



Collector as a Tool for Field Data Collection

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Creating a Collector Geodatabase using ArcGIS: Pre-work and Definitions

License Requirements:

ArcGIS Desktop Advanced with Extensions Single Use Nonprofit Organization Program Fee and Term License. (*you will not be able to create a collector map with an individual account).

Service Credits:

Make sure you have enough “Service Credits”; this will allow you to publish your geodatabase as a service and maintain its availability online. If you find that you do not have enough credits, contact an ESRI specialist to have them write you a quote for a Non-profit service credit bundle (it’s about \$100 for 1,000 service credits). Your use of service credits, which are ‘spent’ daily, is proportional to the amount of data that you have stored in your online account. For example, if you add the soils for an entire County, you’re going to quickly burn through credits. If you only store small files on your account, 1,000 credits will last many, many years.

The Collector Application:

Unlock your phone and navigate to your “App Store” => Search “Collector for ArcGIS” => Download this application to your phone; you will need it later.

Helpful Definitions:

- **Geodatabase (GDB)**- A collection of geographic datasets (for example, a geodatabase might contain a dataset, known as a ‘feature class’, for “Owned Preserves” another for “Trails” that are on those preserves, and another for “Picnic Tables”) of various types held in a common file. Geodatabases can vary in size and complexity depending on user requirements.
 - **Feature class**- Essentially this is a “layer” or “shapefile” that you create within your Geodatabase.
- **Domain**- Lists that you link to your GDB to serve as a “drop down menu” within your feature class. *What’s a domain?* A fancy word for a collection of potential inputs that both simplifies and limits the inputs that can populate the record. That sounds a bit like gobbledygook, so here’s a simple example: Say you have a field that specifies whether or not you own the property on which a plant that you’re recording is located. Let’s call it “Owned”. Without a domain, the user can provide any input they like; from “Yep” to “Nope” to “Definitely!” If you created a domain, you might include two options; “Yes” and “No”. A user would then be able to select either of those options (or leave the field blank), but couldn’t add their own text.



Domains can be super useful if, for example, you're tracking a set group of plant species.

- **Coded values-** your personalized drop down list values (these coded values are linked to your "Field Names").
- **Code=description-** That is to say, the description of each coded value will often, indeed usually be the code as well. For example, you might have a coded value of "Garlic mustard", with a description to match. You could also have a code of "GM" and a description of "Garlic mustard", but we've found it to be a lot simpler to just keep 'em identical in most cases.
- **Field names-** Categories within your form. Essentially column headings. Imagine a spreadsheet of data that you might maintain about some sites. One column might be "Name of site", another "Acreage", another "Steward", and so on. Each of those would be a Field in the GDB.
 - **Data type-** Type of data (text, numerical, etc.) that you will specify in each feature class/layer of your GDB. You do this twice. First, you tell the computer what type of layer each Feature Class will be; a point, line, or polygon. Then, you specify what type of data each Field (those columns described above) will contain; text, a whole number, a decimal, a date, etc.
- **Database properties-** The place where you create and edit your domain; your domains also live here.
- **Web map-** An interactive display of geographic information that you can use to tell stories and answer questions. May contain a base map; layers; an extent; a legend; and navigation tools such as zoom, pan, place finders and bookmarks. Maps can be opened in standard web browsers, mobile devices, and desktop map viewers. They can be shared through links, embedded in websites and used to create browser-based and device-based apps. You've probably used these in your daily work, even if you didn't know it. The I-View map of protected natural lands is a web map, as are a lot of County services that you can use to visually locate and identify specific parcels.

Form Design:

In our example, we create a very simple form for data collection where we might collect information on:

- Collector: (name of person collecting data)
- Species: (name of species being collected)



| Designing your forms for Collector | | | |
|---|-------------------------------|--------------|---|
| KEY | FORM ORGANIZATION/LAYOUT | | NOTES |
| Color key/Collector Code: | Native Seed-Location | | |
| Name of Feature Class/Layer | Collector | Text | Who is collecting your data? Will it be the same individuals? You can make a list (domain) of the people who will be collecting your data. In the field you will be able to select for a drop down list. |
| <i>Feature class properties (Field name: Data Type)</i> | Species | Text | What species are you marking? You can create a list (domain) of the species you might be collecting data on. In the field, you will be able to scroll through this list and select the species of interest. |
| | Location | Text | Do you have a list of your sites? Create a list (domain) of the names of the properties you plan to collect data at; in the field you will be able to select a property on your list. |
| | Date | Long integer | |
| | Notes | Text | |
| | | | |
| | Native Seed-Collection | | |
| | Collector | Text | Link to domain later |
| | Species | Text | Link to domain later |
| | Location | Text | Link to domain later |
| | Date | Long integer | |
| | Volume | Text | |
| | Hours | Long integer | |
| | Number of volunteers | Long integer | |



| | | | |
|--|---------------------------------------|--------------|----------------------|
| | Notes | Text | |
| | | | |
| | Invasive Plants-Location | | |
| | Collector | Text | |
| | Species | Text | Link to domain later |
| | Location | Text | Link to domain later |
| | Date | Long integer | |
| | Notes | Text | |
| | | | |
| | Invasive Plants - Removed | | |
| | Collector | Text | Link to domain later |
| | Species | Text | Link to domain later |
| | Location | Text | Link to domain later |
| | Date | Long integer | |
| | Hours | Long integer | |
| | Number of volunteers | Long integer | |
| | Notes | Text | |
| | | | |
| | Easement Violations - Location | | |
| | Collector | Text | Link to domain later |
| | Location | Text | Link to domain later |
| | Date | Long Integer | |
| | Notes | Text | |



***Designing these forms ahead of time is helpful for when you get to **step 4** in the instructions booklet.

Sources:

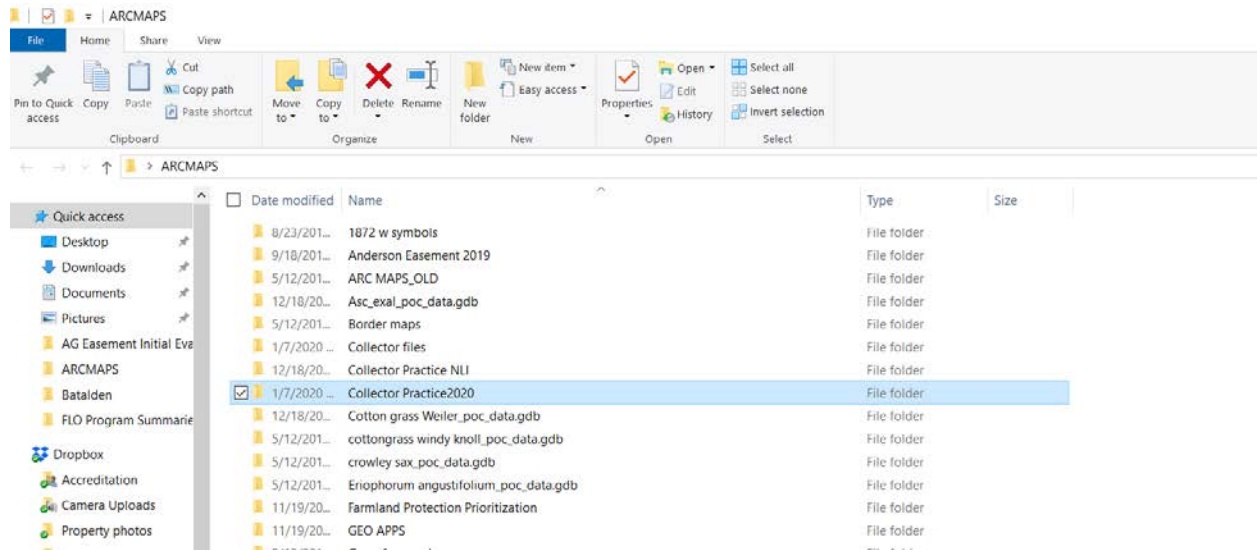
www.arcgis.com



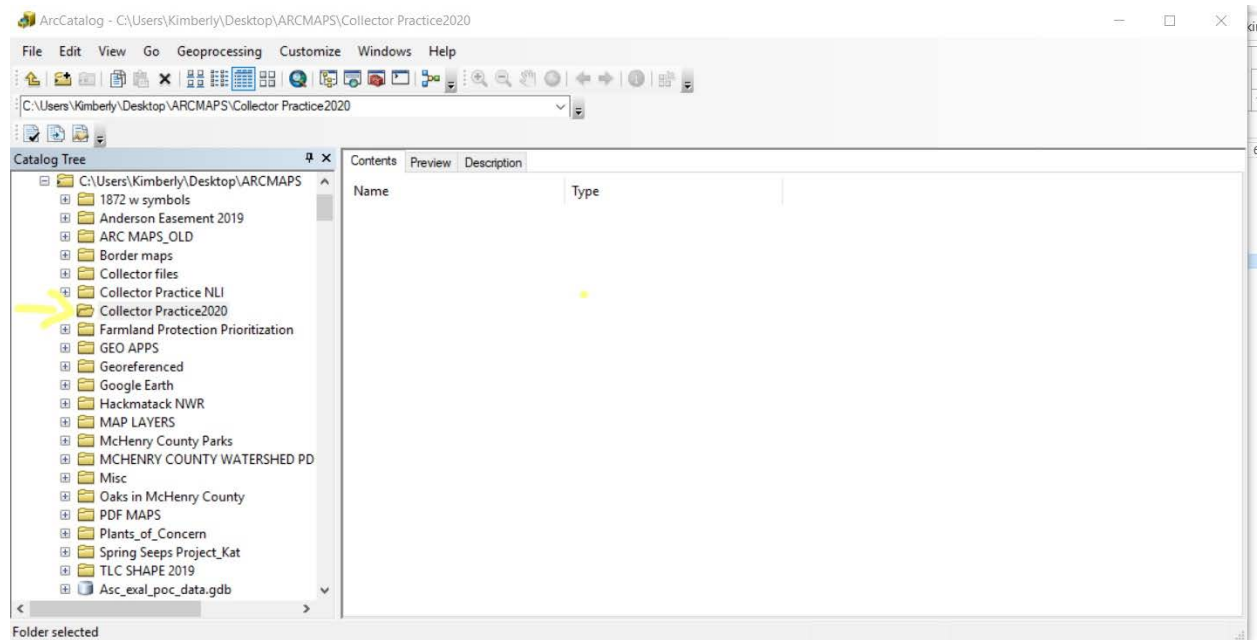
Creating a Collector Geodatabase using ArcGIS: Instructions Booklet

Steps 1-3: Creating a place to store your Geodatabase

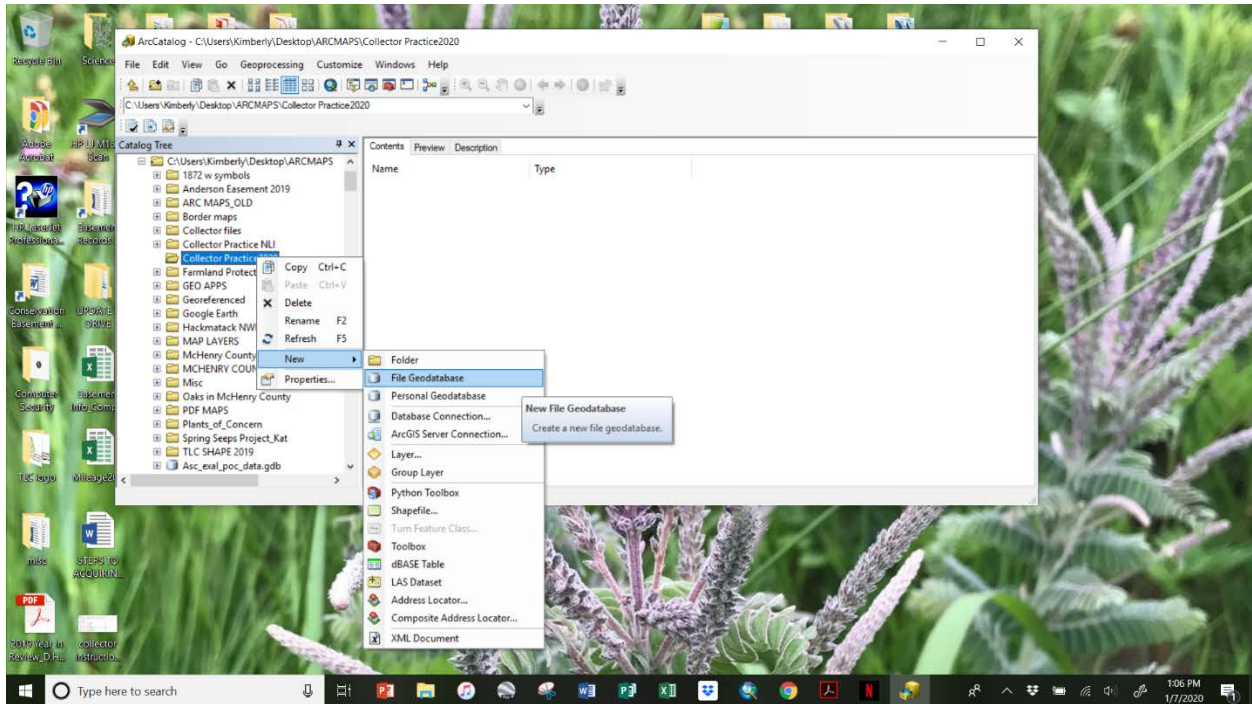
1. Create a “New Folder” in the location that you want to store your Geodatabase (GDB).



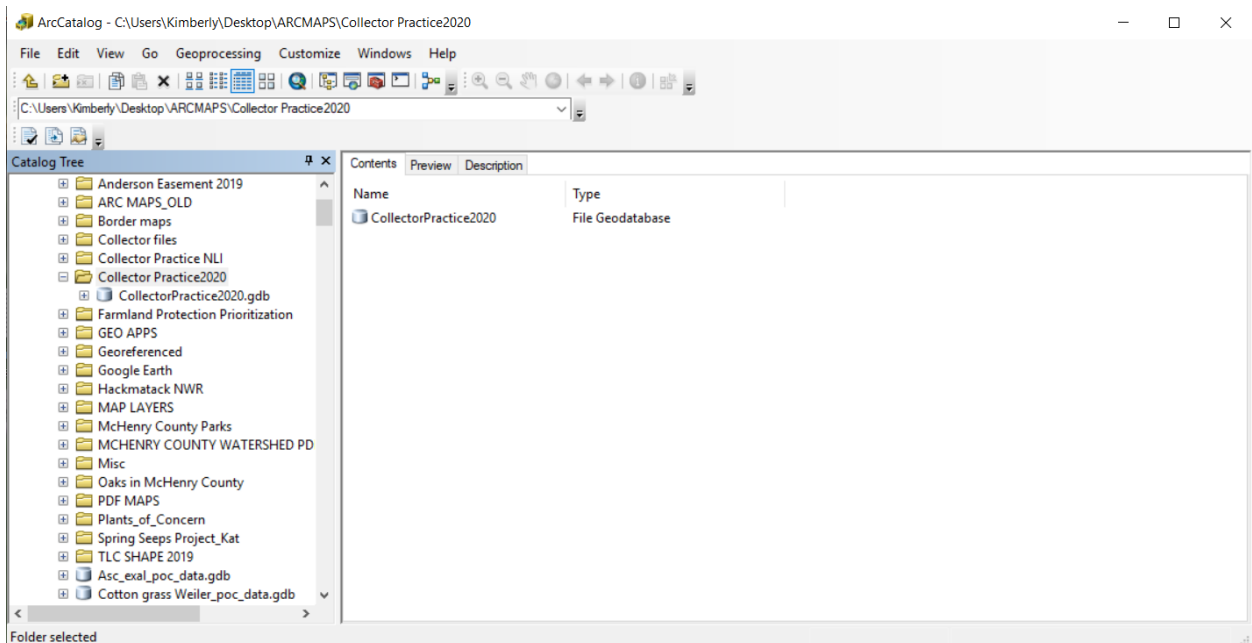
2. Open ArcCatalog and Navigate to that folder



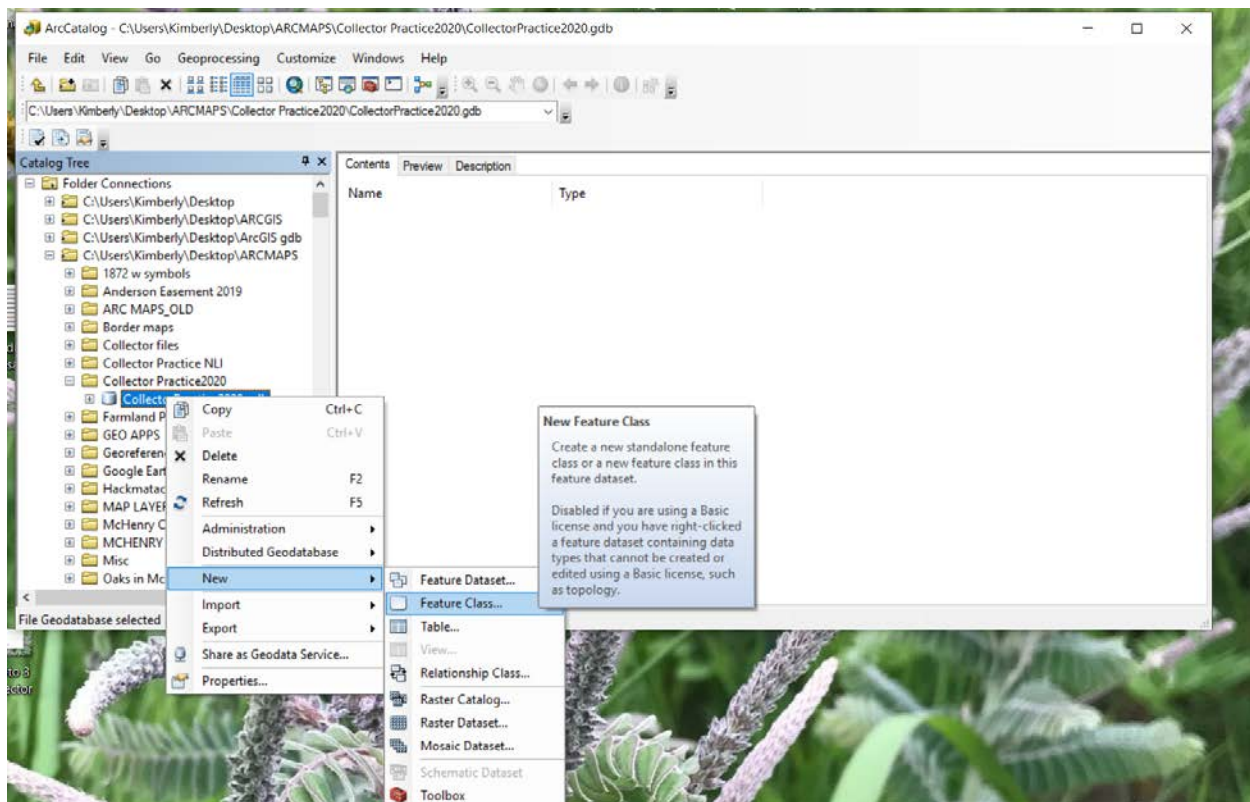
a. Right click your folder, select: new, file geodatabase.



b. Now you have an empty GDB.

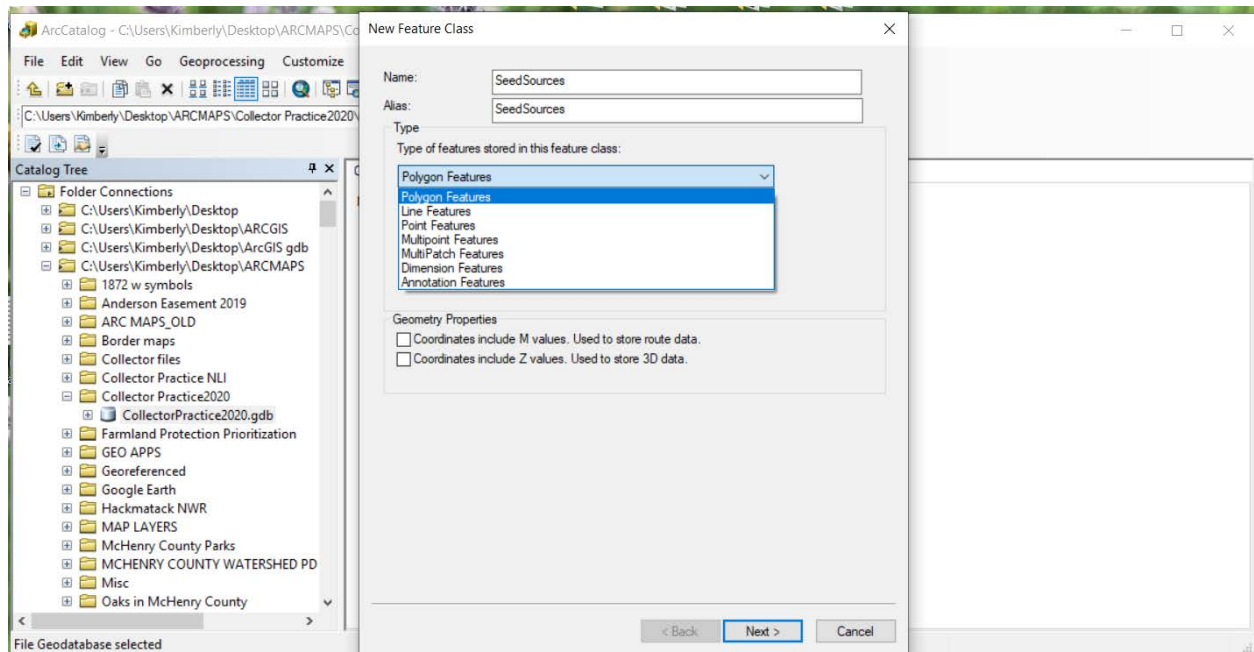


3. Right click the file GDB, select: “New, Feature Class”

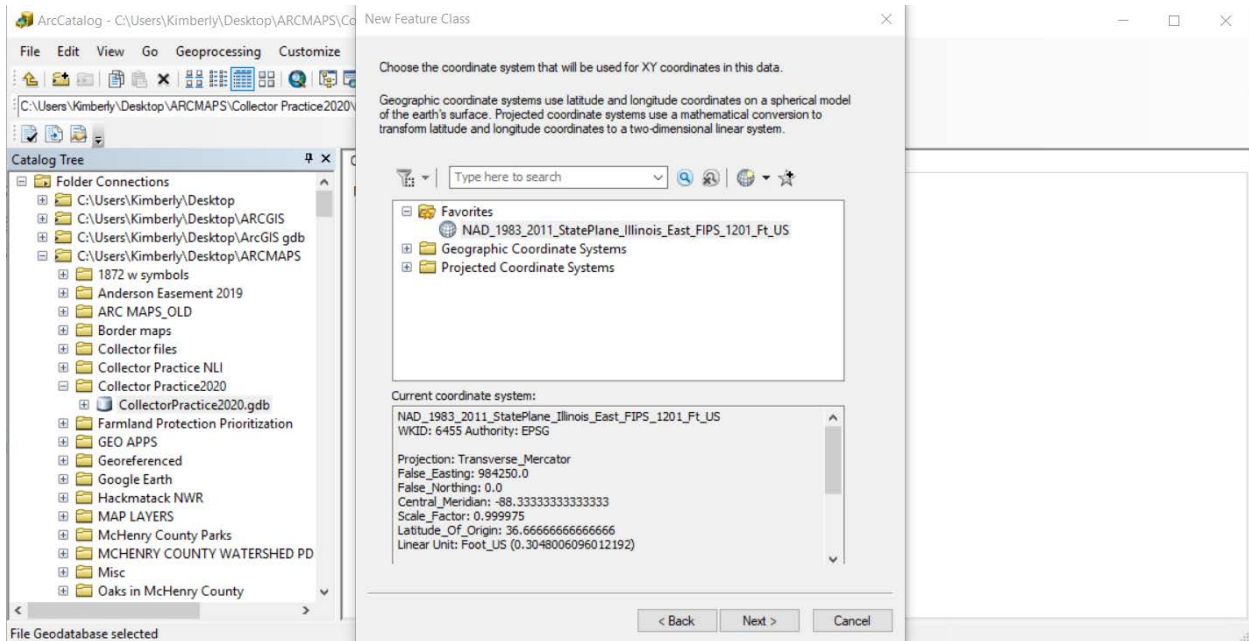


4. FEATURE CLASS

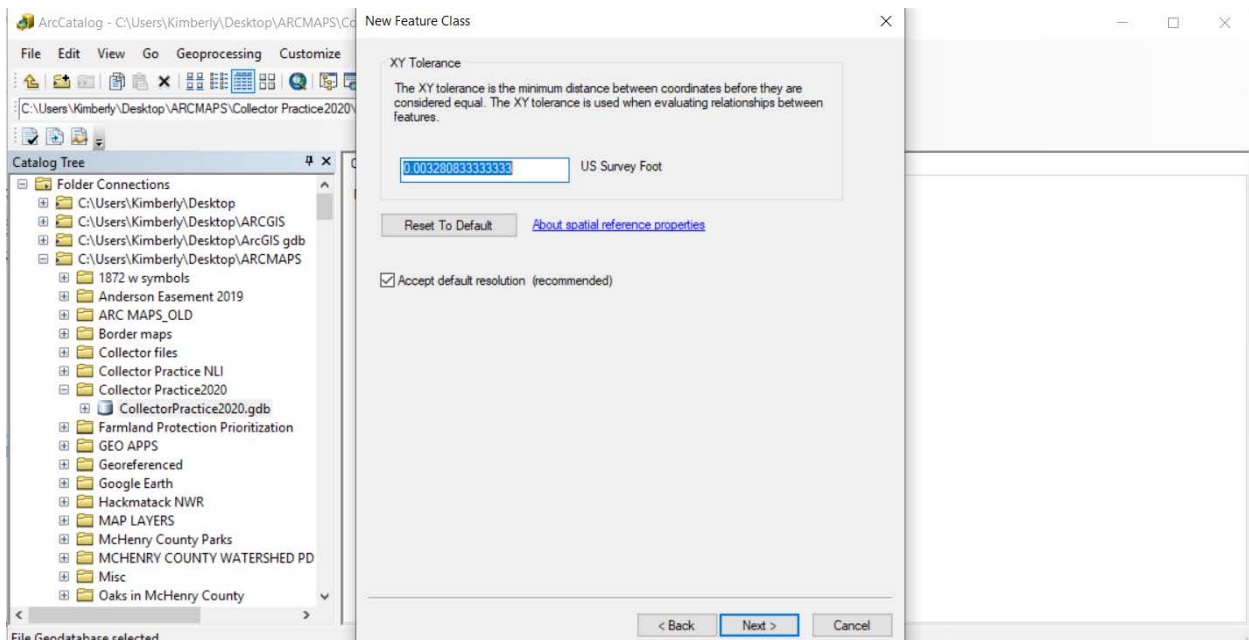
- a. Name the feature class and give it an “alias”
- b. Choose the “Type” of feature you want to collect by clicking the drop down menu and select the type of data you want to collect (Polygons, points, lines etc.).
- c. Click Next.



d. Set your geographic coordinate system – choose what you normally use for your region. In Illinois, you'll *likely* use Illinois State Plane East (NAD 83) if you're in the eastern half of the state, Illinois State Plane West (NAD 83) if you're in the west, or Illinois State Transverse Mercator if you operate in both regions. If you're of a metric bent, you probably use UTM Zone 16 (NAD 83).

