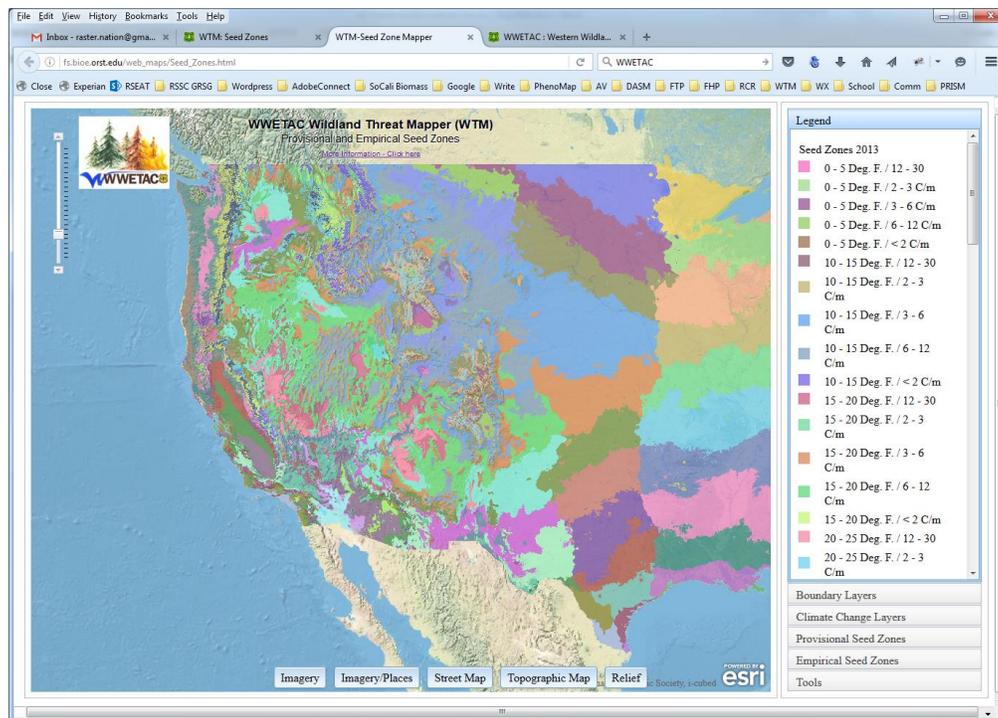


## Provisional Seed Zones – Mobile – ESRI ArcGIS Collector v 1.0

Seed Zones are mapped areas of relatively uniform minimum winter temperature and aridity that were developed to ensure that native seed collections are used on sites within their adaptive range. These zones have been published as a web map by the [USDA Forest Service Western Wildlands Environmental Threat Center \(WWETAC WTM Seed Zones\)](#):



This map is useful, however there is a need to access seed zone attributes for specific locations while in the field. To address this need, we have developed a mobile application using Collector for ArcGIS ESRI. This document will provide a step-by-step tutorial on how to set up and use these tools on a mobile (iOS, Android) device. Basic skills in mobile device operation are assumed. NOTE: The illustrations in this tutorial were created using screen captures from an Android tablet. If you are using a different device, your screens will look different and you may have to look carefully for icons, menus. Please contact us if you are having difficulties. Here is a [reference](#) page that may help you find your way around the app.

**NOTE: *If you are a USFS employee*, you will need obtain an ArcGIS On-Line account. You can [Here is the link to register for an account](#):**

<https://ems-team.usda.gov/sites/fs-cio-webgis/layouts/15/start.aspx#/SitePages/Home.aspx>

Use your AD username and password to log in to the above page. After you have received an email confirming your USFS AGOL account, you need to contact Charlie Schrader-Patton ([cschrader@fs.fed.us](mailto:cschrader@fs.fed.us)) to be added as a user to the Seed Zones Group. This will allow you to access the USFS Seed Zones map. Charlie will send you an email when you have been added.

*If you are not USFS employee, you need to explore getting a USFS AGOL account which may be possible if you are under a USFS contract or are with a cooperating agency.*

