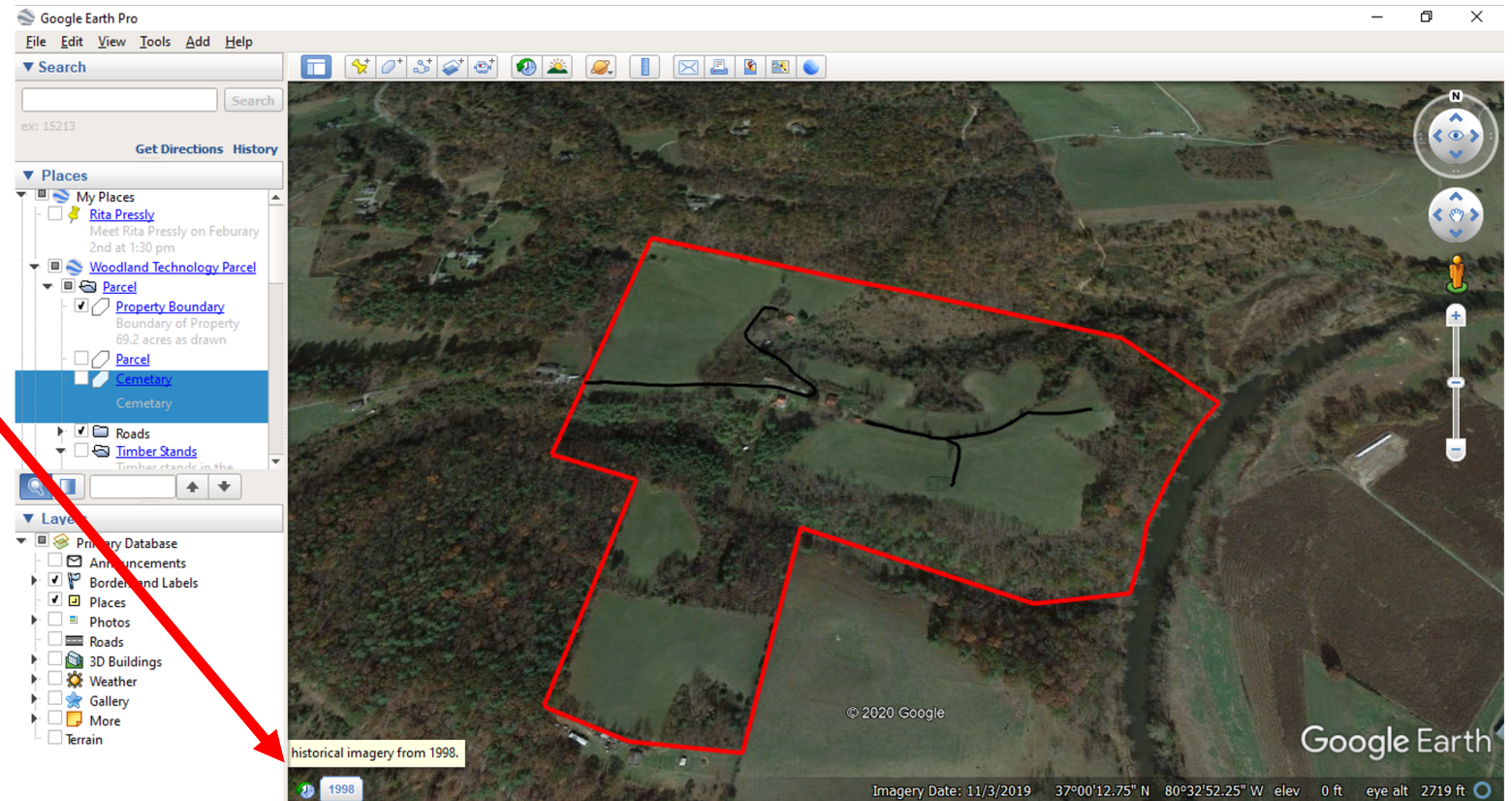
Repeat previous steps to add other features to the map.

For road or linear features use the path tool to create the feature.



Viewing Dated Imagery

In Google Earth Pro if historical imagery is available for your property you will see a tab in the lower left-hand corner. For instance, in this screen shot you see a tab labeled 1998. That means there is imagery that dates back to 1998.