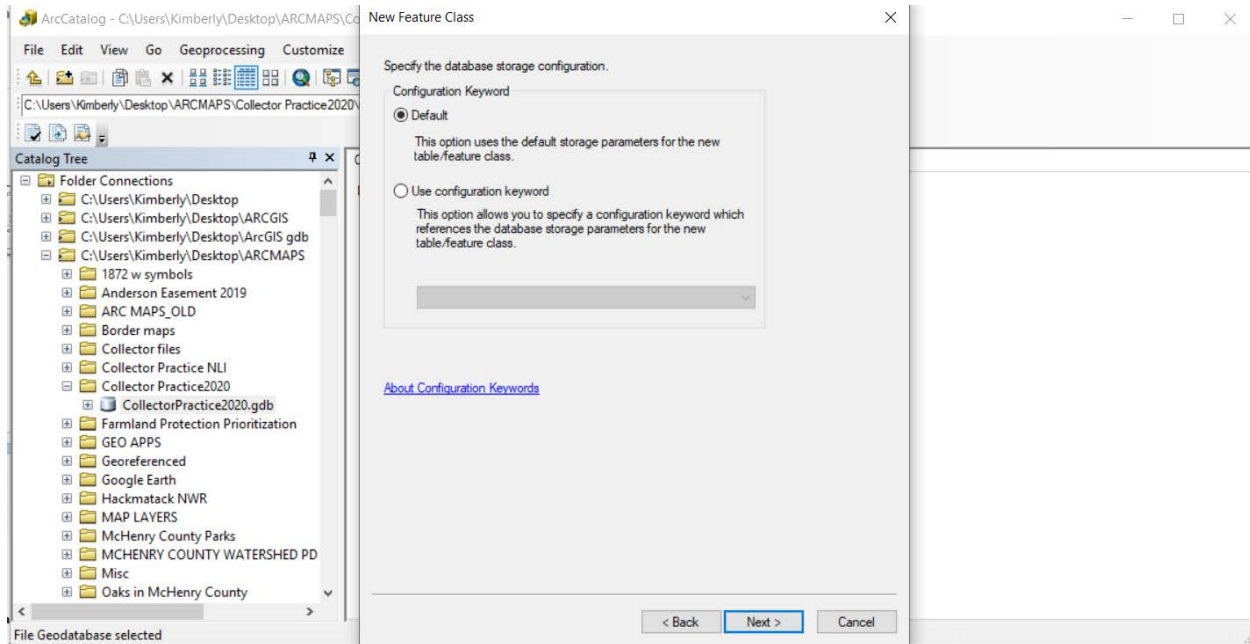


e. Click next when the XY Tolerance window pops up (it will automatically populate).





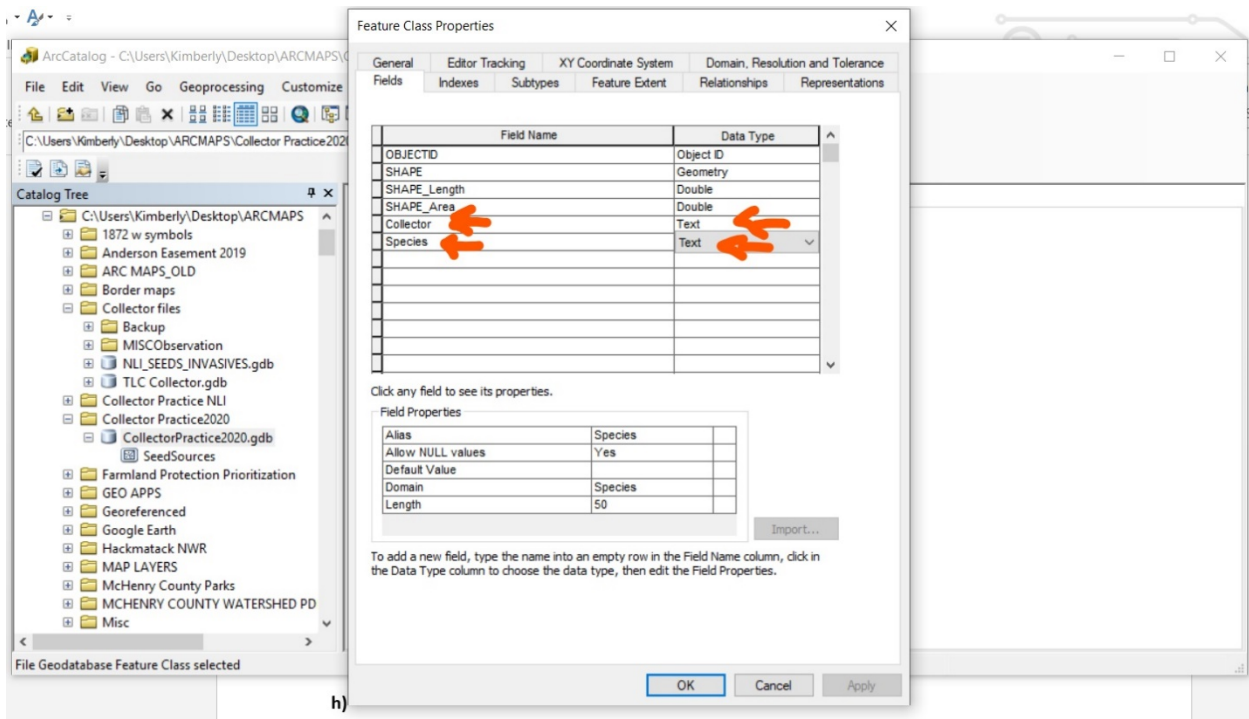
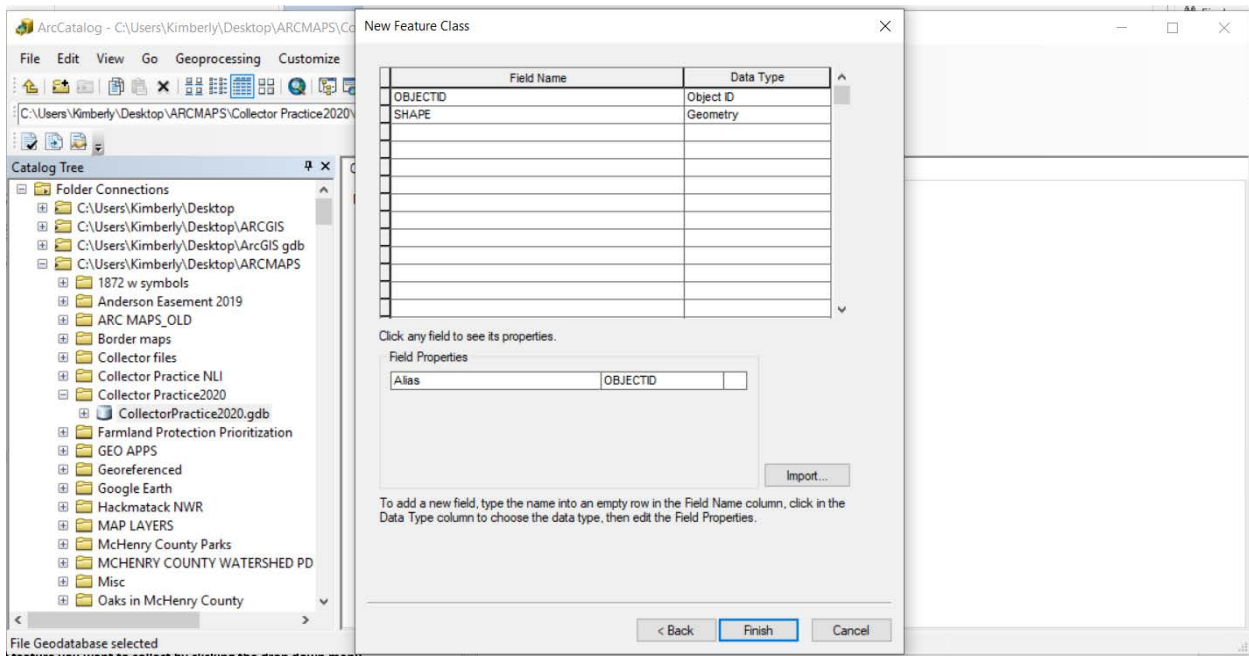
f. Click next (default will automatically be selected) when specifying the database storage configuration.



g. Here you will type in as many **“Field Names”** as you want, depending on the data you want to collect. *Refer to the forms you created in the Pre-Work Section of your packet.

*Additionally, you will specify the **“Data Type”** for each field (drop down menu), which dictates the type of information you want to collect (number, text etc.).

**Simply click on the box to permit typing.

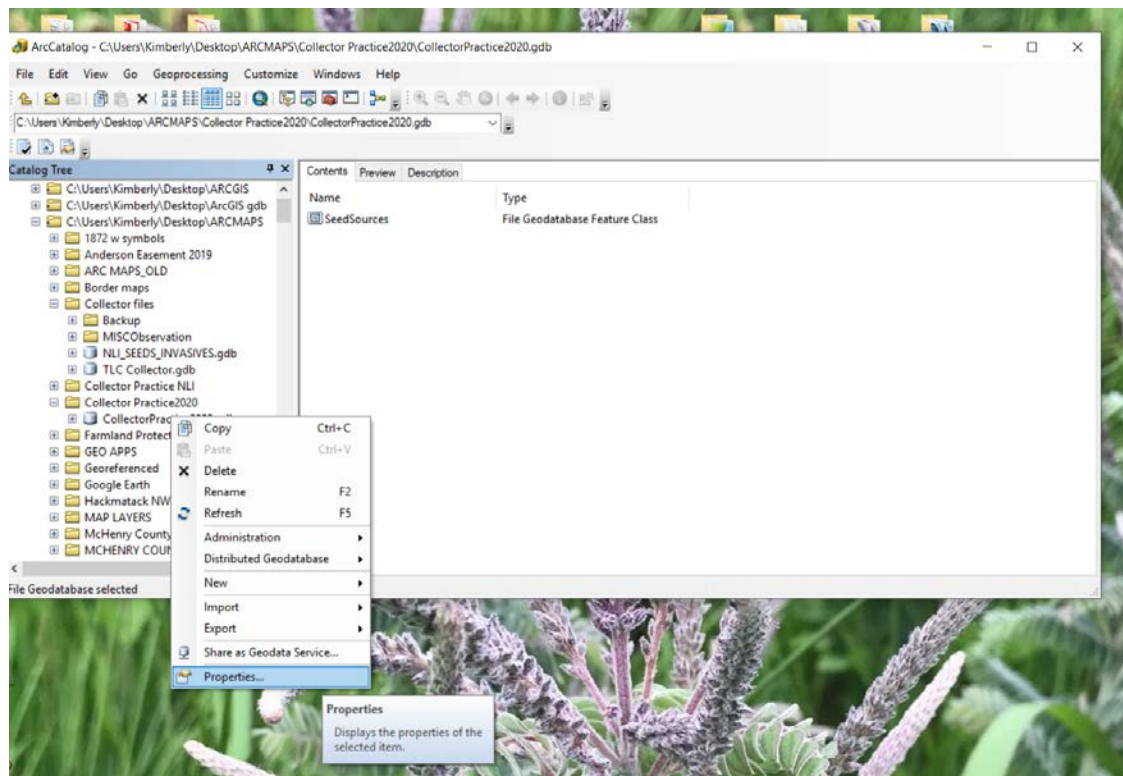


h. SIDE NOTE*****You can always type in the name of the species you are collecting BUT If you want a drop down list of “Species” (or any other category) you can create a “Domain” so that you can select choices from a drop down list (that you customized)in the field. Remember though that it’s an either-or proposition. You can *either* type in information *or* you can select from pre-determined selections via a drop down menu.

What’s a domain? A fancy word for a collection of potential inputs that both simplifies and limits the inputs that can populate the record. That sounds a bit like gobbledygook, so here’s a simple example: Say you have a field that specifies whether or not you own the property on which a plant that you’re recording is located. Let’s call it “Owned”. Without a domain, the user can provide any input they like; from “Yep” to “Nope” to “Definitely!” If you created a domain, you might include two options; “Yes” and “No”. A user would then be able to select either of those options (or leave the field blank), but couldn’t add their own text. Domains can be super useful if, for example, you’re tracking a set group of plant species.

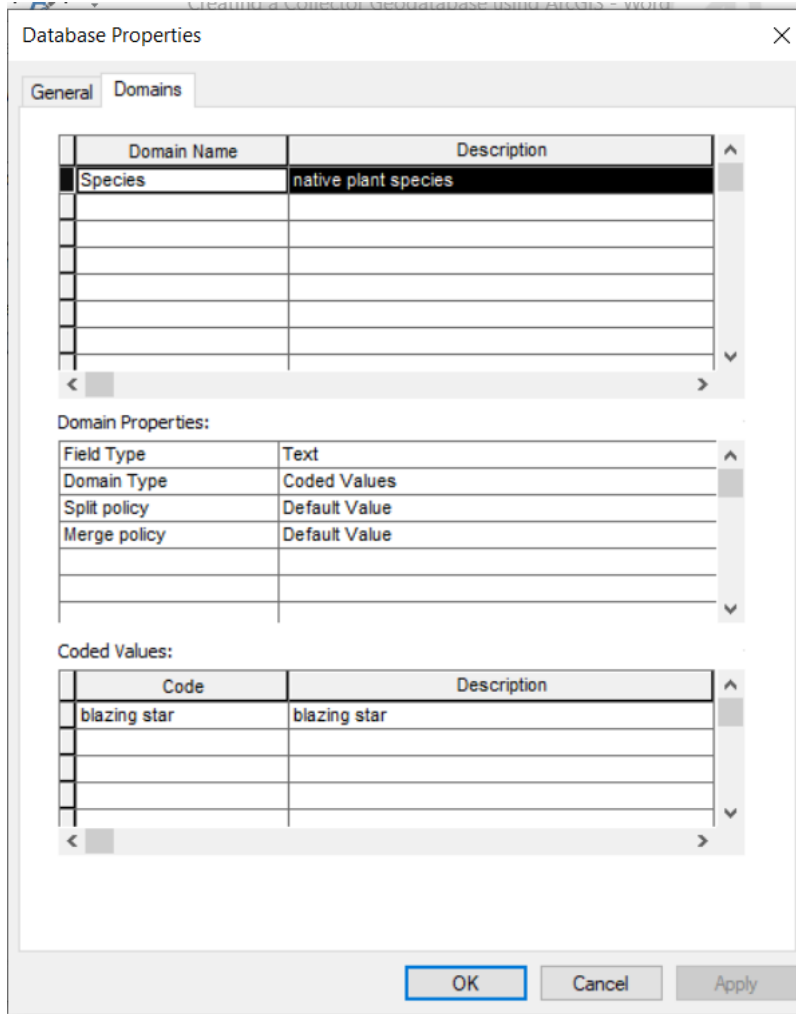
5. CREATING DOMAINS

a. Open ArcCatalog and navigate to you GDB, right click the GDB (*not* the Feature Class you just created!) and select “properties”



b. The “Database Properties” window will appear.

i. The description can be whatever you want it to be.

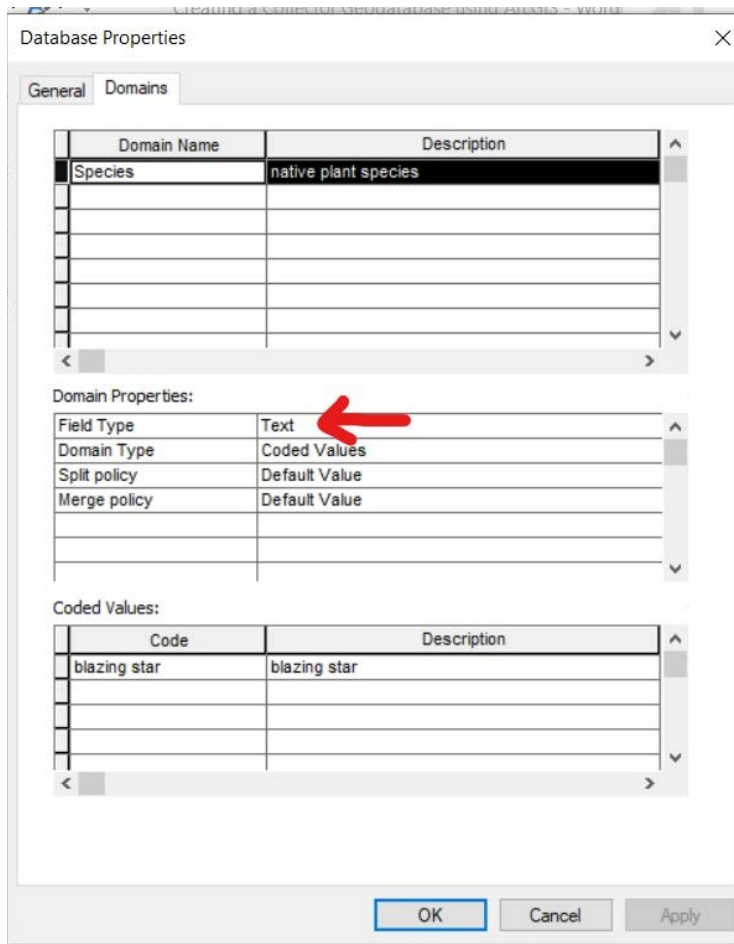




c. In section two of this popup box (**Domain Properties**) => change your **“field type”** to text or long integer, etc., etc. depending on what type of dropdown list you are making. (i.e. DEPENDING ON THE FORMS YOU MADE EARLIER)

***The “Field Type” in database/domain properties should be the same as the “Data Type” in the Feature Class field that you want to link to (from step 4g).

***In our example both are set to “Text” ***



Important note* in the image below you can see that the first row of the top section is selected. This gives you access to edit the **“CODED VALUES”** within that domain/list (3rd section in the image)

Important note** when typing your **“CODED VALUES”** type **THE SAME THING** into the description box (view 3rd section in below image) (**technically you don’t have to type identical names but it seems to be a good practice)

Important Note***you can have as many coded values in your list as you want (I.E. YOU CAN HAVE THOUSANDS OF SPECIES IN YOUR LIST)

Database Properties

General Domains

| Domain Name | Description |
|-------------|----------------------|
| Species | native plant species |
| | |
| | |
| | |
| | |
| | |

Domain Properties:

| | |
|--------------|---------------|
| Field Type | Text |
| Domain Type | Coded Values |
| Split policy | Default Value |
| Merge policy | Default Value |
| | |
| | |

Coded Values:

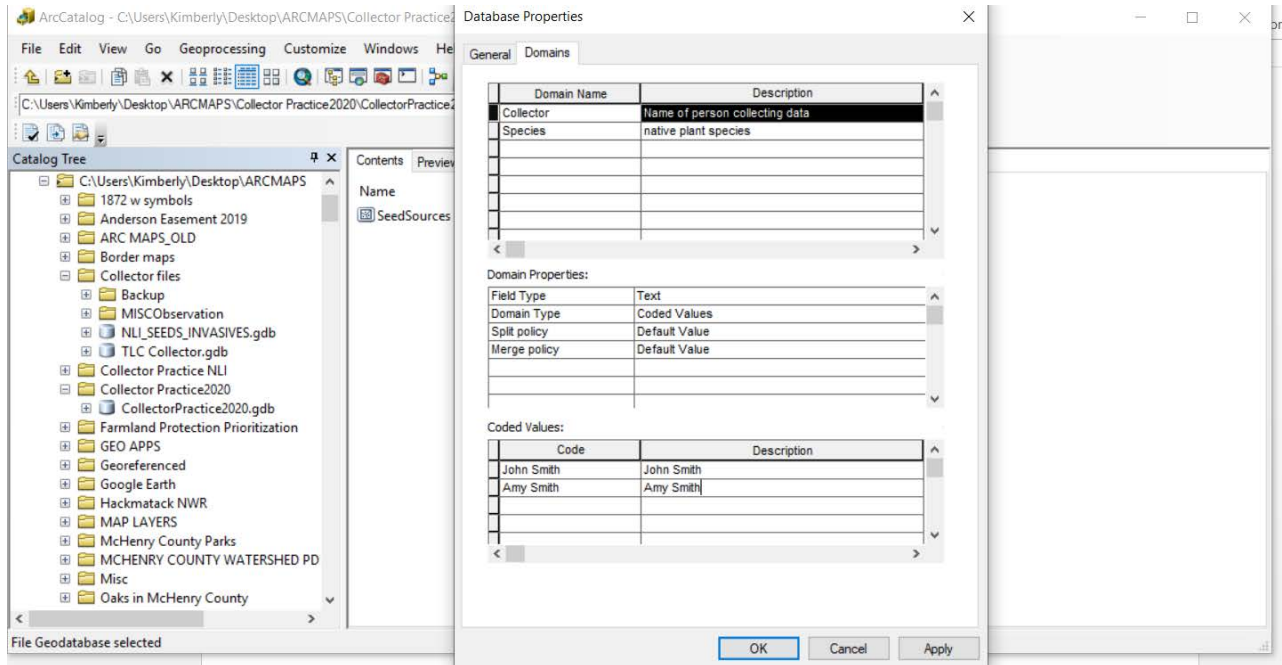
| Code | Description |
|--------------|--------------|
| blazing star | blazing star |
| | |
| | |
| | |

OK Cancel Apply



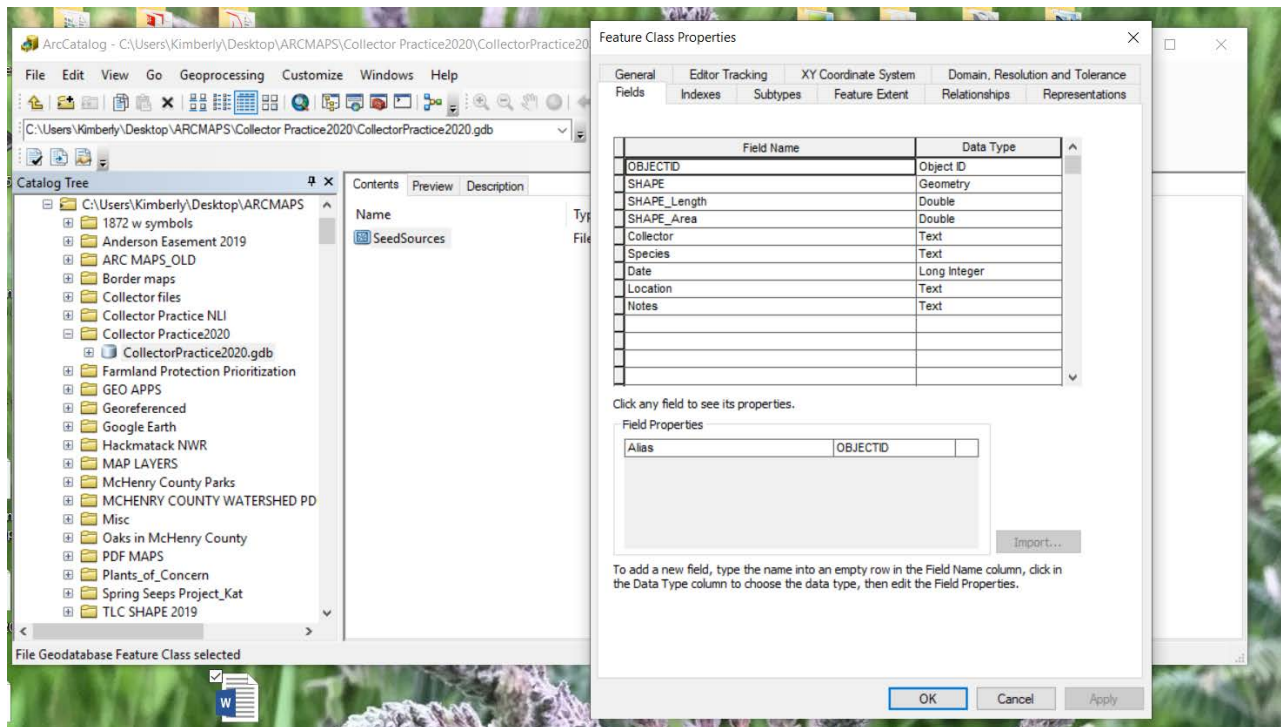
d. You can create multiple domains! The image below shows a “Collector” domain and a “Species” domain; each of which have their own dropdown list/coded values.