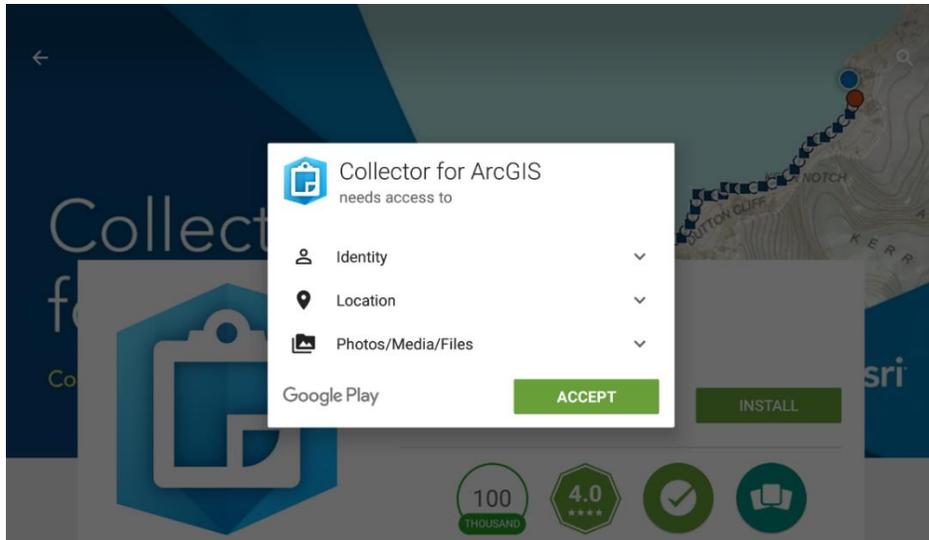
1. Collector for ArcGIS is a mobile software application (app) that is linked with web maps authored in ArcGIS On-Line (AGOL), ESRI's web GIS subscription service. We have created a map of the Seed Zones that you can access with the free Collector for ArcGIS app.

**NOTE: The instructions in this Section 1 assume that you are in a connected environment with your device – either WiFi, or mobile data.**

### 1.1. Install Collector for ArcGIS

- 1.1.1. On your device, go to the Google Play Store/Apple Store and search for 'Collector for ArcGIS'. Install the app, accepting all defaults:





1.2. Log in to AGOL and access the Seed Zones map.

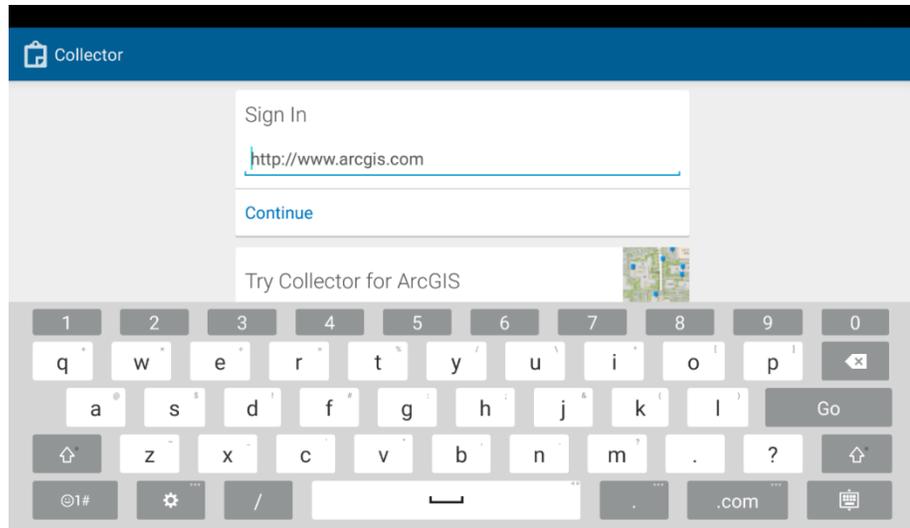
1.2.1. After successfully installing the Collector app, locate the Collector icon on your home screen. It looks like this:



Collector

1.2.2. Open the app and you will be prompted to Sign In. **If you have a USFS ArcGIS On-Line account, go to Section 1.2.3. If you do not, proceed to Section 1.2.2.1**

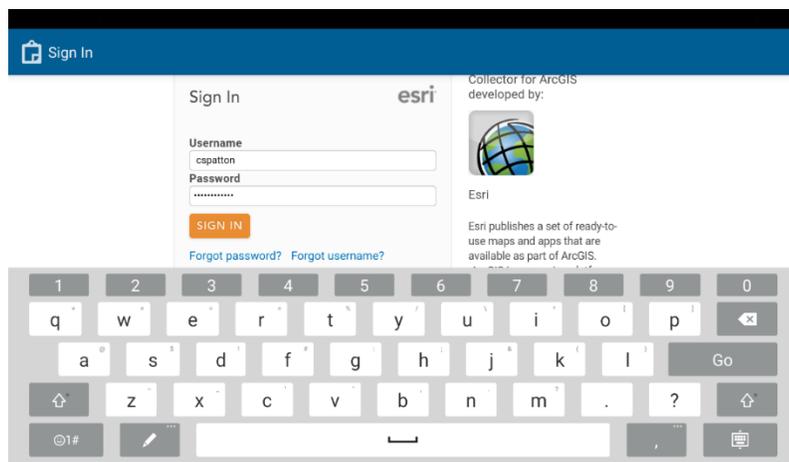
1.2.2.1. The URL 'http://www.arcgis.com' will be filled in and there is no need to change it. Click 'Continue'.



