Pest Detection Data Collection
User Manual

Program: Pest Detection
[Exotic Wood Borer / Bark Beetle (EWBBB), Exotic Moth (ExM), Asian Longhorned Beetle (ALB) and Citrus Longhorned Beetle (CLB)]

Application: ArcGIS Field Maps

Host: USDA–MRP GIS Enterprise (portal)
URL: https://maps.mrp.usda.gov/arcgis/

Map Title: PPQ Pest Detection 2025 Field Map

Refer to the "Mobile Data Collection Tools" public webpage for all training support.

2025 Disclaimer: Training techniques or workflows held within are designed as basic job aids. Mobile collection tools and technology used are constantly being improved upon. End users should consult with management for current workflows and standards.

CONTENTS

Web GIS Contact: WebGIS.Connect@usda.gov

Overview and What's New 2025

This document provides guidelines for conducting electronic data collection for the Pest Detection (PD) program using the ArcGIS Field Maps application on mobile devices. The application was developed to reflect program specifics and is intended to replace paper surveys.

State Cooperators may use this application.

The PPQ Pest Detection 2025 Field Map is a new application. It replaces the PPQ EWBBB Trapping 2024 Field Map and the PPQ ExM Trapping 2024 Field Map. The EWBBB Trap Sites 2025 feature layer and the ExM Trap Sites 2025 feature layer are both included in the Field Map. There are no changes to the data collection forms for EWBBB and ExM from their 2024 versions.

The PPQ Pest Detection 2025 Field Map includes two new visual surveys for Asian Longhorned Beetle (ALB) and Citrus Longhorned Beetle (CLB). The ALB Visual Survey is meant for states that have no known population. The two visual survey feature layers follow a similar workflow as trapping where a point is placed to establish the survey location and a visual survey activity is recorded at the first and every subsequent visit to the location.

ALB Visual Surveys 2025
- Visual Survey
    - Establishes visual survey location
    - Records Site Name, Site Type, Host, and Comments
- Visual Survey Activity
    - Activities must be recorded every visit including the first/establishment
    - Records Agency, Surveyor, Activity Date, Activity Type, Egg Masses, Exit Holes, Adult Specimen, Larval Specimen, Comments, Sample Collection and Sample ID, and Pest Status
    - Pest Status defaults to Negative if Egg Masses, Exit Holes, Adult Specimen and Larval Specimen are negative or Pest Status defaults to Presumptive Positive if one of the Egg Masses, Exit Holes, Adult Specimen and Larval Specimen fields is not negative

CLB Visual Surveys 2025
- Visual Survey
    - Establishes visual survey location
    - Records Site Name, Site Type, Host, and Comments
- Visual Survey Activity
    - Activities must be recorded every visit including the first/establishment
    - Records Agency, Surveyor, Activity Date, Activity Type, Egg Masses, Exit Holes, Adult Specimen, Larval Specimen, Comments, Sample Collection and Sample ID, and Pest Status
    - Pest Status defaults to Negative if Egg Masses, Exit Holes, Adult Specimen and Larval Specimen are negative or Pest Status defaults to Presumptive Positive if one of the Egg Masses, Exit Holes, Adult Specimen and Larval Specimen fields is not negative

ArcGIS Enterprise (USDA-MRP GIS Portal)

Sign In

Requires Wi-Fi connection and eAuthentication Level 2 User ID and Password.

You will need to sign into ArcGIS Enterprise (USDA-MRP GIS Portal) to locate maps shared with your USDA-MRP GIS Portal user account. Once signed in, ArcGIS Field Maps will retain your sign in for offline data collection.

Locate the ArcGIS Field Maps application icon and tap to open it. (Figure 1)

Figure 1. *ArcGIS Field Maps application icon*

Field Maps presents with sign-in options for "Sign in with ArcGIS Online" or "Sign in with ArcGIS Enterprise".

Tap "Sign in with ArcGIS Enterprise". (Red box in Figure 2)

Figure 2. *ArcGIS Field Maps Sign in screen*

On first opening the application, you will have to add the ArcGIS Enterprise URL. Once established, your device saves this as a sign in option. The red box in Figure 3 indicates a saved URL and the yellow box in Figure 3 highlights the option to "Specify a New URL".

Specify a New URL
If choosing to "Specify a New URL", this is entered manually using the keyboard. Check it carefully and then tap "Ok". (Figures 3 & 4)

Official Data Collection URL
USDA-MRP GIS Production Portal URL: https://maps.mrp.usda.gov/arcgis

Figure 3. *Sign in with ArcGIS Enterprise options*

Figure 4. *Specify a New URL*

Next you may be asked to confirm "usda.gov" to Sign In. Tap "Continue". (Figure 5)

Figure 5. *Confirm usda.gov sign in*

Again, choose the Enterprise login by tapping on the blue "eAuth Account" button. (Figure 6)
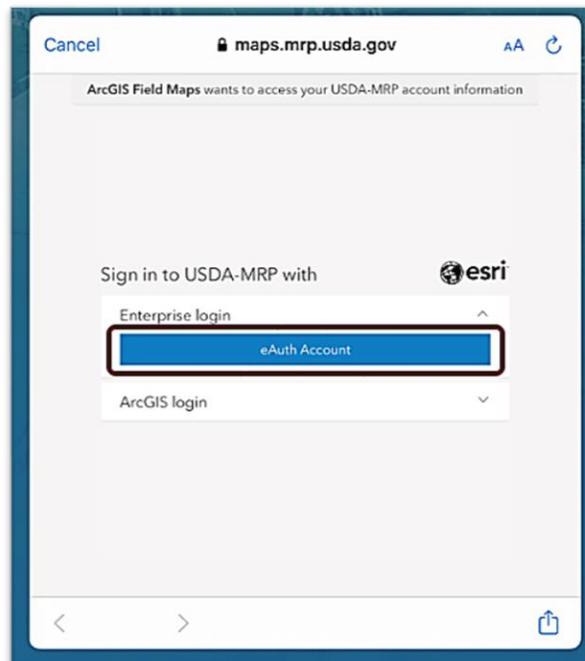
Figure 6. *Sign in to USDA-MRP with eAuth Account*

Tap to select from the <u>user type</u> options listed: Customer, USDA Employee/Contractor, or Other Federal Employee Contractor. (Figure 7)
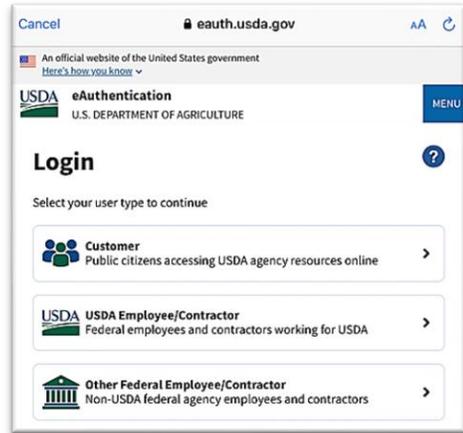
Figure 7. *Select eAuthentication User Type*

USDA Work Account

CEC IT is deprecating this MobileLinc credentialing using the Entrust application. For new or recently re-enrolled mobile devices the Certificate Based Authentication (CBA) process uses the USDA Work Account sign in option.