Viewing Dated Imagery

Left click on the date tag to view the time slider for imagery. The time slider will appear in the upper left-hand corner of the map. The screen shot is showing 1998. Each of the white marks on the time slider represents a different year a photo was taken of that location.

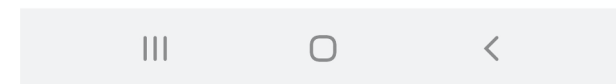


Phone Screen shot

- Projects created in Google Earth Pro can be viewed on mobile devices.
- Cannot edit or change features on mobile devices



Woodland Technology Parcel



Questions

Feel free to contact me with questions

Jeff Fellers

864-424-8273

fellers@clemson.edu

What's on your Land?

- Plant ID
- Soil Survey



WOODLAND STEWARDS

A Regional Extension Program for Landowners

Plant ID

Ellen Crocker, University of Kentucky
e.crocker@uky.edu

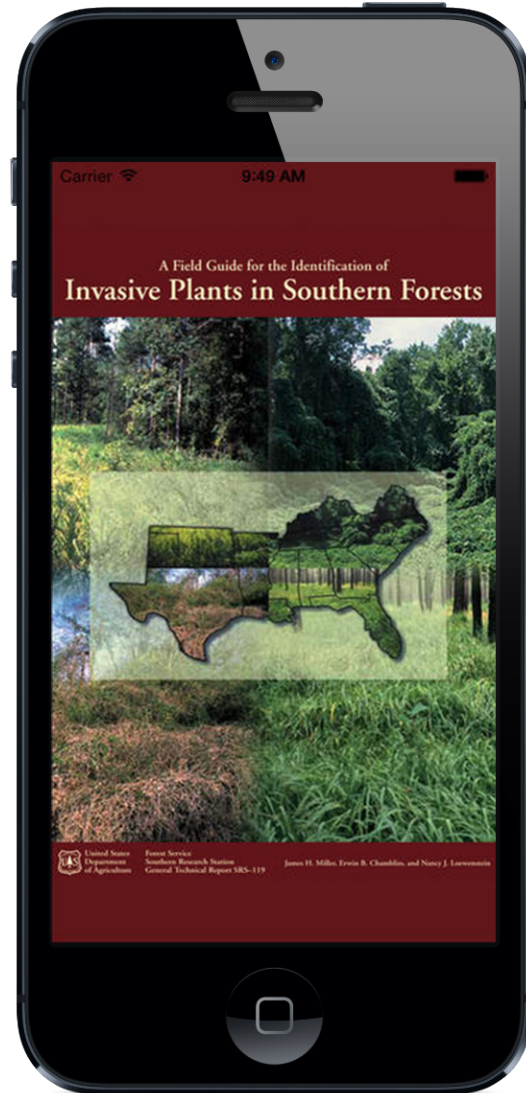


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A Regional Extension Program for Landowners

Tools to help with ID


- Videos and websites
- Apps
 - Book-style
 - Key
 - Automated
 - Social
- In field v. at home




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iNaturalist 🔍 Explore Community ▾ More ▾ Log In or Sign Up






1,814,598

People Signed Up


>

←




Greg Lasley ~ Snowy Egret from Anahuac N.W.R., Texas, USA

→




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NATIONAL
GEOGRAPHIC

iNaturalist.org is a joint initiative of the
California Academy of Sciences and the
National Geographic Society.



WS
WOODLAND STEWARDS



9:41 AM



Observations



Species

Location



Go

Filters

The World

57,371,135
OBSERVATIONS

317,496
SPECIES

175,634
IDENTIFIERS

1,450,539
OBSERVERS

Map

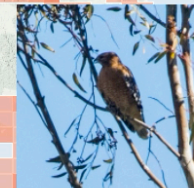
Grid

List



Places of Interest

Redo search in map



Buteo lineatus elegans
(California Red-shouldered Hawk)
Kimball Park • Jan 30, 2021