1.2.2.2. Next enter the log-in credentials. Use this account only if you do not have a USFS AGOL account:

Username: cspatton

Password: seedzones123



**NOTE: The above credentials may change so if they don't work contact us.**

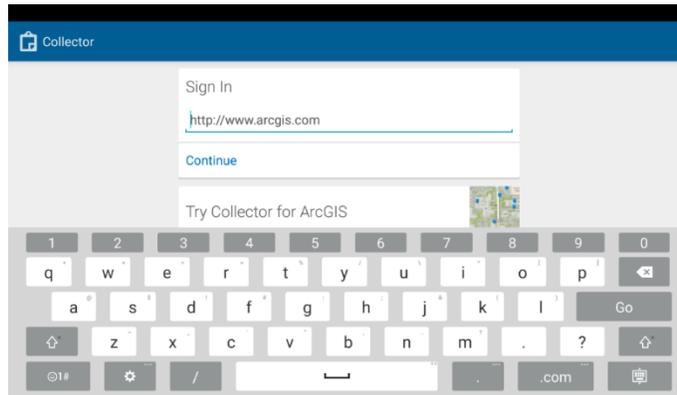
1.2.3. Complete this Section if you have an ArcGIS On-Line account with the USFS. If you are a USFS employee, we strongly encourage you to obtain a USFS AGOL account. Here is the link to register for an account:

<https://ems-team.usda.gov/sites/fs-cio-webgis/layouts/15/start.aspx#/SitePages/Home.aspx>

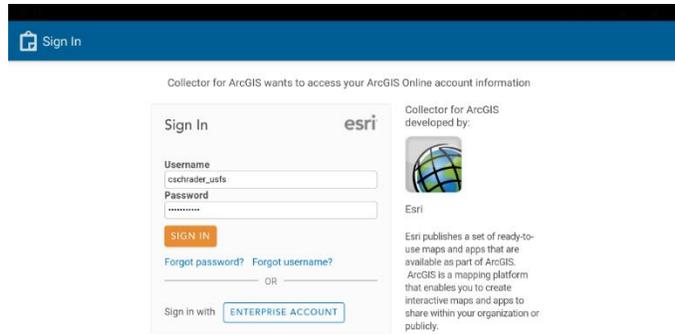
Use your AD username and password to log in to the above page.

1.2.3.1. After you have received an email confirming your USFS AGOL account, you need to contact Charlie Schrader-Patton ([cschrader@fs.fed.us](mailto:cschrader@fs.fed.us)) to be added as a user to the Seed Zones Group. This will allow you to access the USFS Seed Zones map. Charlie will send you an email when you have been added.

1.2.3.2. The URL 'http://www.arcgis.com' will be filled in and there is no need to change it. Click 'Continue'.

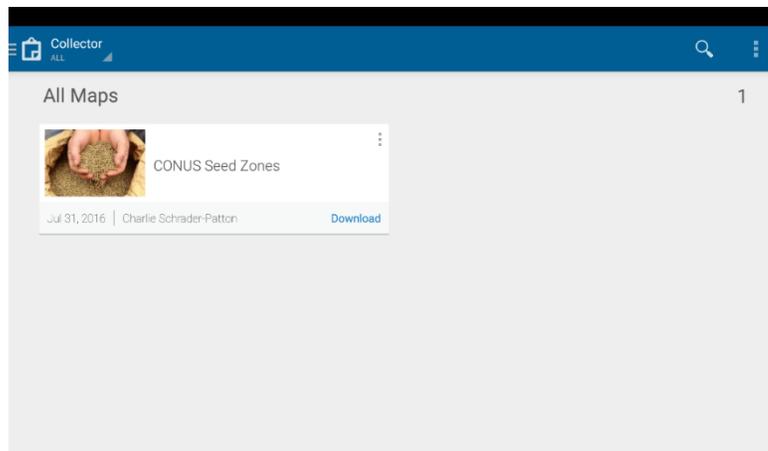


1.2.3.3. Next enter the log-in credentials. These will be provided in the email confirming your registration to the USFS AGOL system.