Select USDA Work Account. (Figure 8)

Tap "OK" at the next screen to confirm.
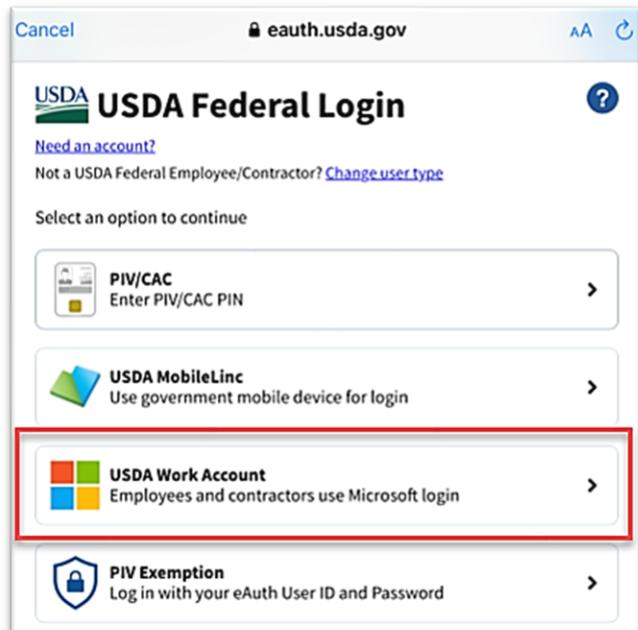
Figure 8. *USDA Federal Login*

Type in your Microsoft Sign In email.
Likely this is something like:
First.Last@usda.gov

Then tap "Next". (Figure 9)
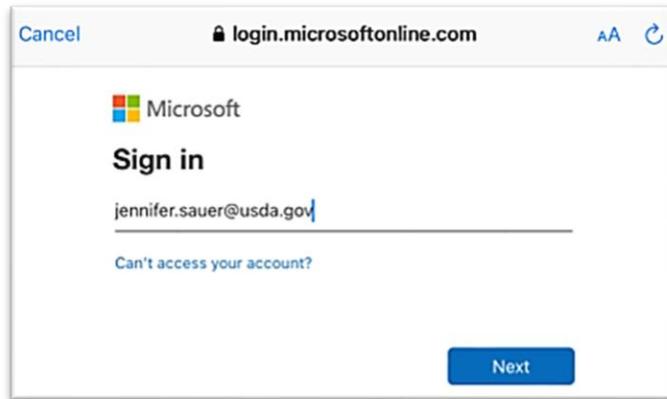
Figure 9. *Microsoft Sign in – Email*

You may need to tap and scroll to find the certificate listed
with your name. Tap to select that line. (Figure 10)
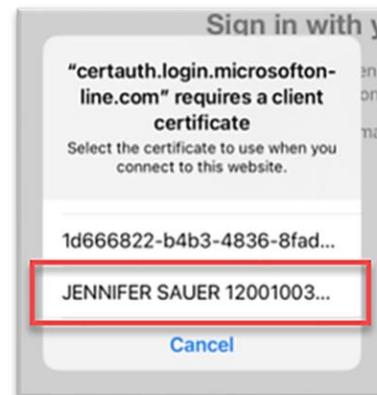
Figure 10. *Select the certificate*

ArcGIS Field Maps opens to the main map gallery.
Locate your map and begin field data collection!

MobileLinc
CEC IT is deprecating the MobileLinc credentialing using the Entrust application. For new or
recently re-enrolled mobile devices the Certificate Based Authentication (CBA) process uses
the USDA Work Account sign in option.

Select MobileLinc. (Figure 11)

Next select between MobileLinc+Microsoft or MobileLinc+Entrust. Most likely the correct
option is: MobileLinc+Entrust (Figure 12)

Figure 11. *eAuthentication options*

Figure 12. *MobileLinc Microsoft or Entrust*

Enter your User ID (eAuthentication user name) using the keyboard. Tap Log In with MobileLinc. (Figure 13)

Figure 13. *MobileLinc User ID & Log In*

Tap on the banner that descends prompting that "You have pending actions". This will open the Entrust application for you to confirm the request. (Red box Figure 14)

If this banner disappears, open the Entrust application manually. Do not close the ArcGIS Field maps application.
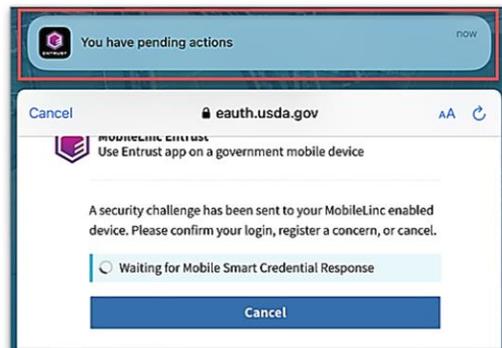
Figure 14. *You have pending actions…confirm in Entrust*

Once in the Entrust application, you will be prompted to enter the Identity PIN you set when configuring this credentialing method.

Enter your PIN and tap the "Allow" button.
(Figure 15)

Figure 15. *Entrust Identity PIN*

Tap Confirm. (Figure 16)

Figure 16. *Confirm to authenticate*

Return to ArcGIS Field Maps.
If shown, tap Accept at the U.S. Government information warning message.

Locate your map and either download offline areas or begin field data collection!

Disconnected Data Collection

The ArcGIS Field Maps application is specifically designed to operate in disconnected mode. An area of interest is downloaded to your device while connected to a Wi-Fi network. Then the device is disconnected from the internet and field data collection is performed. Once a reliable network connection is regained, the data is synchronized with the online map hosted in the USDA-MRP GIS Enterprise (Portal).

It is common for a pest program surveyor to download a map area for a season/year and continuously use it. This means daily sync of data collected in the morning (before start) to pull new data into the map view and in the evening (end of daily data collection) to push out data collected for the day on that device.

The diagram below (Figure 17) represents the workflow of the disconnected mode concept.
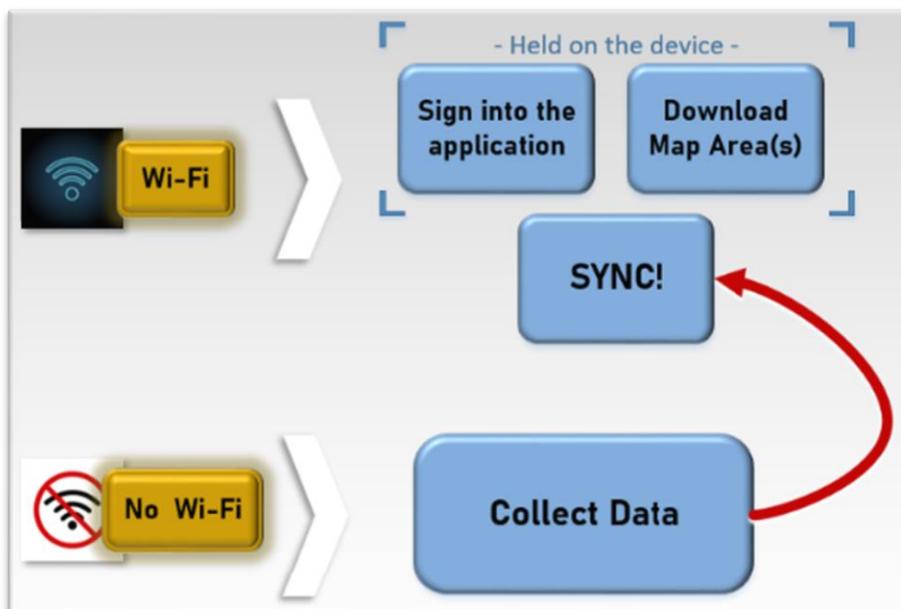
Figure 17. *Wi-Fi preparation and disconnected data collection*

<u>Never assume</u> you are prepared for offline data collection. ALWAYS perform a few tests in the parking lot before you go. For a sample set of steps, see the next section on Before You Go.

