# T.E.A.M. Instruction Guide

#### (Texas Ecosystems Analytical Mapper)

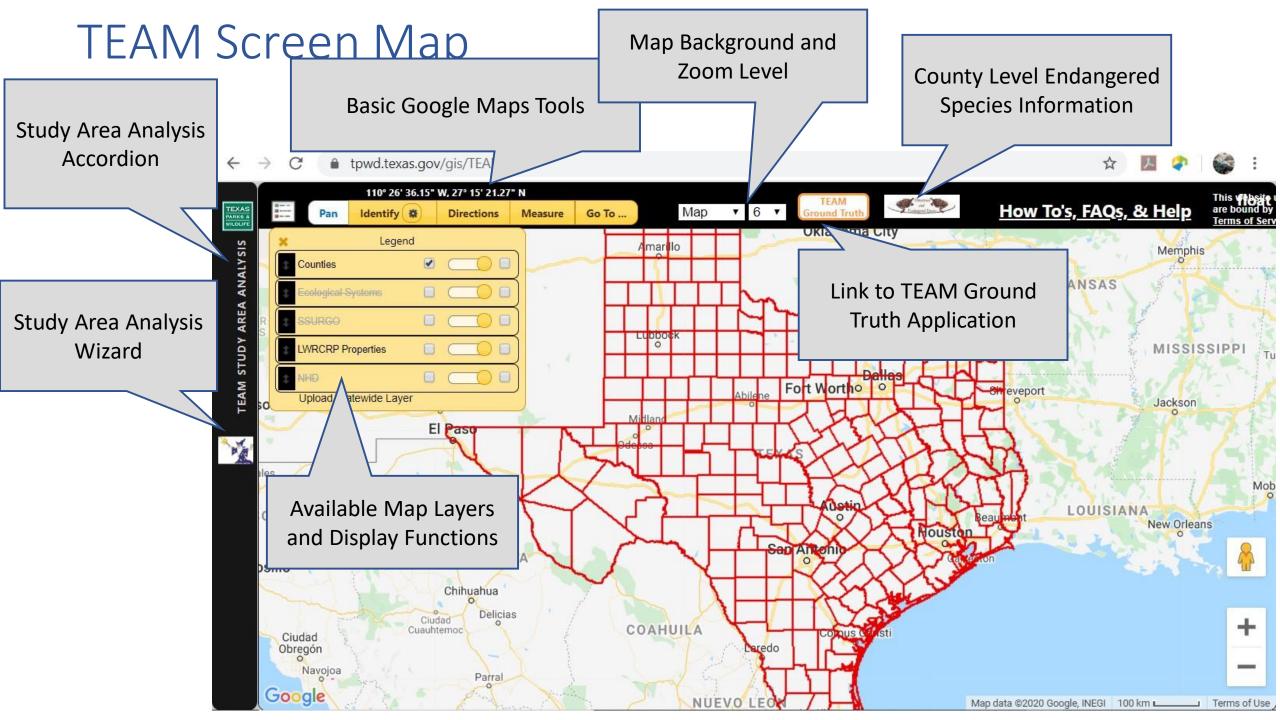
Texas Parks and Wildlife's Landscape Ecology Program has developed a Google maps based application, Texas Ecosystem Analytical Mapper, (TEAM) to deliver the Ecological Mapping Systems of Texas (EMS) data to Texas citizens. The TEAM application is an interactive mapping tool that will assist users in understanding Texas habitats and integrate vegetation data with land management and resource planning of all types. Wildlife biologists, land managers, naturalists, planners, and conservationists are able to use TEAM to view and print the EMS data in relationship to other natural feature layers such as soils, geology, hydrology and ecoregions. TEAM allows the user to view and print custom maps and reports of habitat data from uploaded kml and shapefiles, or areas of interest drawn within the application, and also provides an avenue for community involvement via GroundTruther and TeamGo

\*\*\*\*\*Before starting make sure you have TEAM open in a GOOGLE **CHROME** browser. The majority of the application's functions work best within Chrome.

For questions please contact the Landscape Ecology Program at: landscape.ecology@tpwd.texas.gov

# Applications and Functions

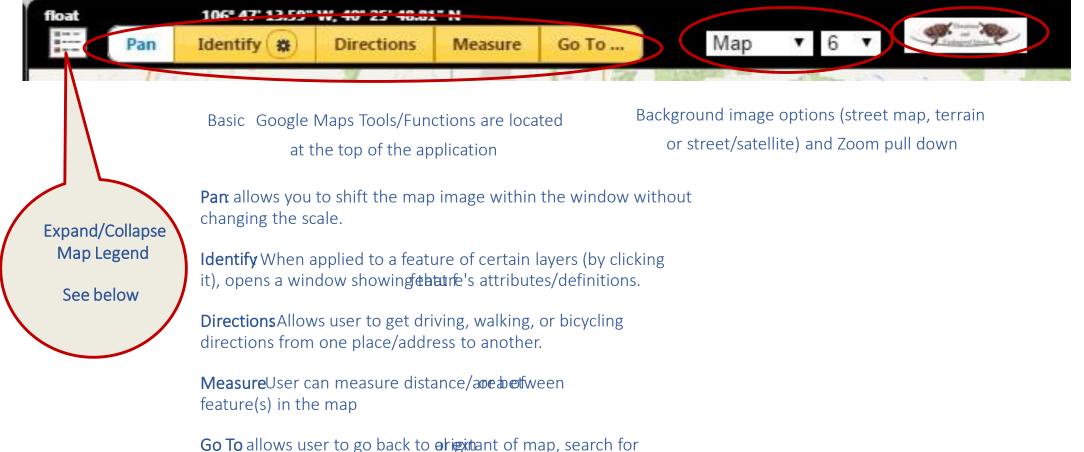
- 1. TEAM- Texas Ecosystem Analytical Mapper, full desktop version. Has the most functionality including: view and print the EMS data in relationship to other natural feature layers, custom maps and reports of habitat data from uploaded kml and shapefiles, or areas of interest drawn within the application, and export the EMS data to a shapefile or excel table. User can also access GroundTruther from this application.
- 2. TeamGo-Mobile version of the TEAM application for use on a handheld device. Allows the user to take the EMS vegetation data with them. Limited functionality, allows the user to view vegetation with reference to their current location if desired. User can also access GroundTruther from this mobile application.
- **3. GroundTruther** A citizen science tool! Individuals can create a profile in GroundTruther, which will allow them to not only provide feedback on the accuracy of TPWD's vegetation data but also track changes in habitat due to land management or climatic events. GroundTruther is accessible in both **TEAM** and **TeamGO**



### TEAM VIEWER TOOLBAR

# Cursor location

#### Link to Endangered Species Browser/Query tool



**Go To** allows user to go back to **arrexta**nt of map, search for and zoom center map extent to a specific address, place or location, and allow Google maps to locate user's device and center map on current location.

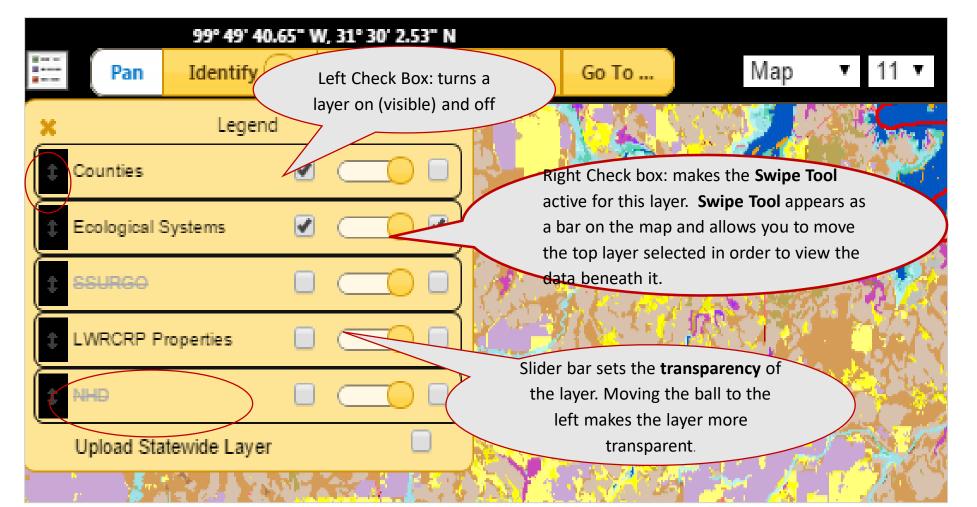
# Map Legend: Functions/Features

Map Layers currently available in the TEAM viewer: Texas Counties, Ecological Systems (Ecological Mapping Systems of Texas Data), NRCS's Soil Survey Geographic Database (SSURGO) data, TPWD's Land and Water Resources Conservation and Recreation Plan (LWRCRP) Properties, and the National Hydrologic Dataset (NHD)

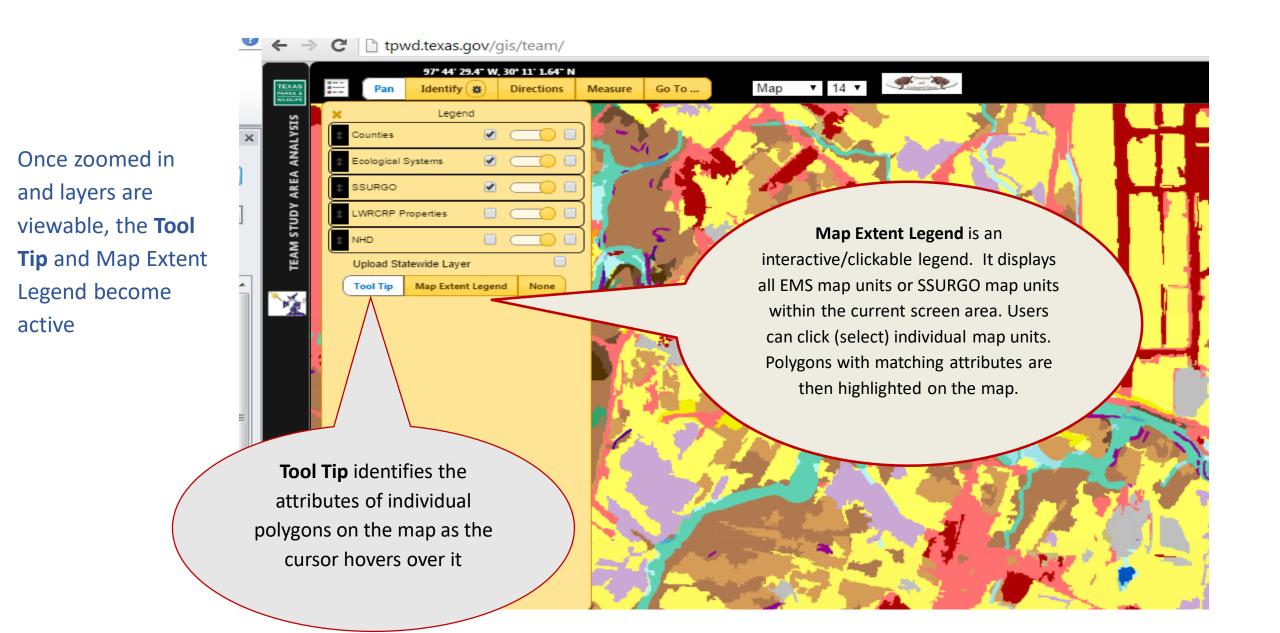
Layers are turned on automatically when zoomed to a viewable extent

For current available layers scale must be as follows to view:

Counties: View at any scale LWRCRP: View at any scale Ecological Systems: 7 - 16 SSURGO: 14 or greater NHD: 12 or greater



## TEAM: Tool Tip and Map Extent Legend



# **TEAM:** Tool Tip Example

Measure

Go To ...

FEAM STUDY AREA ANAL

Upload Statewide Layer Tool Tip Map Extent Legend Blackland Prairie: Disturbance or Tame Grassland

Veg ID: 207 Description: This type includes grasslands in many onditions, and introduced grasses such as Bermudagr and King Ranch bluestern are the most frequent dominant species. Shrubs or tress such as mesquite, cedar elm, eastern redcedar, surgar hackberry, and huisache may be present, but typically have low cover.

97° 41' 48.41" W, 30° 11' 13.39" N

Directions

None

Identify 🙀

Legend

gical Systems

NRCRP Properties

Hectares (in Texas): 1711127.69 NatServe EcoSys: Texas Blackland Tallgrass Prairie NatServe Number: CES205.684

Descriptive Grassland Landcover:

lodeled Landcover: Grassland Wildlife Habitat Non-Native Pasture

Stature Come Map ▼ 15 ▼

Attributes associated with polygon are displayed in the legend. This includes the name & detailed description of EMS size of polygon, and other landcover classifications. (\*see side note)

> As cursor hovers over polygons the value is displayed both on the screen and in the legend

A-Blackland Orable: Disturbance or Tame Grassia

\*In the viewer all polygons are displayed by their EMS (Ecological Mapping System) value. In the database these values have been cross walked to other landcover types:

NatureServe Ecological System: EMS units were derived from these parent systems. Anthropogenic and invasive types do not have a parent system

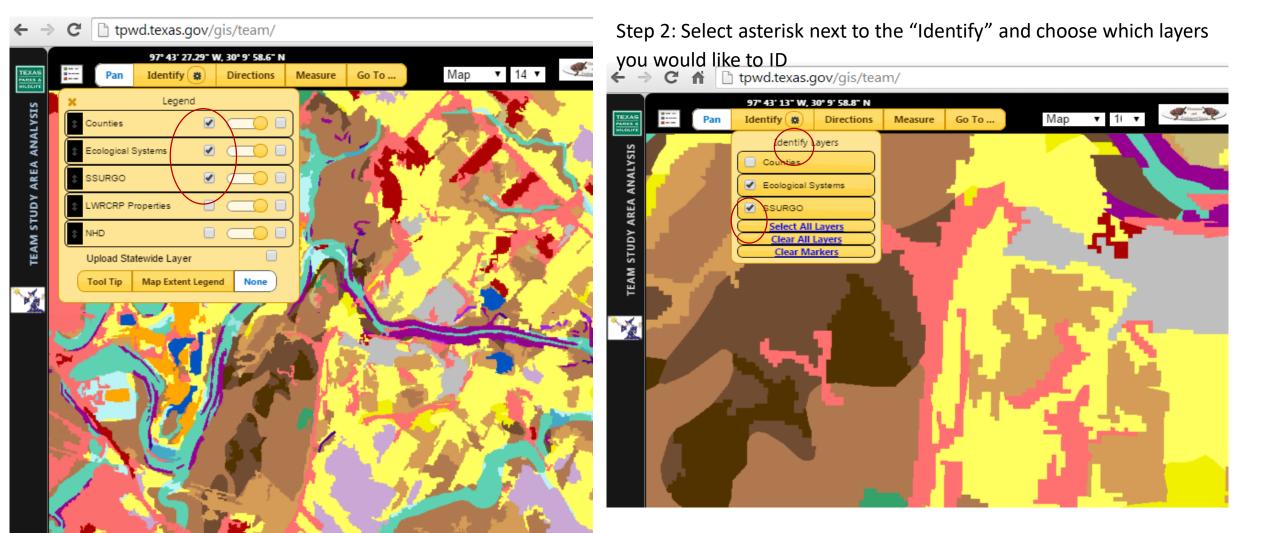
Modeled landcover: 16 basic landcover types, i.e. grassland, evergreen shrubland, etc...

Descriptive landcover: basic landcover types with an abiotic qualifier, i.e. sandy grassland, slope evergreen shrubland, etc.