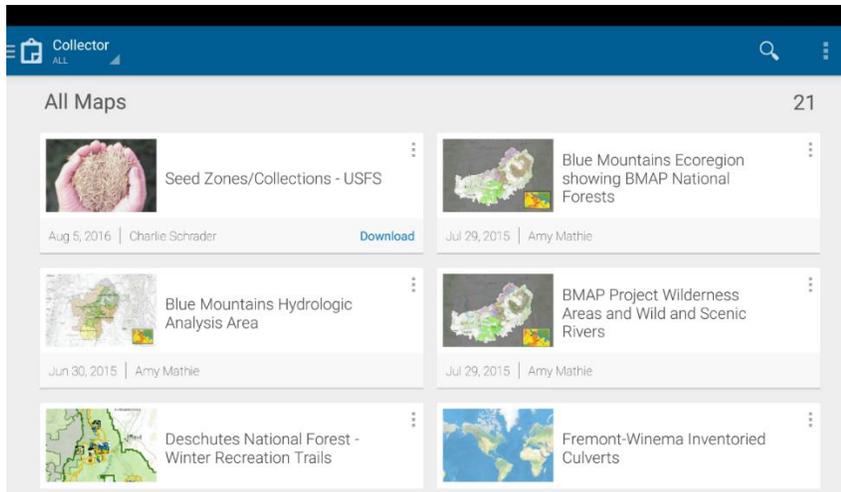


### 1.3. Viewing Seed Zones in Collector

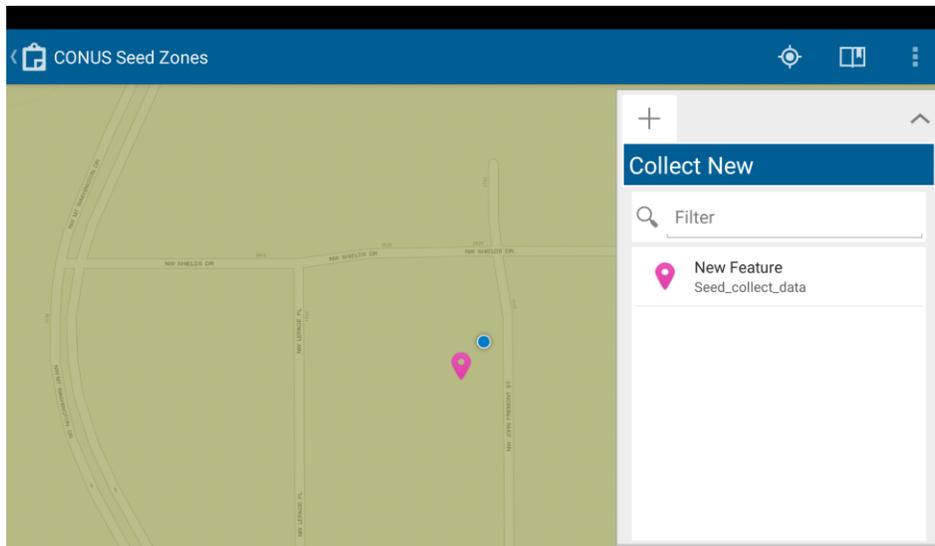
1.3.1. When you have successfully signed in, maps that you have access to will load and appear in the initial screen. The maps are represented by map cards. In this illustration there is one map card – ‘CONUS Seed Zones’:



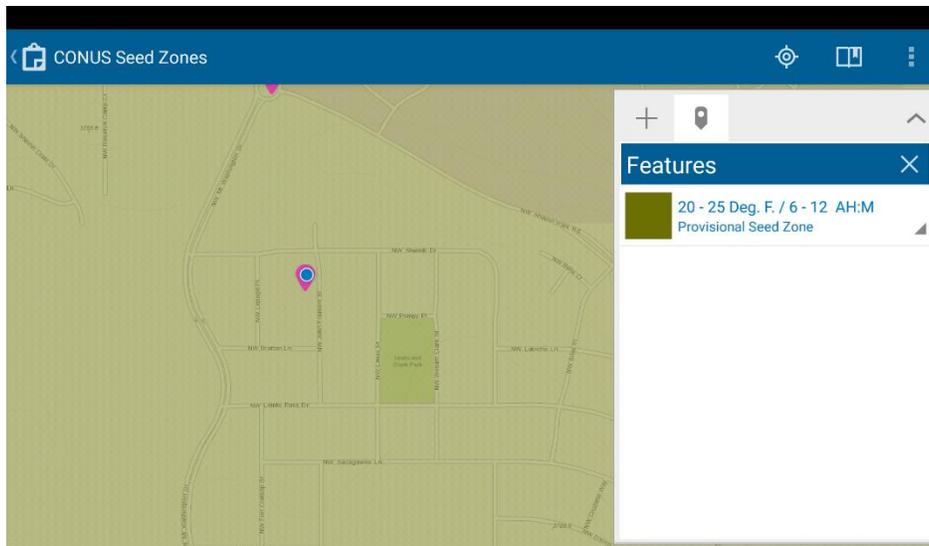
**NOTE:** All the maps you have access to will appear here, so you may have to scroll to the ‘CONUS Seed Zones’ map. If you are signing in as a USFS AGOL user, the map will be ‘Seed Zones/Collections – USFS’:



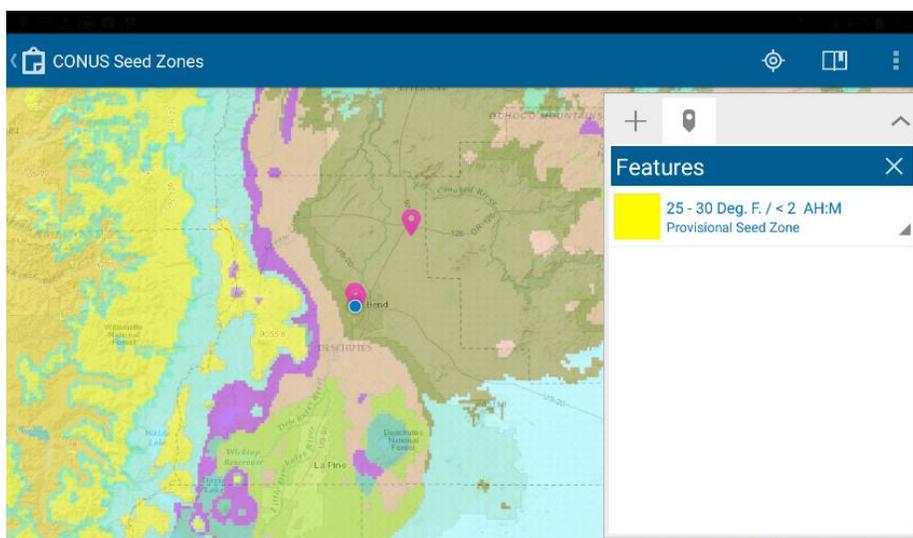
1.3.2. Click on the 'Conus Seed Zones' map (or the 'Seed Zones/Collections – USFS' map) and the map will load and zoom to an extent centered on your current location. Make sure your device GPS (aka 'location') is on. The blue dot is your location.



1.3.3. To see the seed zone attributes at a location, tap the map and the attributes will appear in on the screen. Tap the blue dot to see the attributes at your current location:

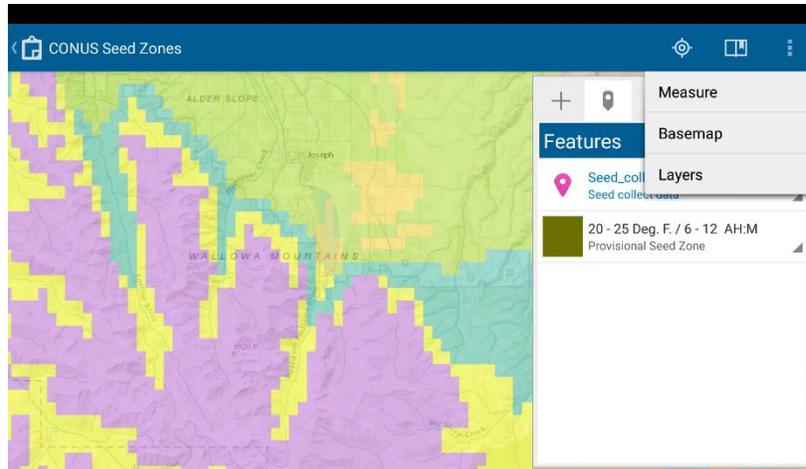


1.3.4. Zoom out to see more of the seed zones. Zooming in and out is easiest with a pinching motion with the thumb and forefinger of one hand. For performance reasons, the seed zones will not display at scales smaller than approx. 1:500,000.



#### 1.4. Other features of the Collector app

1.4.1. Within Collector you can control what type of basemap is displayed and the visibility of the seed zones and other layers. Click the three vertical dots icon in the upper right to explore these features.

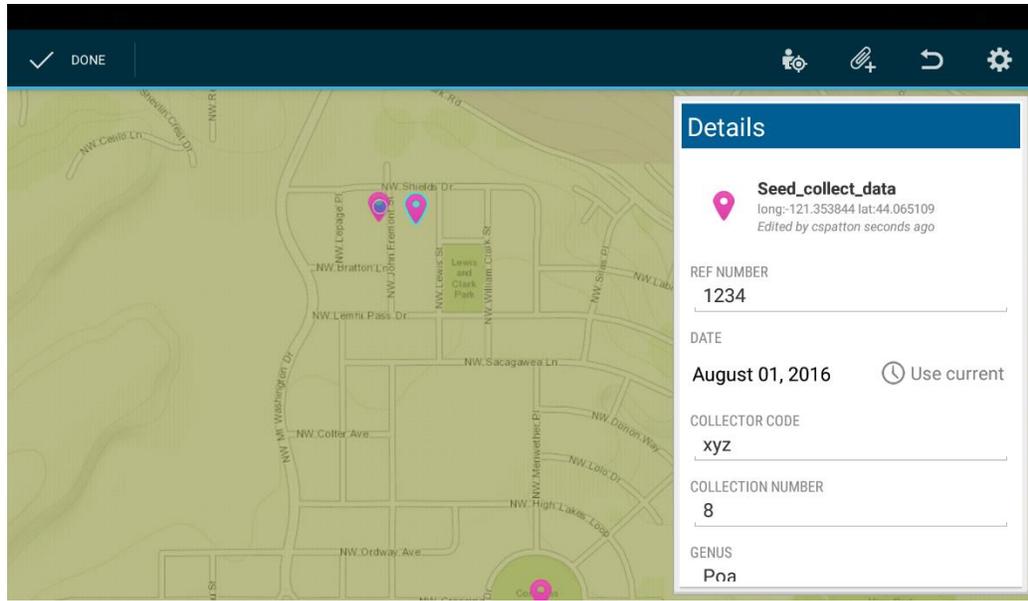


## 1.5. Logging seed collection points

1.5.1. The map contains a feature layer designed for collecting point locations associated with seed sources. To collect a point, tap the '+' icon and then the 'New Feature' menu item. A

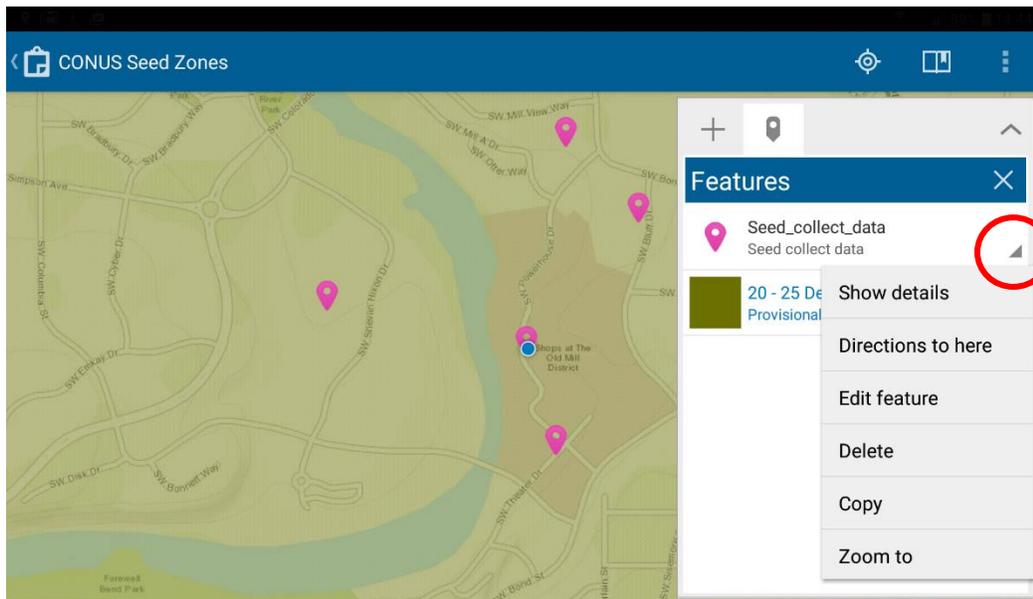
point feature  will appear at your location. The precise location is the pointy end of the  symbol. Tapping the map at any time during the data collection process will move the point. The 'Details' panel contains the fields for you to fill out that will be associated with

the point. An image can be captured and stored with the point by clicking the  icon. When you have finished entering attributes for the point, click the 'Done' icon in the upper left of the map screen and the point will be pushed up to the AGOL map in the cloud.



These points will be available for viewing in a web browser map and we are working on the details of how they will be distributed for downloading as GIS-ready files.

- 1.5.2. To edit a point that has already been collected, tap on a collected point  on the map. Then in the content panel select the menu options arrow (circled below) adjacent to the 'Seed\_collect\_data' item:

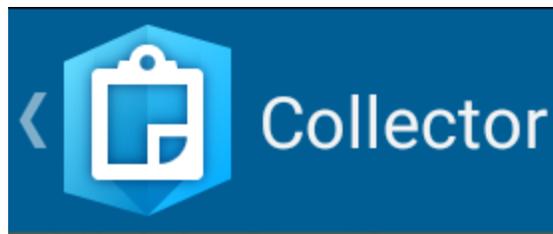


Next select 'Edit feature' in the menu. In the panel you will now see the attributes for the point which can be edited and then saved by clicking the 'Done' icon in the upper left.

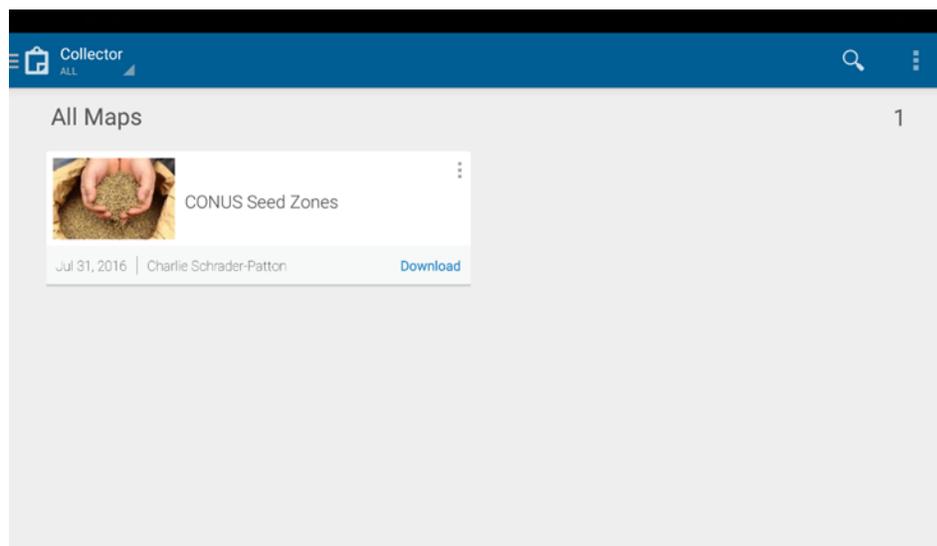
## 2. Off-line (disconnected environment) use

2.1. Many locations where seed collects will take place will be outside the range of both WiFi and mobile data networks. Collector for ArcGIS can be used in these environments but it requires some planning **before** you leave the connected space. Collector can download a map and feature layer for a specified area and then use that data that is stored locally on your device while disconnected. Feature collection is essentially the same as in Section 1, except that the features are stored locally until they can be pushed up to the server when you return to a connected environment.