Before You Go

Be sure all is ready for field data collection in disconnected mode *before* you leave. This includes downloading and testing a map area and performing a data sync.

Download Map Area(s)

Requires Wi-Fi connection.

This step may be carried out or overseen by your supervisor or local GIS Specialist. If performing yourself, make sure of the appropriate Level of Detail, size, and Area of Interest.

Maps are shared to Groups. If your portal user account is added as a member to a group, you will find this group or groups listed on the Maps landing page.

From the Maps landing page, tap the appropriate Group card (named "PPQ {PestAbbrev} Surveyors". Within the group, locate the map card. Look for the map name given to you. If you have not downloaded a map, the map card contains an overflow menu represented by three blue dots. See the red arrow in Figure 18.

Figure 18. *View of map card within a group*

Tap the three blue dots to reveal the overflow menu. Next tap "Add Offline Area". (Figure 19)

The Add Offline Area defaults to the set map extent and basemap type. A name is assigned automatically (Area 1, etc.) which can be changed once the map successfully downloads. The Level of detail starts at the highest level of detail: Room. This is nearly always too much detail. (Figure 20)
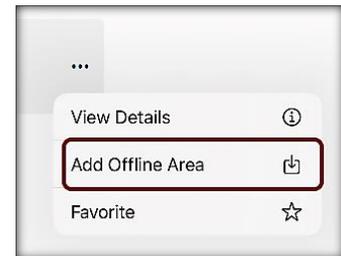
Figure 19. *Overflow menu*

Steps to downloading a map area:
1. Change level of detail
   Tap the blue word "Room" and choose the level decided by your supervisor…usually "Streets" or lower.

2. Center on location assigned
   Tap the grey airplane at the top right corner of the map to center on your current GPS location.

   OR

   Use two fingers to zoom in or out. Tap, hold, and drag to center the map as you wish.

   Wait for the map to display completely.

3. Tap "Download Area"
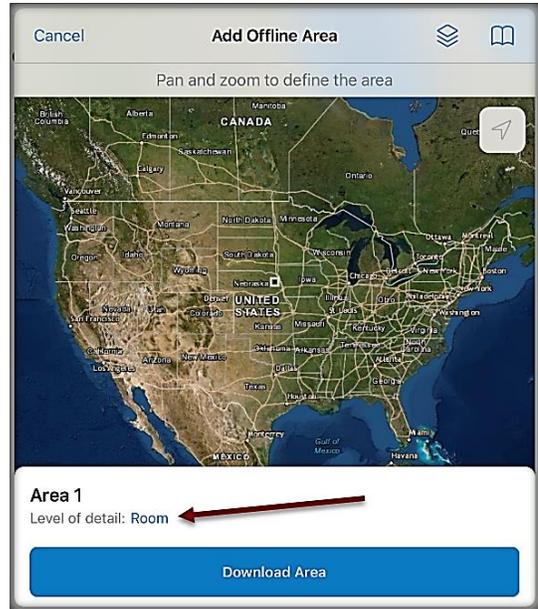
Figure 20. *Add Offline Area*

The new offline map card is created with a progress message – "Downloading" and a blue progress circle updating the status of the download. (Figure 21)
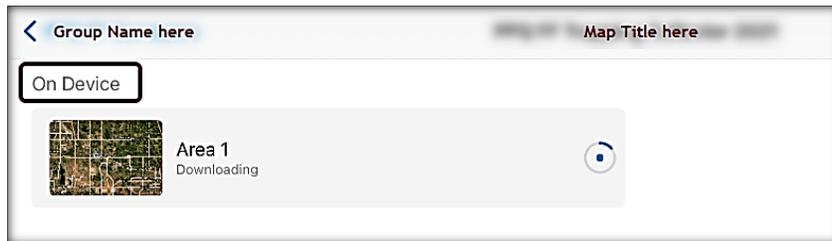
Figure 21. *Map area download in progress*

Once the download is complete, the progress messaging updates to indicate the size of the download and when it was downloaded to the device. The progress bar circle changes to an overflow menu. (Figure 22)
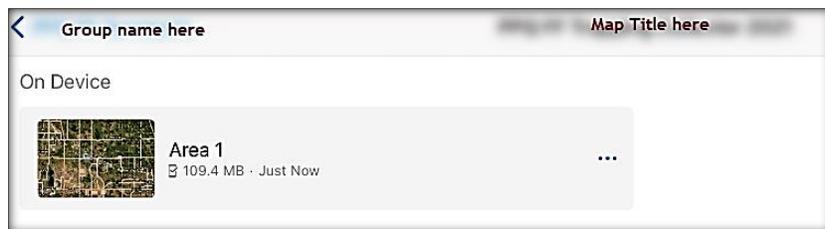
Figure 22. *Map area download complete*

It is highly recommended that you rename downloaded map areas. Use the naming convention established by your supervisor.

To rename a map area, tap the overflow menu on the map area card, tap "Rename" and type in a new name. (Figure 23)

Figure 23. *Downloaded map area overflow menu*

<u>Never assume</u> you are prepared for offline data collection. ALWAYS perform a few tests in the parking lot before you go. For a sample set of steps to test your readiness, see the next section on Parking Lot Tests.

Parking Lot Tests

From the Settings application on your device:
1. Turn Wi-Fi OFF (on a phone: also turn off Cellular Data)
2. Turn Location Services ON
3. Open the ArcGIS Field Maps app
4. Locate and open the offline map area:
    a. Zoom in/out
    b. Tap the add data button to be sure the data form appears to the left with GPS reading in blue (not red)
    c. Tap "Cancel"
    d. Then "Discard" that point

You have confirmed offline use. Now you are ready to head out to the field!

If you do not see your map or it does not open as expected or you are not signed in…
    Go back inside, connect back to Wi-Fi, and try again.

Collect Data

Reminder! Synchronize your map at the beginning and the end of each workday.

ArcGIS Field Maps automatically opens in the last map view used. If the Before You Go steps were performed, opening ArcGIS Field Maps should also open the previously downloaded map area. Tap the back arrow at the top left of the screen to locate the appropriate downloaded map area for data collection, if needed.