Wildlife Habitat type: classes used by TPWD biologists in wildlife management plans

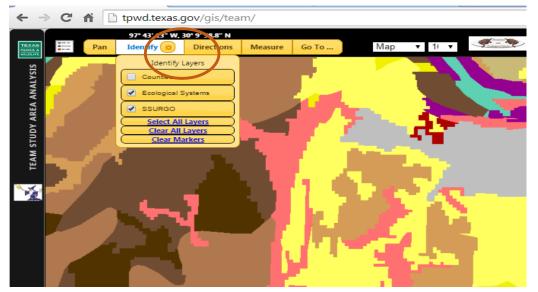
#### Google Tool Examples : Identify Tool

Step 1: Make layers of interest viewable within the legend

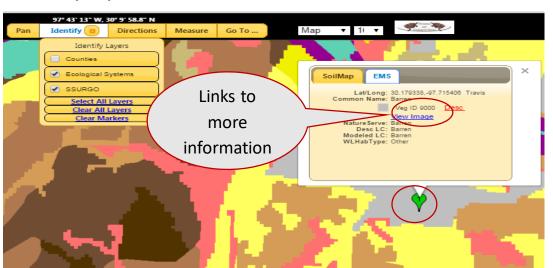


### Google Tool Examples : Identify Tool Cont.

Step 3: Click on "Identify" –it should be highlighted/white



Step 5: Click Thumbtack-dialogue box opens with tabs for each layer you selected to ID



Step 4: Click polygon on map to get more information and a

thumbtack will appear





Step 6: SSURGO Links take you to UC DAVIS for detailed soil information: EMS Links open a pop-up

	_		
Area (Ac)	Map Symbol	mukey	Map Unit
0.0	GP	393201	Dits, gravel, 1 to 90 percent slopes

← ⇒ C' fi	Casoilresource.lawr.ucdavis.edu/soil_web/ssurge
Map Unit Compo	osition
Map units consist of 1 or	more soil types, commonly referred to as "components".
	Component Name
Soil Type 1 Pits	
Map Unit Data <u>w</u>	lata marked with an * are approximate.
Cartographic information	about this map unit.
Cartographic information	about this map unit.
Cartographic information Map Unit Name:	about this map unit. Pits, gravel, 1 to 90 percent slopes
Cartographic information Map Unit Name: Map Unit Type:	about this map unit. Pits, gravel, 1 to 90 percent slopes <u>Consociation</u>

Map Unit Aggregated Data	
Ceneralized coils information within this man unit	

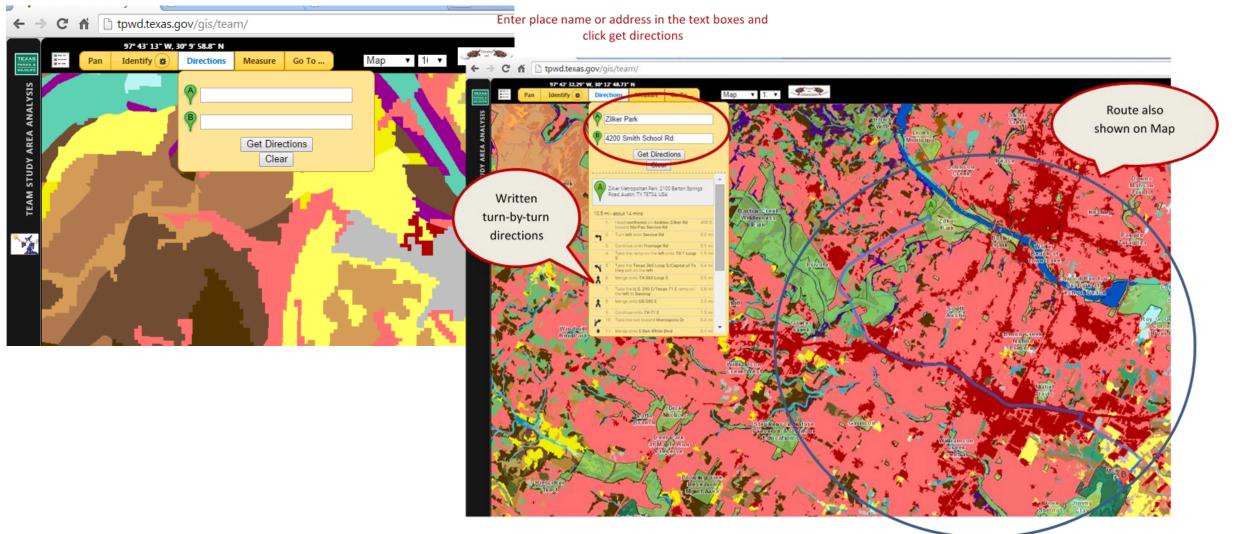
eneralized soils information within this map unit.	
armland Class:	Not prime farmland
vailable Water Storage (0-100cm):	cm
ax Flood Freq:	
rainage Class (Dominant Condition):	
rainage Class (Wettest Component):	

Raw Map Unit Data Raw Component Data (All Component

# **Directions Tool**

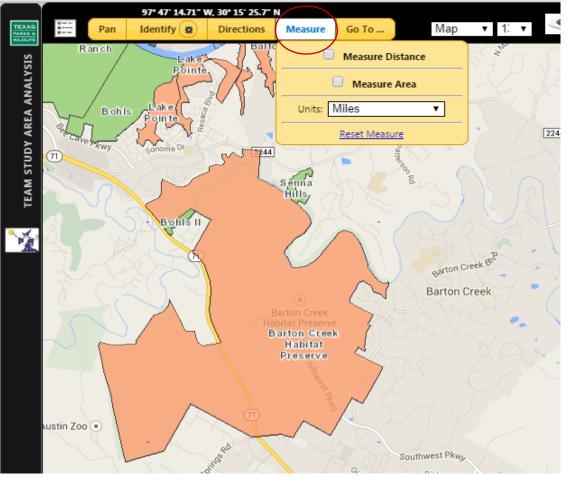
#### Click on "Directions" -- it should be

#### highlighted/white and a dialogue box opens

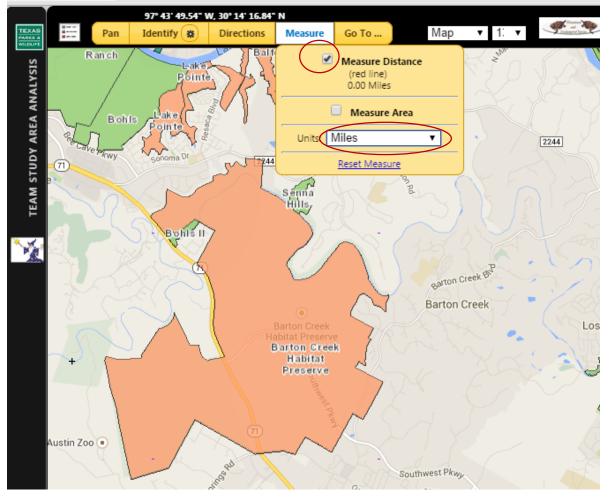


# Measure Tool : Distance or Area

Step 1: Click "Measure" –it should be highlighted/white a dialogue box opens, and the cursor will become a +

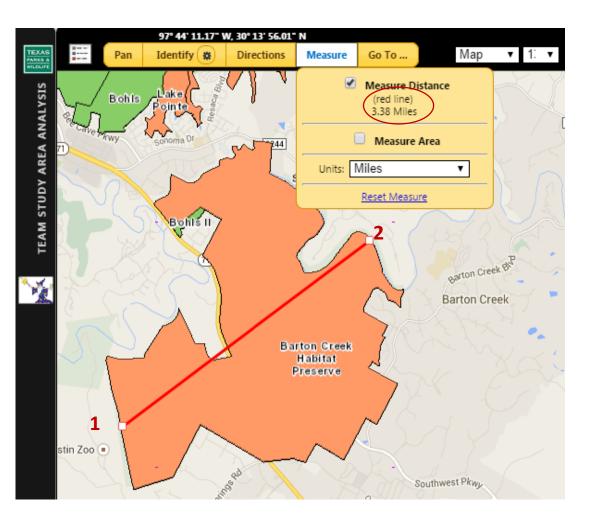


Step 2: Select either "Measure Distance" or "Measure Area", and choose measurement units

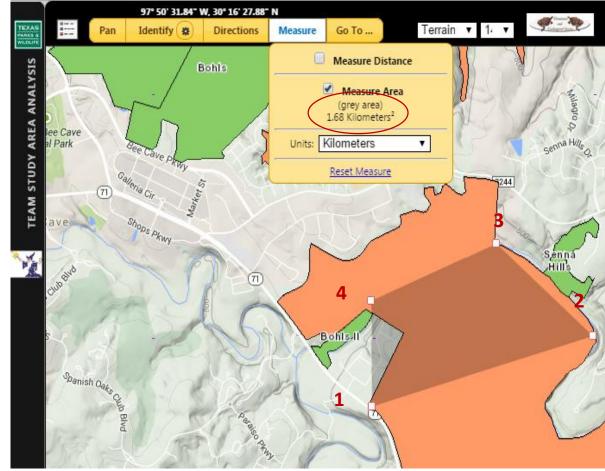


# Measure Tool : Distance or Area Cont.

Distance: Click once on map at the starting Click once on map at the starting point (1) of measurement, move cursor to end of measurement (2) and click again.



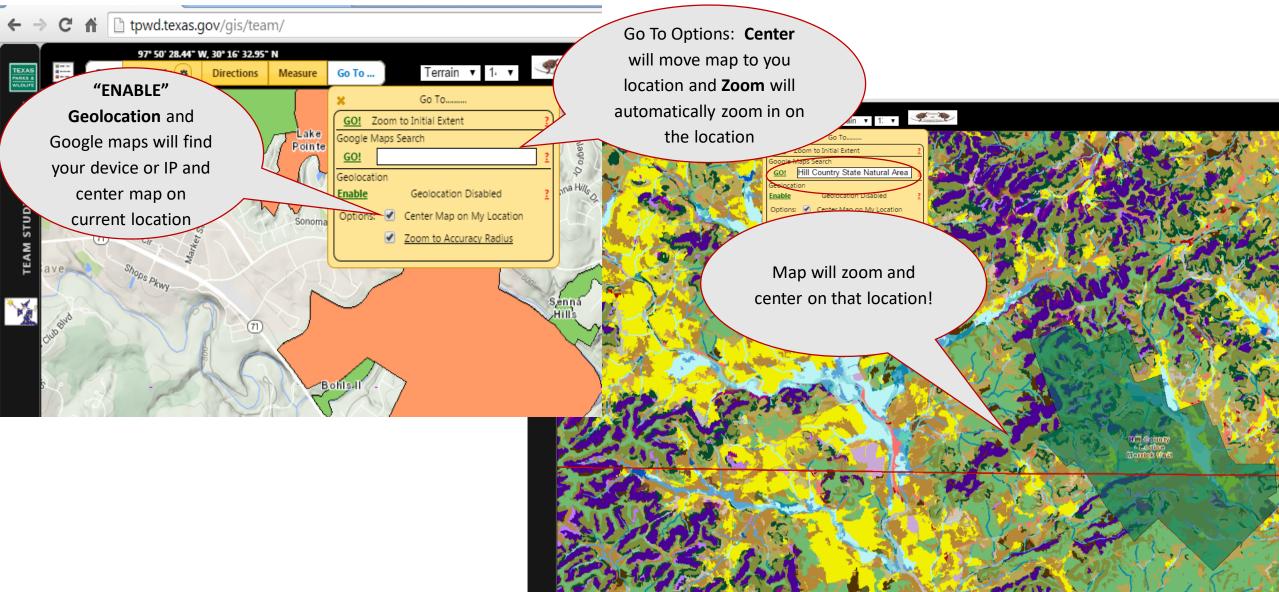
Area: Click once on map at the starting point of measurement (1), move cursor to vertex/corner of area and click (2), click at each spot that will be a vertex/corner of the measurement area (3...). At the last vertex (4) double click.



# Go To Tool

# Step 1: Click "Go To" –it should be highlighted/white and a dialogue box opens

# Step 2: Enter a place name or address in the Google Maps Search text box and click on "GO!"

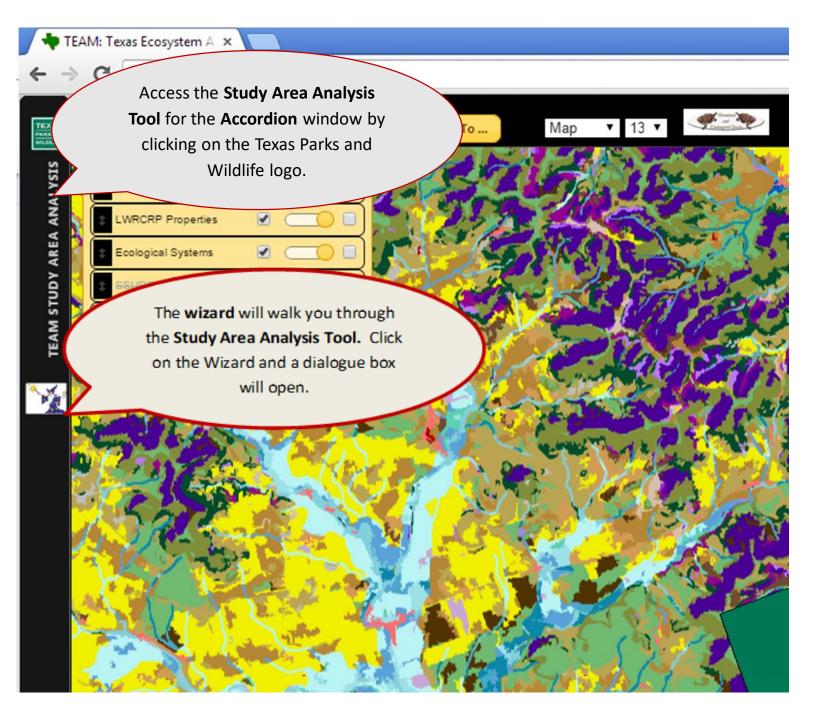


# **Custom Vegetation Reports**

HOW TO: Use the TEAM Study Area Analysis Tool

The Study Area Analysis Tool allows users to upload or draw boundary files in order to create and print custom maps and reports of the EMS data. The tool will analyze EMS data within polygon boundary(ies) or buffer point locations. TEAM will calculate the acres of each vegetation type within your boundary(ies) or buffer(s) creating both an online interactive report and exportable PDF. Flexibility in the Study Area Analysis Tool give the ability to calculate different landcover types and add county level endangered species information to the analysis.

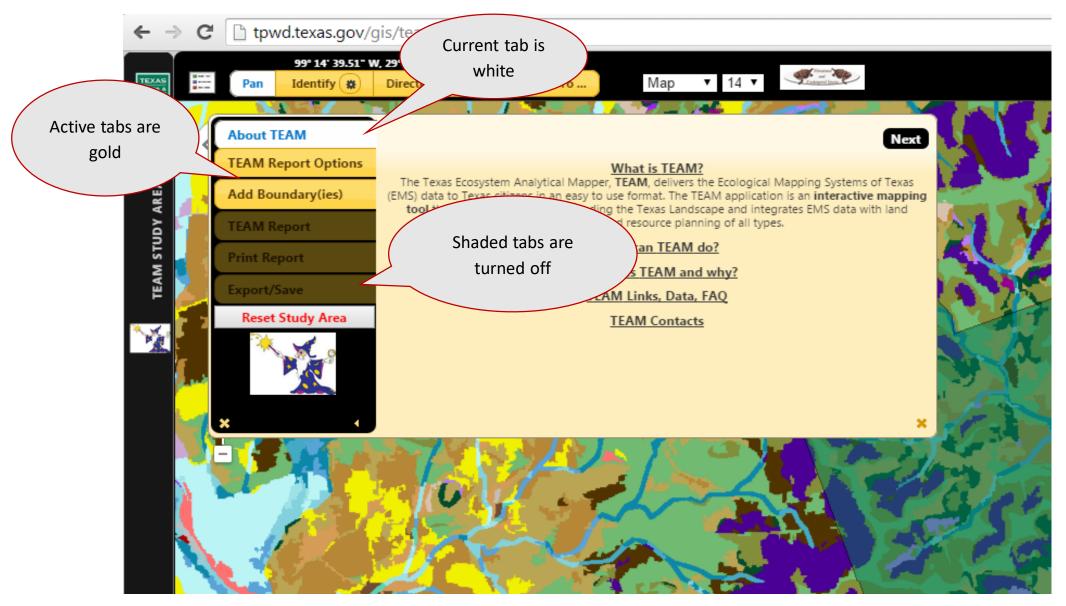
There are TWO ways to access and use the Study Area Analysis Tool, the wizard and the accordion on the side bar.



### TEAM Study Area Analysis Tool: The Wizard

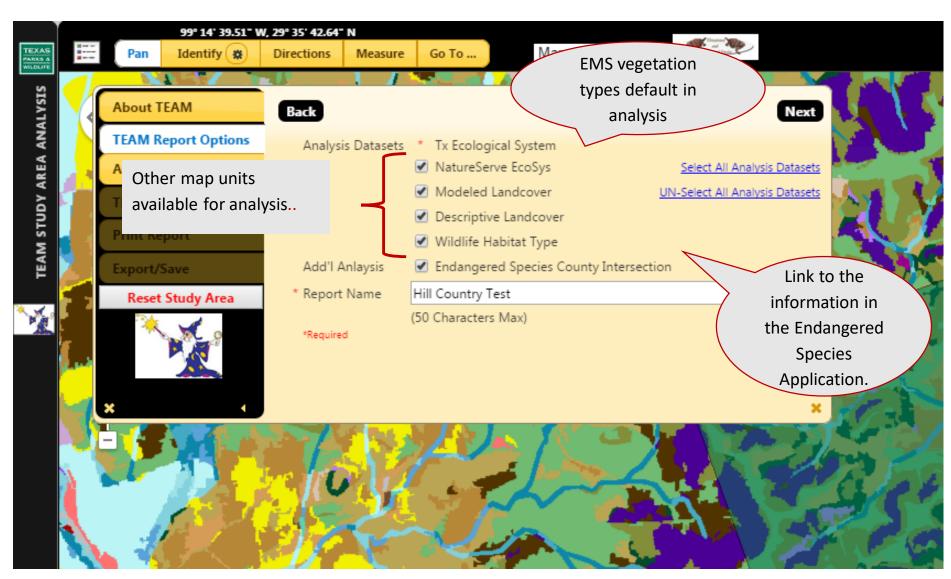
#### Step 1: Click on the Wizard

#### Dialogue box opens to "About TEAM"



# Analysis Wizard: Step 2 "TEAM Report Options" tab

User can choose contents of report. Check boxes to include which map unit(s) to analyze and compare in the report. The option to included Endangered Species County in the report is available here. Report name must be entered and under 50 characters.