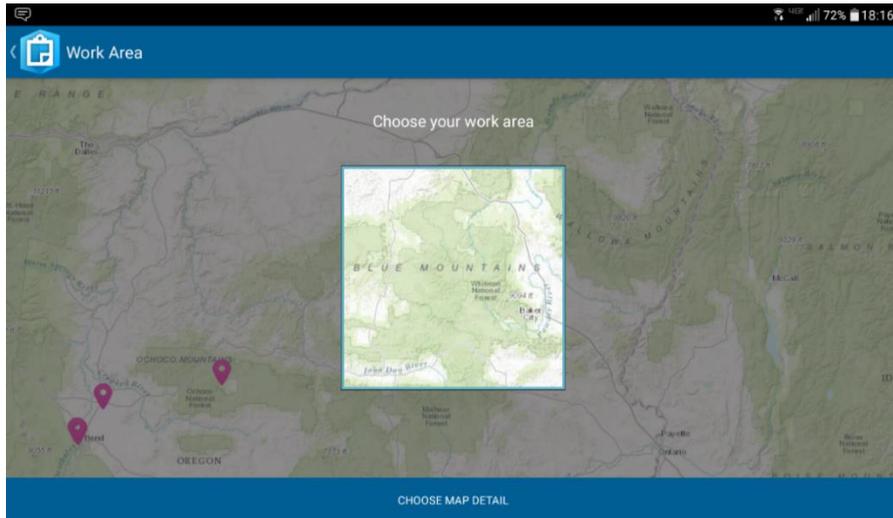
2.1.1. To download the data necessary for off-line use, go to the map card for the 'Seed Zones' map (Section 1.3.1 above). You may need to use the back arrow button in the upper left of the screen if you are in another window in the app to return to the map cards page. This back arrow looks like this:



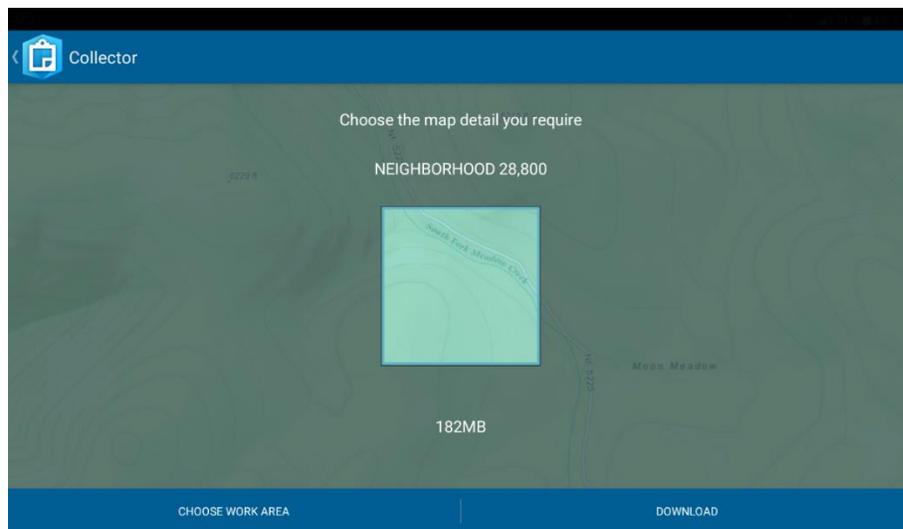
2.1.2. On the map card, notice there is a 'Download' link on the lower right:



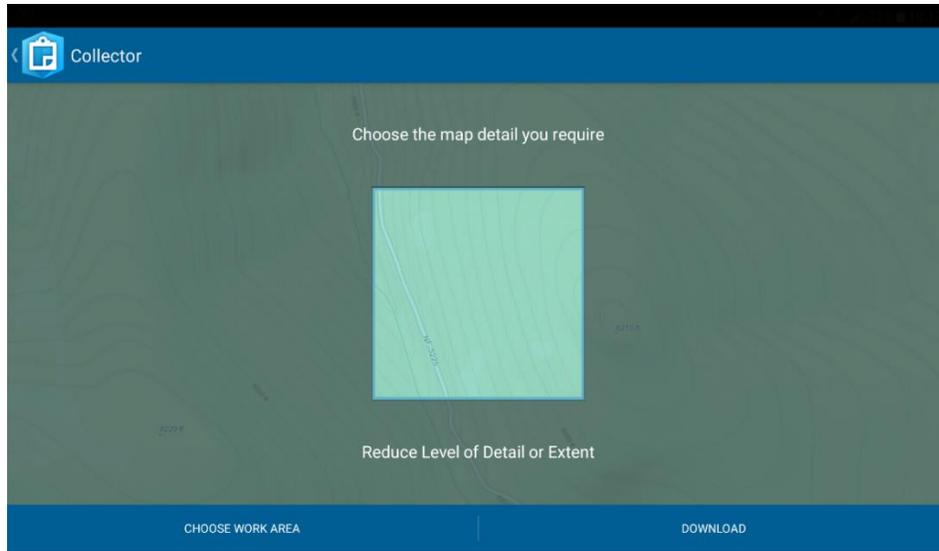
In the next screen define the extent of the area that you want to download. You can do this with a pinching motion with the thumb and forefinger of one hand. A good general rule is to define an area roughly the size of a county or forest:



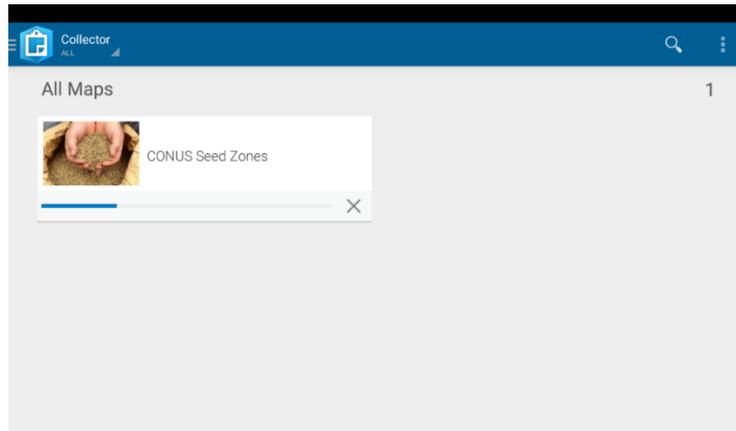
When you have the extent defined, click the 'Choose Map Detail' button at the bottom:



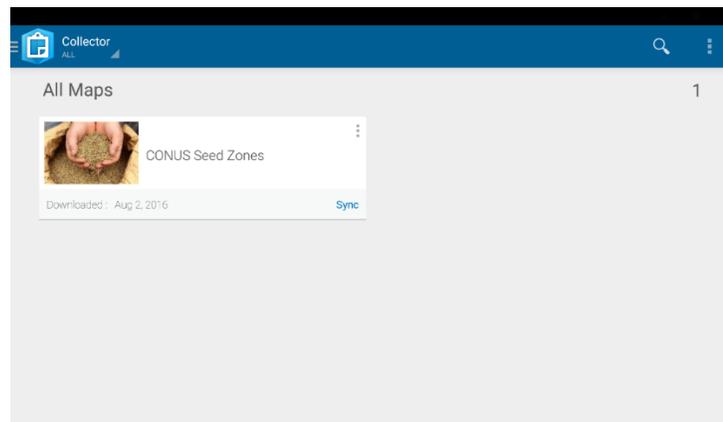
In this screen, zoom in (pinching motion with the thumb and forefinger of one hand) to the level of detail (i.e. the largest map scale that you want to view) that is desired. Notice how the size of the download increases as you zoom in. This is because there are more map tiles that are downloaded at larger scales to cover your defined extent. If you zoom in too far you will get a message notifying you to reduce the level of detail:



Now click download and you will see a progress bar on the map card:

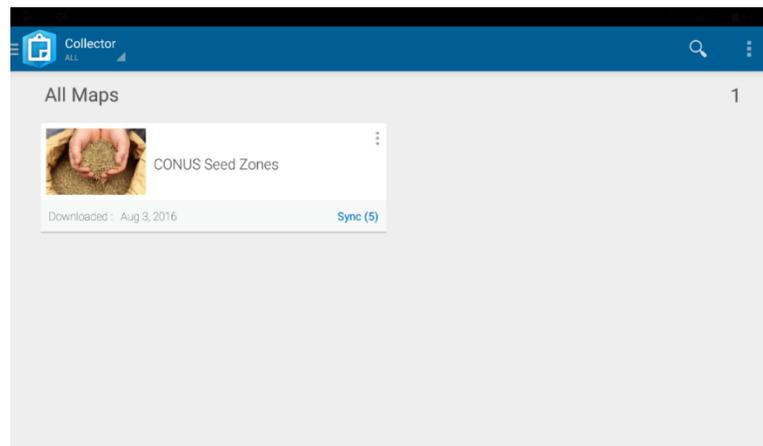


When the map has fully downloaded, there will be a 'Sync' link on the lower right of the map card:



When you open the app, the presence of this 'Sync' link is an indication that there is a map downloaded on the device. If there is no map data downloaded that is associated with this AGOL map, the link will be 'Download'.

2.1.3. Collector functions with an off-line map (identifying seed zones, collecting and editing seed zone locations) are the same as in a connected environment (Sections 1.3, 1.5 above). When you have completed data collection and return to the map card view, you will see a Sync (x) where x = the number of features you have collected. Clicking this link will upload your data to AGOL servers. Be sure you have at least a 4G connection before uploading.



Support:

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