**Always follow program survey protocol to determine suitable locations for performing surveys.

The PPQ Pest Detection 2025 Field Map combines EWB/BB, ExM, ALB, and CLB surveys. There are many layers within the map. Toggling layers on and off within the layer list will help keep the map organized if surveying for one or more programs.

Tap the layers icon and tap the toggle switch to the right of the desired layer name to make additional layers visible for data entry. A blue toggle switch indicates the layer is visible. EWBBB Trapping and ExM Trapping circled in red represent groups of layers. Tap the toggle next to those two to collapse the groups. (Figure 24)

All editable data collection layers are on as default. Tap the blue icon with the white plus sign to begin data collection, and all 4 layers (EWBBB. ExM, ALB, and CLB) will be available to select. (Figure 25)

Figure 24. *Field Maps Layer list*
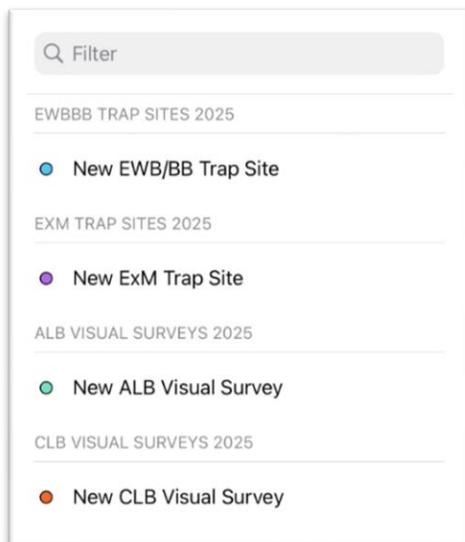
Figure 25. *Add data options*

The following sections will demostrate how to add data for each program.

EWBBB Trapping Surveys

Place an EWBBB Trap Site
When? The first data entry in the *EWBBB Trap Sites 2025* layer establishes a location for the trap site.

All future visits to this site are considered trap activities and are recorded in the *EWBBB Trap Activities 2025* table associated with that location.

1. Tap the layers icon and tap the toggle switch to the right of the desired layer name to make additional layers visible for data entry. A blue toggle switch indicates the layer is visible. (Figure 26)

2. Stand near the survey location.

3. Tap the blue icon with the white plus sign located in the lower-right corner of the screen and choose a New EWBBB Trap Site. (Figure 27)

4. Fill out the main data form. When the trap type and lure fields are filled in, the symbol will change to match the EWBBB trap sites legend. (Figure 28)
    * Asterisks indicate mandatory fields.
    Optional fields should be completed following survey protocol.
    Verify the *Install Date* entry is correct.

5. If unsure about choices for Site Type or Host, consult with your supervisor.

6. Review your entered data carefully prior to submitting the form.

7. Tap the Submit button on the upper-right corner of the form to save the new survey record.

NOTES:
All trap sites default to a "Current" Schedule Status initially and status is maintained by GIS.

If the Submit button fails, you have not completed all required fields or GPS accuracy requirements were not met.
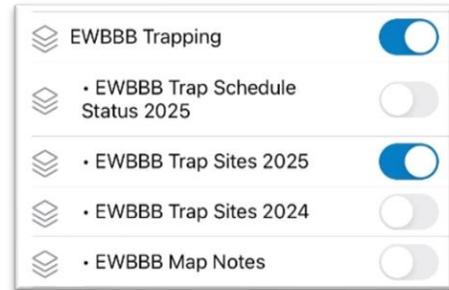
Figure 26. *EWBBB Section Map Layers menu*
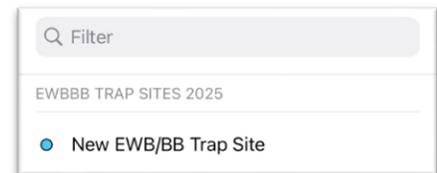
Figure 27. *New EWBBB Trap Site*

Figure 28. *Legend of EWBBB Symbols*

EWBBB Trap Activities

Once a trap is placed, an action performed on any future visit is considered a Trap Activity. For details on when and how to apply each Activity Type, see [Appendix A: Activity Types](#)

1. Locate the appropriate trap site and tap its symbol on the map.
   When selected, the point's symbol is highlighted in cyan, and the *EWBBB Trap Sites 2025* data form opens on the left side of the screen.

   <u>Select carefully</u> (by zooming in) and verify the point selected is correct by reviewing the *Trap ID* or other unique field.

2. Scroll down the *EWBBB Trap Sites 2025* data form and tap "EWBBB Trap Activities 2025 " or tap the link icon. (Figure 29)

Figure 29. *Activities link*

3. Tap the blue Add button to add a new activity. (Figure 30)
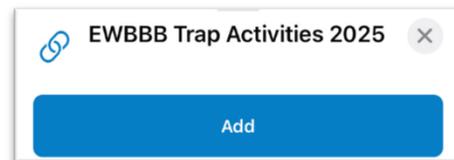
Figure 30. *Add an activity*

4. Fill out the activity data form.
   * Asterisks indicate mandatory fields.
   Optional fields should be completed following survey protocol.
   Verify the *Activity Date* field is Today.

5. Verify all is correct and tap Submit in the upper right corner of the screen to complete the activity entry.

NOTE: Choosing "Remove Trap", "Remove Trap (Missing)", or "Remove Trap (Inaccessible)" as the activity type does not remove the symbol on the map but records a final activity of remove on the historic data record for that site. A nightly script will update the map symbology to Inactive.

EWBBB Trap Schedule Status

Defaulted to OFF, the EWBBB Trap Schedule Status layer is updated nightly to indicate trap sites that are:
- "Current" – trap servicing is up-to-date
- "Due" – trap needs servicing
- "Inactive" – trap is no longer present at site

When the layer is enabled, the trap status symbols display on top of the EWBBB Trap Sites layer on the map. (Figure 31)
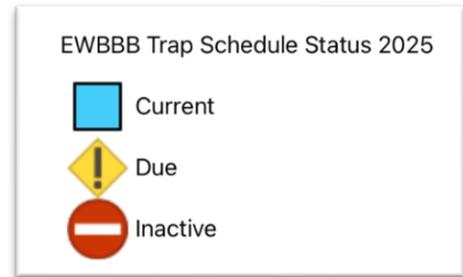
Figure 31. *EWBBB Trap Schedule Status legend*

ExM Trapping Surveys

Place an ExM Trap Site

When? The first data entry in the *ExM Trap Sites 2025* layer establishes a location for the trap site.

All future visits to this site are considered [trap activities](#) and are recorded in the ExM Trap Activities table associated with that location.

Reference layer names may vary, depending on the state collecting data.

1. Tap the layers icon and tap the toggle switch to the right of the desired layer name to make additional layers visible for data entry. A blue toggle switch indicates the layer is visible. (Figure 32)

2. Stand near the survey location.

3. Tap the blue icon with the white plus sign located in the lower-right corner of the screen and choose a New ExM Trap Site. (Figure 33)

4. Fill out the main data form. When the trap type and lure fields are filled out, the symbol will change to match the ExM trap types legend. (Figure 34)
   * Asterisks indicate mandatory fields.
   Optional fields should be completed following survey protocol.
   Verify the *Install Date* entry is correct.