EMS (Ecological Mapping Systems) are always included in the analysis. Other classifications cross walked in the data are as follows.

NatureServe Ecological System: EMS units are derived from these parent systems. Anthropogenic and invasive types do not have a parent system

Modeled landcover: 16 landcover types, i.e. grassland, evergreen shrubland, etc...

Descriptive landcover: basic landcover types with an abiotic qualifier, i.e. sandy grassland, slope evergreen shrubland, etc.

Wildlife Habitat type: classes used by TPWD biologists in wildlife management plans

## Analysis Wizard: Step 3 Add Boundary(ies) Tab

One or more boundaries must be defined for the analysis to work. Options for defining boundaries include, **Draw polygons** on the map, **Select a boundary for the LWRCRP data**, or **Upload a KML/KMZ or Shapefile**.

Add Boundary Examples 1 -3: Drawing Boundaries -Click on the "Draw polygon" tab so that it is highlighted (white)

- Select the Shape of the boundary you would like to draw

Click on the map to create a starting point for your boundary (See example 1 below) For squares and circles just drag the shape to the size you need

For polygons just click at each vertex (corner) and complete by closing the shape at your starting point (See example 2 below, each vertex is number 1 &7 are the beginning and starting points)

For circles just click at where you would want the middle of the circle, then change radius to desired size

-use arrows or text box in wizard to edit the circle radius, default is 1 mile (See example 3 below)

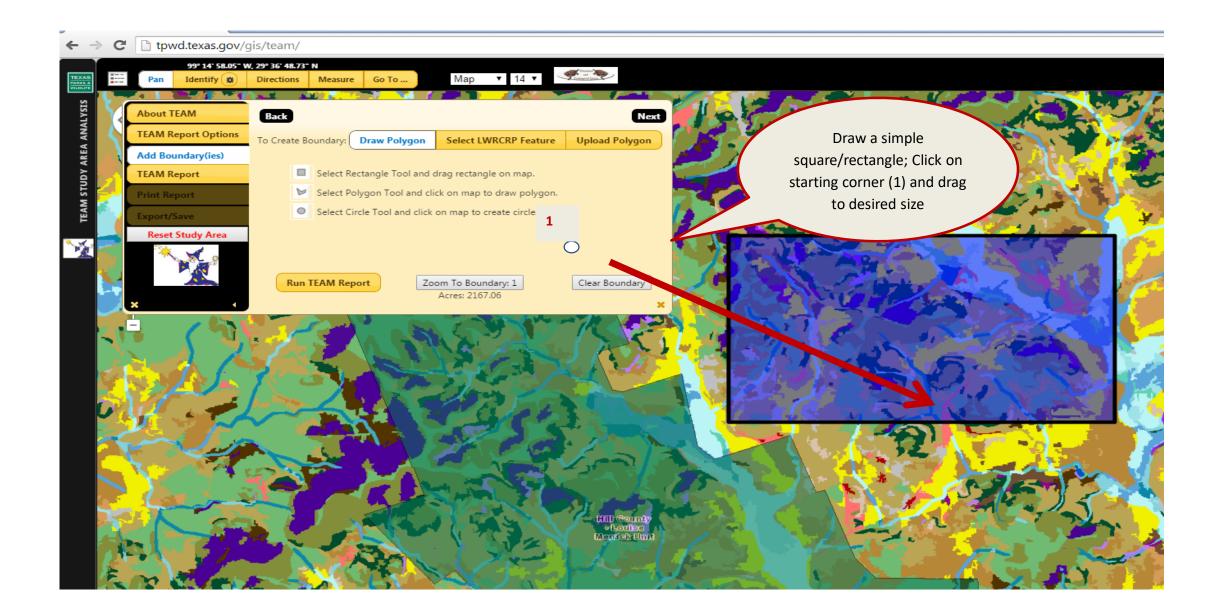
NOTE:

You can have multiple boundaries of more than one shape within your report!

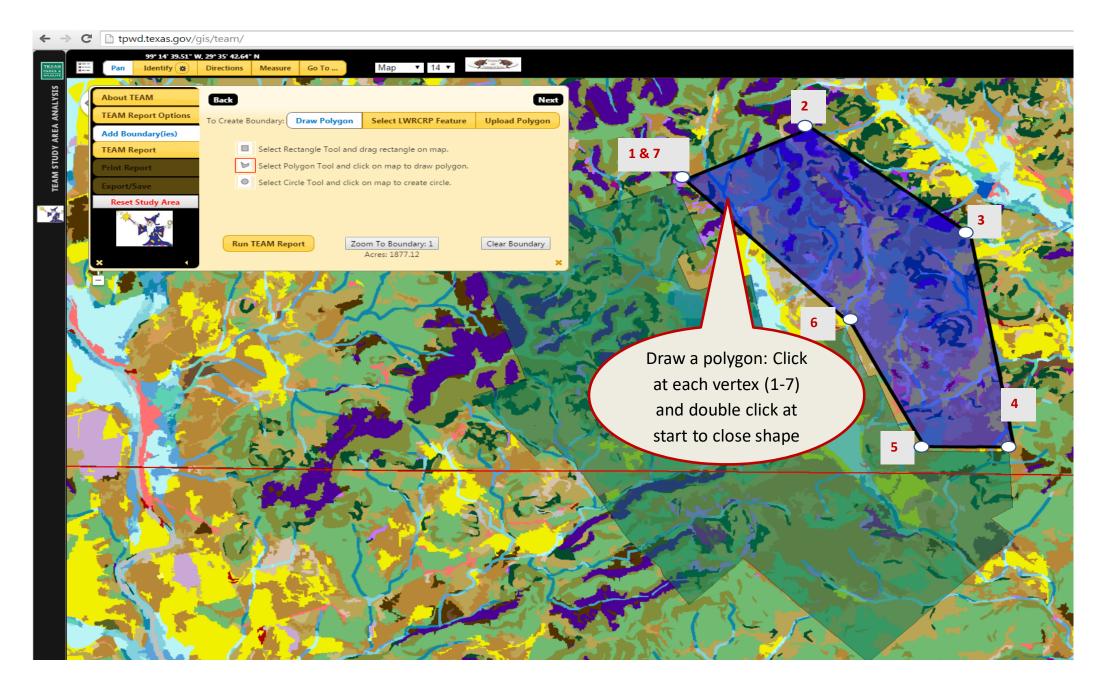
Warning:

Google Maps has a size limit when running analyses. Team will display an error message if the shape or shapes is too large

# Analysis Wizard: Add Boundary(ies) Example 1, Rectangle Tool

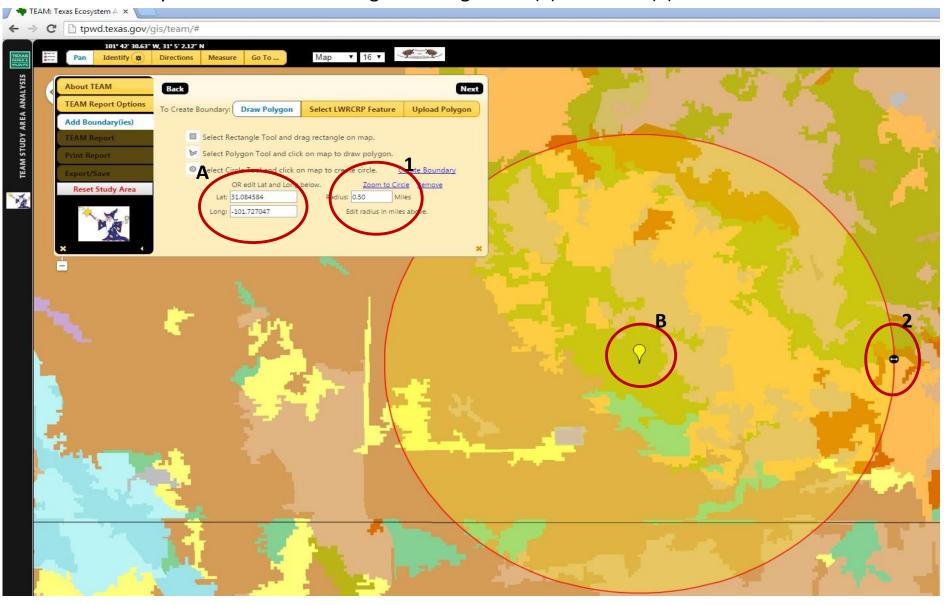


## Analysis Wizard: Add Boundary(ies) Example 2, Polygon Tool:



### Analysis Wizard: Add Boundary(ies) Example 3, Circle Tool

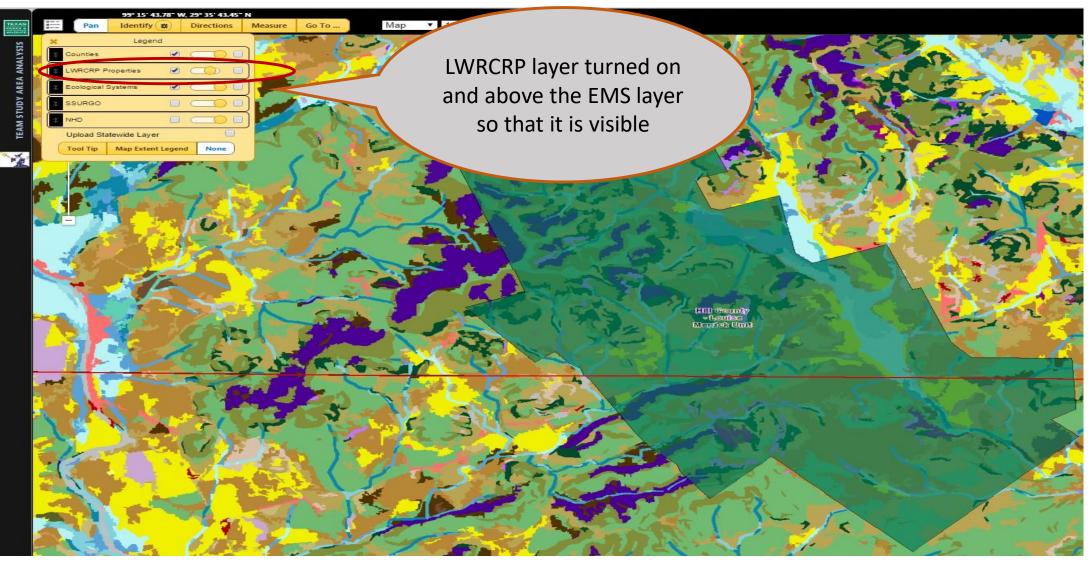
Place a circle on the map using a specific latitude and longitude (A) or put a point on the map (B) Create a circular boundary of a certain radius using the dialogue box (1) or arrows (2)



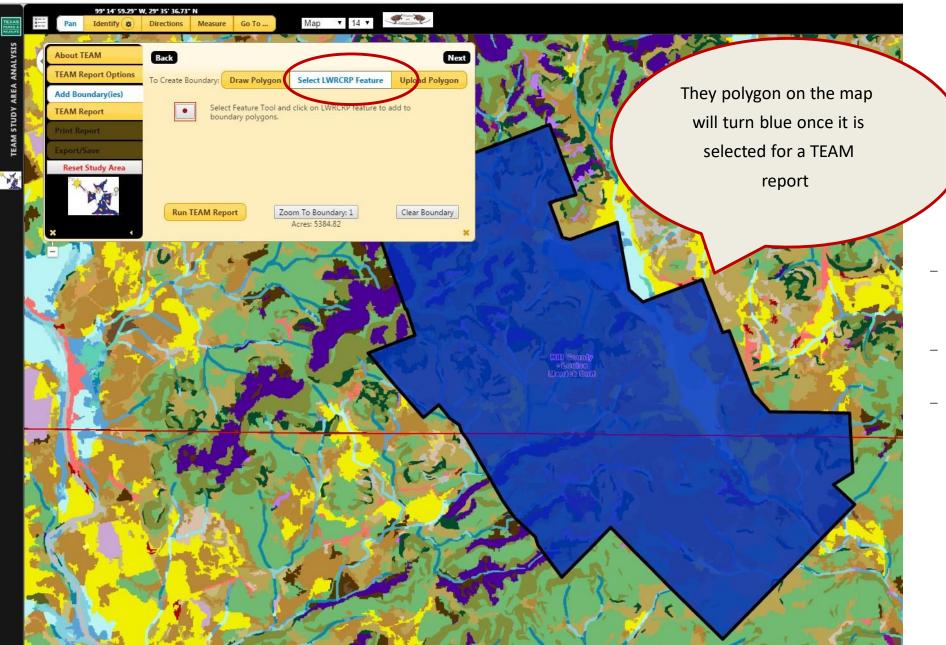
### Analysis Wizard: Add Boundary(ies) Example 4, Select a Boundary From the Map

Currently only LWRCRP Boundaries can be selected

-Make sure the LWRCRP Properties are turned on, it is best to drag that layer above other visible layers

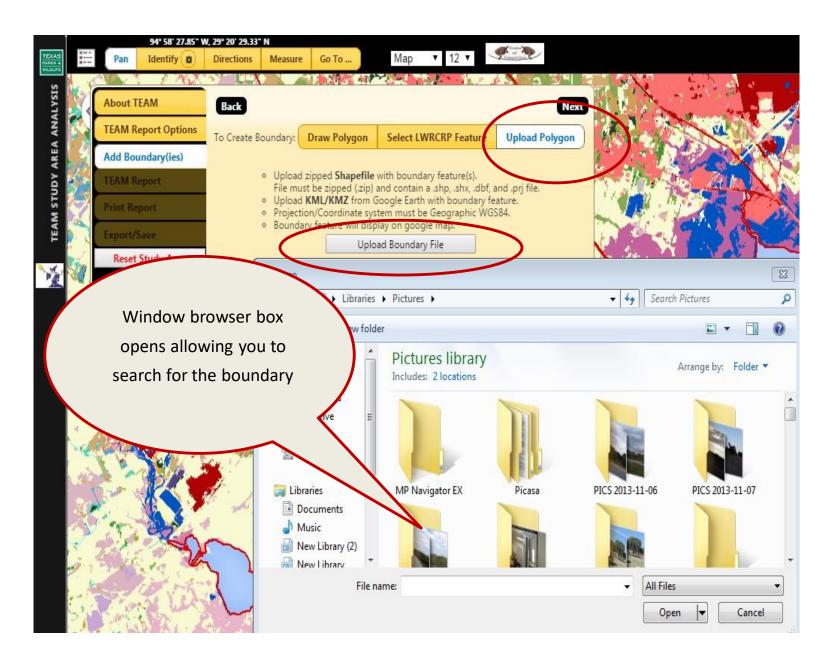


### Example 4 Cont., Select a Boundary From the Map



- Click on the "Select LWRCRP Feature" tab so that it is highlighted (white)
- Click on the "Select Feature Tool" (red dot in grey box)
- Click on the LWRCRP polygon of interest in the TEAM application

#### Analysis Wizard: Add Boundary(ies) Example 4, Upload a Polygon



# UPLOADED POLYGONS MUST BE IN THE FOLLOWING FORMATS:

Upload a **zipped Shapefile** with boundary feature(s). File **must be zipped** (.zip) and contain a .shp, .shx, .dbf, and .prj file.

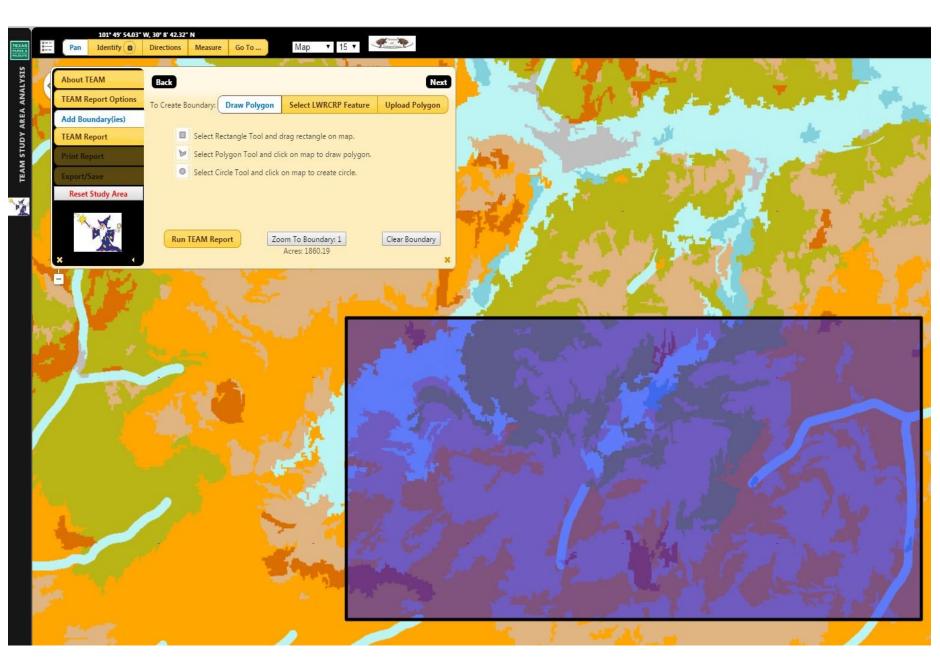
Upload **KML/KMZ** from Google Earth with boundary feature.

Projection/Coordinate system must be **Geographic WGS84.** 

-First Click on the "Upload Polygon" tab so that it is highlighted (white)

-Next Click on Upload Boundary File (Search your computer for file)

#### Example 4, Upload a Polygon Cont.



Boundary File will appear in the TEAM Application

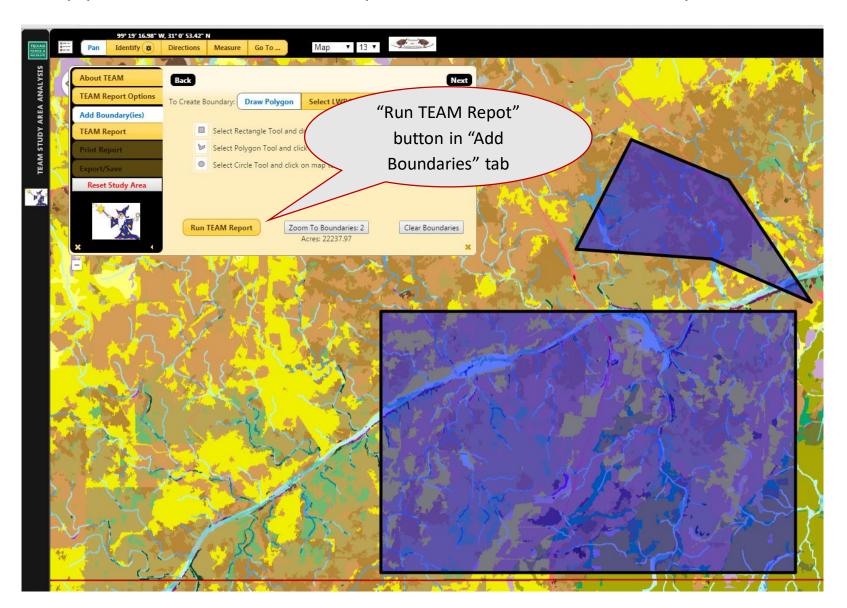
#### Analysis Wizard: Add Boundary(ies) Example 5, Multiple Boundaries

Multiple Boundaries can be added simply repeat any of the "Add Boundary" Features \*\*Error Warning will open in pop-up window if the boundaries are too large for google maps to analyze



# Analysis Wizard: Step 4 Run Report, Option A

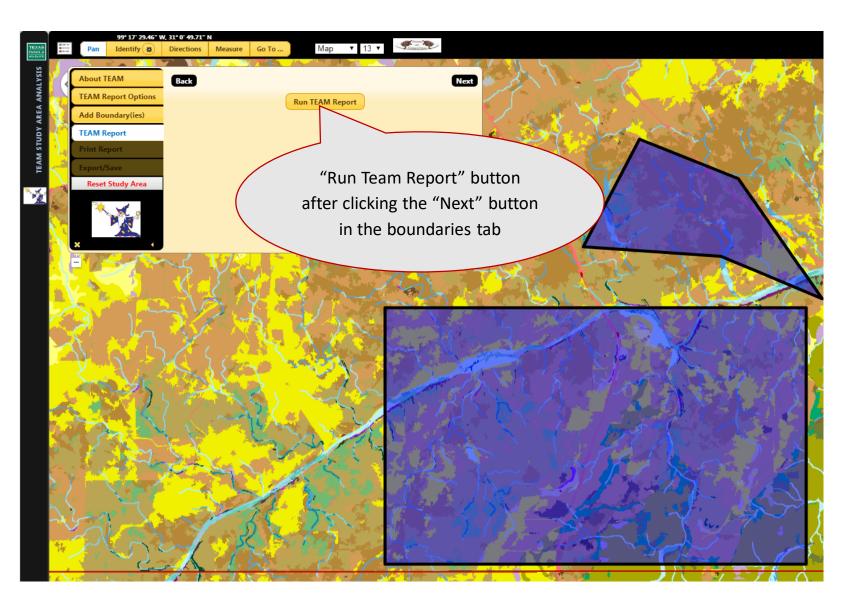
Once boundary files are Drawn, Selected or Uploaded the Study Area Analysis Report can be run Simply click on the "Run TEAM Report" button in the Add boundary box



#### **Option A**

#### Analysis Wizard: Step 4 Run Report, Option B

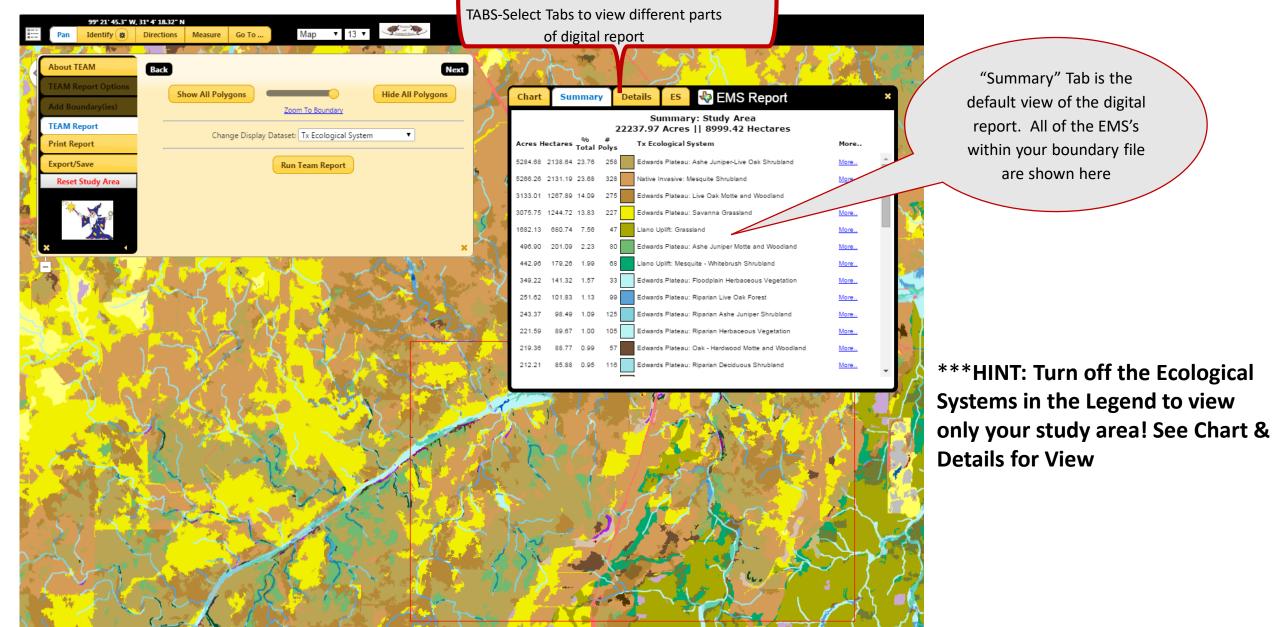
Click the "Next" button, which takes you to the Team Report Tab and then click "Run TEAM Report"



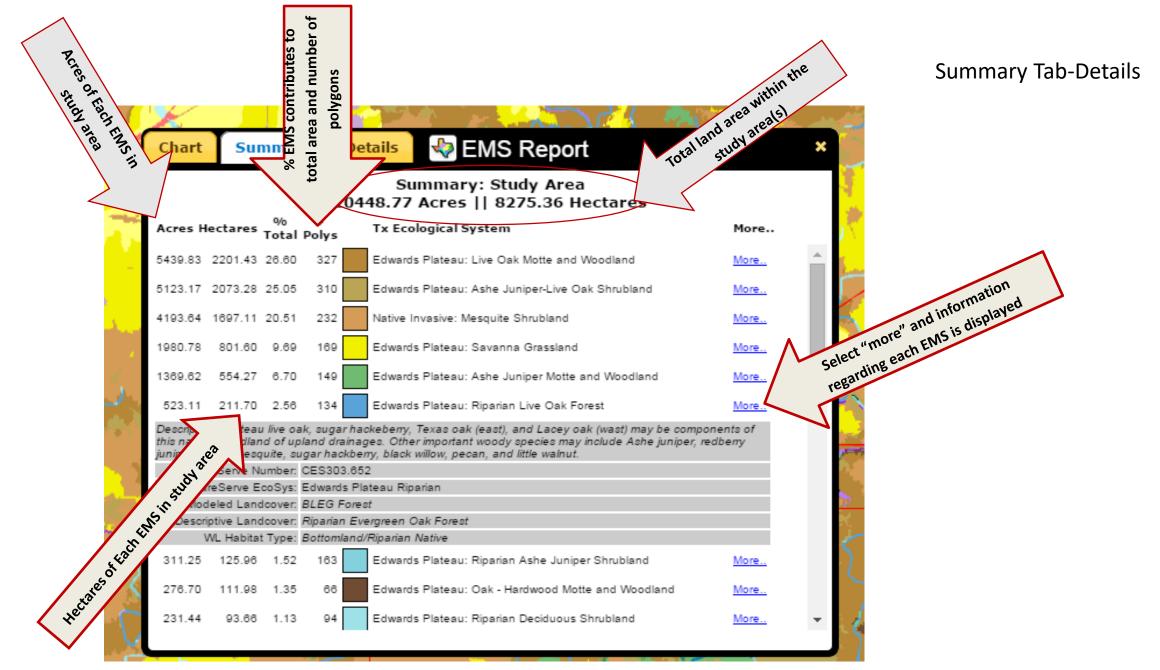
#### **Option B**

#### **TEAM Online Interactive Report**

After selecting "Run Study Area" Report for your area(s) of interest a new dialogue box opens displaying your online report



## Online Interactive Report: Digital Report Summary Details

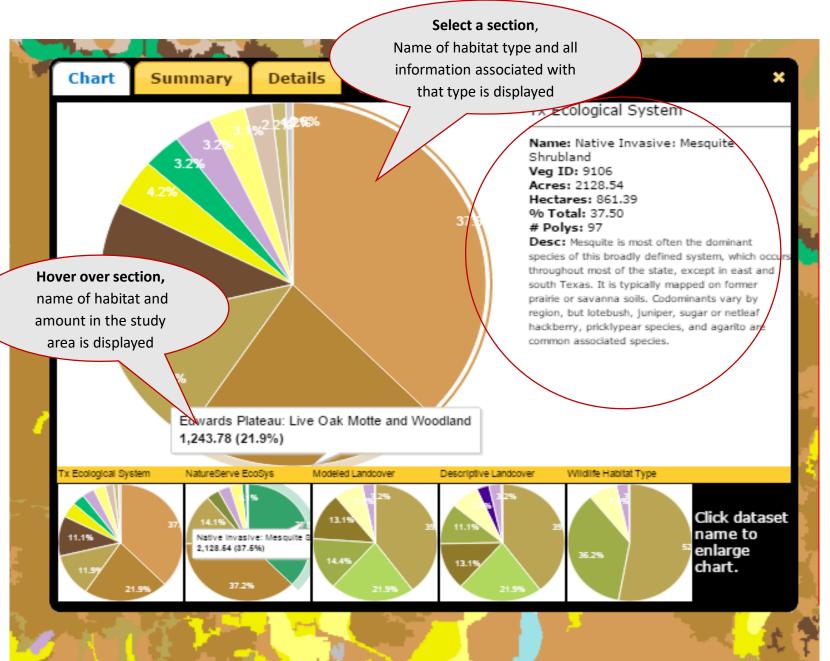


## Online Interactive Report: Digital Report Summary Functions

Click on the legend symbol or color next to the Ecological System Name and that EMS is highlighted within the study area

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	4193.64 1	1697.11 2	20.51	232	Native Invasive: Mesquite Shrubland	1	More	1	- 49 C & &	Solice .	-
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R.	1369.62	554.27	6.70	149	Edwards Plateau: Ashe Juniper Motte and	d Woodland	More		391	M. A.	Ł
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1	Description: Plateau live oak, sugar hackeberry, Texas oak (east), and Lacey oak (wast) may be components of this narrow woodland of upland drainages. Other important woody species may include Ashe juniper, redberry juniper (west), mesquite, sugar hackberry, black willow, pecan, and little walnut.										
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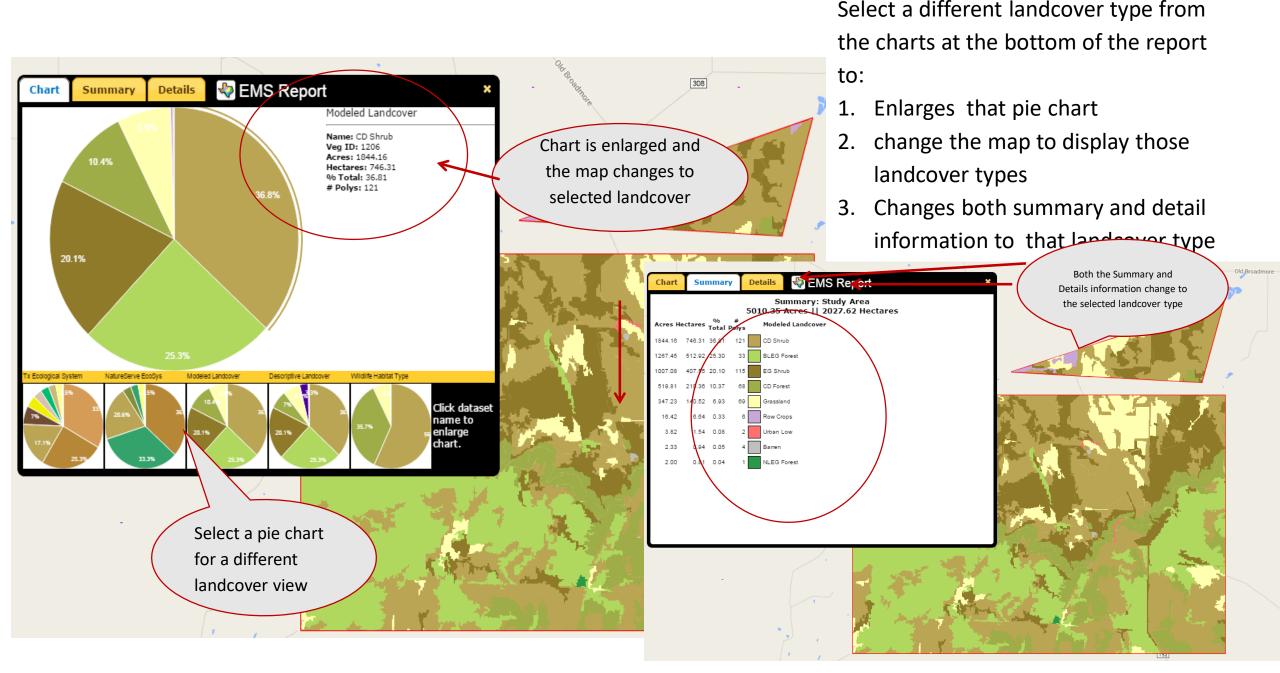
#### Online Interactive Report: Digital Report Chart Functions