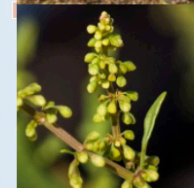
9m



Anthus rubescens
(American Pipit)
Kimball Park • Jan 30, 2021



9m



Rumex salicifolius
(Willow Dock)
Kimball Park • Jan 30, 2021



9m



Artemisia douglasiana
(California Mugwort)
Kimball Park • Jan 30, 2021



9m



Medicago polymorpha



Observations



Species



Flyod, VA, USA

Go

Filters

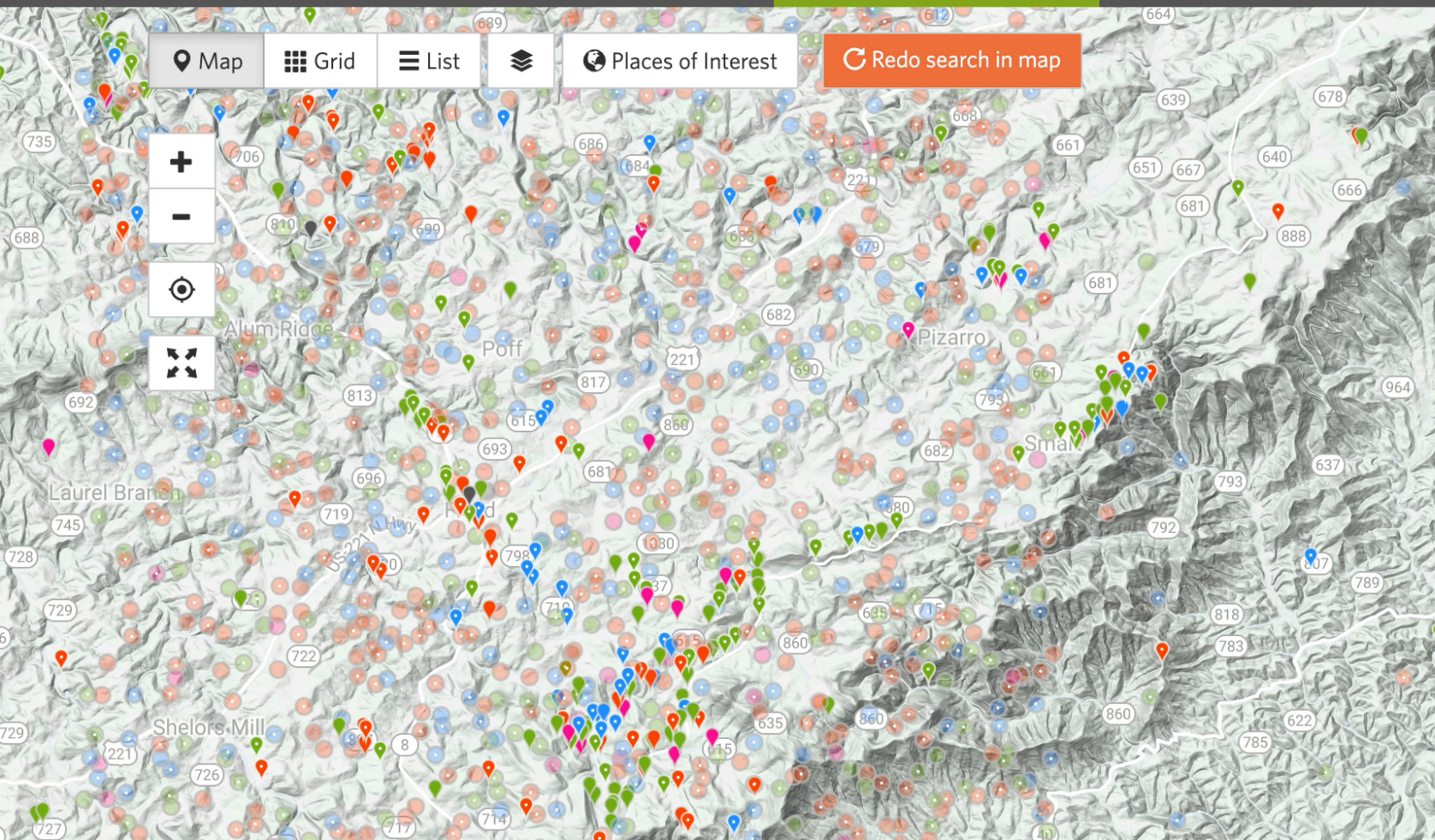
The World

57,371,135
OBSERVATIONS

317,496
SPECIES

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	<i>Buteo lineatus elegans</i> (California Red-shouldered Hawk) Kimball Park • Jan 30, 2021		10m
	<i>Anthus rubescens</i> (American Pipit) Kimball Park • Jan 30, 2021		10m
	<i>Rumex salicifolius</i> (Willow Dock) Kimball Park • Jan 30, 2021		10m
	<i>Artemisia douglasiana</i> (California Mugwort) Kimball Park • Jan 30, 2021		10m
	<i>Medicago polymorpha</i>		