5. If unsure about choices for Site Type or Host, consult with your supervisor.

6. Review your entered data carefully prior to submitting the form.

7. Tap the Submit button on the upper-right corner of the form to save the new survey record.

NOTE:
All trap sites default to a "Current" Schedule Status initially and status is maintained by GIS.

If the Submit button fails, you have not completed all required fields or GPS accuracy requirements were not met.
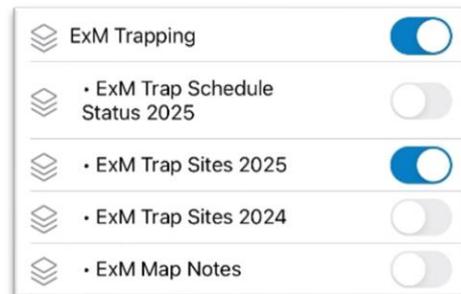
Figure 32. *ExM Layers list group*
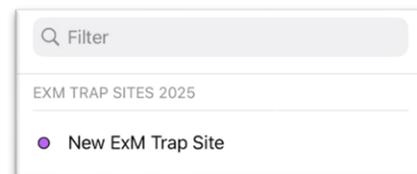
Figure 33. *New ExM Trap Site*

Figure 34. *ExM Trap Sites*

EXM Trap Activities

Once a trap is placed, an action performed on any future visit is considered a Trap Activity. When a trap is removed, missing, or relocated, you must record the appropriate trap activity.

1. Locate the appropriate trap site and tap its symbol on the map.
   When selected, the point's symbol is highlighted in cyan, and the *ExM Trap Sites 2025* data form opens on the left side of the screen.

   Select carefully (by zooming in) and verify the point selected is correct by reviewing the *Trap ID* or other unique field.

2. Scroll down the *ExM Trap Sites 2025* data form and tap "ExM Trap Activities 2025 " or tap the link icon. (Figure 35)

Figure 35. *Activities link*

3. Tap the blue Add button to add a new activity. (Figure 36)
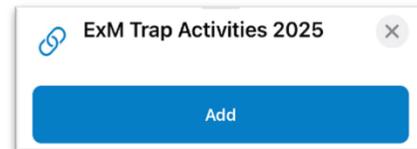
Figure 36. *Add a new activity*

4. Fill out the activity data form.
   * Asterisks indicate mandatory fields.
   Optional fields should be completed following survey protocol.
   Verify the *Activity Date* field is Today.

5. Verify all is correct and tap Submit in the upper right corner of the screen to complete the activity entry.

NOTE: Choosing "Remove" as the activity type does not remove the symbol on the map but records a final activity of remove on the historic data record for that site. A nightly script will update the map symbology to Inactive.

EXM Trap Schedule Status

Defaulted to OFF, the ExM Trap Schedule Status layer is updated nightly to indicate trap sites that are:

- "Current" – trap servicing is up-to-date
- "Due" – trap needs servicing
- "Inactive" – trap is no longer present at site

When the layer is enabled, the trap status symbols display on top of the ExM Trap Sites layer on the map. (Figure 37)

Figure 37. *ExM Trap Schedule Status legend*

Relocate a Trap

1. Tap the trap symbol on the map to select it. The data form opens on the left.
2. Enter a Trap Activity of "Remove".
3. Transport the trap to its new location.
4. Complete Place a Trap steps.

Remove a Trap

1. Tap the trap symbol on the map to select it. The data form opens on the left.
2. Enter a Trap Acitivty of "Remove".

NOTE: Choosing "Remove", "Remove (Missing)", or "Remove (Inaccessible)" as the activity type does not remove the symbol on the map but records a final activity of remove on the historic data record for that site.

ALB Visual Surveys

When? The first data entry in the *ALB Visual Survey 2025* layer establishes a location for the visual survey.

On the first visit and on all subsequent visits to the same site, you must record a [Visual Activity] in the *ALB Visual Activities 2025* table associated with that location.

1. Tap the layers icon ⊜ and tap the toggle switch to the right of the desired layer name to make additional layers visible for data entry. A blue toggle switch indicates the layer is visible. (Figure 38)

2. Stand near the survey location.

3. Tap the blue icon with the white plus sign ⊕ located in the lower-right corner of the screen and choose a New ALB Visual Survey. (Figure 39)

4. Fill out the main data form.
   * Asterisks indicate mandatory fields.
   Optional fields should be completed following survey protocol.

5. If unsure about choices for Site Type or Host, consult with your supervisor.

6. Review your entered data carefully prior to submitting the form.

7. Tap the Submit button on the upper-right corner of the form to save the new survey record.

8. Immediately proceed to the next section to add a Visual Activity.
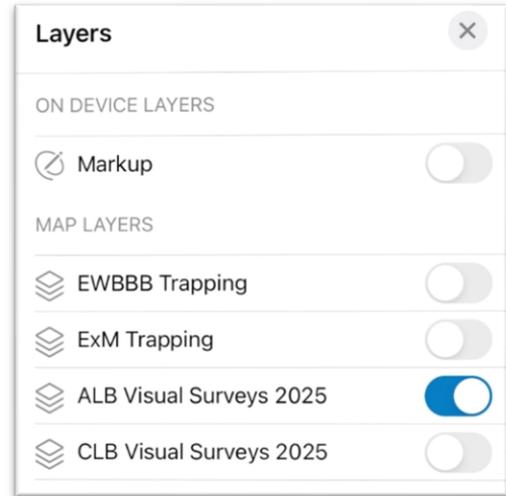
Figure 38. *Map Layers menu with ALB Visual Surveys 2025 toggled on*
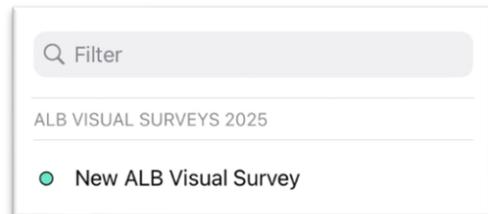
Figure 39. *Add New ALB Visual Survey location*

NOTES:
If the Submit button fails, you have not completed all required fields or GPS accuracy requirements were not met.

ALB Visual Activities

Each ALB Visual Survey point must have at least one associated Visual Activity. If you revisit an established survey site, follow these instructions to add a new Visual Activity.

1. Locate the appropriate visual survey site and tap its symbol on the map.
   When selected, the point's symbol is highlighted in cyan, and the *ALB Visual Survey 2025* data form opens on the left side of the screen.

   Select carefully (by zooming in) and verify the point selected is correct by reviewing the *Site Name* or other unique field.