*Make sure to **apply** changes during editing so your lists are saved. *



e. Add any and all information you want to collect, in the **“Field Name”** and **“Data Type”** columns (based on the forms you made during the pre-work section)

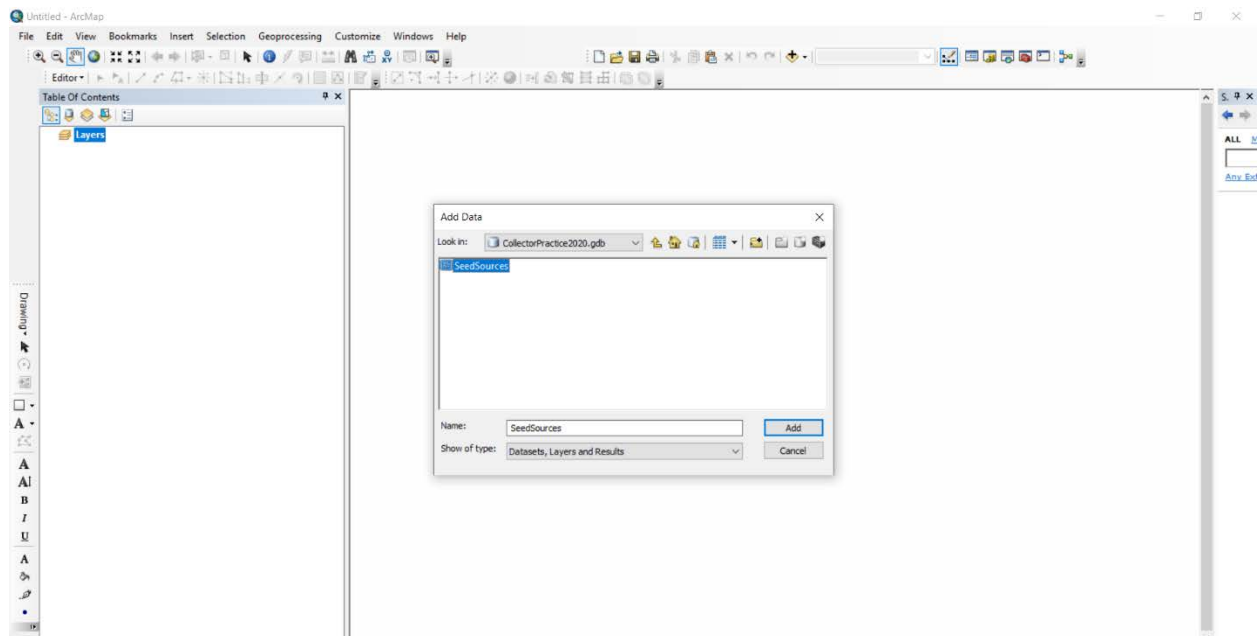
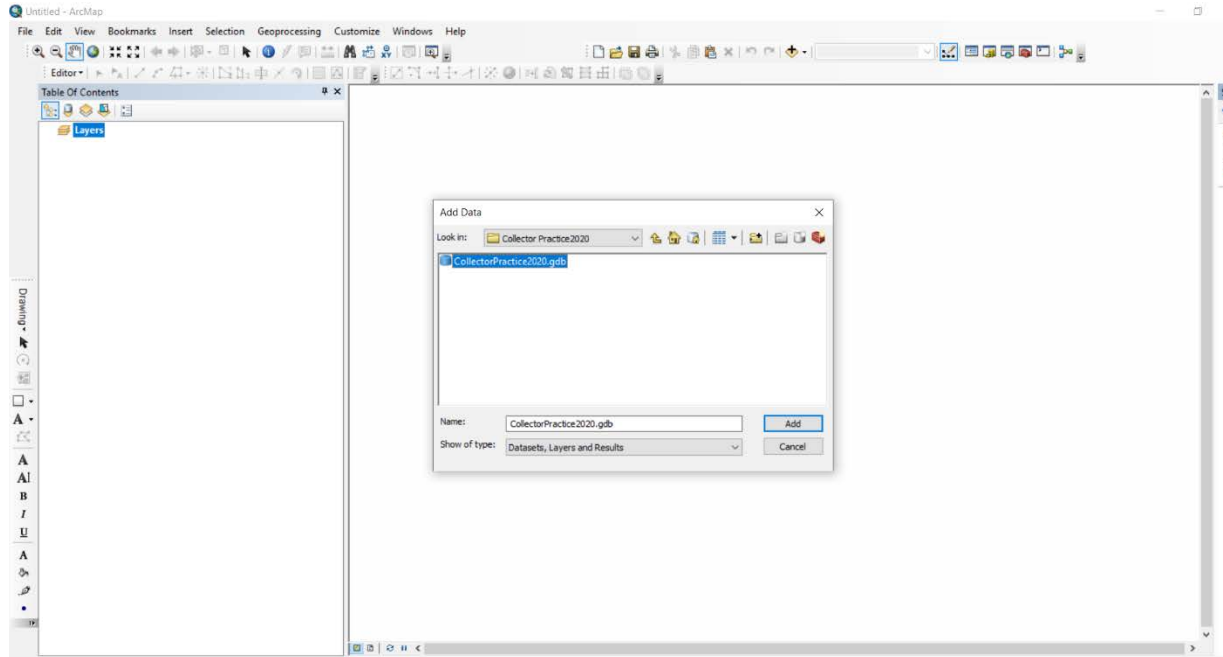
* If you don’t associate a field with a domain, the user can fill in the field with whatever input they want, so long as it’s the right ‘type’ of input. For example, if you’ve got a field where the type of data is set to a number, the user won’t be permitted to add “Sunny” or even “Thirty-two”. They could only add numerals; like “43.6”.

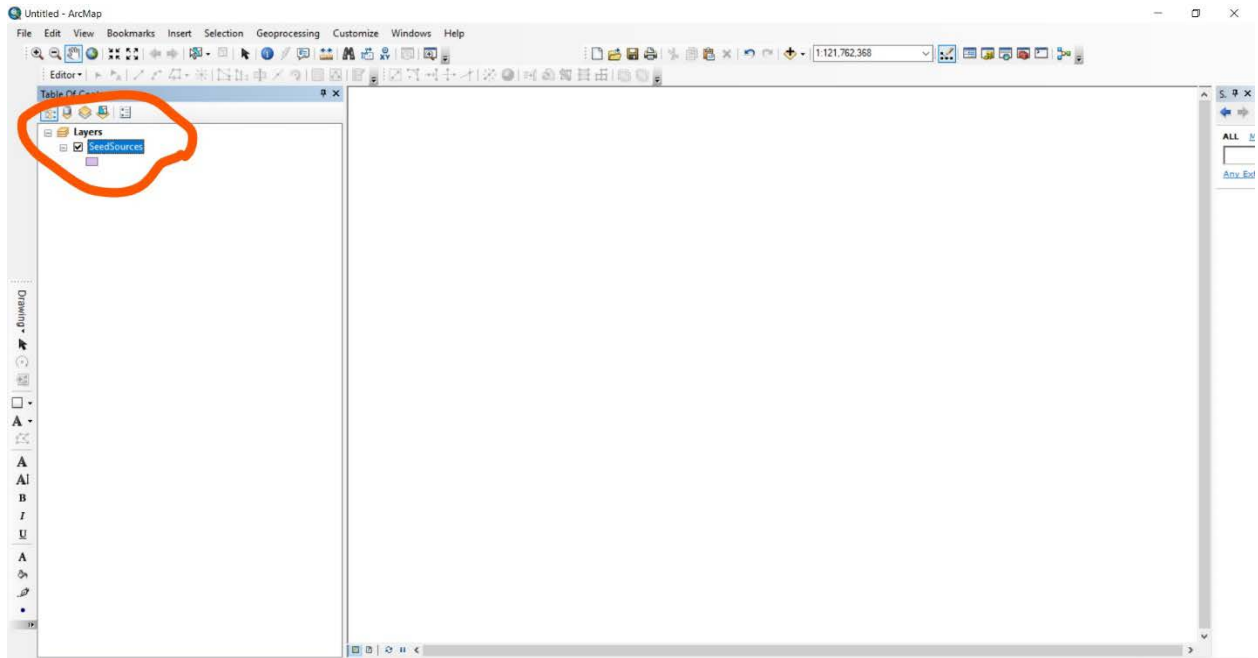


f. Once you have completed the Field Name, Data Type and Domain lists (and applied all changes to save your work) close ArcCatalog.

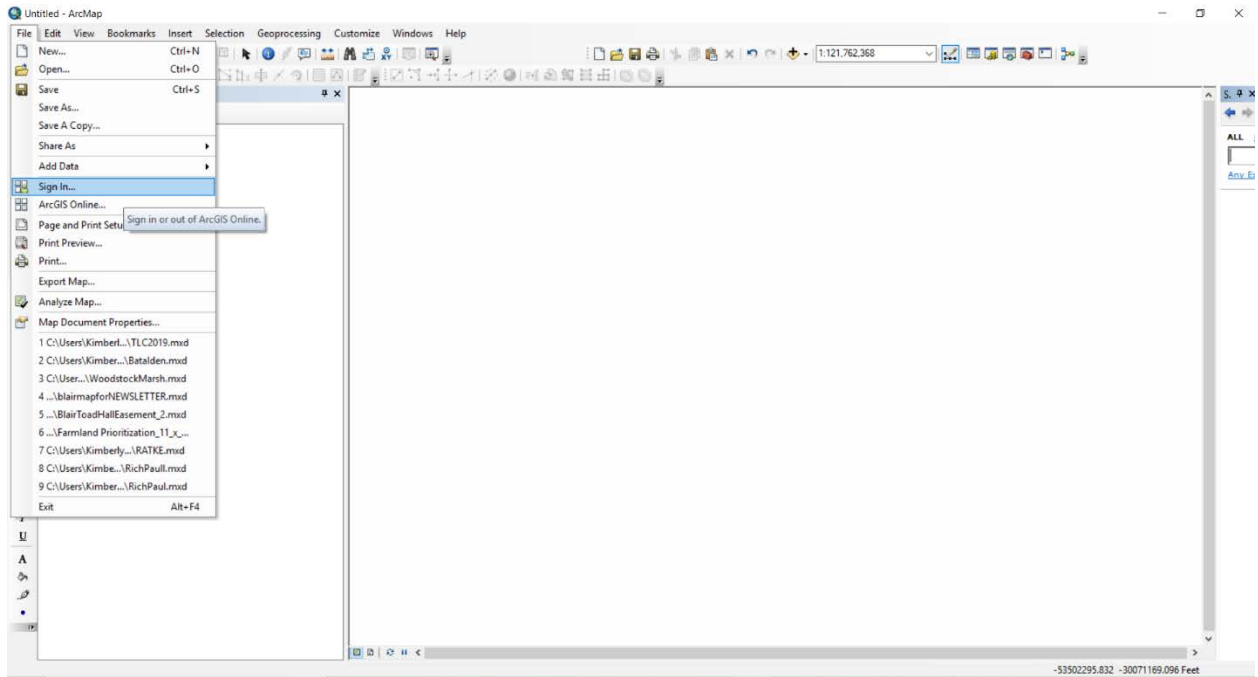
Steps 6-8: Preparing to publish your Geodatabase as a service

6. Open ArcMap and add/import the GDB you just made and from there the Feature Class(es).





7. Sign into your online account





Untitled - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

Editor


Table Of Contents

Layers


- LocalSources

ArcGIS Sign In

ArcGIS Desktop wants to access your ArcGIS Online account information

Sign In 

ArcGIS Desktop developed by:

 Esri

Esri publishes a set of ready-to-use maps and apps that are available as part of ArcGIS. ArcGIS is a mapping platform that enables you to create interactive maps and apps to share within your organization or publicly.



Username: Landconserve015

Password: [REDACTED]

[Forgot password?](#) [Forgot username?](#)

OR

Sign in with

Sign in with  

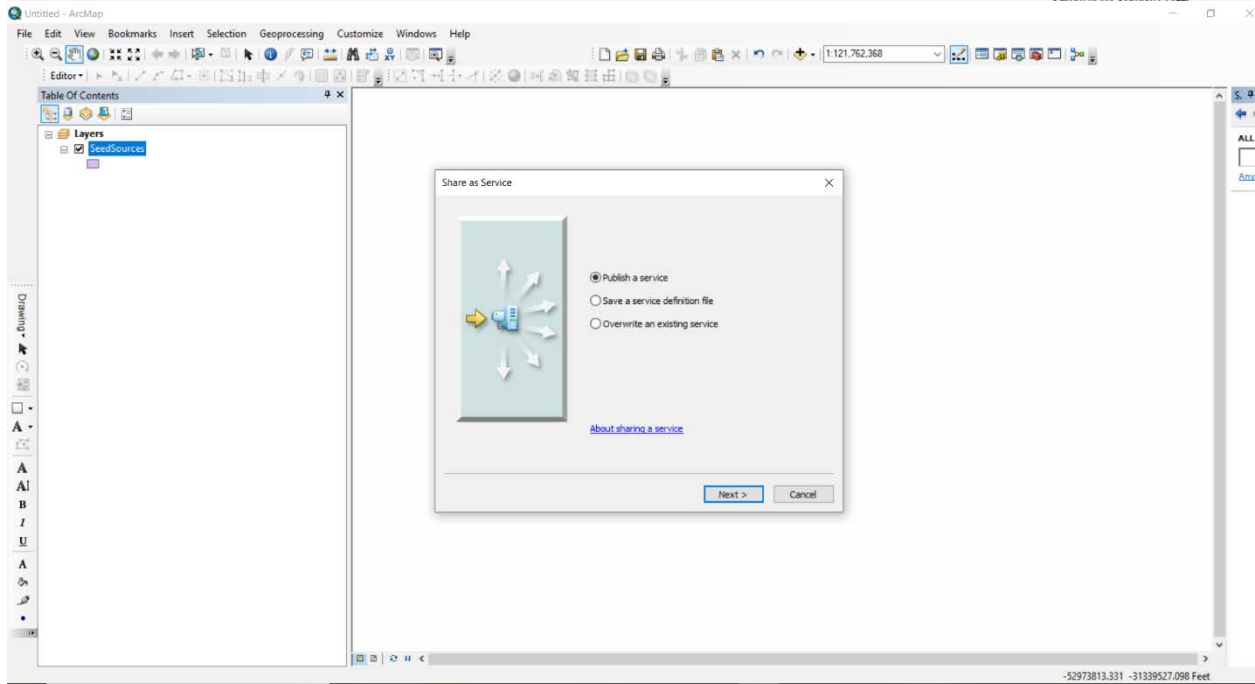
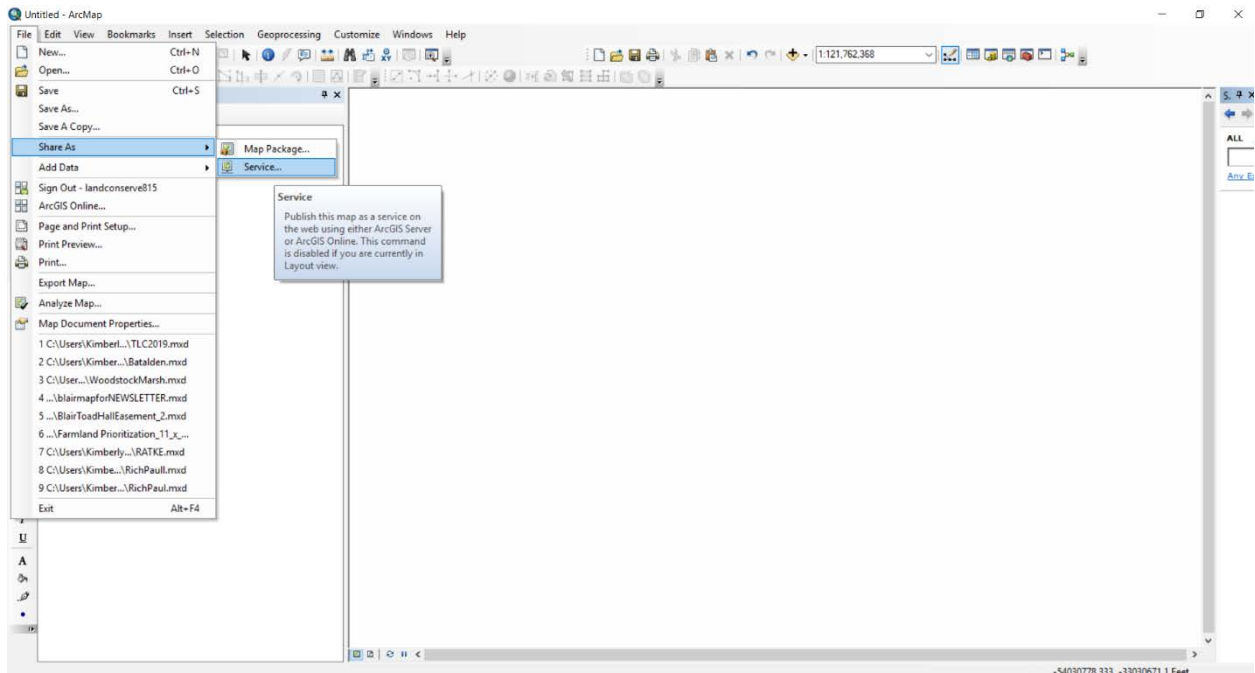
[Privacy](#)

Sign me in automatically

-52762420.331 -22883807.085 Feet

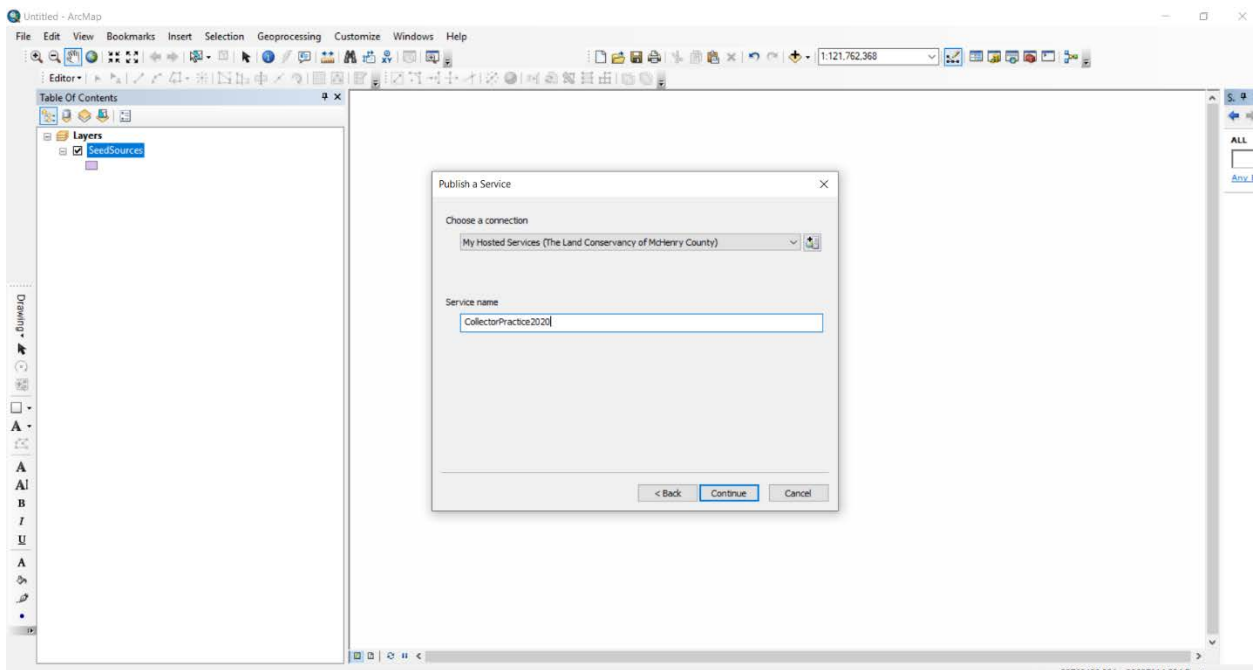
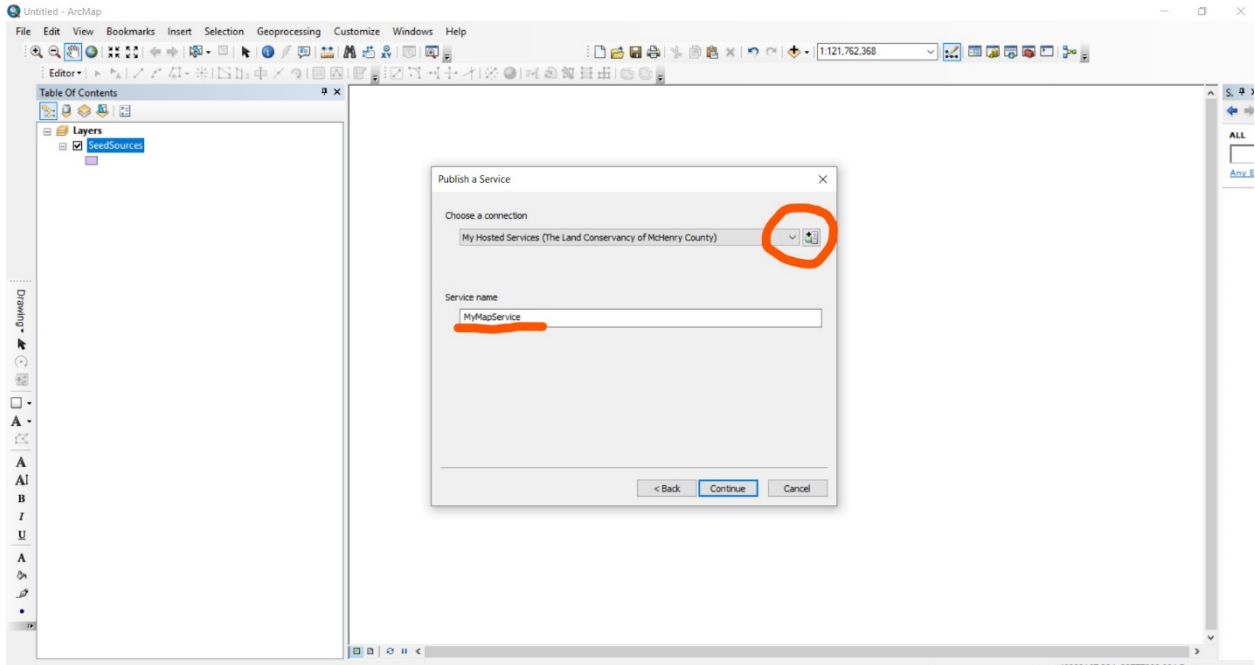


8. Click File => Share As => Service => Next



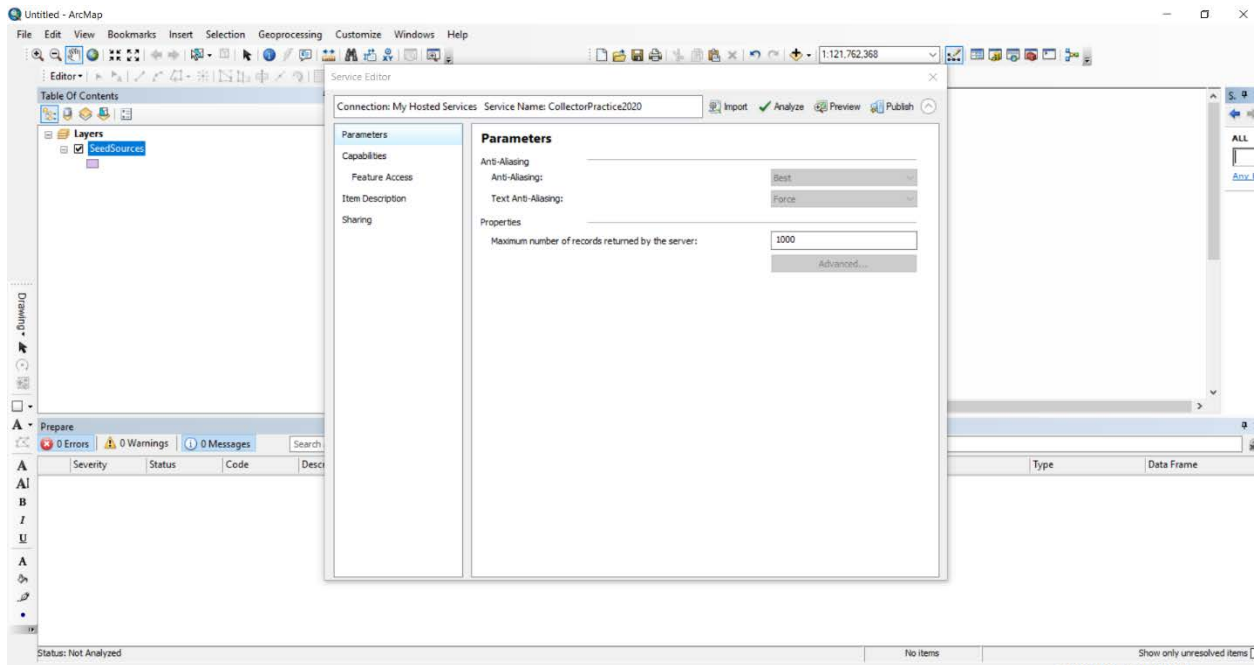
a. PUBLISH YOUR SERVICE (*REMEMBER YOU HAVE TO HAVE AN ORGANIZATIONAL ACCOUNT FOR THIS!!!!)