Web Soil Survey

Jennifer Gagnon, Virginia Tech

jgagnon@vt.edu



WOODLAND STEWARDS

A Regional Extension Program for Landowners

Web Soil Survey

- View aerial photos and topographic maps
- Learn about the soils in any US location with existing soil survey data



<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

USDA United States Department of Agriculture
Natural Resources Conservation Service

Web Soil Survey

Home About Soils Help Contact Us

You are here: Web Soil Survey Home

The simple yet powerful way to access and use soil data.

START WSS
Start the Web Soil Survey Application

Welcome to Web Soil Survey (WSS)

Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information.

Soil surveys can be used for general farm, local,

I Want To...

- Start Web Soil Survey (WSS)
- Know Web Soil Survey Requirements
- Know Web Soil Survey operation hours
- **Find what areas of the U.S. have soil data**
- Find information by topic
- Know how to hyperlink from other documents to Web Soil Survey
- Know the SSURGO data structure
- Use Web Soil Survey on a mobile

Search
Enter Keyword
All NRCS Sites
Browse by Subject

- Soils Home
- National Cooperative Soil Survey (NCSS)
- Archived Soil Surveys
- Status Maps
- Official Soil Series Descriptions (OSD)
- Series Extent Explorer
- Geospatial Data

WebSoilSurvey.aspx

Soil Map

Area of Interest (AOI) | Soil Map | Soil Data Explorer | Download Soils Data | Shopping Cart (Free)

Search

Area of Interest

Open All | Close All

AOI Properties

Clear AOI

AOI Information

Name

Map Unit Symbols

Use Soil Survey Area Map Unit Symbols

Use National Map Unit Symbols

Area (acres) 64.4

Soil Data Available from Web Soil Survey

Montgomery County, Virginia (VA121)

Data Availability Tabular and Spatial, complete

Tabular Data Version 13, Jun 5, 2020

Spatial Data Version 3, Sep 16, 2019

Clear AOI

Import AOI

Export AOI

Quick navigation

Address

View

Address 4800 Phillips Rd Hiwassee VA

Show location marker

View

State and County

Soil Survey Area

Latitude and Longitude or Current Location

PLSS (Section, Township, Range)