2. Scroll down the *ALB Visual Survey 2025* data form and tap "ALB Visual Activities 2025 " or tap the link icon. (Figure 40)

Figure 40. *Activities link*

3. Tap the blue Add button to add a new activity. (Figure 41)
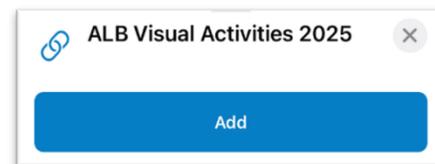
Figure 41. *Add an activity*

4. When the visual survey activity form opens, there are two buttons to "Take Photo" and "Attach". The visual survey activity form optionally allows for photos to be attached to an activity. The photos should be related to the *Observation Details* in the activity form to document possible egg masses, exit holes, adult specimen or larval specimen. Please understand that photos require additional storage space and take more time to sync, so you should use this option sparingly when necessary. (Figure 42)
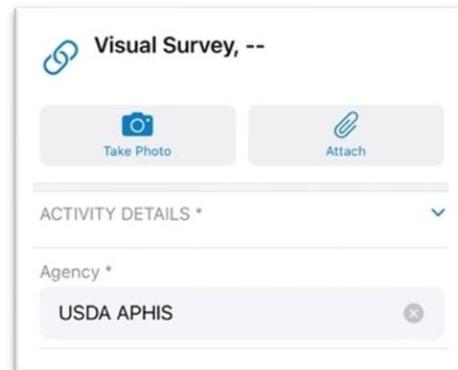
Figure 42. *Add a photo*

5. Tap the Take Photo icon to take a picture using your mobile device's camera. Then, tap Allow to give Field Maps the permission to access and open the mobile device's camera.

6. If a photo has already been taken before starting the visual survey activity, tap Attach and then tap Choose Photo or Video to access your photo library. Allow Field Maps full access to the photo library. Choose the photo to attach to the visual survey activity and tap Add. (Figure 43)

7. Fill out the activity data form.
   * Asterisks indicate mandatory fields.
   Optional fields should be completed following survey protocol.
   Verify the *Activity Date* field is Today.

8. Verify all is correct and tap Submit in the upper right corner of the screen to complete the activity entry.
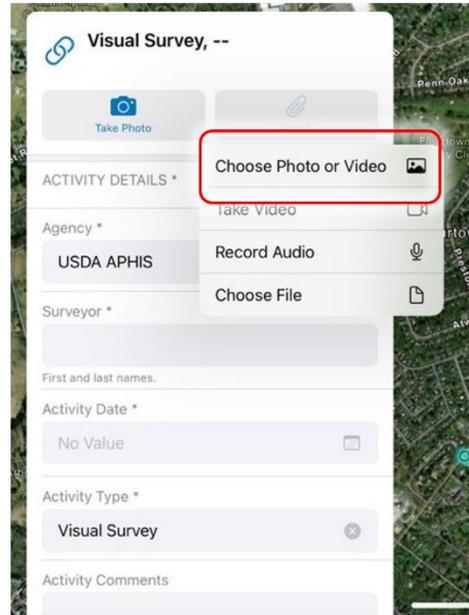
Figure 43. *Choose photo from photo gallery*

CLB Visual Surveys

When? The first data entry in the *CLB Visual Survey 2025* layer establishes a location for the visual survey.

On the first visit and on all subsequent visits to the same site, you must record a [Visual Activity](#) in the *CLB Visual Activities 2025* table associated with that location.

1. Tap the layers icon [icon] and tap the toggle switch to the right of the desired layer name to make additional layers visible for data entry. A blue toggle switch indicates the layer is visible. (Figure 44)

2. Stand near the survey location.

3. Tap the blue icon with the white plus sign [icon] located in the lower-right corner of the screen and choose a New CLB Visual Survey. (Figure 45)

4. Fill out the main data form.
   * Asterisks indicate mandatory fields.
   Optional fields should be completed following survey protocol.

5. If unsure about choices for Site Type or Host, consult with your supervisor.

6. Review your entered data carefully prior to submitting the form.

7. Tap the Submit button on the upper-right corner of the form to save the new survey record.

8. Immediately proceed to the next section to add a Visual Activity.

NOTES:
If the Submit button fails, you have not completed all required fields or GPS accuracy requirements were not met.
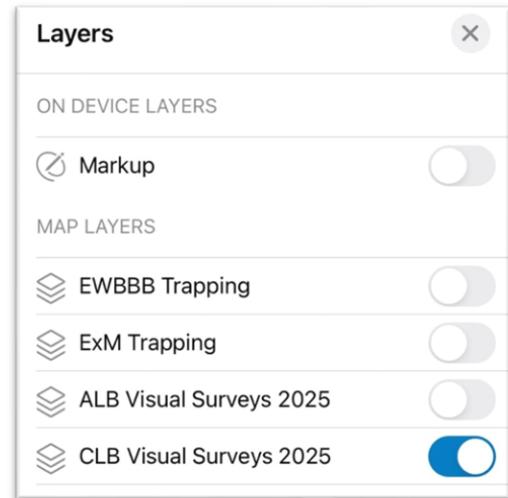
Figure 44. *Map Layers menu with CLB Visual Surveys 2025 toggled on*
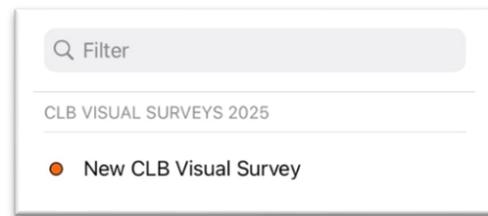
Figure 45. *Add New CLB Visual Survey location*

CLB Visual Activities

Each CLB Visual Survey point must have at least one associated Visual Activity. If you revisit an established survey site, follow these instructions to add a new Visual Activity.

1. Locate the appropriate visual survey site and tap its symbol on the map.
   When selected, the point's symbol is highlighted in cyan, and the C*LB Visual Survey 2025* data form opens on the left side of the screen.

   <u>Select carefully</u> (by zooming in) and verify the point selected is correct by reviewing the *Site Name* or other unique field.

2. Scroll down the *CLB Visual Survey 2025* data form and tap "CLB Visual Activities 2025 " or tap the link icon. (Figure 46)

Figure 46. *Activities link*

3. Tap the blue Add button to add a new activity. (Figure 47)
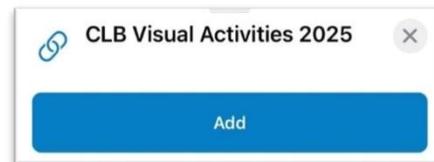
Figure 47. *Add an activity*

4. When the visual survey activity form opens, there are two buttons to "Take Photo" and "Attach". The visual survey activity form optionally allows for photos to be attached to an activity. The photos should be related to the *Observation Details* in the activity form to document possible egg masses, exit holes, adult specimen or larval specimen. Please understand that photos require additional storage space and take more time to sync, so you should use this option sparingly when necessary. (Figure 48)
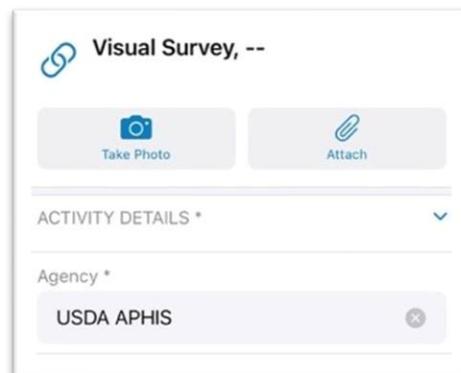
Figure 48. *Add a photo*

5. Tap the Take Photo icon to take a picture using your mobile device's camera. Then, tap Allow to give Field Maps the permission to access and open the mobile device's camera.

6. If a photo has already been taken before starting the visual survey activity, tap Attach and then tap Choose Photo or Video to access your photo library. Allow Field Maps full access to the photo library. Choose the photo to attach to the visual survey activity and tap Add. (Figure 49)

7. Fill out the activity data form.
    * Asterisks indicate mandatory fields.
    Optional fields should be completed following survey protocol.
    Verify the *Activity Date* field is Today.
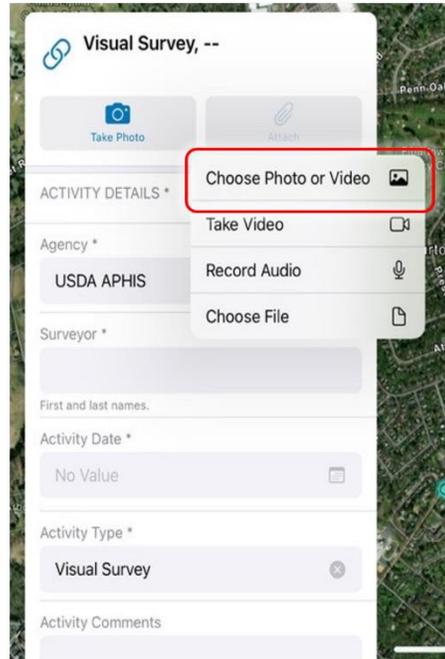
Figure 49. *Choose photo from photo gallery*

8. Verify all is correct and tap Submit in the upper right corner of the screen to complete the activity entry.

Map Notes Points

Use the "Map Notes Points" layers to record hazards and other information. There are two "Map Notes Points" layers in the map. They were carried over from the EWB/BB and ExM 2024 Field Maps.
Be aware that <u>they are *shared* layers</u> and other surveyors will have access to your notes.

1. Tap the layers icon [icon] and tap the toggle switch to the right of the desired layer name to make additional layers visible for data entry. A blue toggle switch indicates the layer is visible. (Figure 50)

2. Stand near the survey location.

3. Tap the blue icon with the white plus sign [icon] located in the lower-right corner of the screen to add a new map note.

4. Scroll down, if needed, and choose the Map Notes Type from the list on the left. (Figure 51)

5. Fill out the data form.
   * Asterisks indicate mandatory fields.

   Verify the *Note Date* is Today.

6. Review your entered data carefully prior to submitting the form.

7. Tap the Submit button on the upper-right corner of the form to save the new map note.

NOTE: If the Submit button fails, you have not completed all required fields or GPS accuracy requirements were not met.
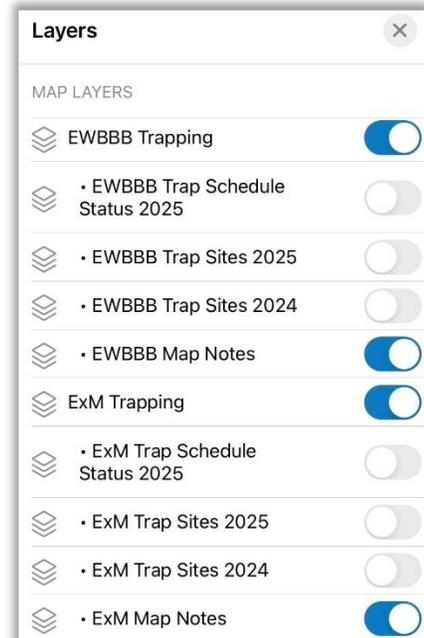
Figure 50. *Layer list with Map Notes*
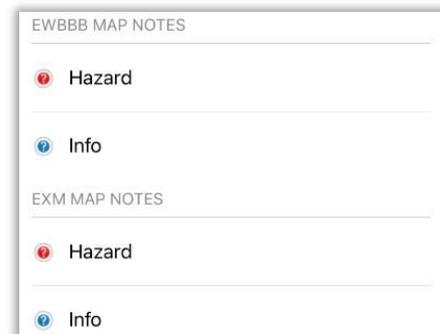
Figure 51. *Map Notes Points Symbols*

Daily Data Sync

Sync your data first thing in the morning AND last thing at night – DAILY!
This process both pushes your data collection out and brings in other edits to your map.
Be sure you are connected to a strong Wi-Fi network.

If you are unable to sync your device, [ask for help](#) right away. Your data may be at risk if you delay synchronizing your device.

Be sure you are connected to a strong Wi-Fi network.

Be sure Auto-Sync is OFF. Tap the sync button ↓↑ and then toggle to disable Auto-Sync. (Figure 52)
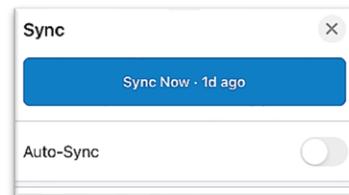
Figure 52. *Auto-Sync toggled to OFF*

You may choose the sync icon from within a map area. Tap the sync icon at the top right of the map. (Figure 53)

Figure 53. *Icon menu within the map*

OR

You may also choose to sync by choosing the ellipsis menu found on each Offine Area. You will have the option to Sync, Rename, or Remove Area. (Figure 54)
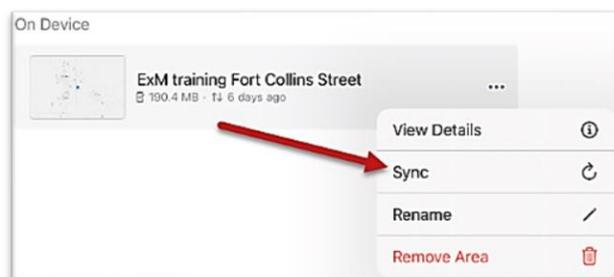
Figure 54. *Offline Area menu*

Sign Out

To sign out of any environment, tap the profile icon on the Maps page in the upper left, scroll down, and tap "Sign Out". (Figure 55)

Tap "Sign Out" again to confirm the action. (Figure 56)

Then choose "Sign In with ArcGIS Enterprise" to enter the correct URL. For reminders on signing in, see Sign In section.

Figure 55. *Profile Menu*

Figure 56. *Sign out confirmation*

Training Maps and Practice

*BE SURE TO ENTER REAL DATA IN PRODUCTION MAPS ONLY!!!** <u>Sign out</u> when training exercises are completed to avoid accidental data entry when performing "real" survey activities.

All Training Maps are hosted in our Staging Portal. To sign in, follow the steps in the <u>Sign In</u> section until "Specify a New URL"

Locate the ArcGIS Field Maps application icon and tap to open it. (Figure 57)

Figure 57. *ArcGIS Field Maps application icon*

Field Maps presents with sign-in options for "Sign in with ArcGIS Online" or "Sign in with ArcGIS Enterprise".