- i. Choose a connection (You will choose your organization)
- ii. Name your GDB by filling in the **“Service Name”** section.
- iii. Click Continue
- iv. A “Service Editor” will popup

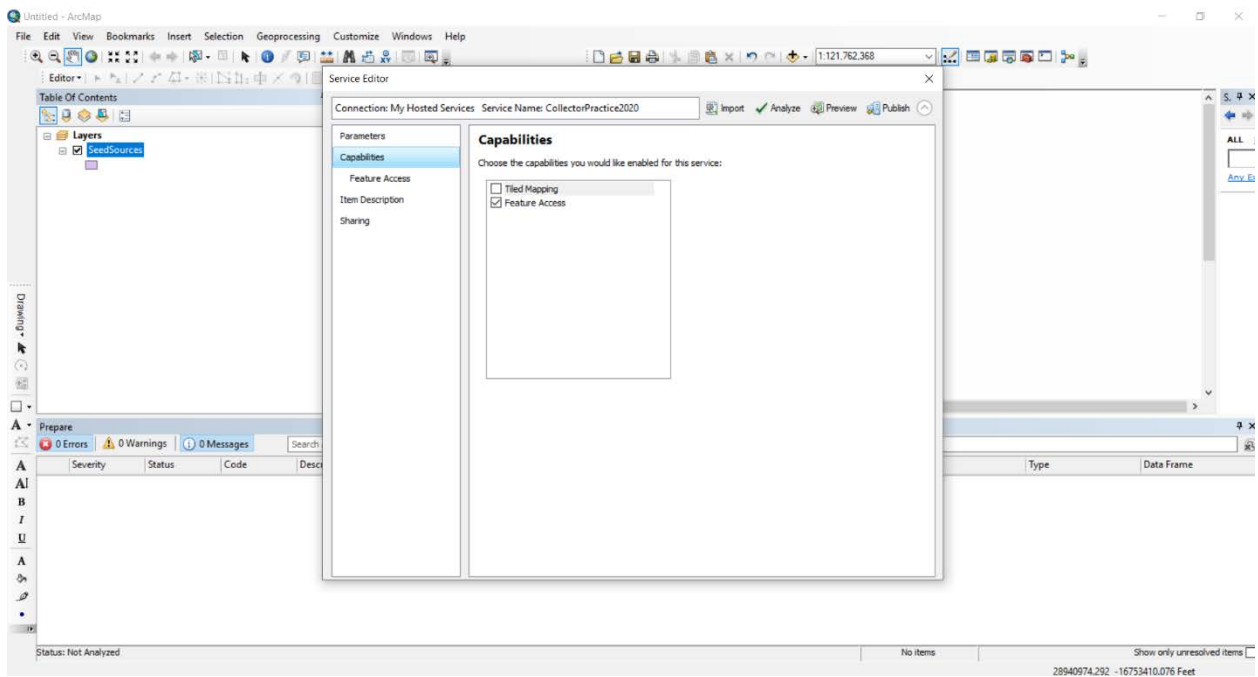


9. SERVICE EDITOR

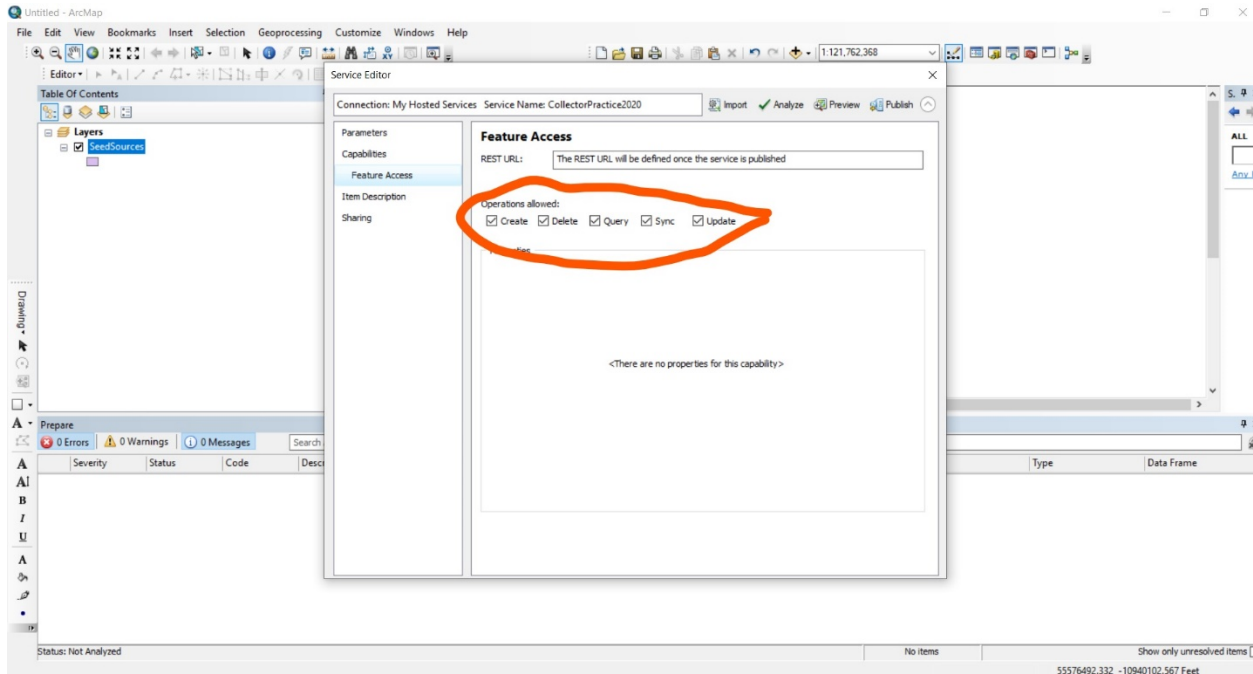
a. Parameters => NA/do nothing



b. Capabilities => NA/do nothing

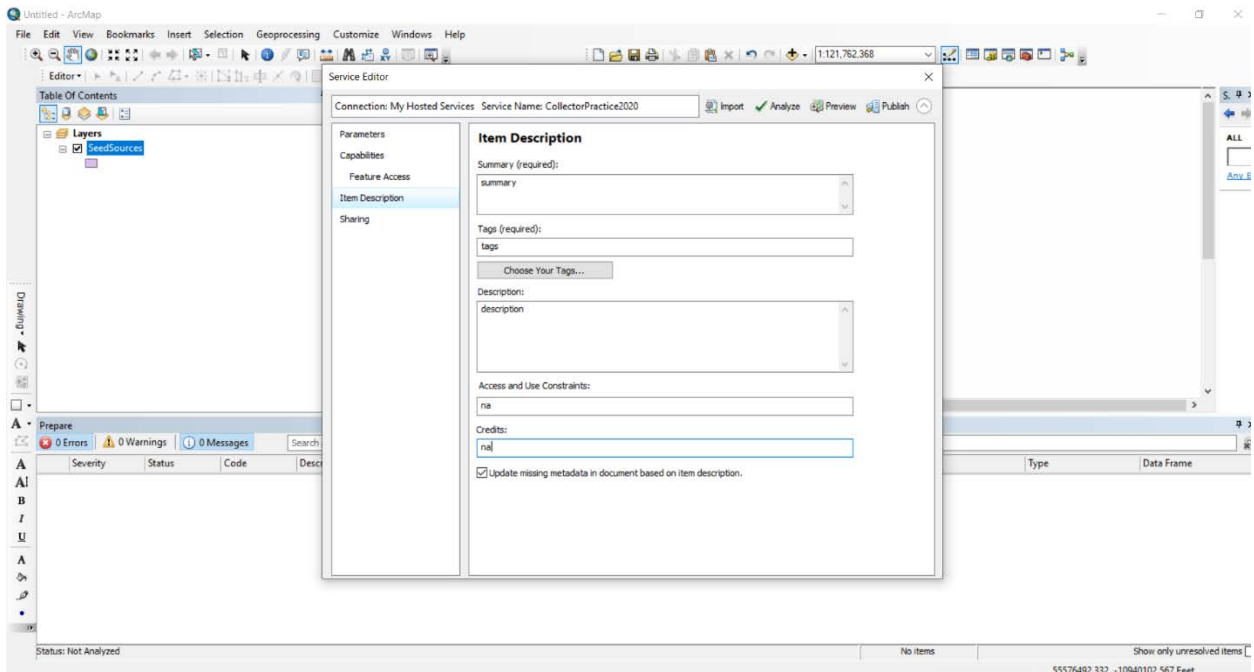


c. Feature Access => You will likely want to click all of the boxes here (depending on what you want to allow users to do when collecting this data)

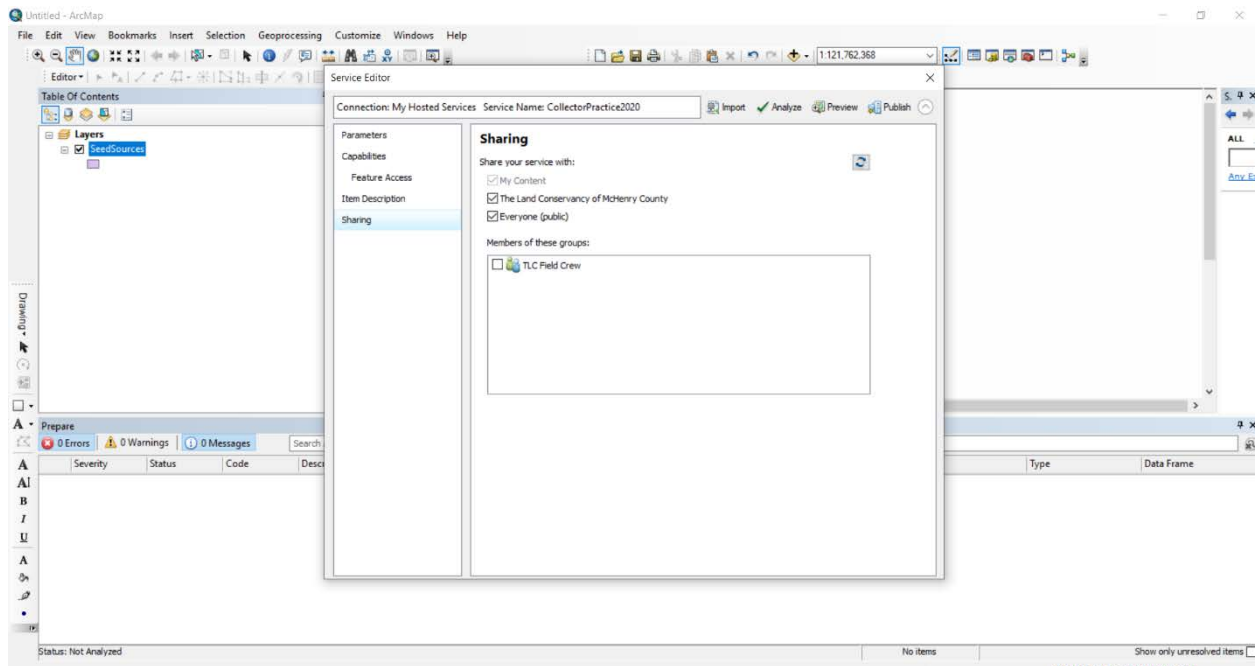




d. Item description => Fill in the blanks



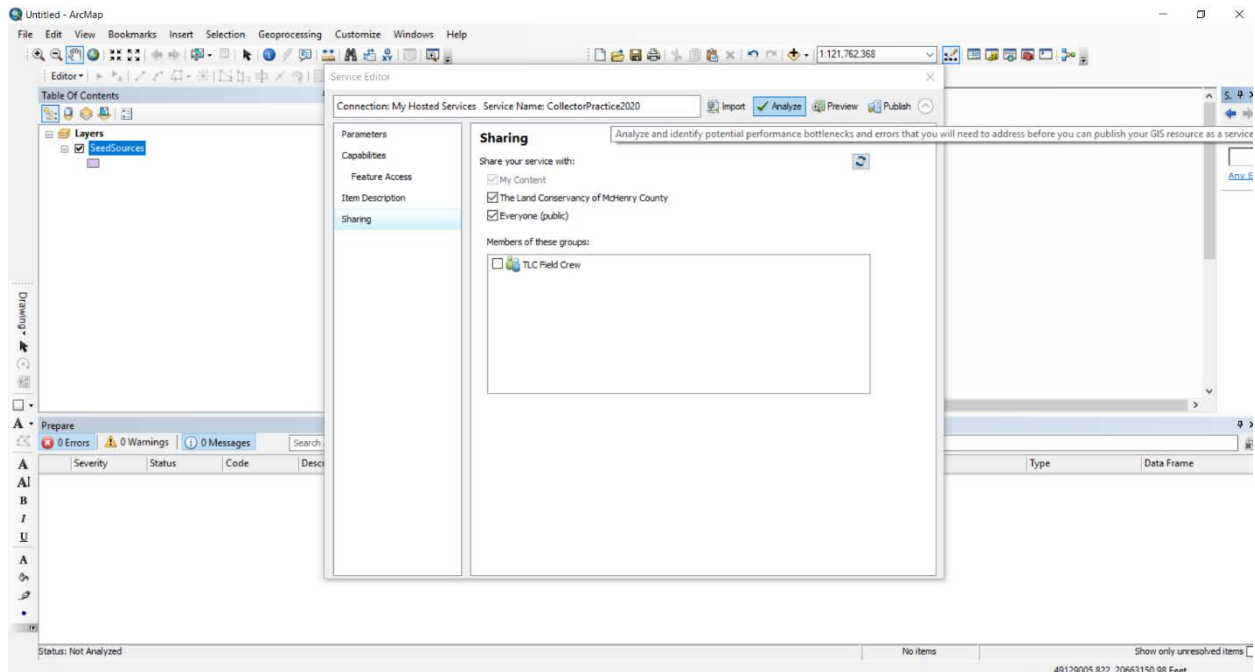
3. Sharing => Share with your organization and EVERYONE. Sharing the service with everyone allows you to freely use the collector GDB in the field and as a Map Service on ArcGIS online.



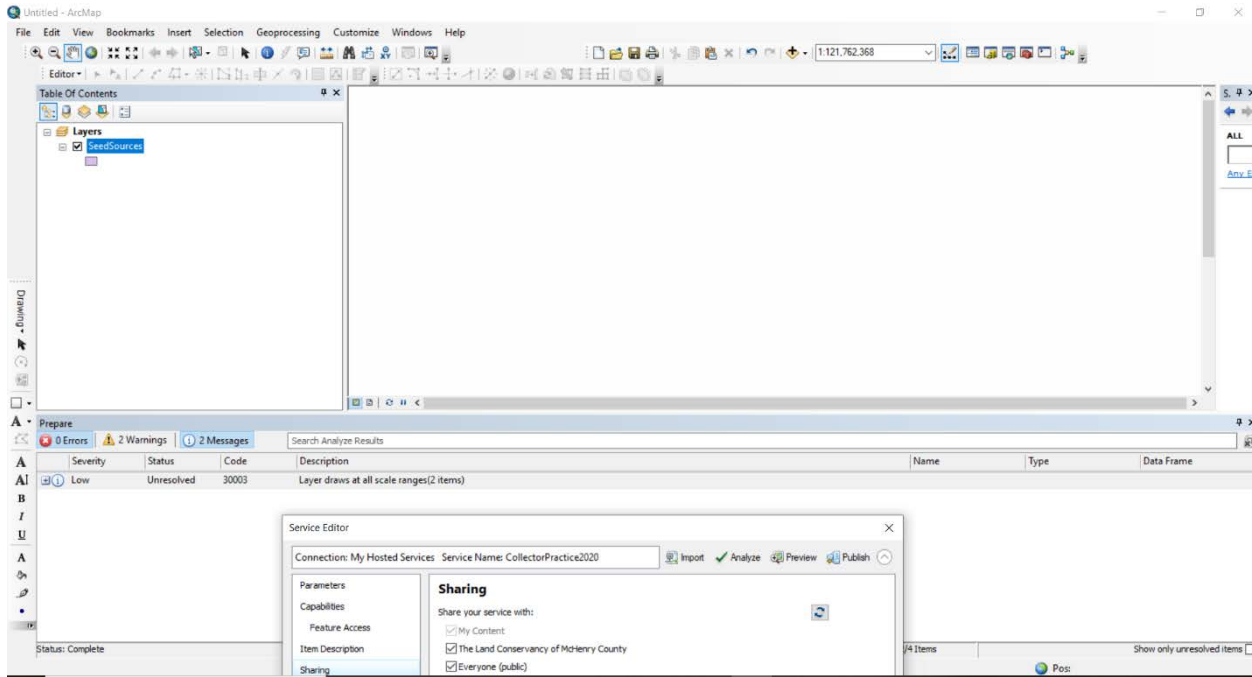
Steps 10-20: Analyzing/sharing your service and ArcGIS online

10. Analyze your service for sharing by clicking the **“Analyze”** button on the top menu bar of the Service Editor window.

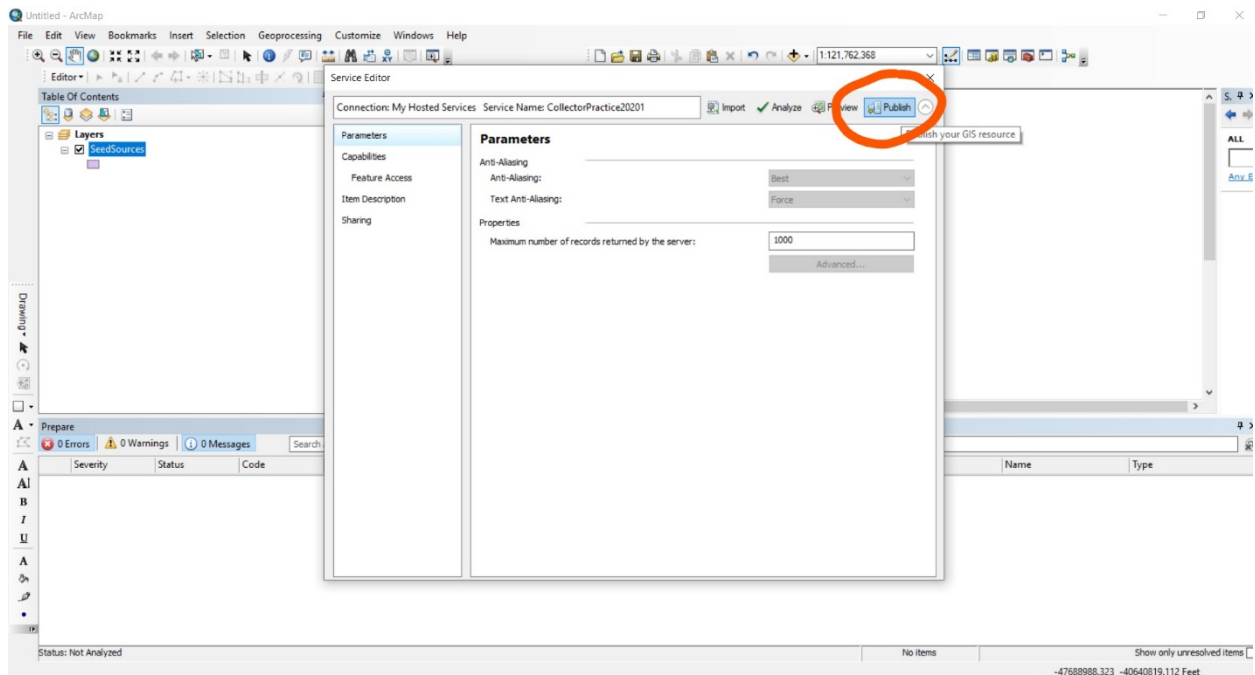
- a. This ensures there are no errors in the service you are trying to publish.
- b. Address any errors that pop up; you can publish the service with minor errors but will not be allowed to publish the service if major errors are present (ArcMap will categorize the errors for you).



c. Below you can see that a low severity error was found; you can still publish the service with this error and have no problems!

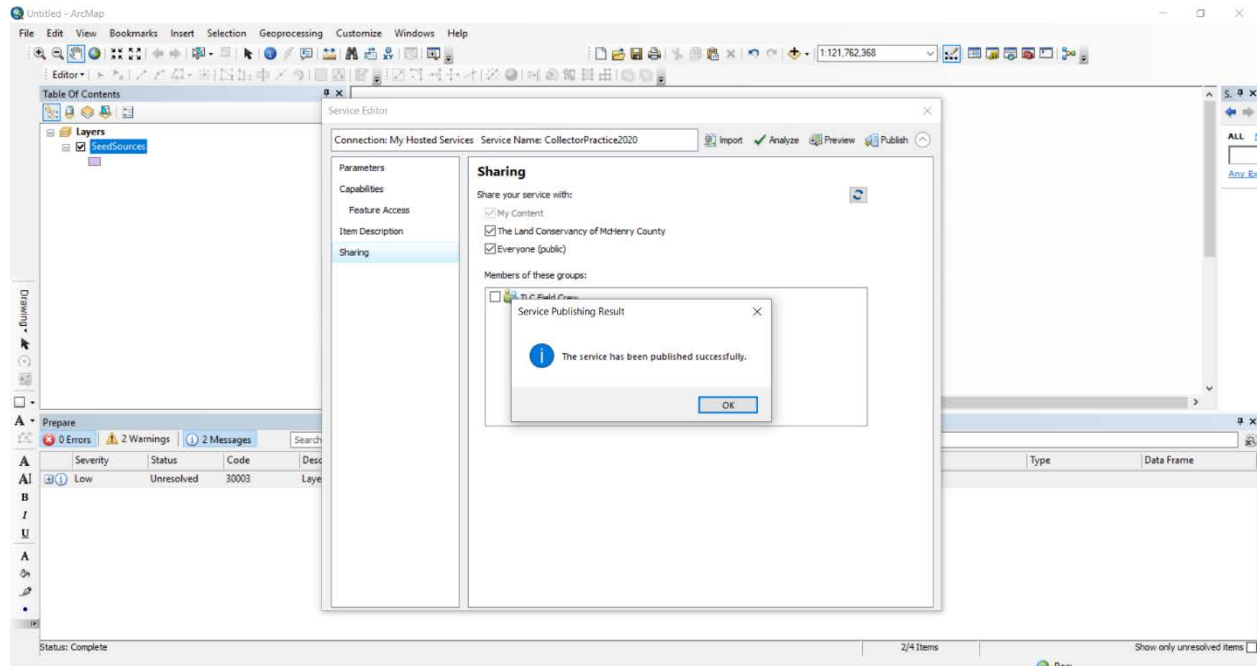


11. If you don't get any *major* warnings or errors, you should be able to “Publish” the file.





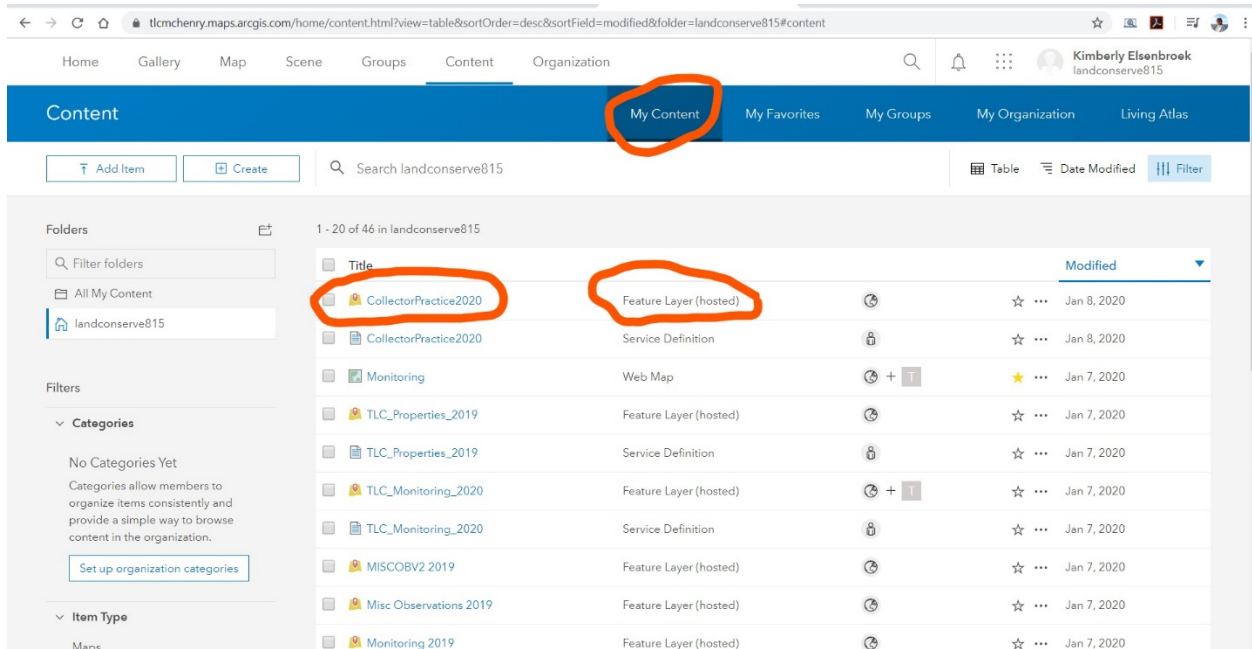
a. ArcMap will let you know if publishing was successful.



b. Once you have successfully published your GDB, navigate to your ArcGIS online account and sign in.