Bureau of Land Management

Department of Defense

Area of Interest Interactive Map

Legend

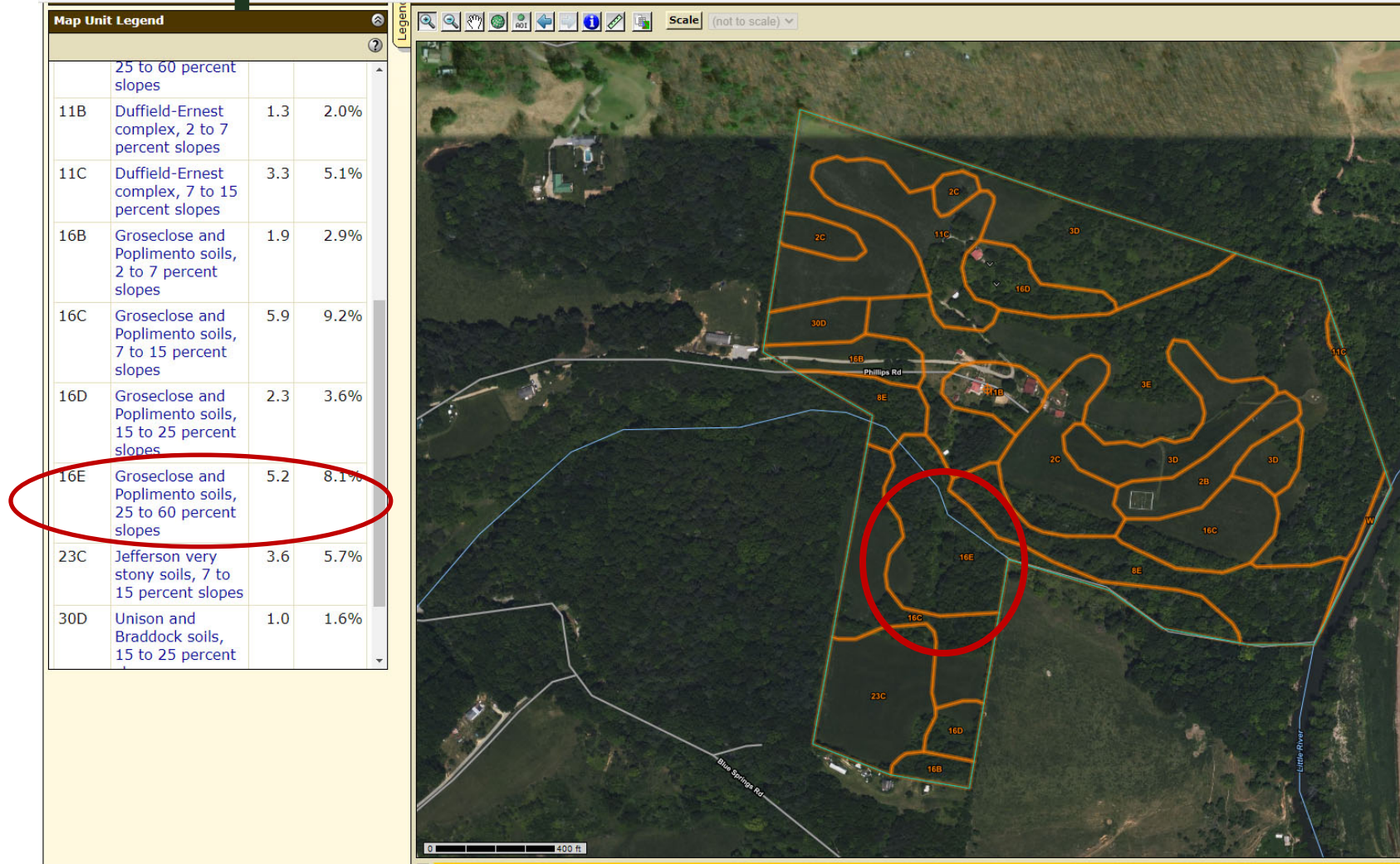
View Extent Contiguous U.S. Scale (not to scale)

Phillips Rd

Montgomery

Hiwassee River

Soil Map



Soil Description

Printable version

Report — Map Unit Description

Montgomery County, Virginia
16E—Groseclose and Poplimento soils, 25 to 60 percent slopes
Map Unit Setting

National map unit symbol: kc25
Elevation: 1,700 to 3,000 feet
Mean annual precipitation: 30 to 45 inches
Mean annual air temperature: 50 to 57 degrees F
Frost-free period: 117 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Groseclose and similar soils: 40 percent
Poplimento and similar soils: 35 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Groseclose

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Limestone, shale, siltstone, and sandstone residuum

Typical profile

H1 - 0 to 10 inches: loam
H2 - 10 to 28 inches: clay
H3 - 28 to 39 inches: clay
H4 - 39 to 51 inches: clay
H5 - 51 to 79 inches: clay loam

Properties and qualities

Slope: 25 to 60 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat):
Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Poplimento

Setting

Description of Poplimento

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Limestone, shale, siltstone, and sandstone residuum

Typical profile

H1 - 0 to 12 inches: silt loam
H2 - 12 to 35 inches: clay
H3 - 35 to 55 inches: clay
H4 - 55 to 79 inches: channery silty clay loam

Properties and qualities

Slope: 25 to 60 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat):
Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Soil Data Explorer

USDA United States Department of Agriculture
Natural Resources Conservation Service

Contact Us | Subscribe | Archived Soil Surveys | **Soil Survey Status** | Glossary | Preferences | Link | Logout | Help

Area of Interest (AOI) | Soil Map | **Soil Data Explorer** | Download Soils Data | Shopping Cart (Free)

View Soil Information By Use: All Uses | Printable Version | Add to Shopping Cart

Intro to Soils | **Suitabilities and Limitations for Use** | Soil Properties and Qualities | Ecological Sites | Soil Reports