Tap "Sign in with ArcGIS Enterprise". (Red box in Figure 58)

Figure 58. *ArcGIS Field Maps Sign in screen*

On first opening the application, you will have to add the ArcGIS Enterprise URL. Once established, your device saves this as a sign in option. The red box in Figure 59 indicates a saved URL and the yellow box in Figure 59 highlights the option to "Specify a New URL".

Specify a New URL
If choosing to "Specify a New URL", this is entered manually using the keyboard. Check it carefully and then tap "Ok". (Figure 59 & 60)

Training Portal URL
USDA-MRP GIS Staging Portal URL: <u>https://maps-stg.mrp.usda.gov/arcgis</u>

Figure 59. *Sign in with ArcGIS Enterprise options*
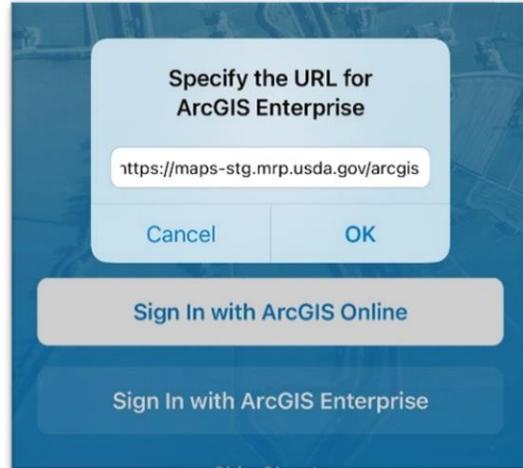
Figure 60. *Specify a New URL*

Next you may be asked to confirm "usda.gov" to Sign In. Tap "Continue". (Figure 61)

Figure 61. *Confirm usda.gov sign in*

Again, choose the Enterprise login by tapping on the blue "eAuth Account" button. (Figure 62)
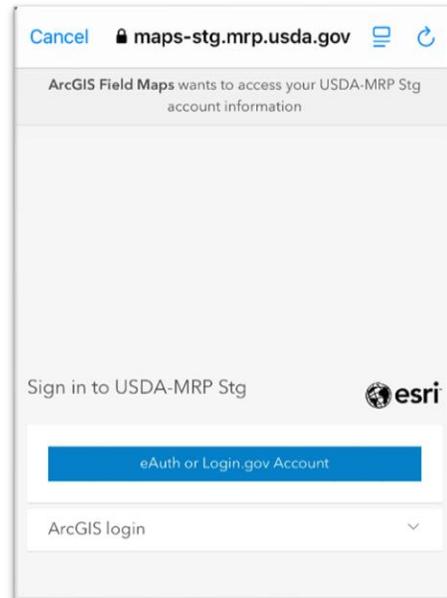
Figure 62. *Sign in to USDA-MRP STG with eAuth Account*

Tap to select from the <u>user type</u> options listed: Customer, USDA Employee/Contractor, or Other Federal Employee Contractor. (Figure 63)
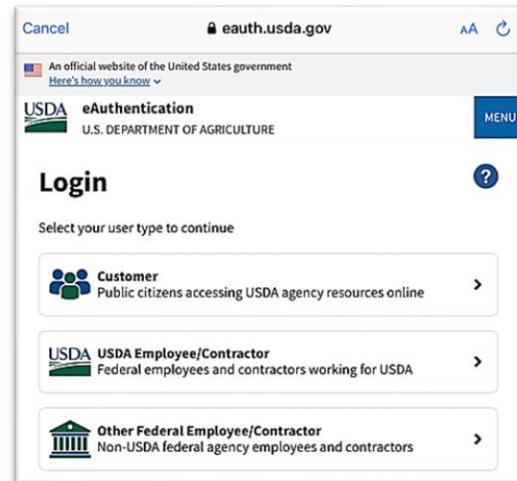
Figure 63. *Select eAuthentication User Type*

Continue the sign in instructions following [USDA Work Account](#) or [MobileLinc sections](#).

Once signed in, locate your Training map and begin practice.

Getting Help

APHIS PPQ

Before requesting technical support, be prepared with detailed information, including the name of the map, and error messaging experienced. Be as specific as possible. Include screenshots, any troubleshooting you have performed, and indicate the type of device (iPad, laptop, phone, etc.).

For APHIS PPQ users, if you are having issues with the iPad, laptop, Wi-Fi settings, or issues dealing with installing software, open a ticket with CEC IT. CECHelpDesk@usda.gov or 877-873-0783

If you need technical support or help using the ArcGIS Field Maps application, follow this order:

1. Your field supervisor
2. Local GIS Specialist that supports your area
3. Email WebGIS.Connect@usda.gov

Cooperators & Other Nonfederal Users

Contact your State Plant Health Director's office for assistance.

All Training Resources

As new applications and programs are supported, newly created training documents and self-paced training videos are shared on the APHIS public facing website:

Mobile Data Collection Tools

Bookmark this site. Visit often. Provide feedback and ideas freely to the End User Tools Group.

Appendix A: Activity Types

Inaccessible – The trap is inaccessible and cannot be monitored or serviced during this visit. No other Trap Activities can be performed at this visit. The surveyor should attempt to monitor the trap at the next visit. If the trap is still inaccessible at the next visit, the surveyor should choose Remove Trap (Inaccessible) as the Trap Activity at that visit.

Monitor – The trap is monitored. Samples are collected if present in the trap. If a surveyor performs a different trap activity (ex: replace lure, replace trap, etc.), then the surveyor does not need to enter a Monitor trap activity. It is assumed that the trap will be monitored when a lure or trap is replaced. Surveyors should monitor traps during every trap activity unless the trap is inaccessible.
NOTE: For EWBBB surveys, the trap must be checked, and samples collected every two weeks.

Remove Trap – The trap and all trap components are being removed because either the survey has ended, or the trap needs to be moved to a new location. Choosing Remove Trap as the activity type does not remove the symbol on the map but records a final activity of remove on the historic data record for that site.

Remove Trap (Inaccessible) – The trap and all trap components are being removed or, in some cases, abandoned because surveyors can no longer access the trap site. Choosing Remove (Inaccessible) as the activity type does not remove the symbol on the map but records a final activity of remove on the historic data record for that site.

Remove Trap (Missing) – The trap is missing. Choosing Remove (Missing) as the activity type does not remove the symbol on the map but records a final activity of remove on the historic data record for that site.

Replace Lure – The lure is replaced because it is time to replace the lure based on lure length of effectiveness. The surveyor should also monitor the trap and collect samples at this time. No Monitor activity needs to be entered, as it is understood that the surveyor will monitor the trap when replacing a lure or replacing a trap.

Replace Lure (Missing) – The lure is replaced because the lure is damaged or missing. The trap should also be monitored at this time. No Monitor activity needs to be entered, as it is understood that the surveyor will monitor the trap when replacing a lure or replacing a trap.

Replace Trap – The trap is replaced because it is damaged. The surveyor should also monitor the trap and collect samples at this time, if possible. No Monitor activity needs to be entered, as it is understood that the surveyor will monitor the trap when replacing a lure or replacing a trap.

Replace Trap (Missing) – The trap is replaced because it is missing. No Monitor activity needs to be entered, as it is understoon that the surveyor will monitor the trap when replacing a trap.