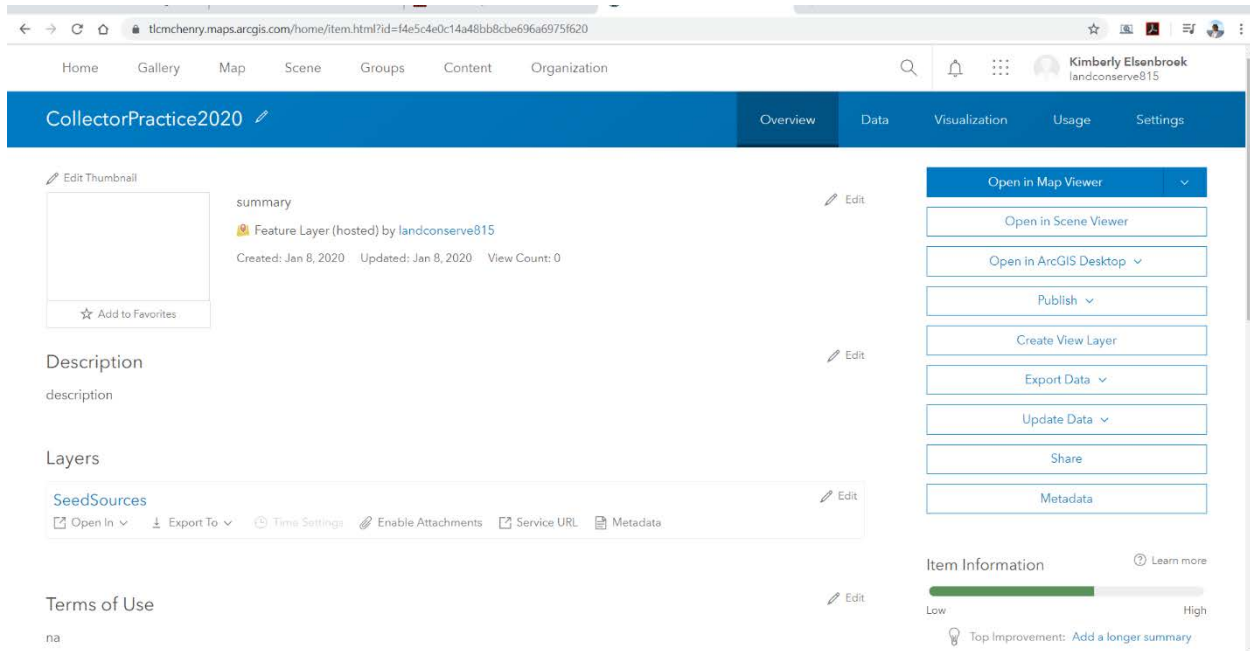
12. Once you are signed in to your online account, navigate to the “Content” tab.

a. You should see the GDB you just uploaded as a “Feature Layer (hosted)”



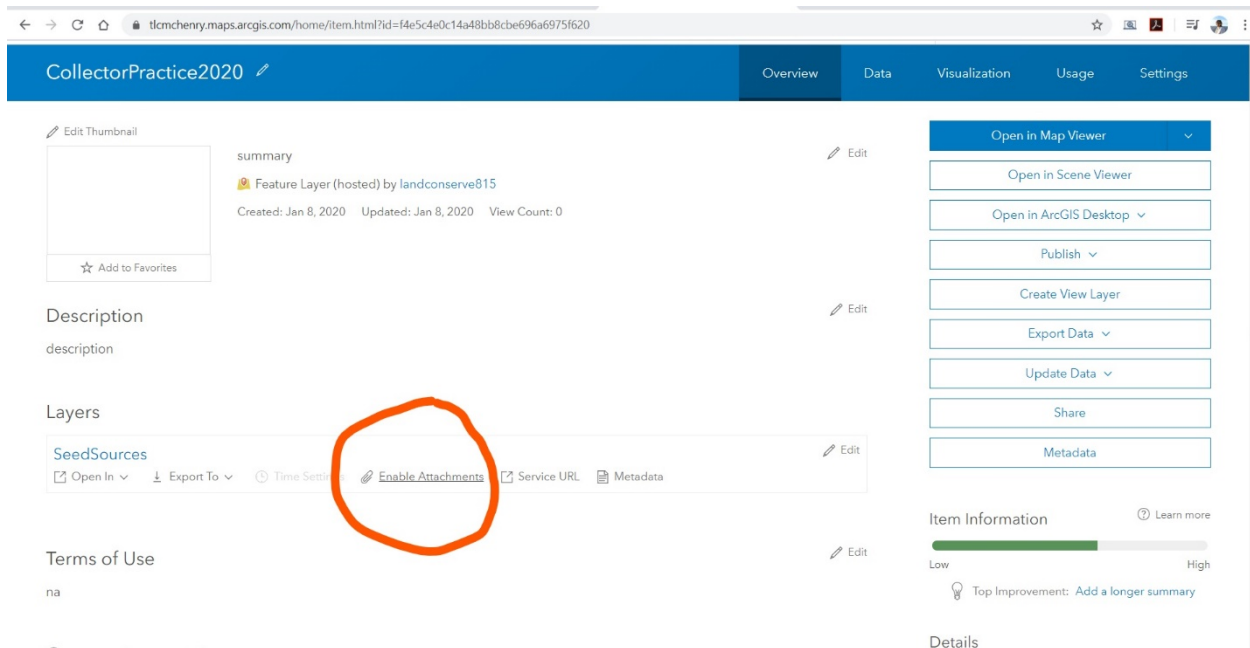


b. Click on the title of your “Feature Layer” to open the “Overview” page



13. On the overview page for the feature layer, you can change some settings.

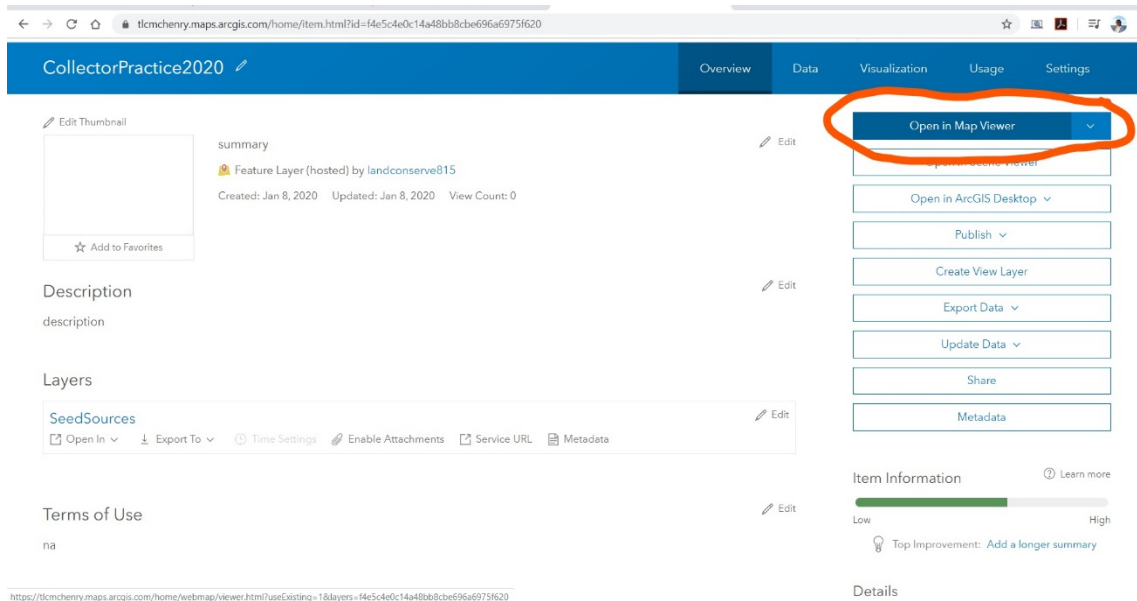
a. Scroll down to “Layers” and choose “Enable Attachments” => this will allow users to take photos and attach them to the data they are collecting.





14. Open your Feature Layer in “Map Viewer”

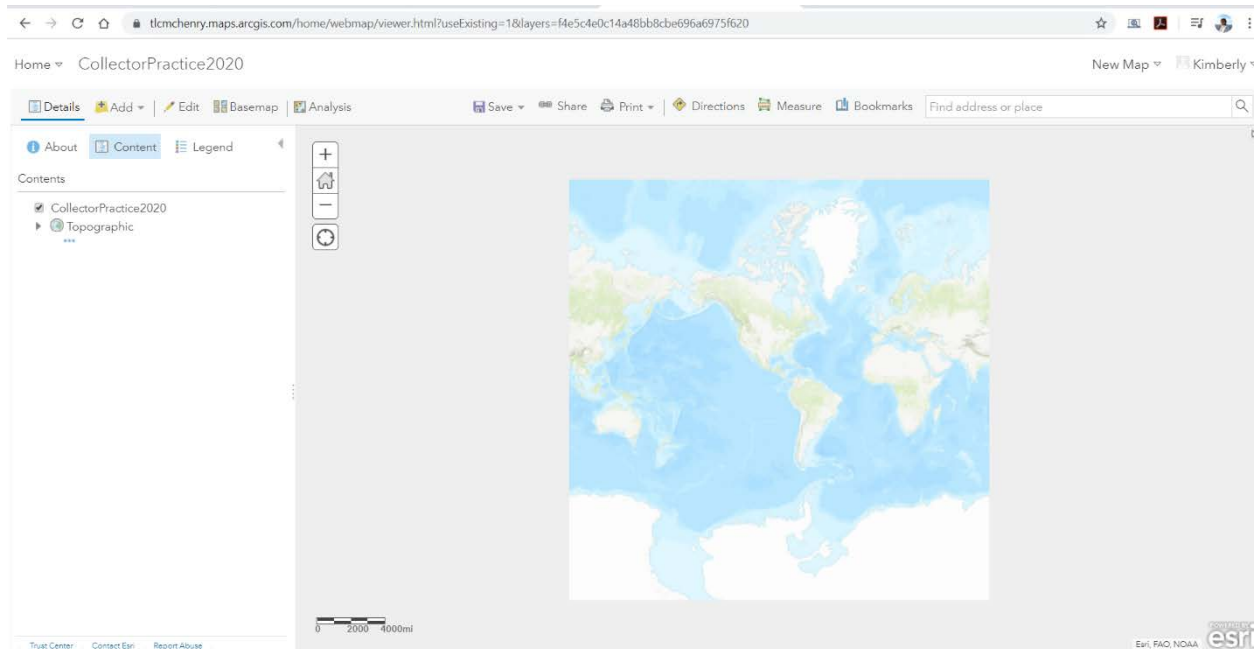
a. Click “Open in Map Viewer” on the right side of your screen.



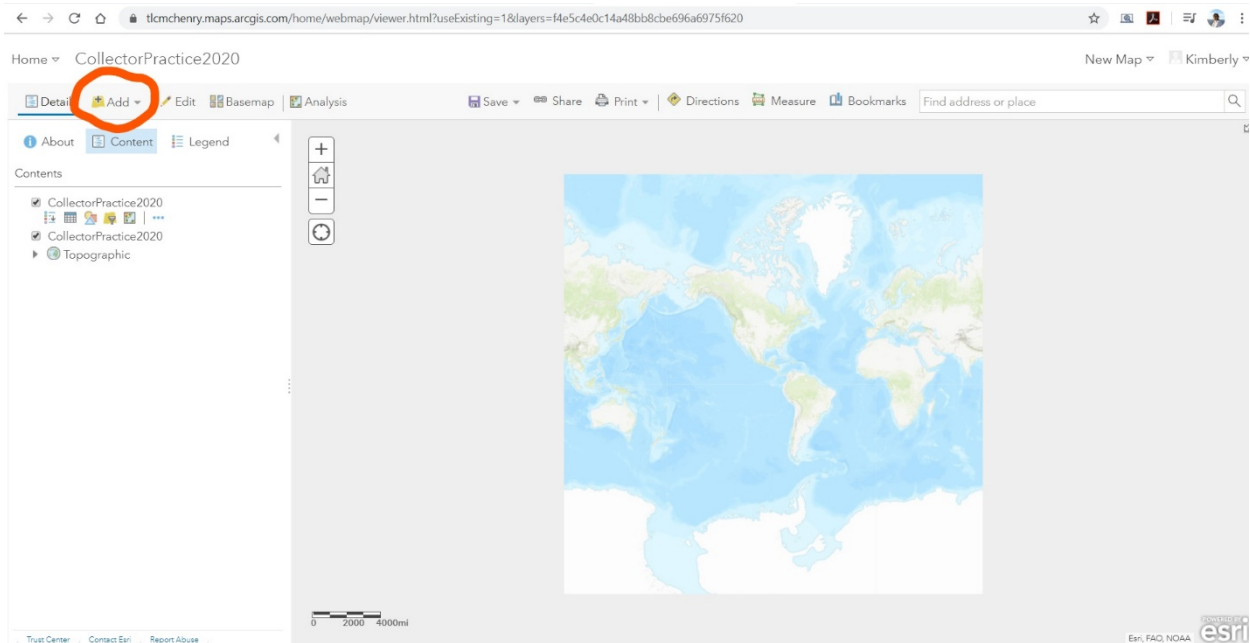
b. Once you open your GDB in Map Viewer, you will see something like the below photo:

*you are now in the process of creating a “Web Map”

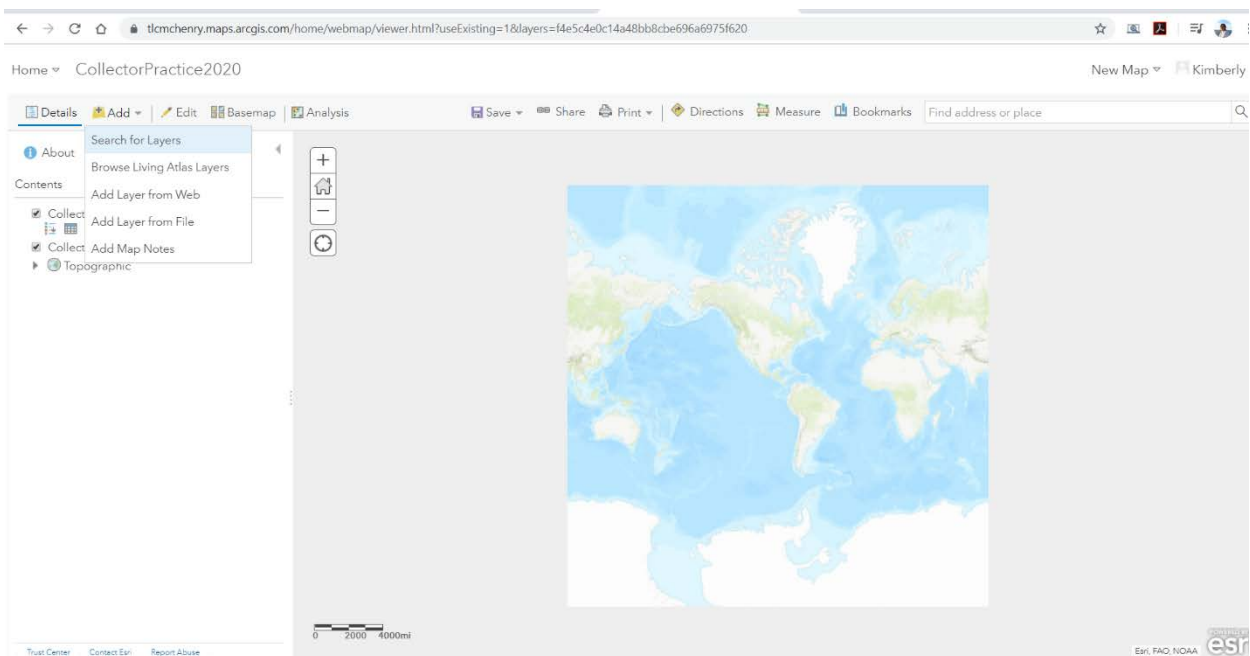
** Creating a Web Map will allow you to bring in other layers of data that will compliment your GDB for data collection (i.e. property layer/shapefile)



15. Add more content to your Web Map by selecting the “Add” button on your screen.



- a. You can add different types of data: Search for layers, Browse living atlas layers, add layer from the web (which includes thousands of publicly available datasets, including, depending on your location, things like wetlands, watersheds, protected properties, zoning, etc.), add layer from a file or add map notes.

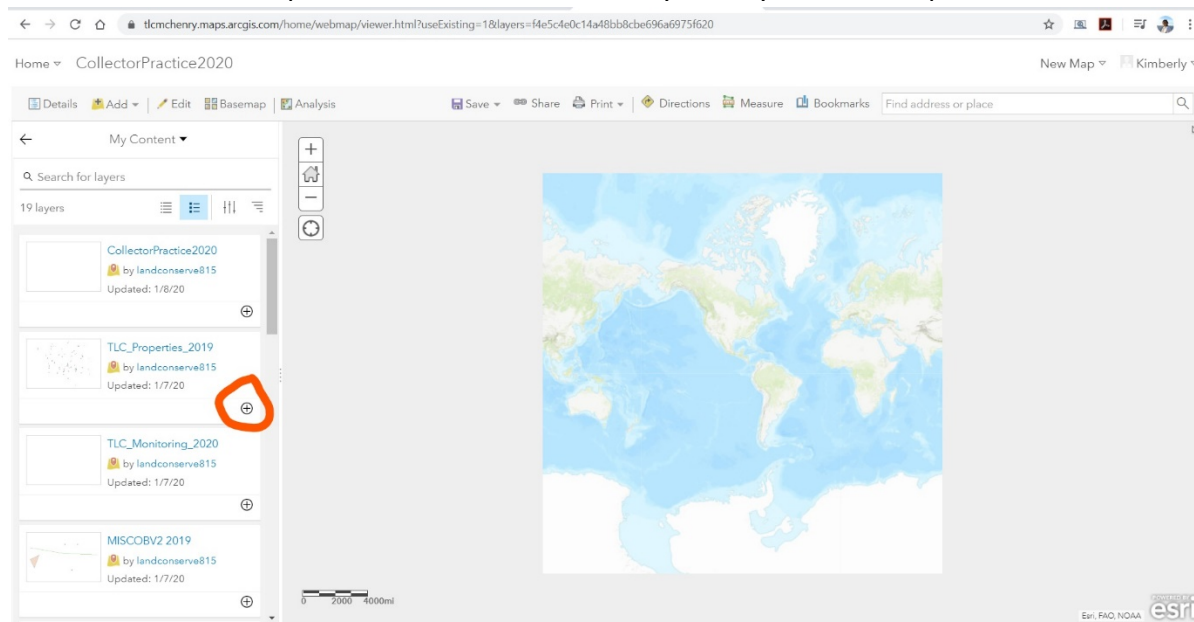




b. Here we are going to “Search for Layers” that we need to add to the web map in order to collect our data.

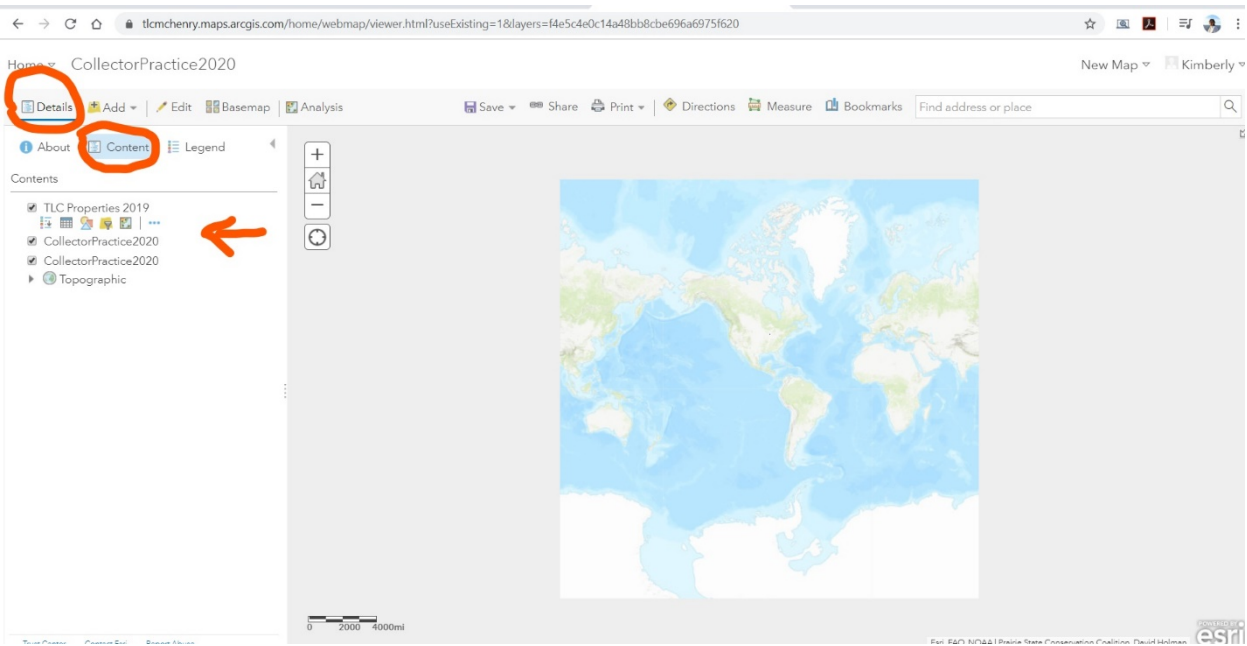
- i. For this example, we will be adding a property shapefile, which will dictate where our data is going to be collected.
- ii. *This property shapefile was added to our ArcGIS online account by following steps 6-11 above (just switch out the file name of whatever data you are adding)

c. Click on the plus button to add desired layers to your web map.

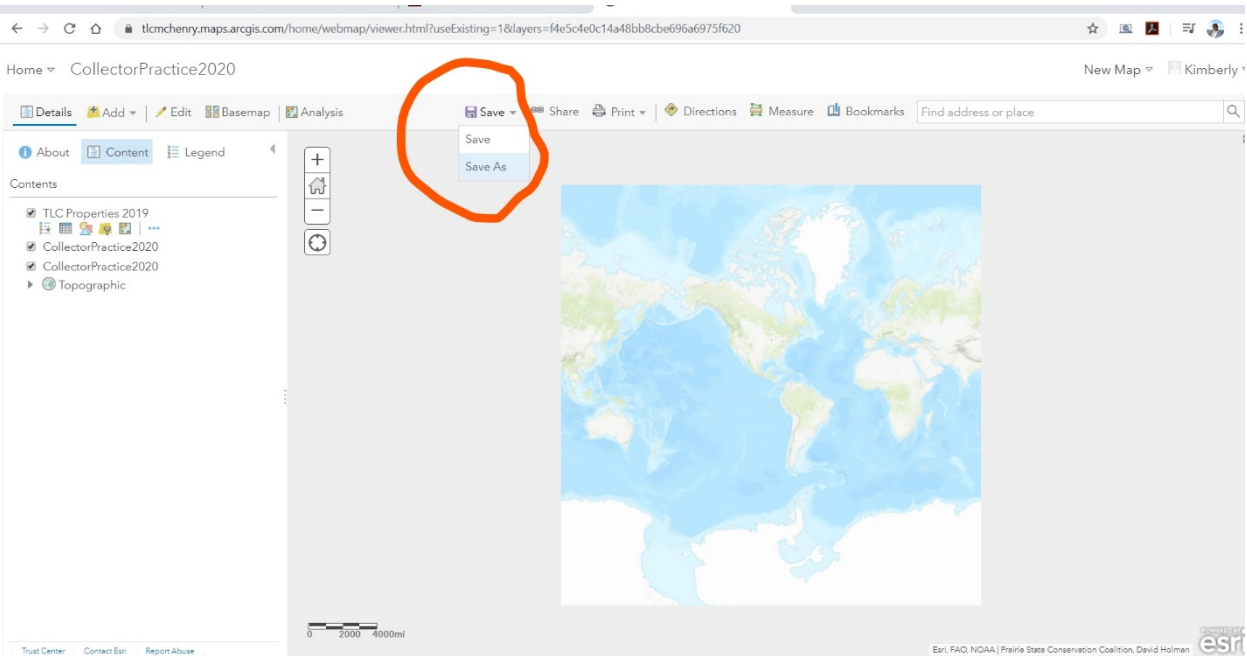


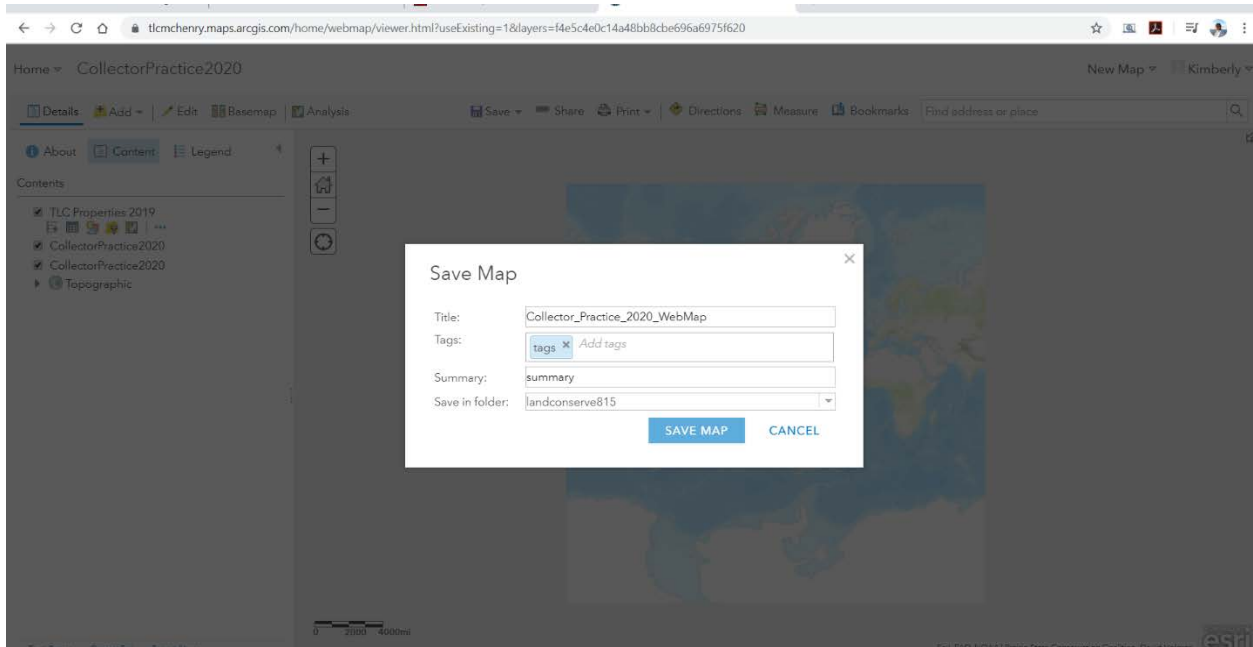
d. Now you have added another layer of information to your web map!