Search

Suitabilities and Limitations Ratings

Open All | Close All

Building Site Development

- Corrosion of Concrete
- Corrosion of Steel
- Dwellings With Basements
- Dwellings Without Basements
- Lawns, Landscaping, and Golf Fairways
- Local Roads and Streets
- Shallow Excavations
- Small Commercial Buildings
- Unpaved Local Roads and Streets

Vegetative Productivity

- Crop Productivity Index
- Forest Productivity (Cubic Feet per Acre per Year)
- Forest Productivity (Tree Site Index)
- Iowa Crop Suitability Rating (CPS) (1K)
- Minnesota Crop Productivity Index
- Range Production (Favorable Year)
- Range Production (Normal Year)
- Range Production (Unfavorable Year)
- Yields of Irrigated Crops (Component)

Map - Forest Productivity (Tree Site Index): shortleaf pine (Coile, Schumacher 1953 (530))

Scale (not to scale)

Soil Data Explorer

Recreational Development
Sanitary Facilities
Soil Health
Vegetative Productivity
Crop Productivity Index
Forest Productivity (Cubic Feet per Acre per Year)
Forest Productivity (Tree Site Index)
View Description View Rating

View Options
Map
Table
Description of Rating
Rating Options
Detailed Description

Basic Options
Tree **northern red oak** Olson 1959

Advanced Options
black cherry
black locust
black oak
eastern redcedar
eastern white pine
View Rating
Iowa Corn Suitability northern red oak
Minnesota Crop Production pin oak
Range Production (F) shortleaf pine
Range Production (M) sugar maple
Range Production (N) sweetgum
Range Production (L) Virginia pine
Yields of Irrigated Crops white ash
Yields of Irrigated Crops (Map Unit) white oak
Yields of Non-Irrigated Crops (Component) yellow-poplar
Yields of Non-Irrigated Crops (Map Unit)

Waste Management
Water Management


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

Tables — Forest Productivity (Tree Site Index): northern red oak (Olson 1959 (810)) — Summary By Map Unit
Summary by Map Unit — Montgomery County, Virginia (VA121)

Soil Data Explorer

Web Soil Survey

sc.gov.usda.gov/App/WebSoilSurvey.aspx



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

Tables — Forest Productivity (Tree Site Index): northern red oak (Olson 1959 (810)) — Summary By Map Unit

Summary by Map Unit — Montgomery County, Virginia (VA121)

Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
2B	Berks-Groseclose complex, 2 to 7 percent slopes	70	1.8	2.8%
2C	Berks-Groseclose complex, 7 to 15 percent slopes	70	4.2	6.6%
3D	Berks-Lowell-Rayne complex, 15 to 25 percent slopes	70	12.1	18.8%
3E	Berks-Lowell-Rayne complex, 25 to 65 percent slopes	70	15.5	24.2%
8E	Caneyville-Opequon-Rock outcrop complex, 25 to 60 percent slopes		5.8	9.0%
11B	Duffield-Ernest complex, 2 to 7 percent slopes	85	1.3	2.0%
11C	Duffield-Ernest complex, 7 to 15 percent slopes	85	3.3	5.1%
16B	Groseclose and Poplimento soils, 2 to 7 percent slopes	85	1.9	2.9%
16C	Groseclose and Poplimento soils, 7 to 15 percent slopes	85	5.9	9.2%
16D	Groseclose and Poplimento soils, 15 to 25 percent slopes	85	2.3	3.6%
16E	Groseclose and Poplimento soils, 25 to 60 percent slopes	85	5.2	8.1%
23C	Jefferson very stony soils, 7 to 15 percent slopes		3.0	5.7%
30D	Unison and Braddock soils, 15 to 25 percent slopes	85	1.0	1.6%
W	Water		0.3	0.5%
Totals for Area of Interest			64.2	100.0%

Description — Forest Productivity (Tree Site Index)

The "site index" is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands.