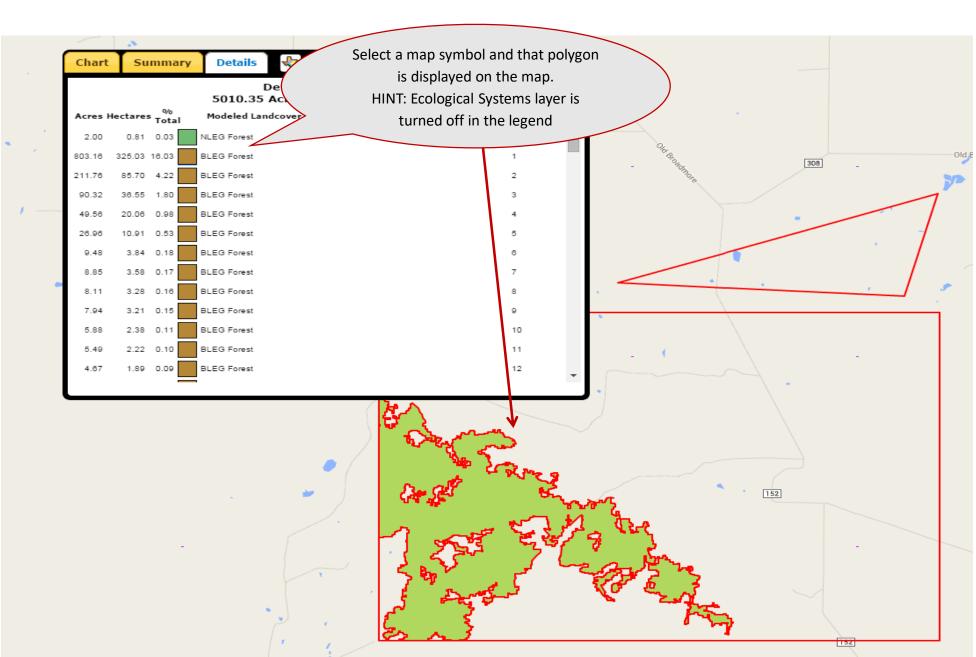
Pie Charts provide a visual interpretation of Mapped Types -All of the types selected in the "TEAM Report Options" are displayed in Pie Charts -**Hover over each section** of a pie chart to display the name of the type

-Select a section of the pie chart to get more information regarding the mapped type

#### Online Interactive Report Part: More Digital Report Chart Functions



#### Online Interactive Report : Digital Report Details Functions



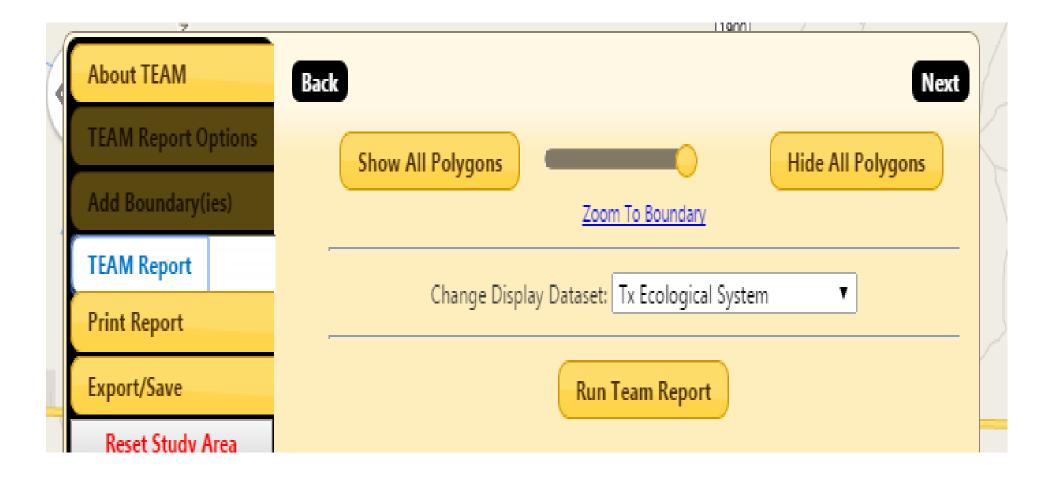
Each polygon along with it's size, % of total land area and type is displayed in the details tab.

The habitat type displayed is dependent upon the pie chart selected in the Chart Tab.

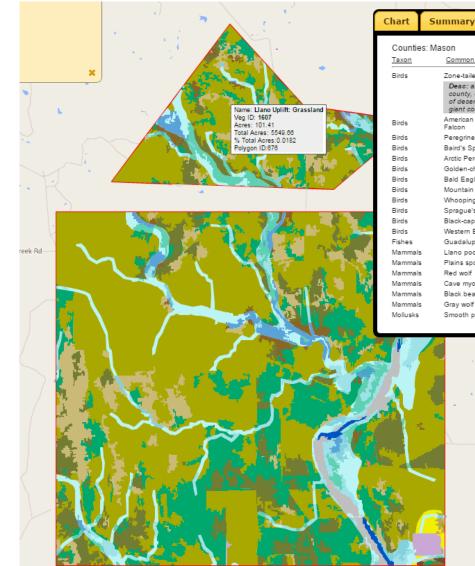
Select a map symbol for a specific polygon and that symbol highlights on the map.

#### Online Interactive Report: Digital Report Details Functions Cont.

HINT: To unselect a single polygon or show all of the polygons within your study area, select "Show All Polygons" in the report wizard.



#### Online Interactive Report Cont.: Digital Report Endangered Species Tab



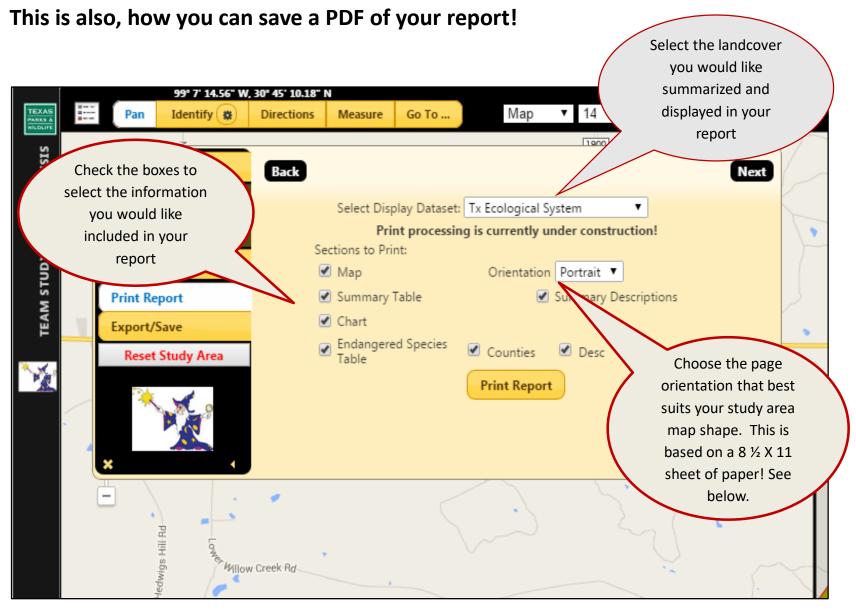
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Summary Detail	s 💽 🍫 EM	S Report		×
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Common Name	Scientific Name			
				<u> </u>
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county, often near wat of desert mountains; n	ercourses, and wooded canyo ests in various habitats and si	ins and tree-lined river tes, ranging from smal	rsalong middle-slop I trees in lower dese	
American Peregrine Falcon	Falco peregrinus anatum	DL	T <u>Desc C M</u>	-
Peregrine Falcon	Falco peregrinus	DL	T <u>Desc C M</u>	•
Baird's Sparrow	Ammodramus bairdii		Desc C M	· .
Arctic Peregrine Falcon	Falco peregrinus tundrius	DL	Desc C M	·
Golden-cheeked Warble	r Setophaga chrysoparia	LE	E Desc C M	· .
Bald Eagle	Haliaeetus leucocephalus	DL	T <u>Desc C M</u>	· .
Mountain Plover	Charadrius montanus		Desc C M	· .
Whooping Crane	Grus americana	LE	E Desc C M	· .
Sprague's Pipit	Anthus spragueii	С	Desc C M	· .
Black-capped Vireo	Vireo atricapilla	LE	E Desc C M	· .
Western Burrowing Owl	Athene cunicularia hypuga	ea	Desc C M	•
Guadalupe bass	Micropterus treculii		Desc C M	-
Llano pocket gopher	Geomys texensis texensis		Desc C M	-
Plains spotted skunk	Spilogale putorius interrupt	а	<u>Desc C M</u>	-
Red wolf	Canis rufus	LE	E <u>Desc C M</u>	-
Cave myotis bat	Myotis velifer		Desc C M	-
Black bear	Ursus americanus	T/SA;NL	T <u>Desc C M</u>	
Gray wolf	Canis lupus	LE	E <u>Desc C M</u>	-
Smooth pimpleback	Quadrula houstonensis	С	T Desc C M	- <b>v</b>
	: Mason <u>Common Name</u> Zone-tailed Hawk Desc: arid open count oounty, often near wath of desert mountains; m giant cottonwooda in ni American Peregrine Falcon Peregrine Falcon Baird's Sparrow Arctic Peregrine Falcon Golden-cheeked Warble Bald Eagle Mountain Plover Whooping Crane Sprague's Pipit Black-capped Vireo Western Burrowing Owl Guadalupe bass Llano pocket gopher Plains spotted skunk Red wolf Cave myotis bat Black bear Gray wolf	Mason         Scientific Name           Zone-tailed Hawk         Buteo albonotatus           Desc: arid open country; including open deciduous ; country; often near wateroournee, and wooded canyo of desert mountains; neats in various habitate and si giant cottonwoods in riparian areas, to mature conife Falcon           American Peregrine Falcon         Falco peregrinus anatum           Peregrine Falcon         Falco peregrinus bairdii           Aratician Peregrine Falco         Falco peregrinus bairdii           Aratic Peregrine Falcon         Falco peregrinus tundrius Golden-cheeked Warbler           Setophaga chrysoparia         Bald Eagle           Mountain Plover         Charadrius montanus           Woooping Crane         Grus americana           Sprague's Pipit         Anthus spragueii           Black-capped Vireo         Vireo atricapilla           Western Burrowing Owl         Athere cunclularia hypuga           Guadalupe bass         Micropterus treculii           Llano pocket gopher         Geomys texensis texensis           Plains spotted skunk         Spilogale putorius interrupt Red wolf           Cave myotis bat         Myotis velifer           Black bear         Ursus americanus Gray wolf	Mason       S         Common Name       Scientific Name       USESA Si         Zone-tailed Hawk       Buteo albonotatus       Desc: and open country, including open deciduous or pine-oak woodland, county, often near watercourses, and wooded canyons and tree-lined rivey of desert mountains; nests in various habitats and sites, ranging from smal giant cottonwoods in riparian areas, to mature conifers in high mountain refailed near watercourses, and wooded canyons and tree-lined rivey of desert mountains; nests in various habitats and sites, ranging from smal giant cottonwoods in riparian areas, to mature conifers in high mountain refailed near Peregrine Falcon       Falco peregrinus anatum       DL         American Peregrine Falcon       Falco peregrinus tundrius       DL         Baird's Sparrow       Ammodramus bairdii       Arctic Peregrine Falcon       Falco peregrinus tundrius       DL         Golden-oheeked Warbler       Setophaga chrysoparia       LE       Bald Eagle       Haliaeetus leucocephalus       DL         Mountain Plover       Charadrius montanus       Whooping Crane       Grus americana       LE         Vestem Burrowing Owi       Athene cunicularia hypugaes       Guadalupe bass       Micropterus treculii       L         Usestem Burrowing Owi       Athene cunicularia hypugaes       Guadalupe bass       Micropterus treculii       LE         Quadalupe bass       Micropterus treculii       LE       Cave myotis bat       Myotis velifer	Mason       Species Count 33 <u>Common Name</u> <u>Scientific Name</u> USESA SPRO <u>Desc</u> C M         Zone-tailed Hawk       Buteo albonotatus <u>Desc</u> C M         Desc: arid open country, including open deciduous or pine-oak woodland, meas or mountain open dy of desert mountains; neate in various habitate and sites, ranging from small these in lower deser giant cottonwoods in ripanan areas, to mature confers in high mountain region         American Peregrine Falco peregrinus anatum       DL       T <u>Desc</u> C M         Baird's Sparrow       Ammodramus bairdii       Desc C M         Golden-cheeked Warbler       Falco peregrinus tundrius       DL       T <u>Desc</u> C M         Baird's Sparrow       Ammodramus bairdii       Desc C M       M         Golden-cheeked Warbler       Setophaga chrysoparia       LE       E       Desc C M         Mountain Plover       Charadrius montanus       DL       T       Desc C M         Mountain Plover       Charadrius montanus       Desc C M       M         Vestern Burrowing Owl       Anthus spragueii       C       Desc C M         Guadalupe bass       Micropterus treculii       Desc C M       M         Usetsen Burrowing Owl       Athene cunicularia hypugaea       Desc C M       M         Guadalupe bass       Micropterus tre



If selected in the "Report Options" the digital and printed report will give you a list of all potential threatened or endangered species that may occur within that county. See <u>http://tpwd.texas.gov/gis/rtest/</u>, TPWD's Rare, Threatened and Endangered Species Application for more information regarding the county level lists.

Select any of the blue text to get more information (description, counties of occurrence, or a range map) for each species.

#### **TEAM Analysis: Print Report**



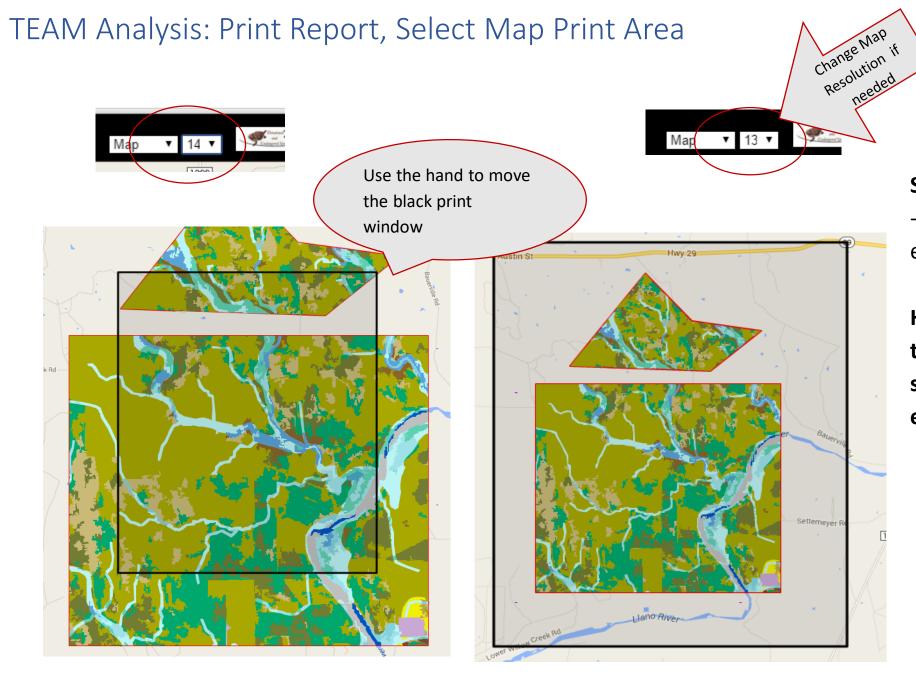
# PRINT REPORT ONLY WORKS IN GOOGLE CHROME!

Click "Next" or on the "Print Report "Tab to view the Print Options

Use the Pull down to Choose which landcover dataset you would like displayed in the Summary and Details of your report

This will be the data analyzed in your report, the other datasets will only appear as pie charts

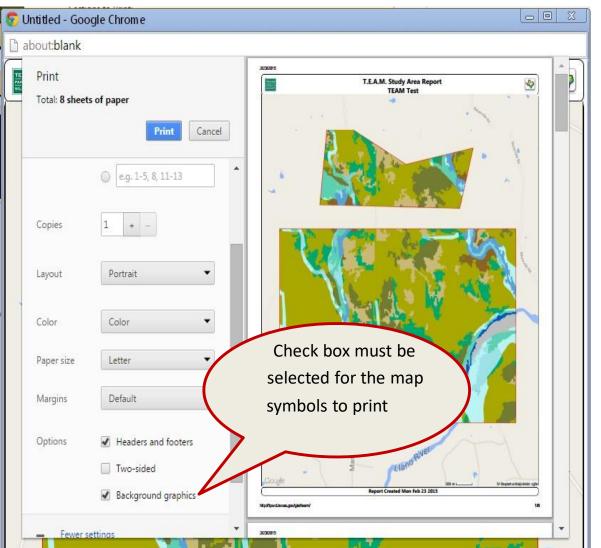
Use the check boxes to identify what you want included within your report



Select Map Print Area -move the black box to fully encompass your study area

HINT: you may need to adjust the zoom level at the top of the screen in order to print your entire area

#### TEAM Analysis: Print Report, Print or Save to PDF

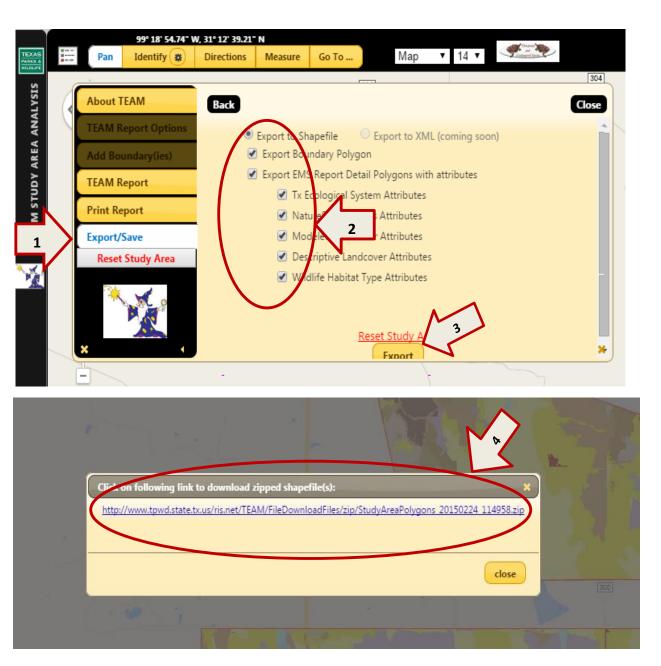


#### Print Report Or Save as PDF –Continued

Click on "Print Report" (make sure your study area is within the print box boundary and that you have selected everything you want in your report)

#### BEFORE PRINTING OR SAVING MAKE SURE TO CHECK GOOGLE CHROME PRINT SETTINGS FOR THE FOLLOWING; -Check Box next to Background graphics (HINT: you may have to select "more settings" before you see this check box)

#### TEAM Analysis: Export to Shapefile

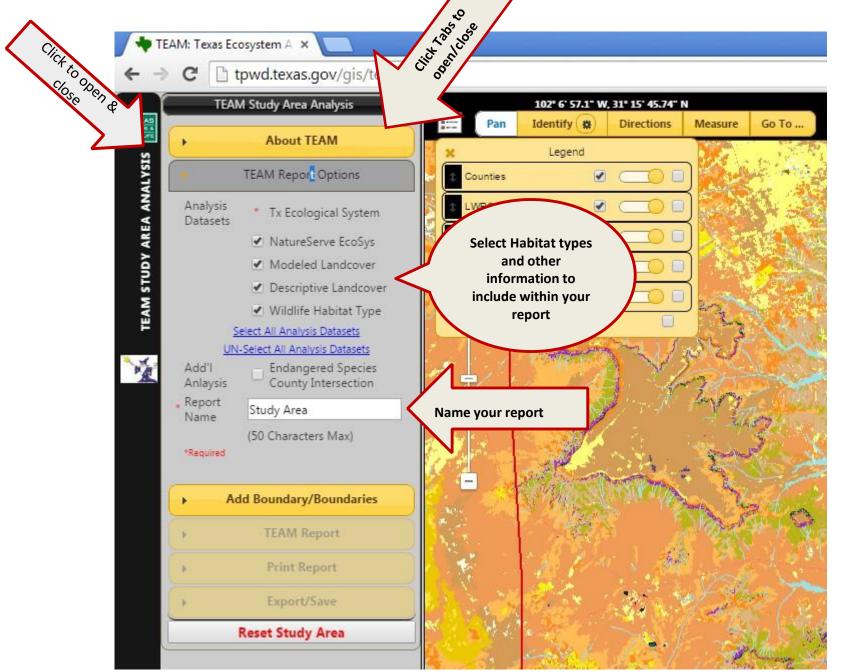


#### Export to Shapefile

-The study area along with the habitat attributes can be exported to a shapefile for conversion or use in other GIS software.

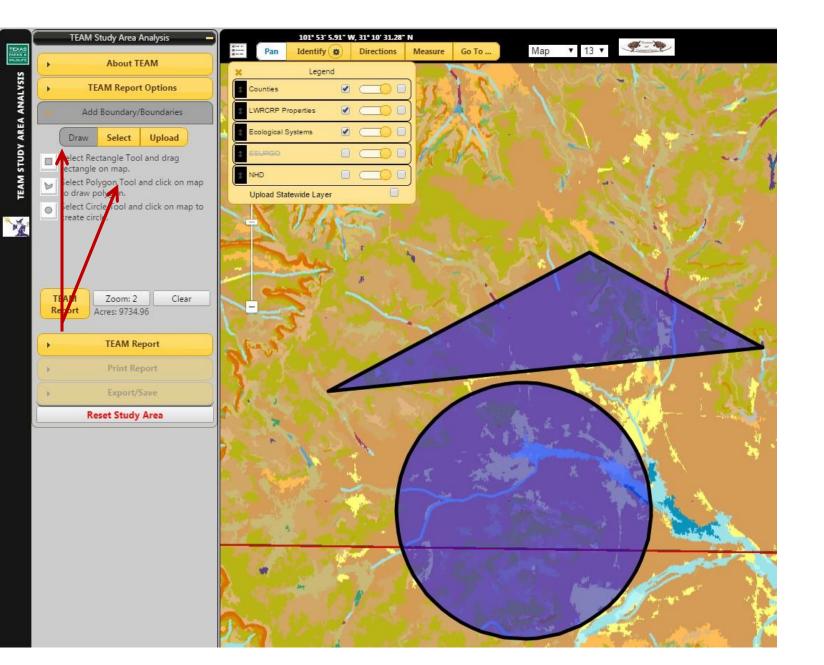
- 1. Click on the Export/Save Tab
- 2. Select the attributes you would like associated with the study area
- 3. Click on export
- 4. Click on the link to download the zipped files.

#### TEAM Analysis: Using the Accordi



Choose Habitat Types and name Report in the "Report Options Tab

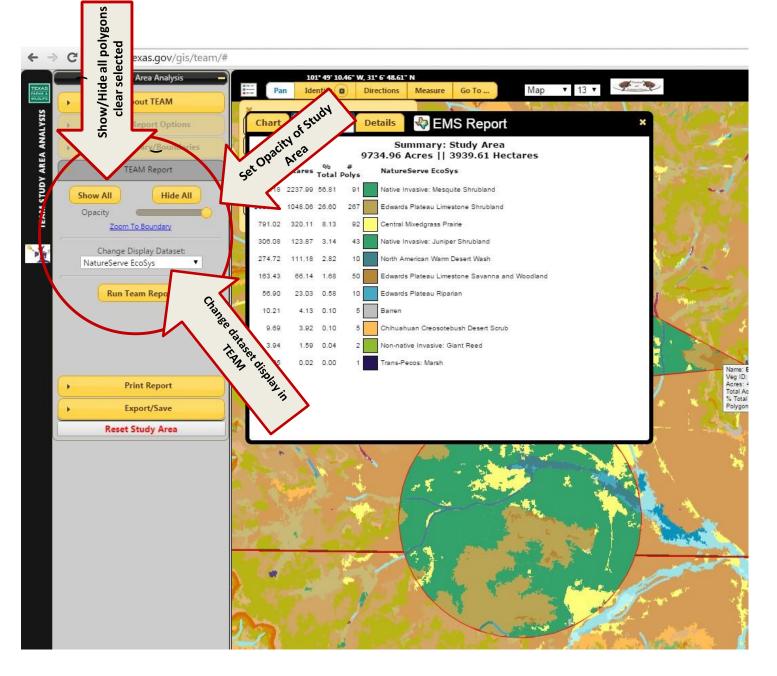
#### TEAM Analysis: Using the Accordion, Add Boundaries and Run Report



Add Boundaries Just like in the Wizard

When all boundaries have been added Run Report here or Select the "TEAM Report" Tab

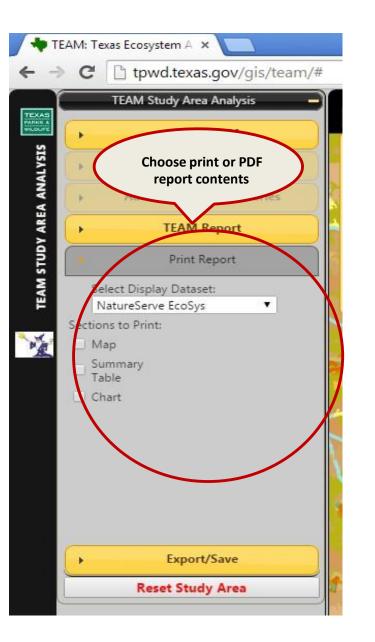
#### TEAM Analysis: Using the Accordion, Online Report



You can view the online report and look at charts and habitat types here.

Also get summary statistics.

#### TEAM Analysis: Using the Accordion, Online Report





#### Print and Export Tabs

Print Tab allows you to select your report options and Print or Save to PDF in Google.

Export Tab allows you to export report information as a shapefile or excel table.

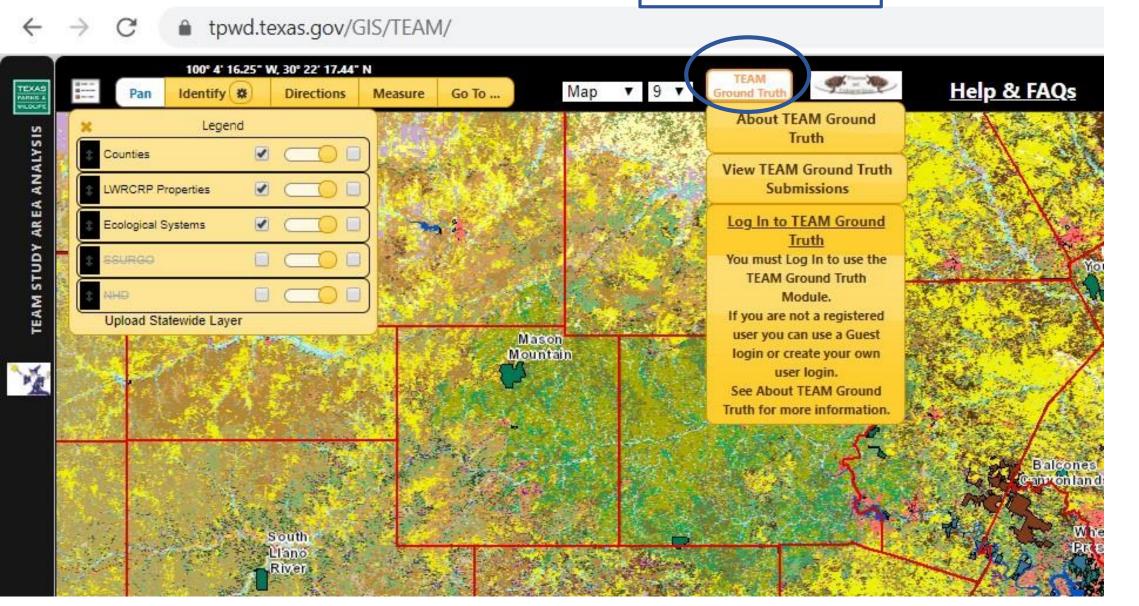
# TEAM Ground Truth: Citizen Science Vegetation Mapping Tool

#### About

TPWD's **TEAM Ground Truth** tool is a crowdsourcing application in the Ecological Mapping Systems delivery portal, TEAM. This tool allows users to provide feedback on mapped vegetation types both on their desktop and in the field using mobile devices. Partner organizations, naturalists, and citizens will have the ability to document plant communities via the data entry form. The crowdsourcing tool requires users to have/create a profile/login in order to track and save the vegetation information they are collecting. Once logged in users can highlight an area (polygon) in the existing Ecological Mapping Systems Map they would like to share information regarding. Once an area is selected, a simple data –entry form requires users to document the type of plant community, estimated area, and dominant species and upload a photo of the grassland. Users are also required to agree to a data sharing agreement prior to submitting feedback. All information will be automatically shared with TPWD staff and also saved to the user's profile. Users will also have the option to share the data with other "Ground-truthers" using the tool.

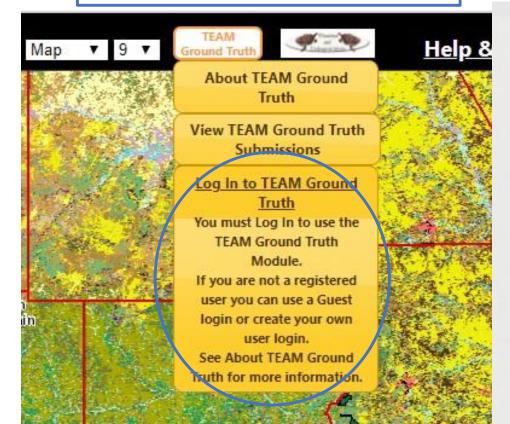
# Ground Truth : Desktop Version

Click on TEAM Ground Truth Button at top of TEAM App



# Ground Truth: User Account Login

To enter information on map accuracy and document plant communities, click on **"Log In to TEAM Ground Truth"** 



We ask anyone planning to enter multiple data submission or who want to track their submissions to create a login. If you only plan to enter one ground truth submission, you can login as a guest. All guest submissions will be shared publicly.

> If you are a **Registered** user, Log In with your **Username** and **Password**.

If this is the ONLY TEAM Ground Truth Observation submission you will make use the following Username and Password: Username: Guest Password: Guest1\* (Capital 'G', lowercase 'uest' number one - star symbol \*)

Username

Password

Log In

I Forgot My Password

If you anticipate making multiple **TEAM Ground Truth** submissions, create a **Registered** user account.

Create Registered User Login

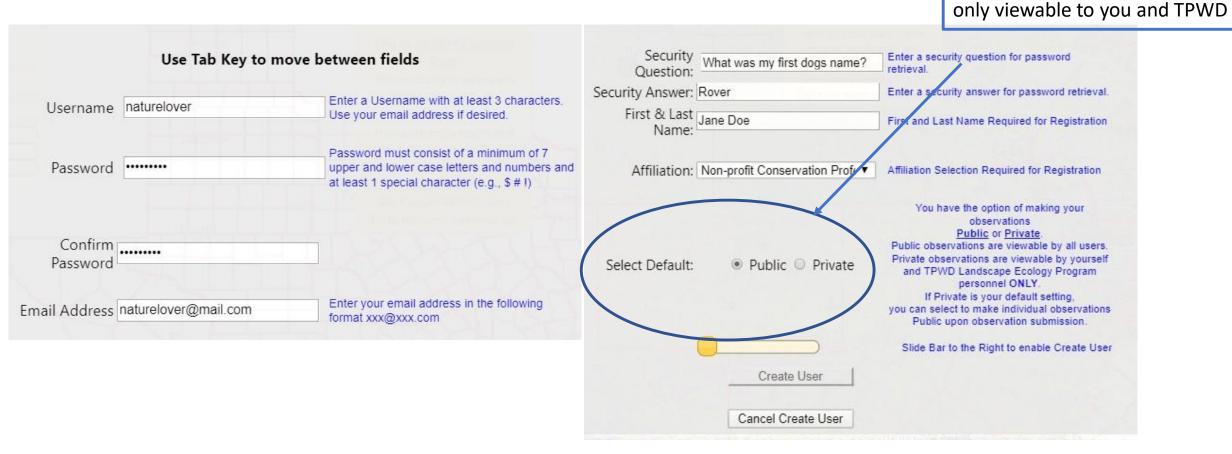
Close TEAM Ground Truth Login

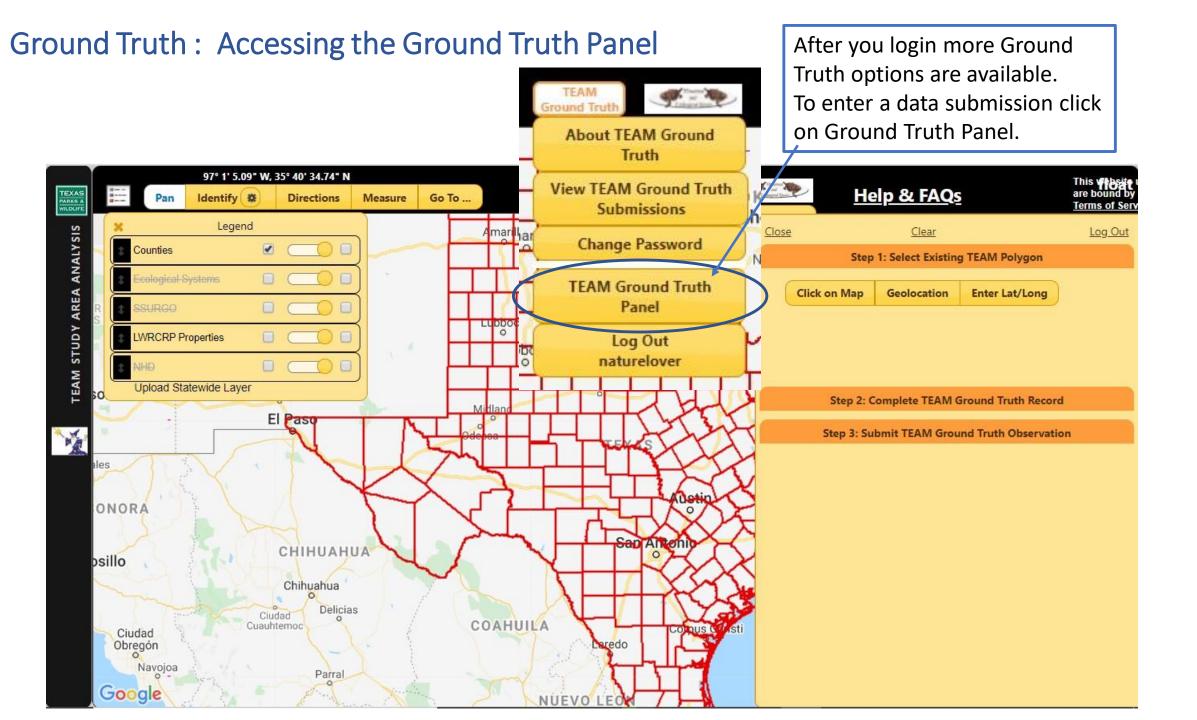
Enter as a guest or use an existing login here

If this is your first time logging into the Ground Truth tool please create an account. Accounts allow you to view all of your submissions and have the option to keep your submissions private. Private submission will only be shared with TPWD.

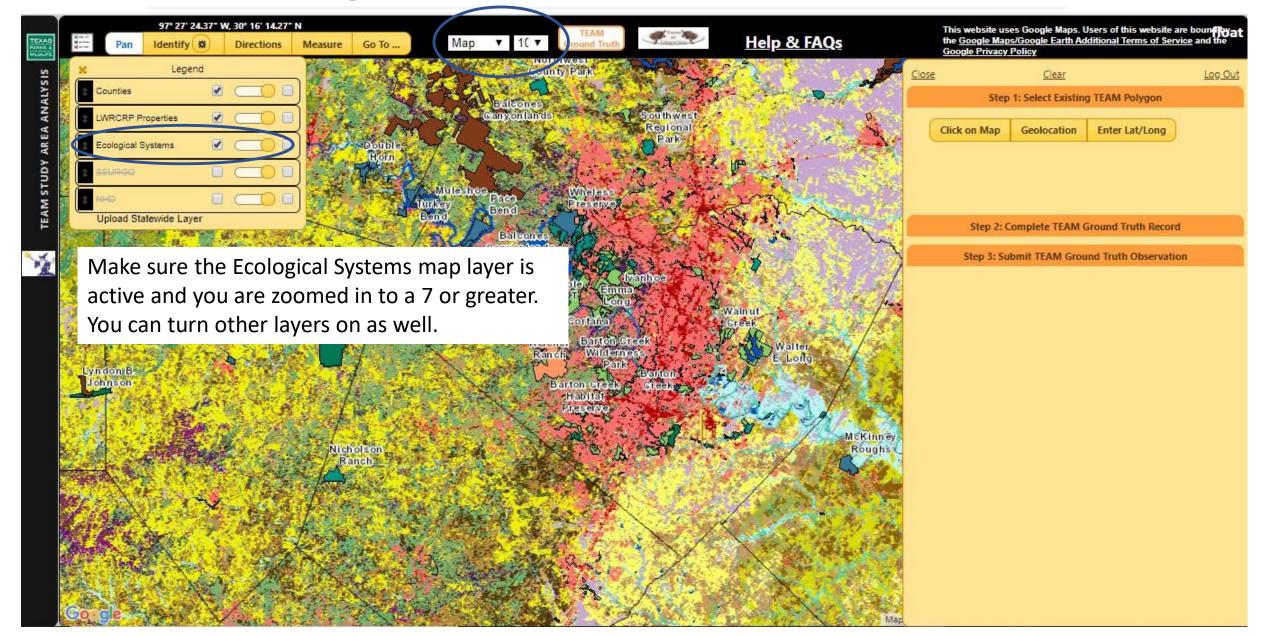
#### Ground Truth: User Account Login

Enter all of the required information to create a user account. Make sure your username is unique and you have a secure password. Public: Other Ground Truth users will be able to see your submissions. Other than your user name none of your personal information is viewable. Private: Your submissions are

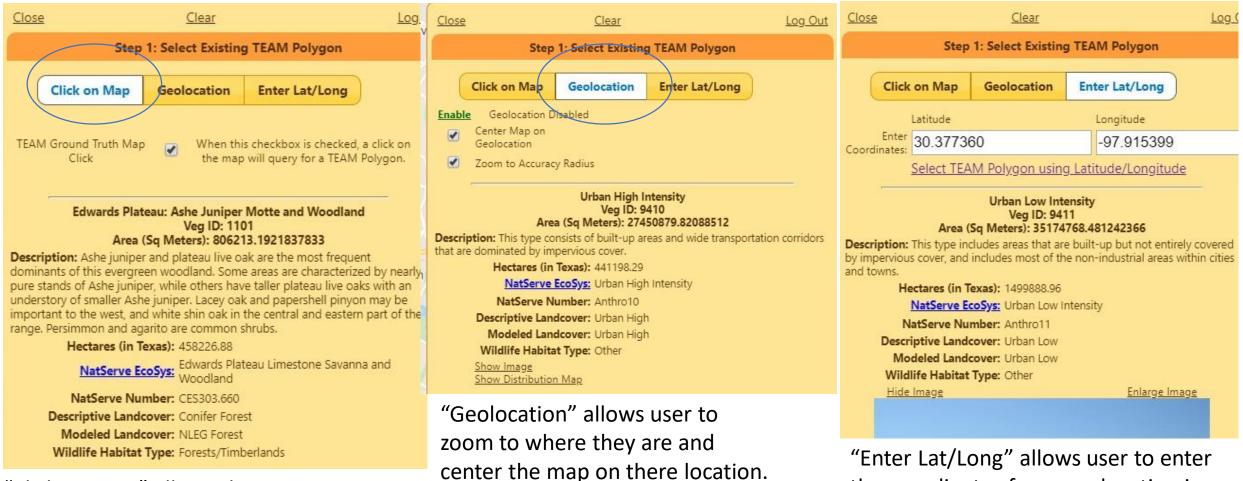




#### Ground Truth: Accessing the Ground Truth Panel



# Ground Truth: Select an EMS Polygon to Edit or Confirm

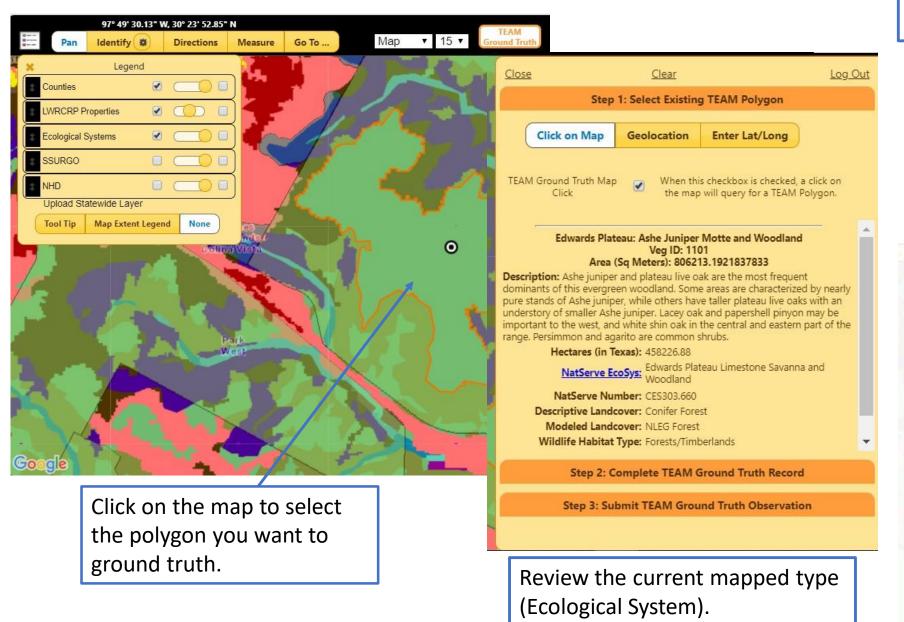


"Click on Map" allows the user to select a polygon of a certain habitat on the map.

It is best used if you know exactly where that polygon is located. Good for land managers and land owners. "Geolocation" allows user to zoom to where they are and center the map on there location. This can be used to just locate your currently location on the map or to suggest an edit for the polygon of current location. Must click enable to use this feature.

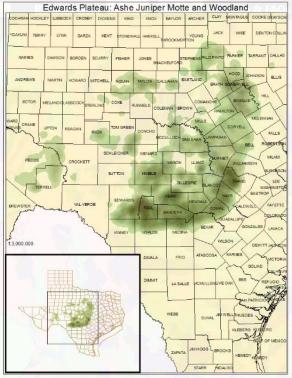
"Enter Lat/Long" allows user to enter the coordinates from any location in Texas to edit that polygon. GPS coordinates, vegetation information, and a photo of the habitat are required.

# Ground Truth : Step 1, Select Polygon and Review

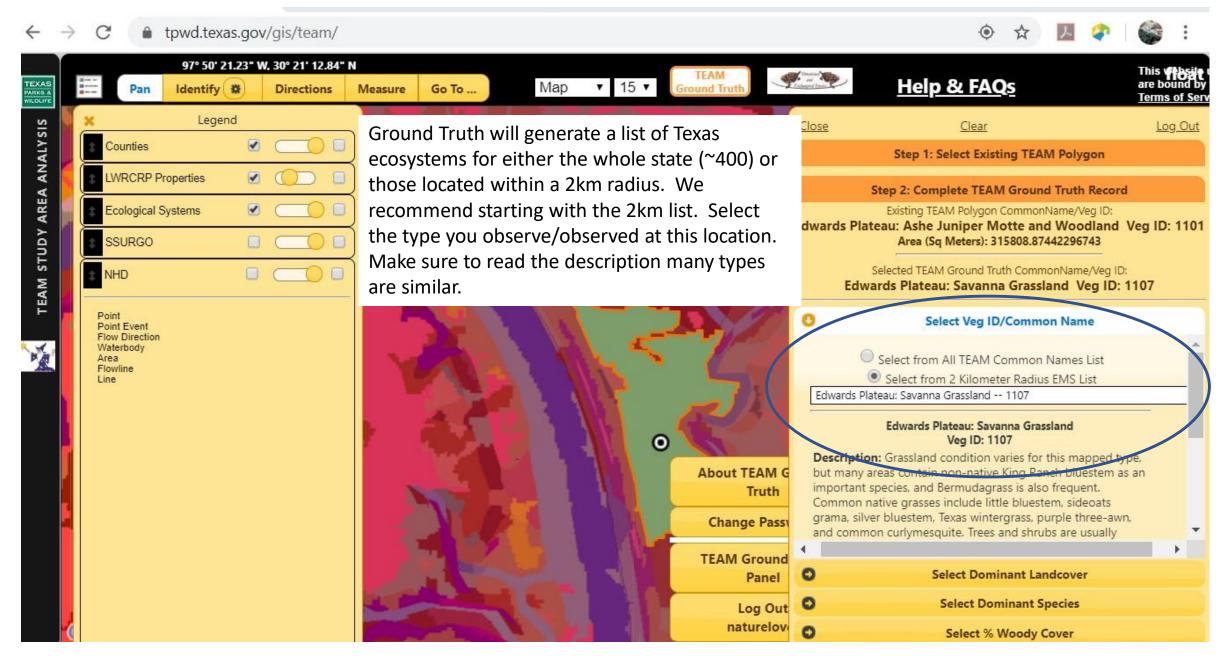


Scroll down to view a photo the Ecological System or a Distribution Map.

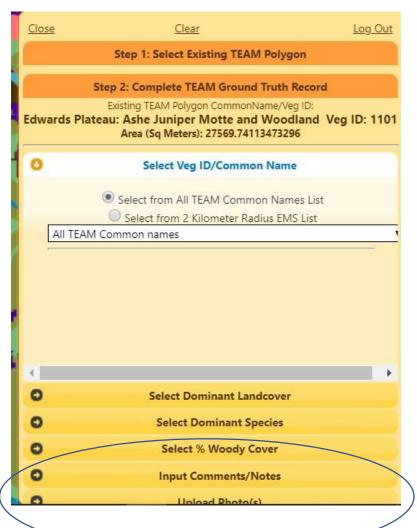




#### Ground Truth : Complete Team Ground truth Record, Select Type



# Ground Truth : Desktop Fix for Step 2



If the Ground Truth Pane is cut off at the bottom of your screen (Left) adjust settings in Chrome until it looks like the on the right:

Zoom in or out on your current page Use the zoom options to make everything on a webpage larger or smaller.

On your computer, open Chrome. At the top right, click More. Next to "Zoom," choose the zoom options you want:

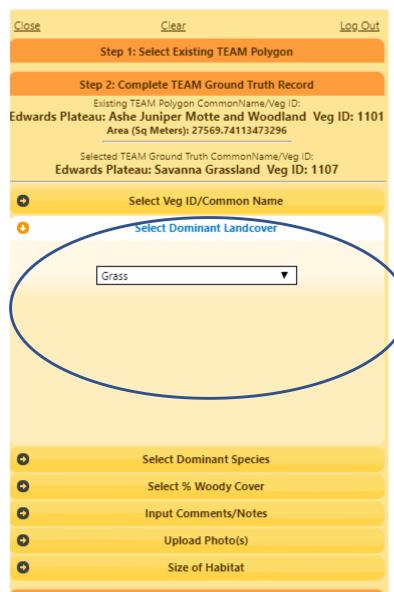
Make everything larger: Click Zoom in Zoom in.

Make everything smaller: Click Zoom out Zoom out.

Use full-screen mode: Click Full screen Full screen.

<u>Close</u>	Clear	Log Out
	Step 1: Select Existing TEAM Polygon	
	Step 2: Complete TEAM Ground Truth Record	
Edwards	Existing TEAM Polygon CommonName/Veg ID: Plateau: Ashe Juniper Motte and Woodland Ve Area (Sq Meters): 27569.74113473296	g ID: 1101
0	Select Veg ID/Common Name	
	Select from All TEAM Common Names List Select from 2 Kilometer Radius EMS List	
All T	TEAM Common names	•
4		•
0	Select Dominant Landcover	
0	Select Dominant Species	
0	Select % Woody Cover	
0	Input Comments/Notes	
0	Upload Photo(s)	
0	Size of Habitat	
	Step 3: Submit TEAM Ground Truth Observation	

#### Ground Truth : Complete Team Ground truth Record, Select Dominant Landcover



Step 3: Submit TEAM Ground Truth Observation

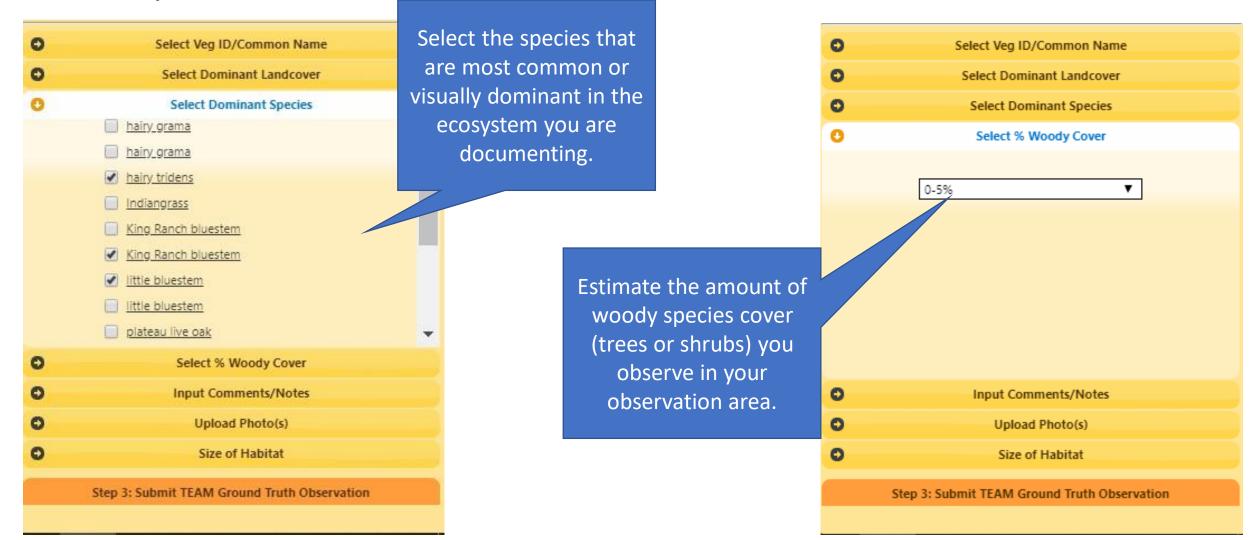
Once you select the Ecological System (habitat type) you observed, Ground Truth will generate a list of possible landcover types.

Select the one that most closely matches your observation.

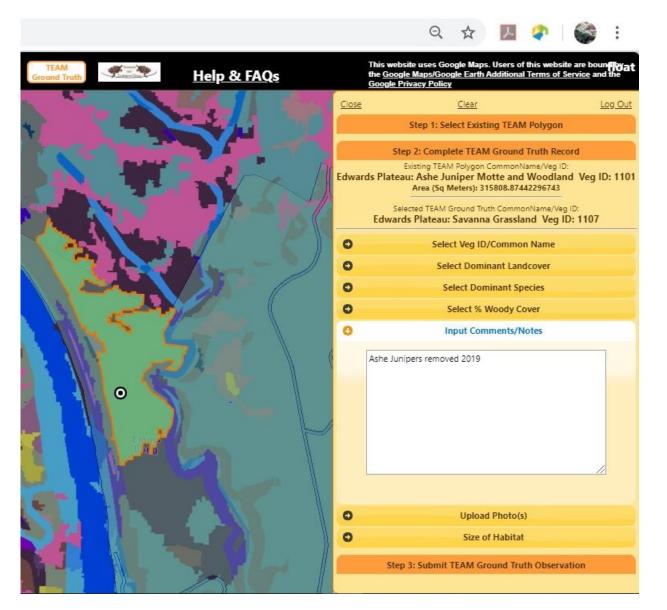
Land cover generally refers to the surface cover on the ground. Either natural, like vegetation, or man-made like, urban infrastructure.

Land Cover Types in Ground Truth: Grass-area greater than 50% herbaceous cover Shrubs-area greater than 50% shrub cover (woody species under 15ft. in height) Trees-area greater than 50% tree cover (woody species over 15ft. In height) Water-area dominated by open water (pond, river, lake, etc...) Man-made – area dominated by man-made surface, building or other infrastructure Other – any type that is not defined by above categories of land cover

# Ground Truth : Complete Team Ground Truth Record, Dominant Species and % Woody Cover



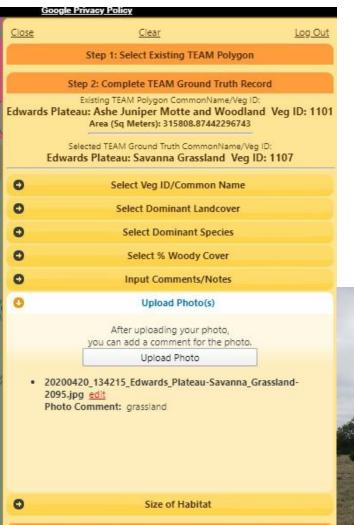
# Ground Truth : Complete Team Ground Truth Record, Comments/Notes



The Comments or Notes box is for you to provide any other information regarding the ecological system you observed or the current TPWD mapped type.

Examples include: other important species not in the list, land management actions taken, or other plant communities that may occur within the area you observed.

## Ground Truth : Complete Team Ground Truth Record, Upload Photo



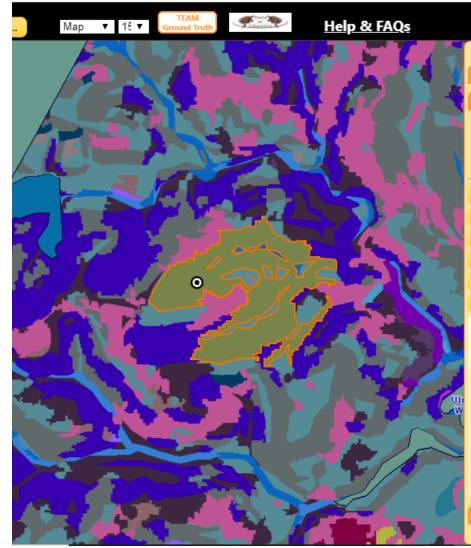
Step 3: Submit TEAM Ground Truth Observation

Photos of the Ecological System (habitat) are an essential part of TPWD verifying your observation. Use the "Upload Photo" button to send a photo of the habitat at your observation location.

While not required, the best practice is to date the photo and an even better practice is to have a geolocation tag on the photo.



#### Ground Truth : Complete Team Ground Truth Record, Size of Habitat



	This website uses Google Maps. Users of this website are bound by the <u>Google Maps/Google Earth Additional Terms of Service</u> and the <u>Google Privacy Policy</u>
Clos	ie <u>Clear</u> Log.Ou
	Step 1: Select Existing TEAM Polygon
	Step 2: Complete TEAM Ground Truth Record
	Existing TEAM Polygon CommonName/Veg ID: Edwards Plateau: Ashe Juniper Slope Forest Veg ID: 901 Area (Sq Meters): 330081.73519970477
	Selected TEAM Ground Truth CommonName/Veg ID: Edwards Plateau: Savanna Grassland Veg ID: 1107
Θ	Select Veg ID/Common Name
0	Select Dominant Landcover
0	Select Dominant Species
0	Select % Woody Cover
0	Input Comments/Notes
Θ	Upload Photo(s)
0	Size of Habitat
	If habitat that differs from mapped type is smaller than entire selected existing TEAM polygon input the <b>approximate</b> size of habitat below.
	Entire Selected Existing TEAM polygon

Partial Area of Selected Existing TEAM polygon
 Partial Area of Selected Existing TEAM
polygon

(approximate area in square m

Selection Marker designates approximate center of differing habitat. To move the selection marker, click on Step 1 above, move the marker

Step 3: Submit TEAM Ground Truth Observation

Let us know if the ecological system you observed is approximately the same size as the original mapped habitat type by selecting "Entire Existing TEAM Polygon"

If the are of your observation is significantly smaller or larger then the original TEAM Polygon then select "**Partial Area** of Selected Existing TEAM polygon" Next, enter an approximate size of area in square meters.

NOTE: If you are estimating area in Acres use an online converter like this one:

https://www.thecalculatorsite.com/conversio ns/area/square-meters-to-acres.php

# Ground Truth : Review Observation and Submit

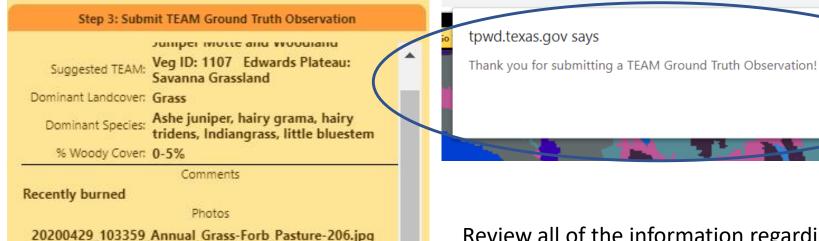


 Image: Substrain of the second seco

Photo Comment: grassland

Review all of the information regarding the ecological system you observed, and view the photo you are submitting.

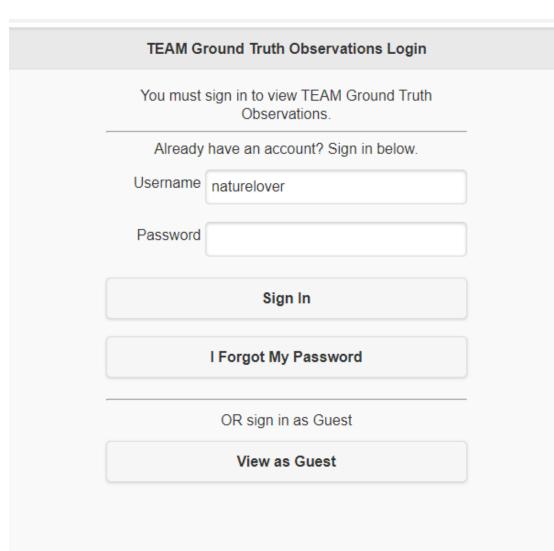
OK

#### If correct click the "Submit Ground Truth Observation"

You should receive a Thank you pop-up at the top of the website. You can view all of your submissions by going back to the TEAM Ground Truth pull down menu.



#### Ground Truth : Login to View Ground Truth Submissions

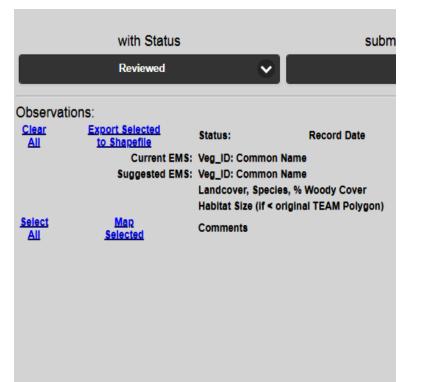


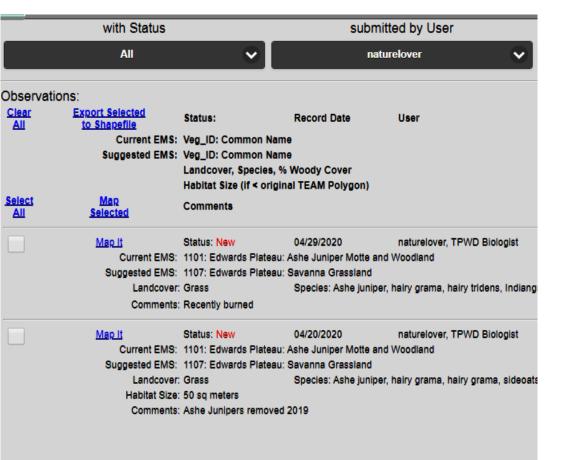
Use same login username and password as TEAM Ground Truth citizen science tool.

# Ground Truth : View Submissions

TEXAS MARKS à HILOLIFE	TEAM Ground Truth Observations						Filter by Status, User, Affiliation or Geography		
				List Obse	rvations (34)	_			
	with Status		submitt	ed by User		with Affiliation		located in Geography	
	All	~	I	AII 🗸		All	•	All Counties	~
Observat	tions:								
<u>Clear</u> All	Export Selected to Shapefile	Status:	Record Date	User				County	
		Veg_ID: Common Na	me						
		Veg_ID: Common Na							
		Landcover, Species,							
		Habitat Size (if < orig	inal TEAM Polygon)						
Select All	Map Selected	Comments							
	Map It	Status: New	04/29/2020	naturelover, TPWD Biologist				Travis	
			u: Ashe Juniper Motte and	Woodland					
	Suggested EMS: Landcover	1107: Edwards Plateau Orean		hains groups, hains foldane, and	ionarona little bluestern			% Woody Cover: 0-5%	
		: Recently burned	Species. Asne juniper,	hairy grama, hairy tridens, Ind	langrass, illie bidestern			% Woody Cover. 0-5%	
	Map It	Status: New	04/27/2020	Guest, Non-profit Conservati	on Professional			Val Verde	
		1207: Edwards Platea							
			Live Oak Slope Forest						
	Landcover		Species: agarito, Ashe	juniper, cedar elm				% Woody Cover: 51-75%	
	Map It	Status: New	04/27/2020	vivtest10, Land Manager/Ow	ner			Presidio	
	Current EMS:	8306: Trans-Pecos: M	ixed Desert Shrubland						
			ower Montane Riparian W						
		: Man-Made	Species: alkali sacator	n, Apache plume, Arizona cotto	nwood			% Woody Cover: 26-50%	
	Comments	000000							

# **Ground Truth : Filter**





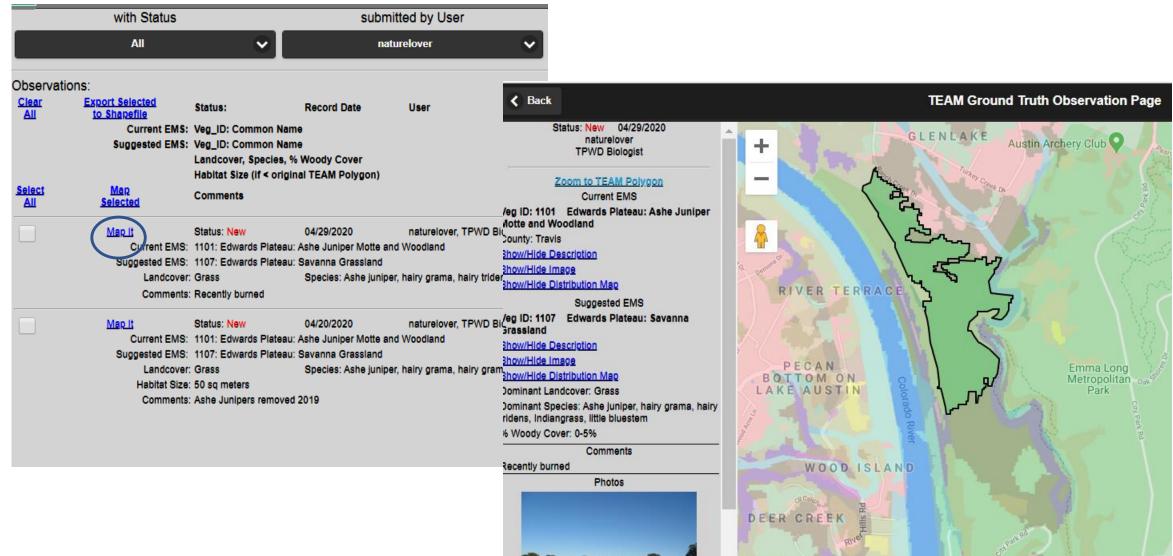
You can also filter by user affiliation or county.

Filter by Status: Allows users to view, new submissions, TPWD reviewed submissions, or those exported by TPWD

Filter by User, view only your own records or those of any user who is sharing information publicly.

# **Ground Truth : Filter**

Select Map it on any publicly availably submission to see the location of the Ground Truth data.

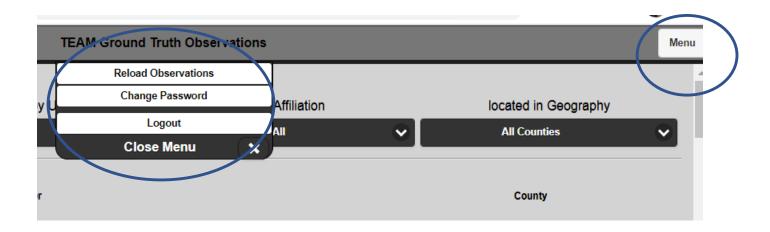


# Ground Truth : Export

To export shapefiles of data submissions please select the Ground Truth records you are interested in and click on **Export Selected** at the top of the page

EXAS ARKS & ILDLIFE				TEAM Ground	Truth Observatio	ns			,
				List Observ	vations (34)				
	with Status		submit	ted by User	v	with Affiliation	loca	ted in Geograph	ıy
	All	~		All 🗸		All	✓ AI	I Counties	~
Observa	tions								
Clear All	Export Selected to Shapefile	Status:	Record Date	User				County	
<u></u>		Veg_ID: Common Name	Ð						
	Suggested EMS:	Veg_ID: Common Name							
_		Landcover, Species, % Habitat Size (if < origina							
Select	Map	Comments							
	Selected	Commenta							
	Map It	Status: New	04/29/2020	naturelover, TPWD Biologist				Travis	
<u> </u>		1101: Edwards Plateau: /		I Woodland					
		1107: Edwards Plateau:		helm come helm hidows lade					
	Landcover: Comments:	Recently burned	Species: Asne juniper,	, hairy grama, hairy tridens, India	ngrass, little bluestem			% Woody Cover: 0-5	170
<b>~</b>	Map It	Status: New	04/27/2020	Guest, Non-profit Conservation	n Professional			Val Verde	
		1207: Edwards Plateau: 902: Edwards Plateau: L							
	Landcover:		Species: agarito, Ashe	a juniper, cedar elm				% Woody Cover: 51-	75%
	Comments	hhhhh							
	Map It	Status: New 8306: Trans-Recos: Mixe	04/27/2020	vivtest10, Land Manager/Own	ər			Presidio	
			Sector Sector						
EN	MSFBPolygonExpzip	^							Show all

# Ground Truth : Logout



To logout of your account, refresh/reload Ground Truth Observations, or change your password click on the menu button in the upper right-hand corner of the website.

A pop-up will appear in the middle of the screen, make a selection.

Texas Parks and Wildlife Department <a href="https://tpwd.texas.gov/">https://tpwd.texas.gov/</a>

Landscape Ecology Homepage https://tpwd.texas.gov/landwater/land/programs/landscape-ecology/

Ecological Mapping Systems of Texas Project Website <u>https://tpwd.texas.gov/landwater/land/programs/landscape-ecology/ems/</u>

Contacts

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Duane German duane.german@tpwd.texas.gov 512.389.8076