16. Navigate back to the details/content to view all of the layers in your web map (add as many layers as desired).

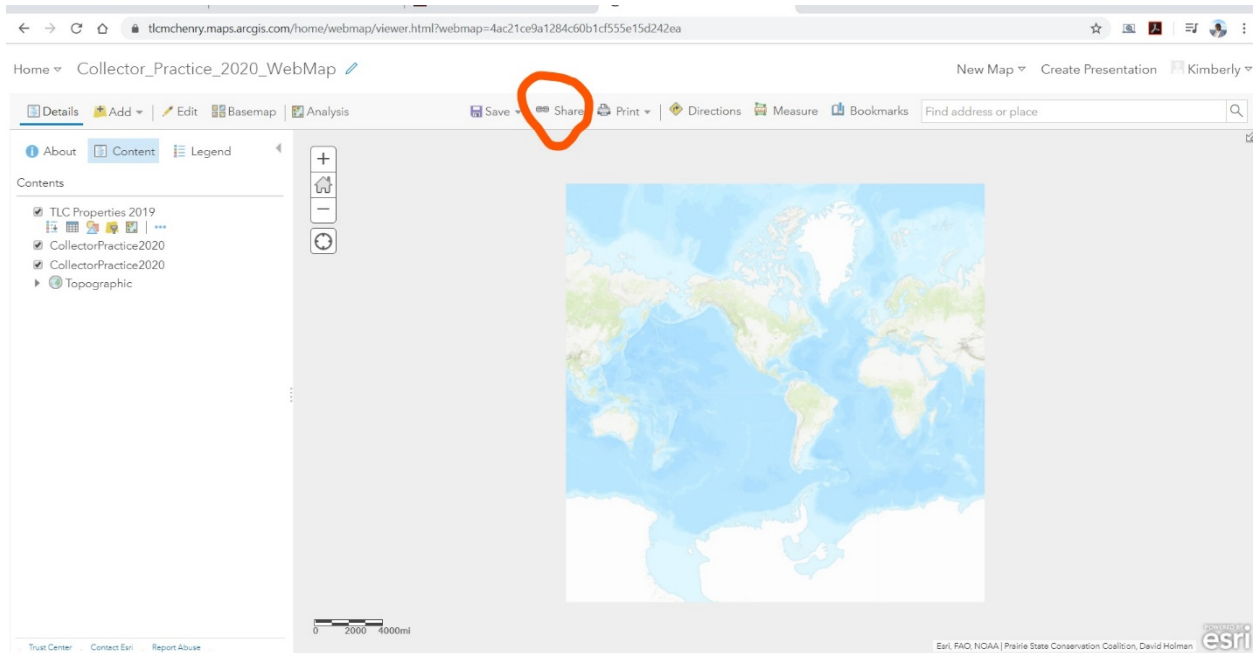


17. Once you have added all desired layers to the web map, save and name your web map!





18. Share your web map by clicking on the “Share” button



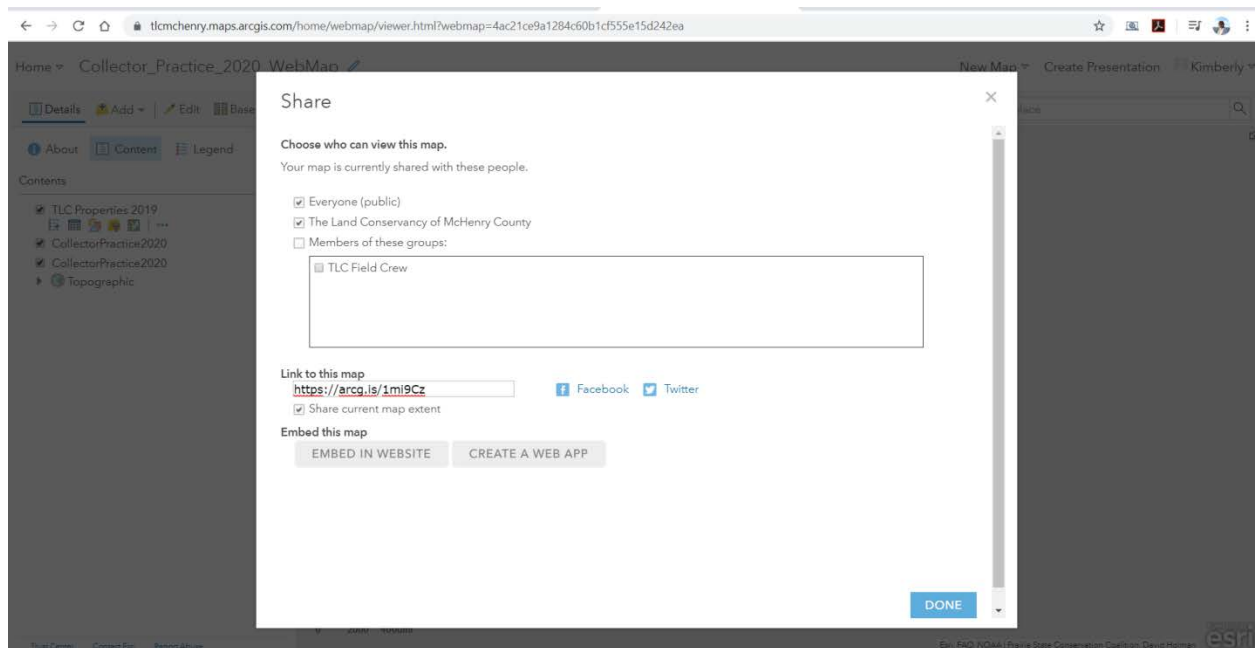


- a. Select who you want to share your map with and then click “Done”

******Important note!!!** You must share your map with “Your Organization” in order to utilize the map in the collector app.

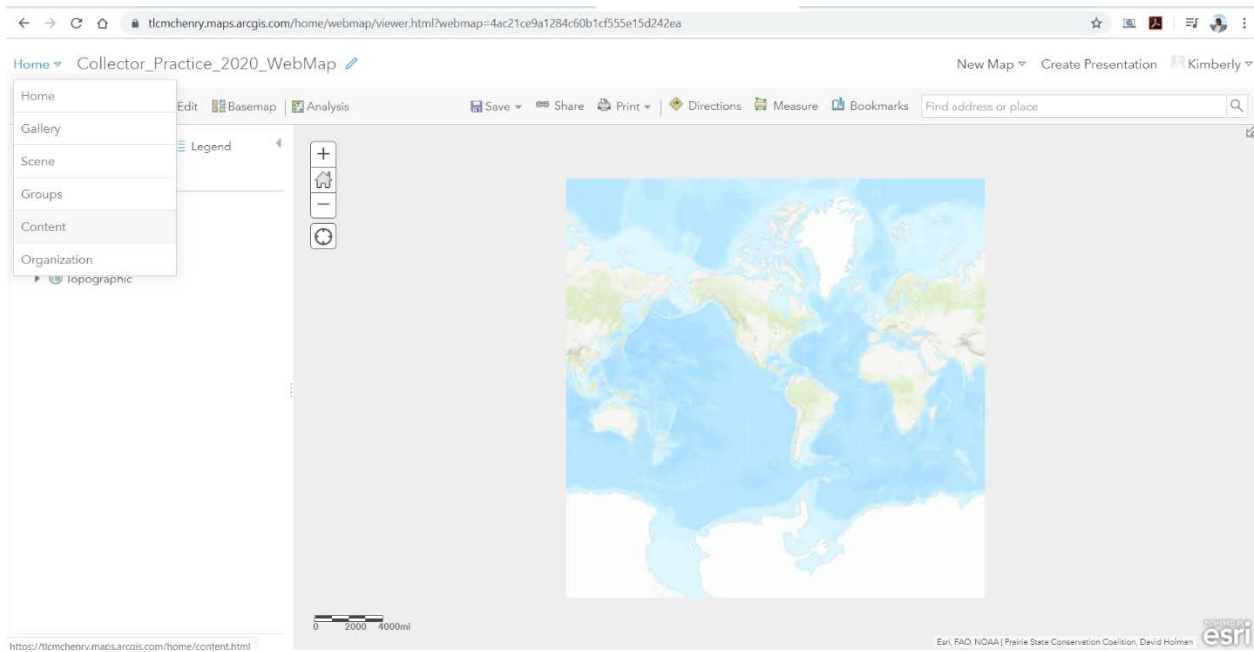
*****You can also share it publicly if you want!!!! (we did in this example!)

*****When accessing the map on the collector app, the user will be prompted to sign in with the **“Organizational Account”** credentials.

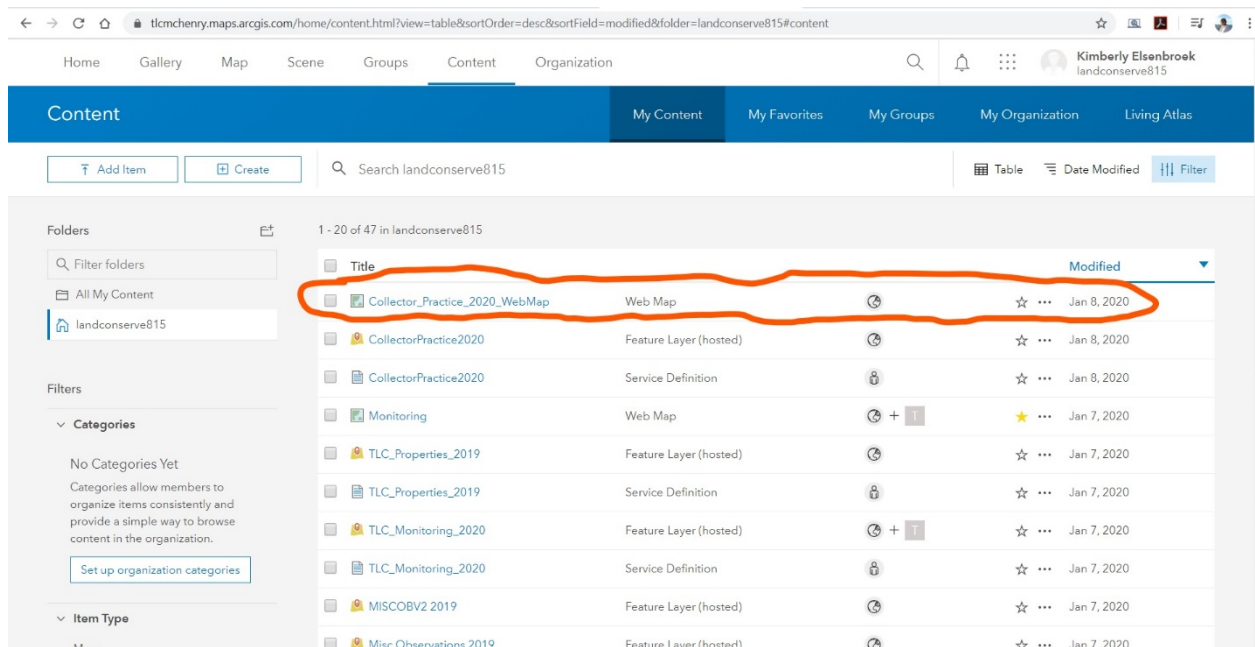




19. Navigate back to your "Content" page



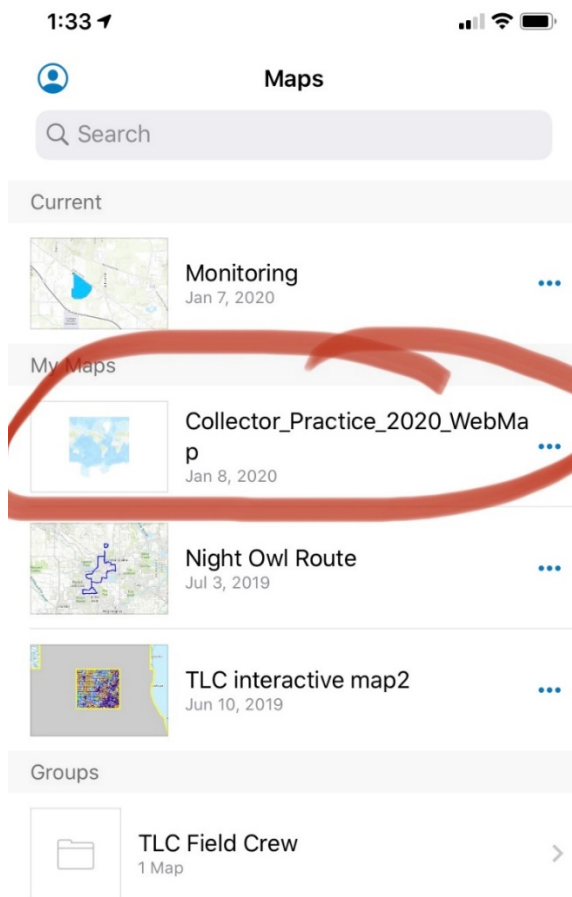
- a. If all went as it is supposed to... you should see your new web map at the top of your content page.





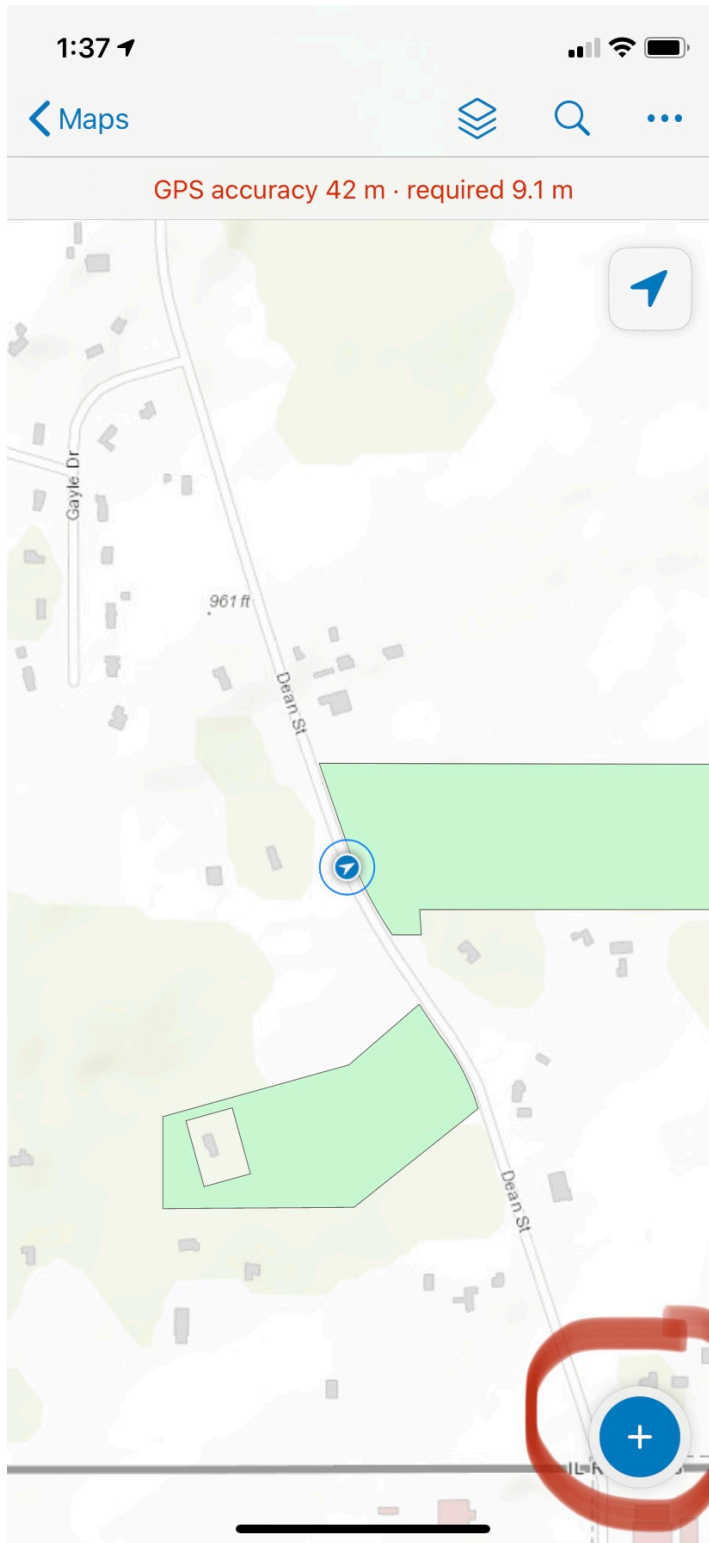
20. You should now have full access to your collector map!!! *Go to the app you downloaded* onto your phone or tablet, and sign in! You should automatically see this map you created!

a. Select your map



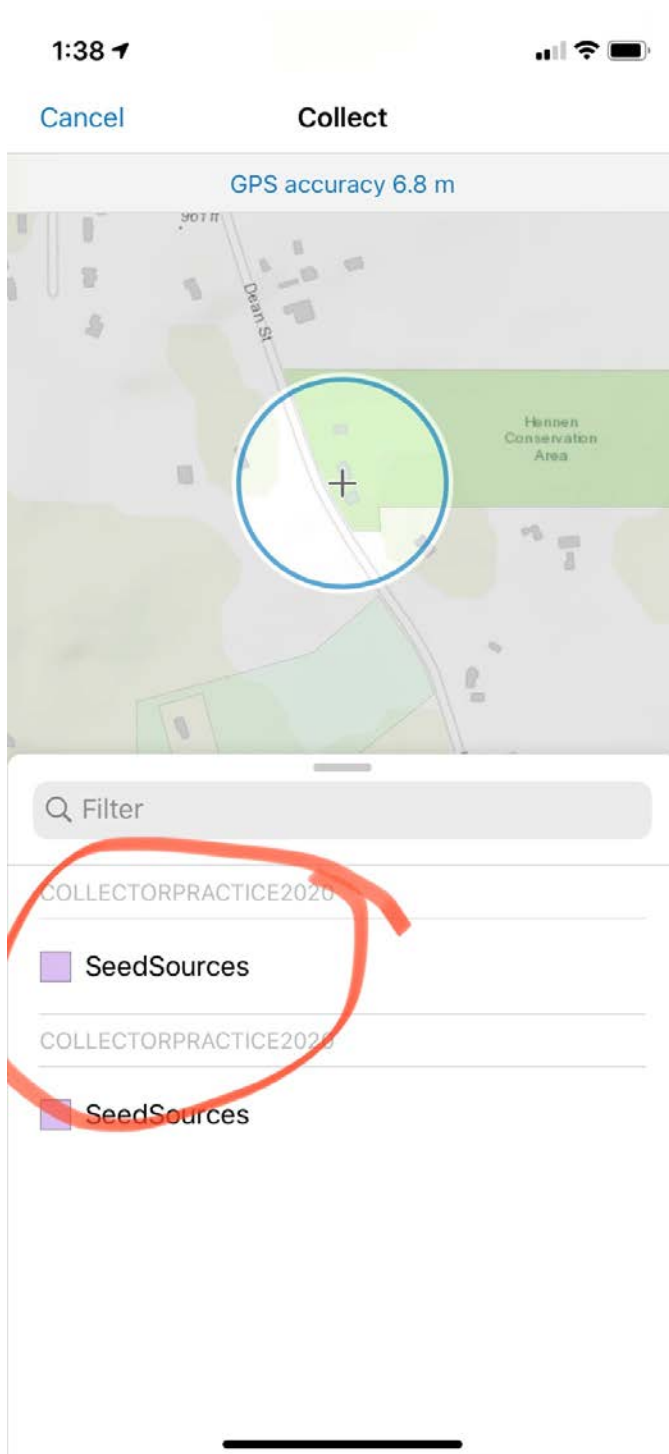


b. Click the “Add” button to collect data





c. Select your layer for data collection.





d. Once you select your layer, the empty fields you created earlier will pop up!

1:39 📶 🔋

Cancel Collect Submit

■ SeedSources:

Collector

Species >

Date

Location


Notes



e. Fill out each section!

1:52 📶 🔋

[Cancel](#) **Collect** [Submit](#)

 **SeedSources: John Smith**
Area 0.61 ha


Collector
John Smith

Species
blazing star ➤

Date
12,122,020

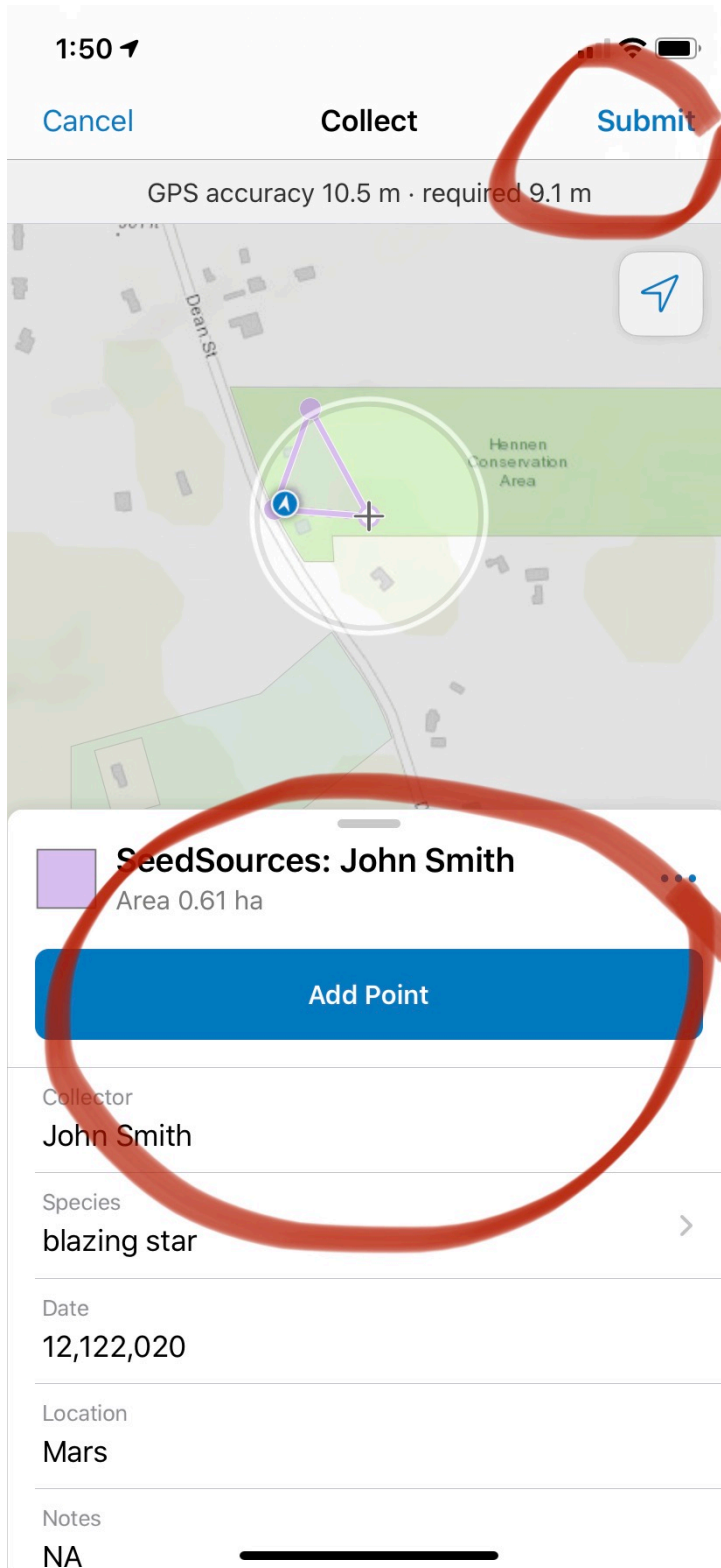
Location
Mars

Notes
NA





f. Add your data points and “Submit” your data.



- g. Once your data is submitted, it will be automatically synced from your phone/tablet to your online account and be available for viewing on any device.





Notes for the future:

You can do a lot of stuff with this program! You can download and export your shapefiles, or the data you collect as a spreadsheet, lock certain layers etc. etc.

<https://www.esri.com/en-us/arcgis/products/collector-for-arcgis/overview>



Long Term Management of your Collector gdb

Part I: Viewing and manipulating your data in ArcGIS Online

1. Sign into your ArcGIS online account and navigate to the “My Content” Tab

The screenshot shows the ArcGIS Online interface for the organization 'landconserve815'. The 'Content' tab is selected in the top navigation bar, and the 'My Content' sub-tab is highlighted with an orange circle. The main content area displays a list of items with columns for Title, Type, and Modified date. The list includes items like 'Oaks of McHenry County_1837', 'Old Oaks_McHenry County', 'TLCollector2020', and 'Monitoring'.

| Title | Type | Modified |
|--------------------------------|-------------------------|--------------|
| Oaks of McHenry County_1837 | Web Mapping Application | Jan 24, 2020 |
| Oaks of McHenry County_1837 | Web Map | Jan 24, 2020 |
| Old Oaks_McHenry County | Web Map | Jan 23, 2020 |
| TLCollector2020 | Feature Layer (hosted) | Jan 9, 2020 |
| Monitoring | Web Map | Jan 9, 2020 |
| TLCollector2020 | Service Definition | Jan 9, 2020 |
| NJCollectorUpload | Web Map | Jan 9, 2020 |
| NJCollectorUPLOAD | Feature Layer (hosted) | Jan 9, 2020 |
| NJCollectorUPLOAD | Service Definition | Jan 9, 2020 |
| Collector_Practice_2020_WebMap | Web Map | Jan 8, 2020 |



2. Click on the map you have been using to collect data:

The screenshot shows the ArcGIS Content Manager interface for the organization 'landconserve815'. The main content area displays a table of items with columns for Title, Type, and Modified date. The 'Monitoring' item is highlighted with a red circle.

| Title | Type | Modified |
|--------------------------------|-------------------------|--------------|
| Oaks of McHenry County_1837 | Web Mapping Application | Jan 24, 2020 |
| Oaks of McHenry County_1837 | Web Map | Jan 24, 2020 |
| Old Oaks_McHenry County | Web Map | Jan 23, 2020 |
| TLCcollector2020 | Feature Layer (hosted) | Jan 9, 2020 |
| Monitoring | Web Map | Jan 9, 2020 |
| TLCcollector2020 | Service Definition | Jan 9, 2020 |
| NLIcollectorUpload | Web Map | Jan 9, 2020 |
| NLIcollectorUPLOAD | Feature Layer (hosted) | Jan 9, 2020 |
| NLIcollectorUPLOAD | Service Definition | Jan 9, 2020 |
| Collector_Practice_2020_WebMap | Web Map | Jan 8, 2020 |

3. "Open in Map Viewer"

The screenshot shows the ArcGIS Item Viewer for the 'Monitoring' item. The 'Open in Map Viewer' button is circled in red. The item details include a thumbnail, description, layers, and item information.

Monitoring

Property Monitoring
Web Map by landconserve815
Created: Mar 28, 2019 Updated: Jan 9, 2020 View Count: 489

Description
Add an in-depth description of the item.

Layers

- TLCcollector2020 - InvasivesToDo
- TLCcollector2020 - InvasivesToDo
- TLCcollector2020 - Invasives_Destroyed
- TLCcollector2020 - Seed-Location
- TLCcollector2020 - Seeds_Collected
- TLCcollector2020 - Miss Points

Item Information

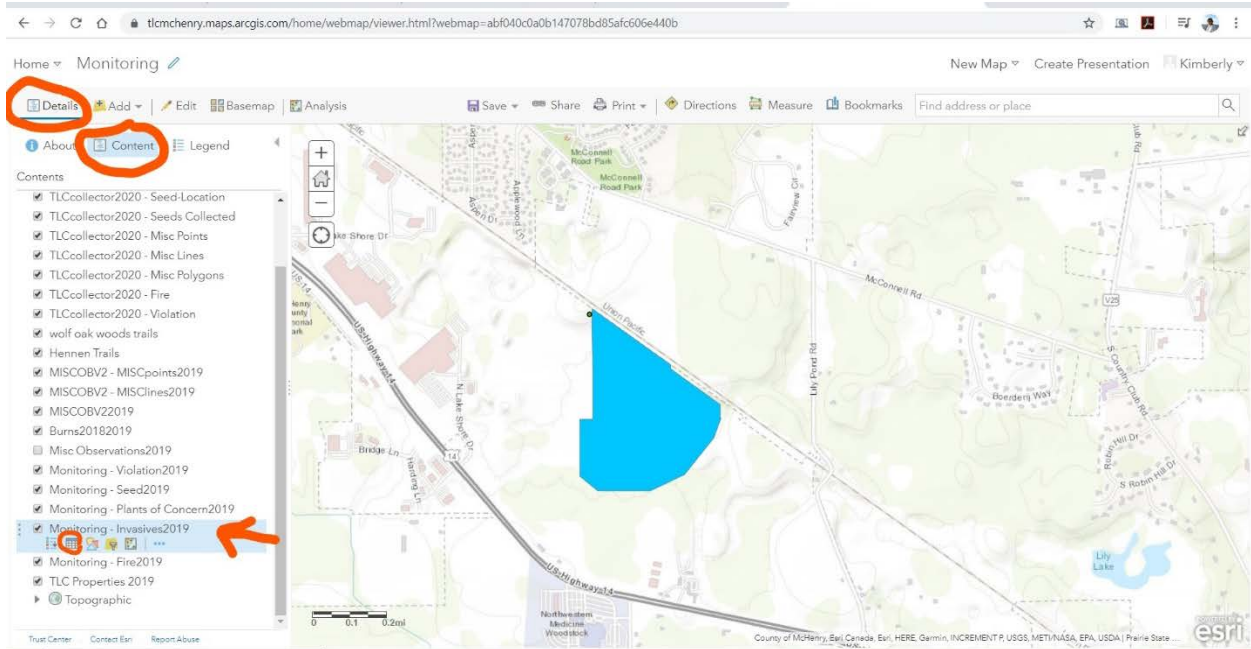
Size: 56 KB
Shared with: **Everyone (public), TLC Field Crew**
★★★★★



4. In “Map Viewer” Choose the “Details” tab in the left menu bar; then choose “Content” and then choose a layer you want to look at (i.e. Monitoring Invasives2019).

a. Below the layer name, you will see multiple symbols or pictures, hover your mouse over each to view a popup description window.

b. Choose the “Table” image (circled in red below) to view the data you have collected in a table format, on your screen.





5. View the data in table format:

- a. Here you can view all of the data entered into your layers over time

Monitoring - Invasives2019 (Features: 37, Selected: 0)

| Collector | Location | Species | Density | Date | Hours Spent | Crew_Size | Herbicide Used |
|----------------|-----------------|---------------------------|---------|---------|-------------|-----------|---------------------|
| Kim Elsenbroek | Hennen | Acer ginnala - Amur maple | Low | 1/2/30 | 2.00 | 3 | |
| Kim Elsenbroek | Queensbury Farm | | | 3.29.19 | 3.00 | 7 | Vanquish and garlon |

- b. By selecting the three horizontal lines in the top right corner of your table, you can filter fields out, select individual features and even add fields to your table.

Monitoring - Invasives2019 (Features: 37, Selected: 0)

| Collector | Location | Species | Density | Date | Hours Spent | Crew_Size | Herbicide Used |
|----------------|-----------------|---------------------------|---------|---------|-------------|-----------|---------------------|
| Kim Elsenbroek | Hennen | Acer ginnala - Amur maple | Low | 1/2/30 | 2.00 | 3 | |
| Kim Elsenbroek | Queensbury Farm | | | 3.29.19 | 3.00 | 7 | Vanquish and garlon |

Monitoring - Invasives2019 (Features: 37, Selected: 0)

| Date | Hours Spent | Crew_Size | Herbicide Used | Herbicide Concentration | Notes | Weather Cond |
|---------|-------------|-----------|---------------------|-------------------------|--|--------------|
| 1/2/30 | 2.00 | 3 | | 2 | | |
| 3.29.19 | 3.00 | 7 | Vanquish and garlon | 0 | Buckthorn; multiflora rose; honeysuckle; crab apple; box elder | Sunny |

6. Analysis: In ArcGIS online, there is an “Analysis” tool which will allow you to look at your data in various ways. Explore and see what you find!

a. ******The “Analysis” tool USES SERVICE CREDITS!!!!!! #FYI******

Monitoring - Invasives2019 (Features: 37, Selected: 0)

| Species | Density | Date | Hours Spent | Crew_Size | Herbicide Used | Herbicide Concentration | Notes |
|---------------------------|---------|---------|-------------|-----------|---------------------|-------------------------|---|
| Acer ginnala - Amur maple | Low | 1/2/30 | 2.00 | 3 | | 2 | |
| | | 3.29.19 | 3.00 | 7 | Vanquish and garlon | 0 | Buckthorn; multiflora rose; honeysuckle; crab apple; bo |



Part II: Exporting and backing up your data by layer

1. Navigate to the “Overview” page of your web map.

The screenshot shows the ArcGIS Online interface for a web map. The 'Overview' tab is highlighted with an orange circle. The page displays a map thumbnail, a description, a list of layers, and item information. The layers list includes:

- TLCcollector2020 - InvasivesToDo
- TLCcollector2020 - InvasivesToDo
- TLCcollector2020 - Invasives_Destroyed
- TLCcollector2020 - Seed-Location
- TLCcollector2020 - Seeds_Collected

The item information section shows a size of 56 KB, shared with 'Everyone (public), TLC Field Crew', and a 5-star rating.

a. Scroll down and select the layer/data you want to export.

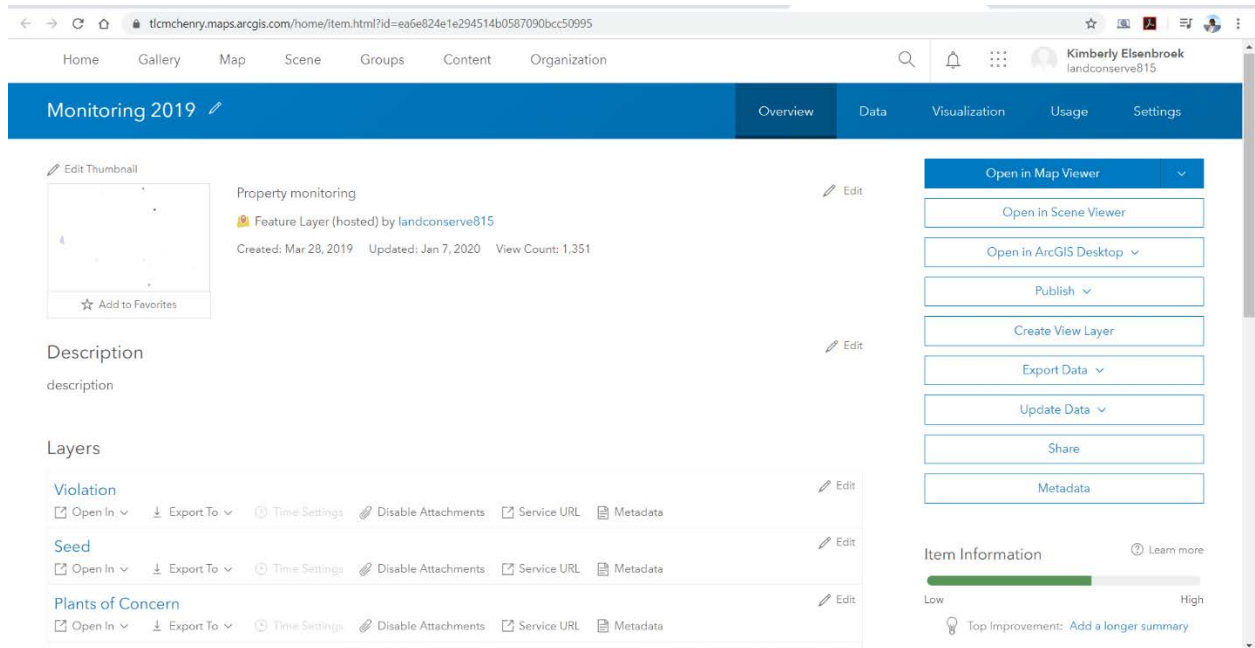
The screenshot shows the same ArcGIS Online interface, but scrolled down to the layers list. The 'Monitoring - Invasives2019' layer is circled in orange. The layers list includes:

- Burns20182019
- Misc Observations2019
- Monitoring - Violation2019
- Monitoring - Seed2019
- Monitoring - Plants or Ferns2019
- Monitoring - Invasives2019**
- Monitoring - Fire2019
- TLC_Properties_2019
- Topographic
- Topographic

The 'Terms of Use' section is visible below the layers list, and the 'Comments' section is at the bottom.



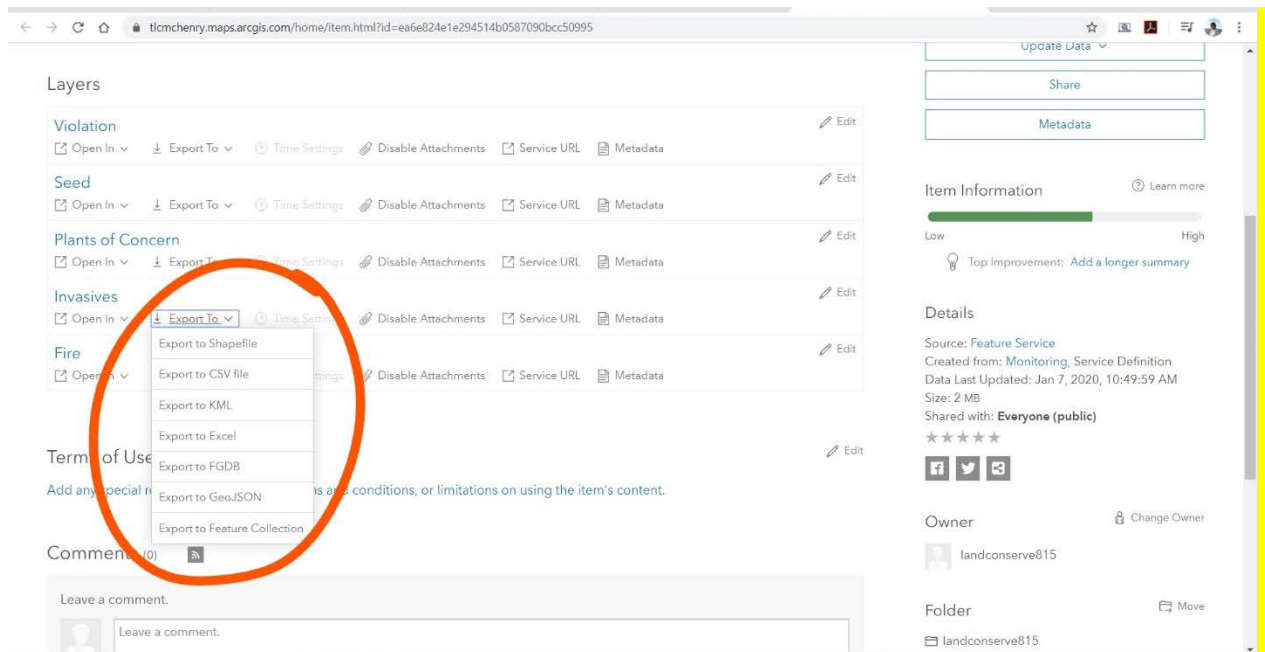
b. Other layers linked to your selected layer (i.e. they're all from the same gdb) will appear on the screen.



c. Scroll down to select the layer you want to export data from.

i. Select **“Export To”**

ii. A popup window will allow you to select from various formats to export your data.





d. Another window will pop up; you can label your layer with identifying tags; then select **“Export”**

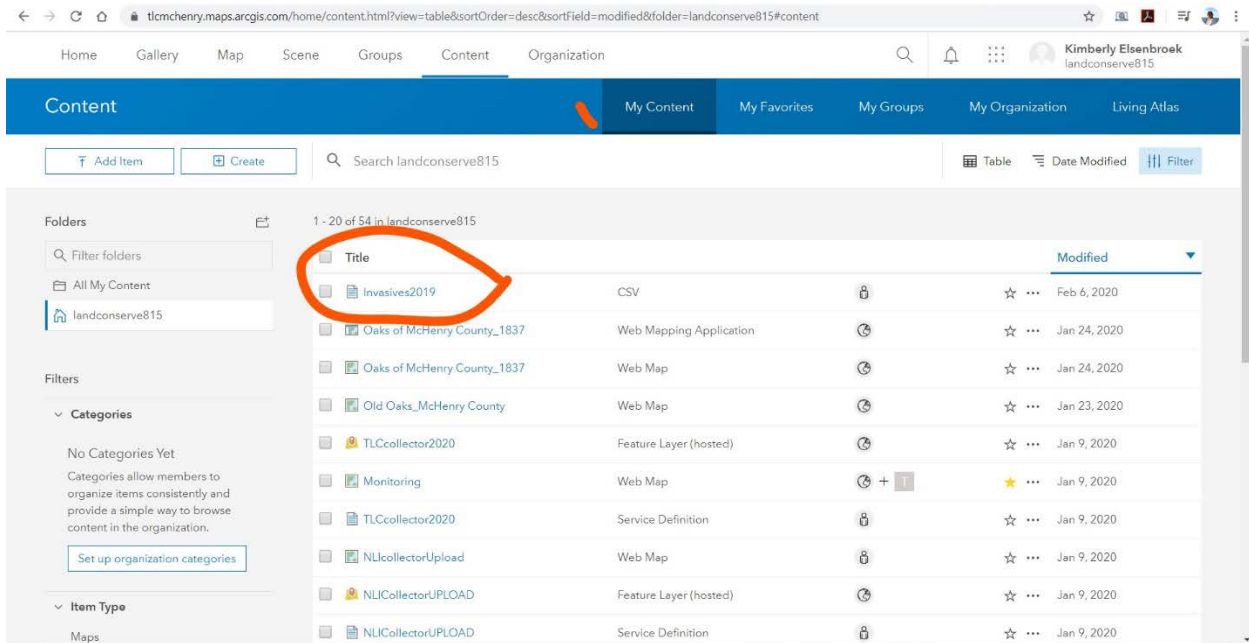
**You can only export one layer/one file type at a time.*

2. You will automatically be re-directed to a new page where you can: Download, Publish, Update, or Share the individual layer you just exported.

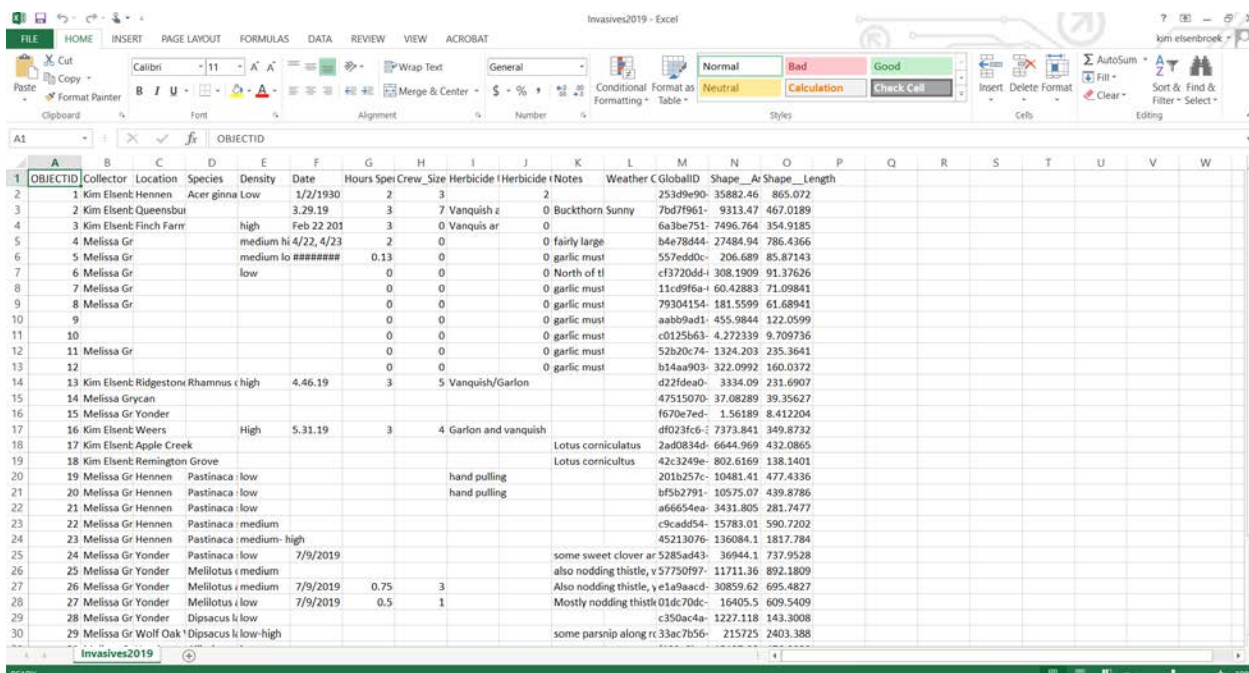
The screenshot shows the ArcGIS Online interface for a layer named 'Invasives2019'. The browser address bar shows the URL: t1cmchenry.maps.arcgis.com/home/item.html?id=ab6e5fa8a6a34c3aa59a4158821a58f6. The user is logged in as Kimberly Elsenbroek (landconserve815). The page has a blue header with the layer name and navigation tabs for Overview, Usage, and Settings. The main content area includes an 'Edit Thumbnail' section with a world map, a description 'csv invasives', and metadata: 'CSV by landconserve815', 'Created: Feb 6, 2020', 'Updated: Feb 6, 2020', and 'Number of Downloads: 0'. There are 'Edit' buttons for the thumbnail, description, and terms of use. The right sidebar contains a 'Download' button, followed by 'Publish', 'Update', and 'Share' buttons. Below these are 'Item Information' (with a progress bar and 'Learn more' link), 'Details' (showing 'Size: 6 KB' and 'Shared with: The item is not shared.'), and 'Owner' information with a 'Change Owner' link. At the bottom, there is a 'Comments (0)' section with a 'Leave a comment.' form.



- a. Download the data to your computer and open in the appropriate program to view! (i.e. if you download a csv, open the file in excel; if you download a shapefile, open the file in ArcMap).
- b. The data you downloaded will appear as a "file" in your ArcGIS Online "Content" page.
 - i. *You can erase this after you have saved the downloaded file to a backup drive, otherwise it will use up your online Service Credits.



- c. Data downloaded from ArcGIS Online as a CSV file, opened in an Excel Word document.





Part III: Exporting and Backing up your data: THE WHOLE GDB

1. Navigate to “My Content” and select the gdb you collected in all year long.

The screenshot shows the ArcGIS Content Manager interface. The URL is tcmchenry.maps.arcgis.com/home/content.html?view=table&sortOrder=desc&sortField=modified&folder=landconserve815#content. The left sidebar shows navigation options like 'Item Type', 'Location', 'Date Modified', etc. The main area displays a table of items. The 'Monitoring 2019' item is circled in orange.

| Item Name | Type | Created |
|--------------------------------|------------------------|-------------|
| NLIcollectorUpload | Web Map | Jan 9, 2020 |
| NLIcollectorUPLOAD | Feature Layer (hosted) | Jan 9, 2020 |
| NLIcollectorUPLOAD | Service Definition | Jan 9, 2020 |
| Collector_Practice_2020_WebMap | Web Map | Jan 8, 2020 |
| CollectorPractice2020 | Feature Layer (hosted) | Jan 8, 2020 |
| CollectorPractice2020 | Service Definition | Jan 8, 2020 |
| TLC_Properties_2019 | Feature Layer (hosted) | Jan 7, 2020 |
| TLC_Properties_2019 | Service Definition | Jan 7, 2020 |
| TLC_Monitoring_2020 | Service Definition | Jan 7, 2020 |
| MISCOBV2 2019 | Feature Layer (hosted) | Jan 7, 2020 |
| MISCOBV2 2019 | Service Definition | Jan 7, 2020 |
| MISCOBV2 2019 | Feature Layer (hosted) | Jan 7, 2020 |
| MISCOBV2 2019 | Service Definition | Jan 7, 2020 |
| Monitoring 2019 | Feature Layer (hosted) | Jan 7, 2020 |
| Monitoring 2019 | Feature Layer (hosted) | Jan 7, 2020 |

2. You will be directed to the “Overview” page of the gdb layer.
 - a. Select “Export Data” a dropdown menu will appear; allowing you to select the type of file export you want to make (csv, shapefile, etc).

The screenshot shows the ArcGIS Overview page for the 'Monitoring 2019' item. The URL is tcmchenry.maps.arcgis.com/home/item.html?id=ea6e824e1e294514b0587090bc50995. The page has a blue header with navigation tabs: Home, Gallery, Map, Scene, Groups, Content, Organization. The main content area shows the item details for 'Monitoring 2019'. The 'Export Data' button is circled in orange.

Monitoring 2019

Property monitoring
Feature Layer (hosted) by landconserve815
Created: Mar 28, 2019 Updated: Jan 7, 2020 View Count: 1,366

Description
description

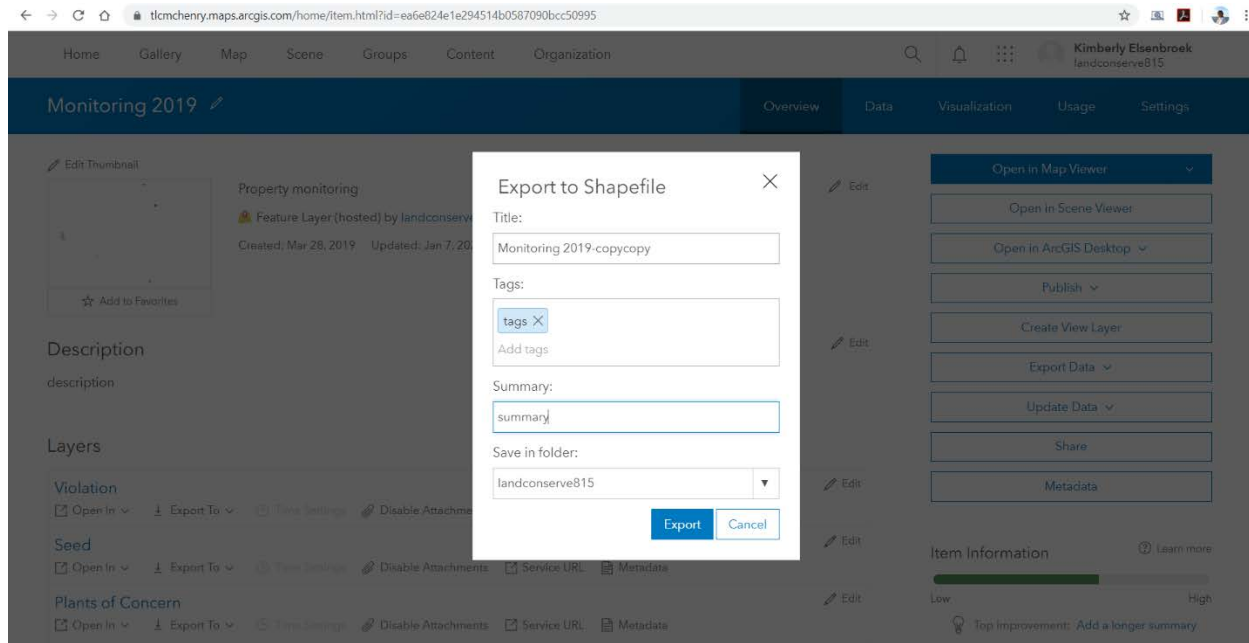
Layers

- Violation
Open In Export To Time Settings Disable Attachments Service URL Metadata
- Seed
Open In Export To Time Settings Disable Attachments Service URL Metadata
- Plants of Concern
Open In Export To Time Settings Disable Attachments Service URL Metadata

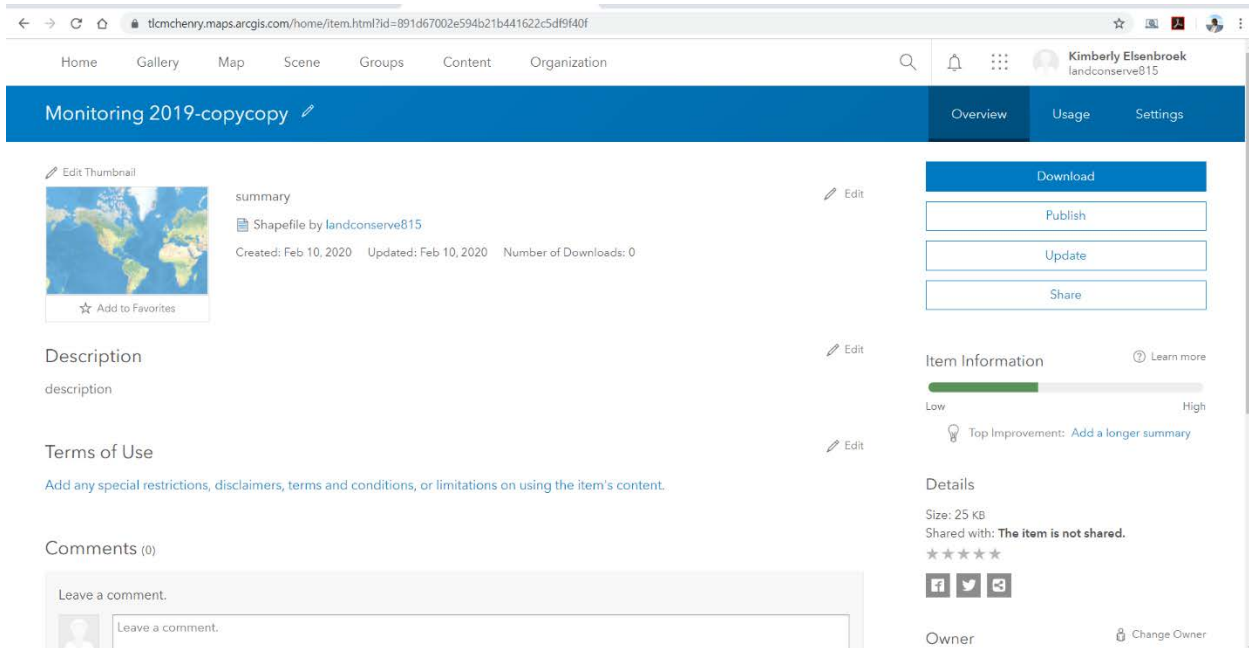
Open in Map Viewer
Open in Scene Viewer
Open in ArcGIS Desktop
Publish
Create View Layer
Export Data
Update Data
Share
Metadata

Item Information
Low High
Top Improvement: Add a longer summary

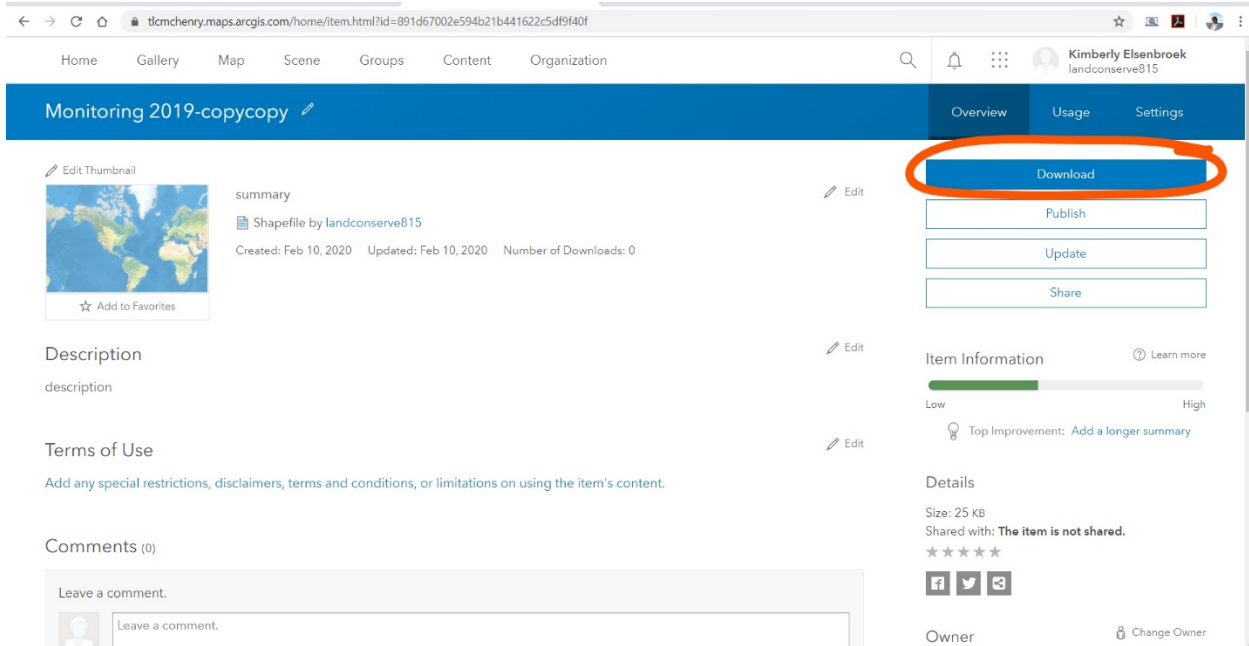
3. Name your export, then select “Export”



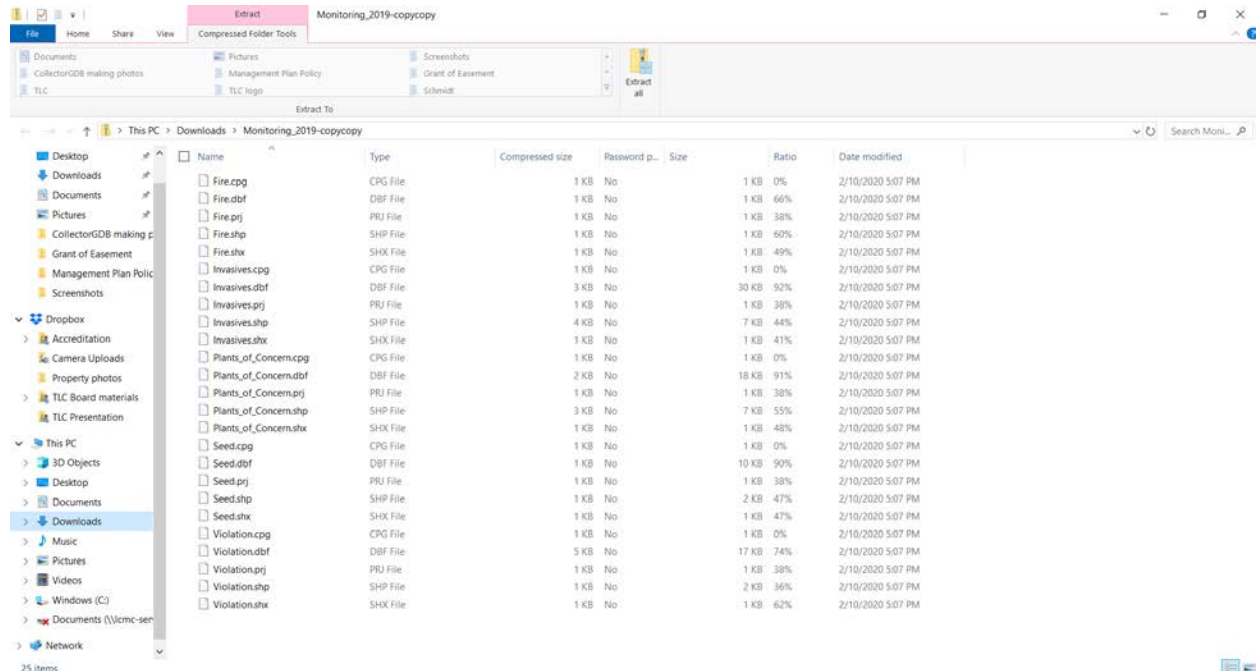
4. You will be re-directed to a page which allows you to “Download”, “Publish”, “Update” or “Share” your data:



5. Select **“Download”** and the file will download to your computer just as any other file would! Save it in a safe place!



6. Files downloaded on your computer (I downloaded a shapefile so I could open these files in ArcMap)





7. Don't forget to delete the file you just created during this download in "My Content" => *because it will use up service credits*

The screenshot shows the ArcGIS Content Manager interface for the 'landconserve815' organization. The 'Content' tab is active, and the 'Monitoring 2019-copycopy' item is selected. The 'Delete' button is circled in red.

| Title | Type | Modified |
|-----------------------------|-------------------------|--------------|
| Monitoring 2019-copycopy | Shapefile | Feb 10, 2020 |
| Invasives2019 | CSV | Feb 6, 2020 |
| Oaks of McHenry County_1837 | Web Mapping Application | Jan 24, 2020 |
| Oaks of McHenry County_1837 | Web Map | Jan 24, 2020 |
| Old Oaks_McHenry County | Web Map | Jan 23, 2020 |
| TLCcollector2020 | Feature Layer (hosted) | Jan 9, 2020 |
| Monitoring | Web Map | Jan 9, 2020 |
| TLCcollector2020 | Service Definition | Jan 9, 2020 |
| NLIcollectorUpload | Web Map | Jan 9, 2020 |
| NLIcollectorUPLOAD | Feature Layer (hosted) | Jan 9, 2020 |



Part IV: Preparing for Year Two of data collection

1. Locking layers and moving into a second year of data collection.

- a. Once you have downloaded and saved all of your files, navigate to the **“Overview page”** of your *web map* and select the layer that you have been working with and that you want to lock (**you have to lock each layer individually*).

The screenshot shows the ArcGIS Online interface for a web map item titled "Property Monitoring". The breadcrumb navigation at the top includes "Home", "Gallery", "Map", "Scene", "Groups", "Content", and "Organization". The user's name, "Kimberly Elsenbroek", and username, "landconserve815", are visible in the top right. The "Monitoring" tab is selected and circled in orange. The "Overview" button in the top right navigation bar is also circled in orange. The main content area shows a map thumbnail, the title "Property Monitoring", and metadata: "Web Map by landconserve815", "Created: Mar 28, 2019", "Updated: Jan 9, 2020", and "View Count: 0". Below the map is a "Description" section with the text "Add an in-depth description of the item." and a "Layers" section listing five layers: "TLCcollector2020 - InvasivesToDo", "TLCcollector2020 - InvasivesToDo", "TLCcollector2020 - Invasives_Destroyed", "TLCcollector2020 - Seed-Location", and "TLCcollector2020 - Seeds_Collected". A large orange arrow points to the "Layers" section. On the right side, there are several action buttons: "Open in Map Viewer", "Open in ArcGIS Desktop", "Create Presentation", "Create Web App", and "Share". Below these are "Item Information" and "Details" sections.



b. After you select your layer, you will be led to the layer **“Overview page”**; click on the **“Settings”** tab.

Monitoring 2019

Overview Data Visualization Usage **Settings**

Property monitoring
Feature Layer (hosted) by landconserve815
Created: Mar 28, 2019 Updated: Jan 7, 2020 View Count: 0

Description
description

Layers

- Violation
Open In Export To Time Settings Disable Attachments Service URL Metadata Edit
- Seed
Open In Export To Time Settings Disable Attachments Service URL Metadata Edit
- Plants of Concern
Open In Export To Time Settings Disable Attachments Service URL Metadata Edit

Open in Map Viewer
Open in Scene Viewer
Open in ArcGIS Desktop
Publish
Create View Layer
Export Data
Update Data
Share
Metadata

Item Information
Low High
Top Improvement: Add a longer summary

c. Select **“Feature Layer (Hosted)”**

Monitoring 2019

Overview Data Visualization Usage **Settings**

General Feature Layer (hosted)

General

Content Status

Recommend the use of this item.
Mark as Authoritative

Discourage the use of this item.
Mark as Deprecated

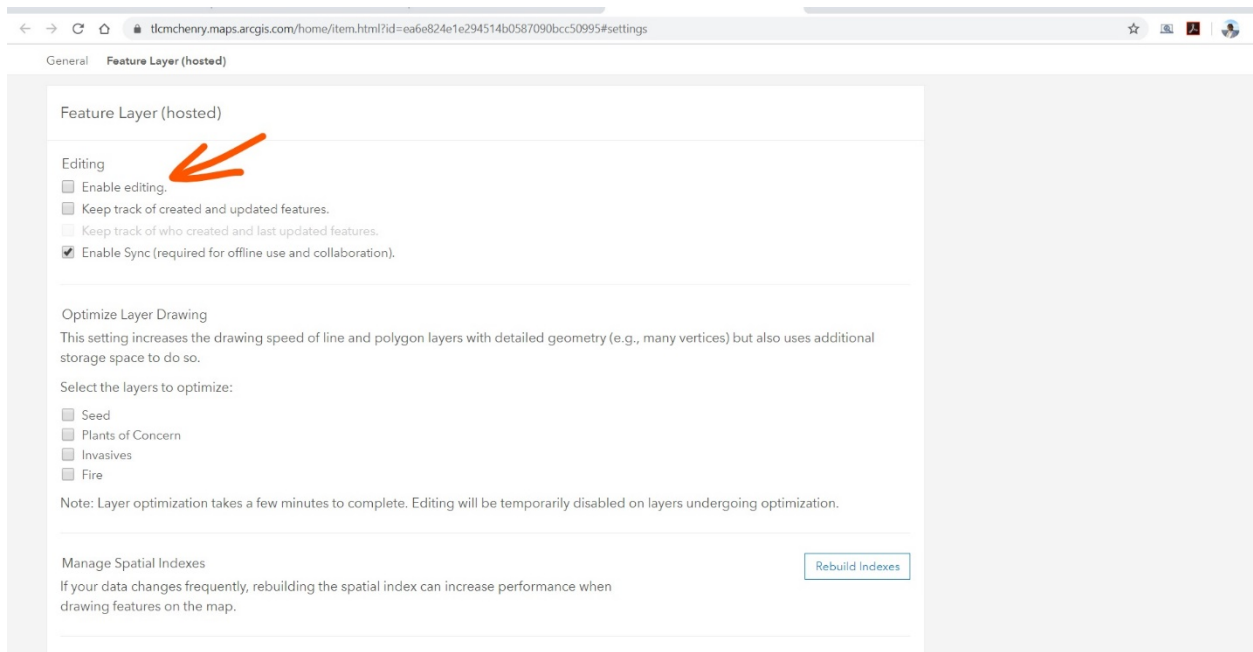
Delete Protection

Prevent this item from being accidentally deleted. Delete Item

Extent

Set an extent to make your item searchable by location. Edit Extent

d. Uncheck “Enable Editing”



General **Feature Layer (hosted)**

Feature Layer (hosted)

Editing

- Enable editing.
- Keep track of created and updated features.
- Keep track of who created and last updated features.
- Enable Sync (required for offline use and collaboration).

Optimize Layer Drawing

This setting increases the drawing speed of line and polygon layers with detailed geometry (e.g., many vertices) but also uses additional storage space to do so.

Select the layers to optimize:

- Seed
- Plants of Concern
- Invasives
- Fire

Note: Layer optimization takes a few minutes to complete. Editing will be temporarily disabled on layers undergoing optimization.

Manage Spatial Indexes [Rebuild Indexes](#)

If your data changes frequently, rebuilding the spatial index can increase performance when drawing features on the map.

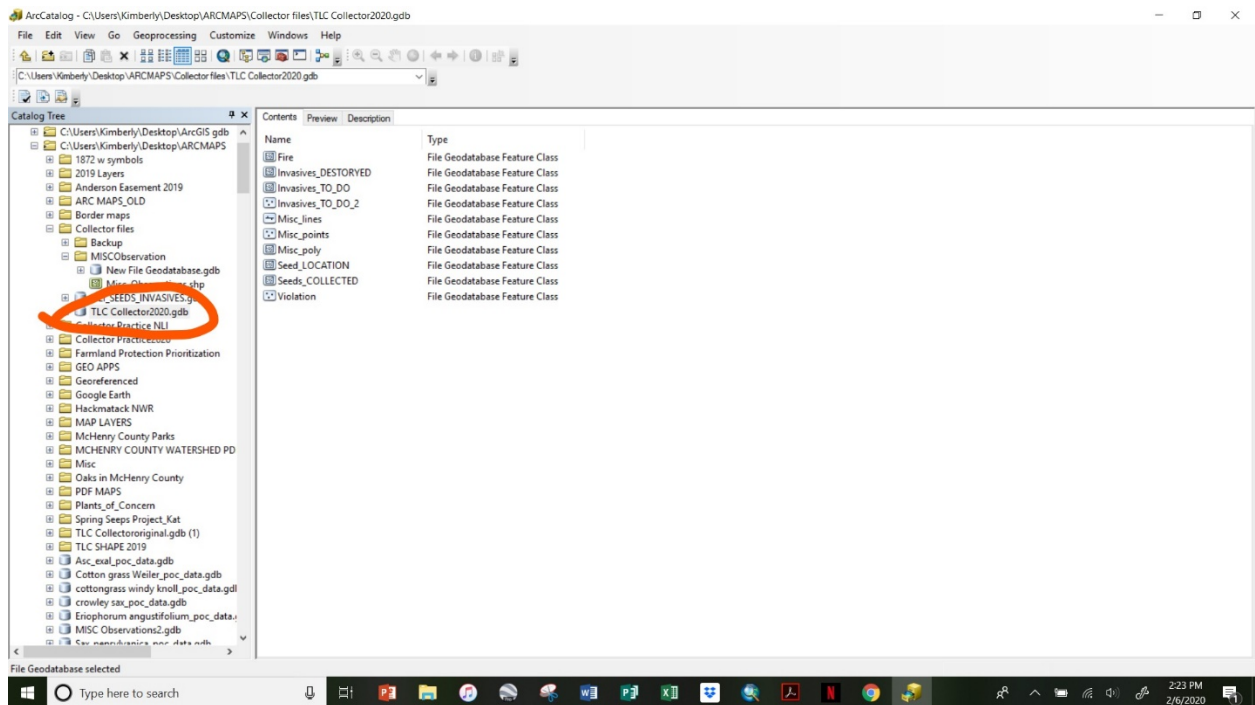
- e. After you have finished disabling the editing capability of all the “old” layers; you will want to upload a NEW gdb to collect data on for the New Year.
 - i. Simply upload the SAME gdb that you used last year, just change the file name to the updated year.



2. Uploading a new gdb to your existing collector map.

a. Navigate to ArcCatalog and find your original gdb; update the file name to display the current year.

i. Edit any feature classes/layers here, edit domains etc. etc. (refer to document “Creating a Collector Geodatabase using ArcGIS” as needed)





b. Follow the instructions in the “Creating a Collector Geodatabase using ArcGIS” to publish your gdb as a service to ArcGIS Online.

i. The new gdb will show up on the “Content” page of your ArcGIS Online account.

The screenshot shows the ArcGIS Online Content page for the user Kimberly Elsenbroek (landconserve815). The page displays a list of 54 items in the 'landconserve815' folder. The 'TLCcollector2020' item is highlighted with an orange circle. The table below shows the details of the items:

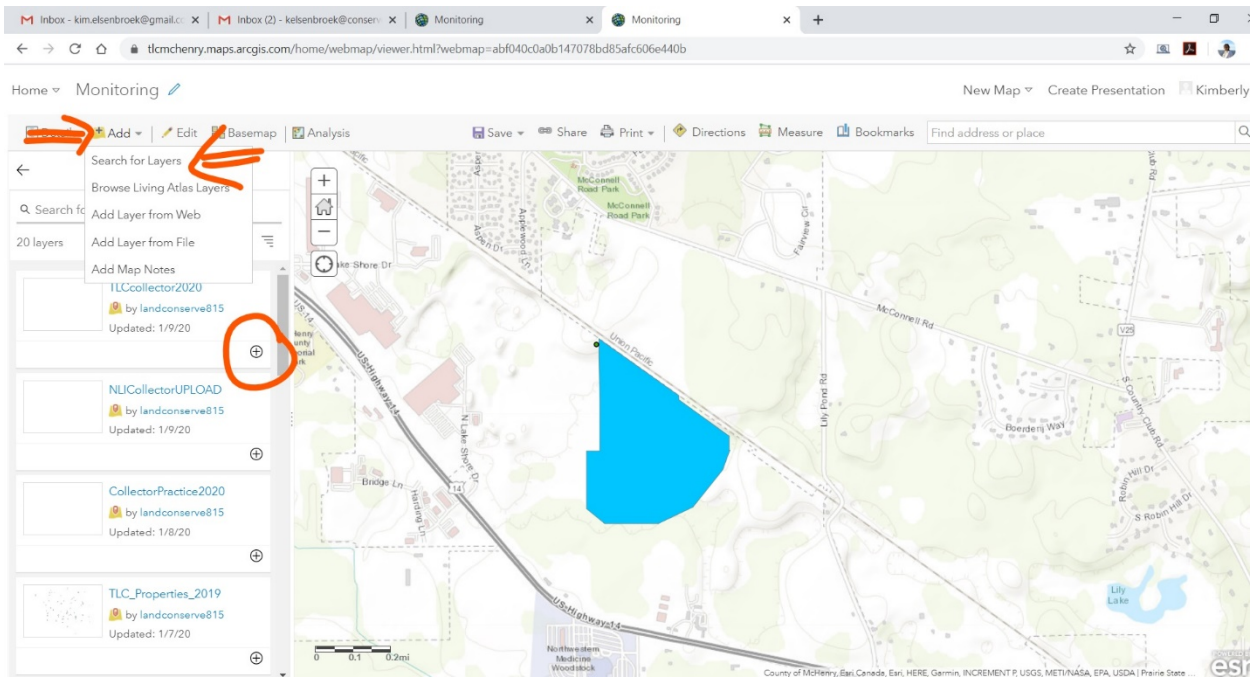
| Title | Type | Access | Star | Modified |
|-----------------------------|-------------------------|--------|------|--------------|
| Invasives2019 | CSV | Locked | ☆ | Feb 6, 2020 |
| Oaks of McHenry County_1837 | Web Mapping Application | Public | ☆ | Jan 24, 2020 |
| Oaks of McHenry County_1837 | Web Map | Public | ☆ | Jan 24, 2020 |
| Oaks of McHenry County | Web Map | Public | ☆ | Jan 23, 2020 |
| TLCcollector2020 | Feature Layer (hosted) | Public | ☆ | Jan 9, 2020 |
| Monitoring | Web Map | Public | ☆ | Jan 9, 2020 |
| TLCcollector2020 | Service Definition | Locked | ☆ | Jan 9, 2020 |
| NLIcollectorUpload | Web Map | Locked | ☆ | Jan 9, 2020 |
| NLIcollectorUPLOAD | Feature Layer (hosted) | Public | ☆ | Jan 9, 2020 |
| NLIcollectorUPLOAD | Service Definition | Locked | ☆ | Jan 9, 2020 |

c. Navigate to your collector web map and “Open in Map Viewer”

i. Select **“Add”** on the left menu bar

ii. Select **“Search for Layer”**

iii. Add your new gdb by clicking on the **“(+) sign”** (circled below)



d. You should now be ready to collect data for another year!

iii. Make sure layer editing is enabled on your new layers (they should be as long as you followed the correct service publishing steps)

iv. Make sure you enable attachments on each layer you want to be able to attach photos to. (*see instructions from “Creating a Collector Geodatabase using ArcGIS” guide if you forgot how to do this)



Part V: Helpful Tips

Share your gdb to share your domains!!!!

-If you share your gdb with someone, they will automatically have access to your domain lists; it can be helpful to share long species domains/lists with your fellow conservationists.

Backup your data regularly from online to a safe backup location!