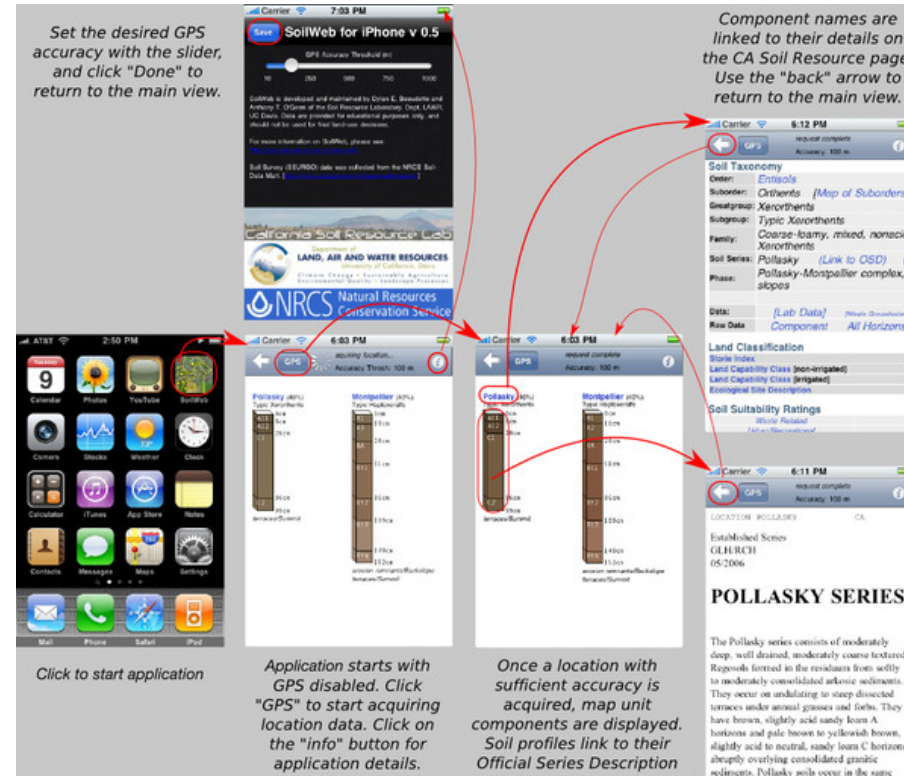
This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this attribute, only the representative value is used.

Rating Options — Forest Productivity (Tree Site Index): northern red oak (Olson 1959 (810))

Units of Measure: feet
Tree: northern red oak
Site Index Base: Olson 1959 (810)
Aggregation Method: Dominant Component
 Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

SoilWeb App

- If you are a Smart Phone or Tablet user, there is a free App version of the WSS available
- This App does not have all the functionality the website does
- The App is able to display the soil type under your feet
- Vegetative productivity for a short list of species
- You can use this App to create your own soils map



What condition is your land in?

Ellen Crocker, University of Kentucky
e.crocker@uky.edu



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A Regional Extension Program for Landowners

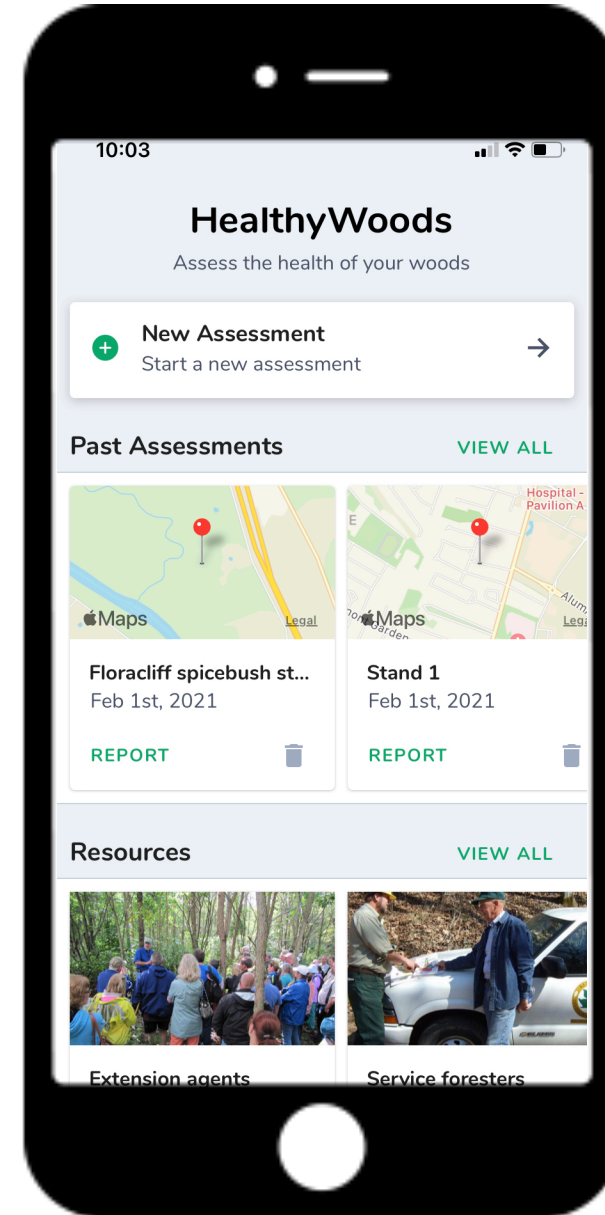
What condition is your land in?

- Forest health concerns
 - Signs of issues (now or in the future)
 - Canopy gaps
 - Dead trees
 - Invasive plants
- Next steps in your management?
 - Resources in your area

HealthyWoods App

Education tool to...

- Learn about health issues in your woods
- Identify potential problems
- Create a customized report
- Connect to professionals for next steps in management





Gathering More Information

American Forest Foundation
My Land Plan
The woodland owner's

What do you want to do with your land? Enjoy it Protect it

My Land

Take the Legacy Pledge
TAKE THE LEGACY PLEDGE TODAY!
Join your fellow MyLandPlan.org members and our experts to learn how to plan and ready to put it in action.

THE FARM
Approximate
Goals: 1
Upcoming
Delete t

Google Maps, USDA Farm Service Agency


Tutorials

How to add property boundaries
How to add

My Account
Jennifer Gagnon

HOME **ABOUT FOREST* A *SYST** **CONTACT FOREST* A *SYST** **SEARCH**

Welcome to Forest* A *Syst



Forest*A*Syst is a self-assessment guide, designed for a national audience, with the goals of helping new forest landowners articulate their objectives in a written management plan and foster a working relationship with a resource professional who can provide them with technical assistance. The national document was intended to serve as a protocol for state forestry agencies to follow as they developed their own state-specific Forest*A*Syst document and programming. Only a few states adopted the concept and produced their own printed version of Forest*A*Syst.


START FOREST*A*SYST
Click here to start the Forest Landowner's Assessment Guide

Profile Your Land
Click here to access aerial photos, soil maps, forest cover types and ecoregion information for your property.

Funded by USDA Forest Service & Natural Resource Conservation Service
Developed by the Center for Invasive Species & Ecosystem Health at the University of Georgia Warnell School of Forestry & Natural Resources and College of Agricultural & Environmental Sciences

Last updated December 2018 / Privacy

UNIVERSITY OF GEORGIA | NCRS | CENTER FOR INVASIVE SPECIES & ECOSYSTEM HEALTH



Who Can Help?

- Agency Foresters/Wildlife Biologists
- Private Consulting Foresters
- Industry Foresters
- Extension Foresters



Wrap Up

- More than likely, there's an App for that!
 - University of Florida BRUNA Lab: <http://brunalab.org/apps/>
 - Forest Service Navigation and Mapping Apps: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3791326.html
 - American Forest Management App Article: [Mobile Apps for Forest Land Management | American Forest MGMT \(americanforestmanagement.com\)](http://americanforestmanagement.com)

The Woodland Stewards Webinar Series Program was created by a team of Extension professionals from the following programs:



EXTENSION



College of Agriculture
Forestry Extension



UNIVERSITY OF GEORGIA

Warnell School of Forestry & Natural Resources



Virginia
Cooperative
Extension

Virginia Tech • Virginia State University

UNIVERSITY OF
MARYLAND
EXTENSION

WOODLAND
STEWARDSHIP
EDUCATION



Southern Regional
Extension Forestry



WOODLAND STEWARDS

Find the links for future webinars & webinar recordings here:

<https://sref.info/woodland-stewards/2021>

Feb. 2 Woodland Management by Objectives:
Taking Stock & Making Plans

Feb. 9 The Digital Toolbox for the Woodland Owner:
There's an App For that!

Feb. 16 Safety Tips for Working in Your Woods

Feb. 23 Getting Started Managing Your Land

The Woodland Stewards Webinar Series Program was created by a team of Extension professionals from the following programs:

