



Spotted Lanternfly Survey Data Collection

User Manual



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This map allows for SLF survey data collection on:

[Egg Mass Monitor Points](#)
[Egg Mass Treatment Areas](#)
[Map Notes Points](#)
[Map Notes Areas](#)
[Site Plans](#)
[Trapping](#)
[Treatment Points](#)
[Treatment Areas](#)
[Visual](#)
[Wetlands](#)

Program: Spotted Lanternfly

Application: ArcGIS Field Maps

Host: USDA-MRP GIS Enterprise (Portal)

URL: <https://maps.mrp.usda.gov/arcgis/>

Map Title: PPQ SLF [ST] Survey Field Map 2023 v2

**** Refer to the [“Mobile Data Collection Tools”](#) public webpage for all training support.**

2024 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.

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End User Tools Request links: [Support Request \(End User Tools\)](#) [Mobile Device Request](#) [Training Request](#)

Overview

This document provides guidelines for conducting electronic data collection for the Spotted Lanternfly (SLF) program using the ArcGIS Field Maps application on a mobile device. The application was developed to reflect program specifics and is intended to replace paper surveys.

Following the order in the map layer menu, shown in Figure 1 boxed in red on the next page, here is a quick overview of editable layers and their intention:

- Visual Surveys 2023: This layer is to be used by states with known SLF populations.
- Trap Sites 2023: This layer records the trap location. Monitoring and servicing activities are recorded in the Trap Activities related table.
- Treatment Points 2023: This is used to record the location and eventual treatment of a single tree. If a treatment is performed on a treatment point, then all the treatment related fields should be completed but they are not required when the point is first assessed.
Assessment happens year round, while most treatments occur April-October.
- Treatment Areas: This layer is used to record the location of an area assessed for treatment. Any subsequent treatment activities performed on the location are recorded in the Treatment Area Activities related table.
- Egg Mass Monitor Points 2024: Egg mass monitor points record locations for continued treatment monitoring on that particular site. Use the Egg Mass Monitor Activities related table to record details of each visit to the site.
- Egg Mass Treatment Areas 2024: Egg mass treatment areas record the locations of areas where egg masses were treated. Use the Egg Mass Treatment Activities related table to record details about each treatment event.
- Map Notes Points: Use this layer to record information and hazardous points for yourself and other surveyors.
- Map Notes Areas: Use this layer to record information and hazardous areas for yourself and other surveyors.
- Wetlands: Use this layer to mark wetlands to avoid during treatment.
- Site Plans: Site Plans are the property boundaries (parcels) at the point in time they were pulled from the county dataset. New shapes or changes to the shape must be requested of the Field GIS Specialist through the supervisor or state coordinator. Selecting a parcel opens property information. Some of the parcel attributes are editable. Use the Site Plan Activities related table to record contact attempts or other results of your visit to a property in preparation for treatment

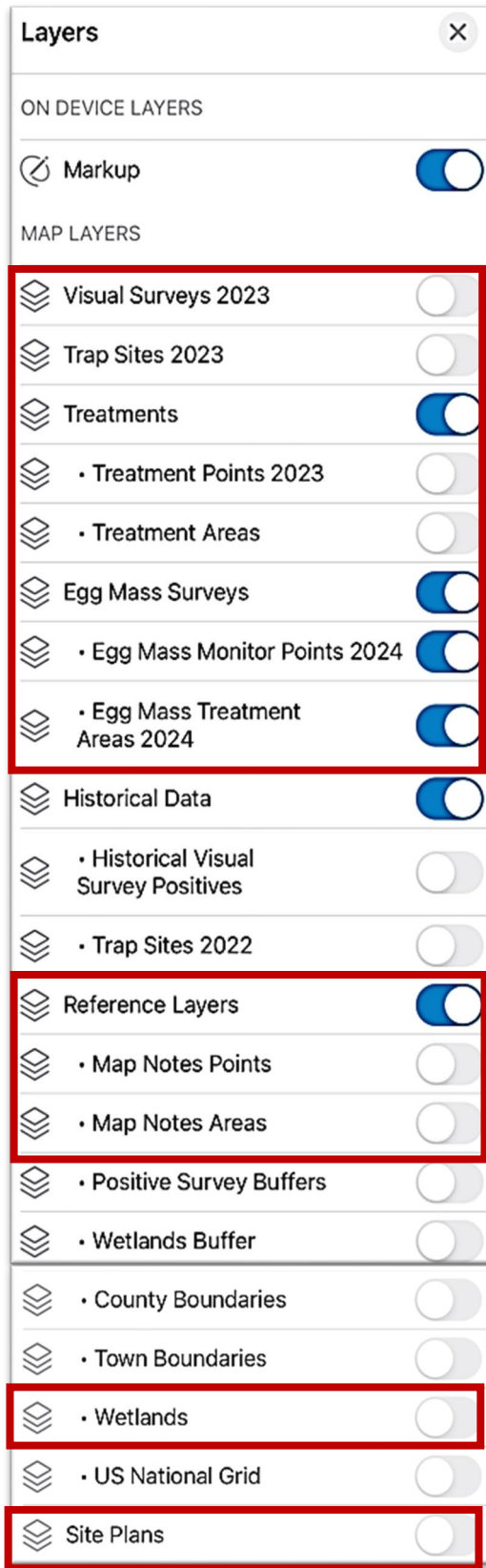


Figure 1. SLF [ST] Survey Field Map 2023 v2 Layers menu

USDA-MRP GIS (Portal)

Sign In

Requires eAuthentication Level 2 User ID and Password.



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

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.

The MobileLinc authentication option uses an identity established within the Entrust application to confirm authentication for use of the ArcGIS mobile applications.

Some in PPQ Field Operations are exempt from this option and can enter their eAuthentication user ID and password manually using the Log in with Password option. If your device is managed by Intune, [contact CEC IT](#) for support in creating that Entrust identity to enable sign in with MobileLinc.

Locate the ArcGIS Field Maps application icon and tap to open it. (Figure 2)



Figure 2. ArcGIS Field Maps application icon

Field Maps presents with sign-in options for “Sign in with ArcGIS Online” or “Sign in with ArcGIS Enterprise”. (Red box in Figure 3)

Tap “Sign in with ArcGIS Enterprise”.



Figure 3. 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 4 indicates a saved URL and the yellow box in Figure 4 highlights the option to “Specify a New URL”.

Official Data Collection

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

Training Maps and Practice

BE SURE TO ENTER REAL DATA IN PRODUCTION MAPS ONLY!!! Sign out when training exercises are completed to avoid accidental data entry when performing “real” survey activities.

USDA-MRP GIS Stage portal: <https://maps-stg.mrp.usda.gov/arcgis>

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 5)

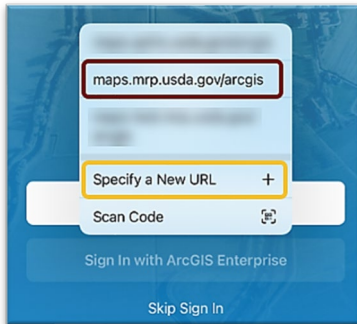


Figure 4. Sign in with ArcGIS Enterprise options



Figure 5. Specify a New URL

Next you may be asked to confirm “usda.gov” to Sign In. Tap “Continue”. (Figure 6)



Figure 6. Confirm usda.gov sign in

Again, choose the Enterprise login by tapping on the blue “eAuth Account” button. (Figure 7)

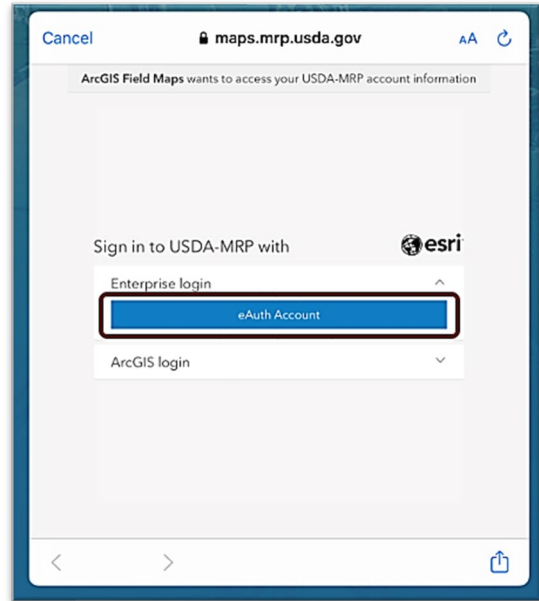


Figure 7. Sign in to USDA-MRP with eAuth Account

Select MobileLinc. (Figure 8)

Enter your User ID (eAuthentication user name) using the keyboard. Tap Log In with MobileLinc. (Figure 9)

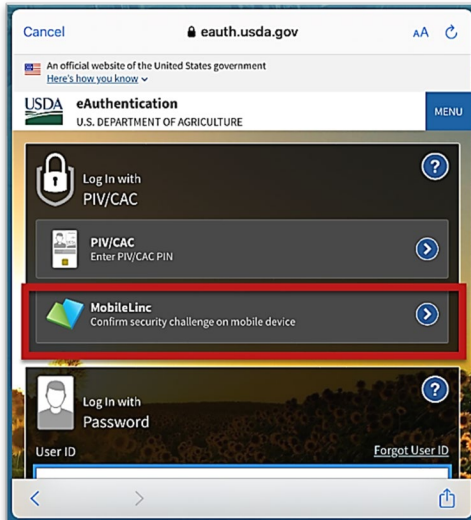


Figure 8. eAuthentication options

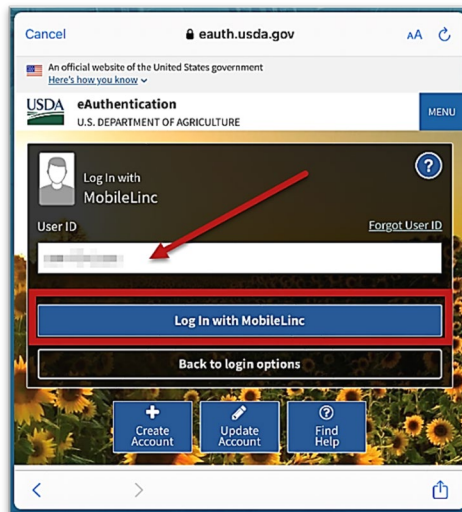


Figure 9. MobileLinc User ID & Log In

Entrust Application Security Challenge

A “New Security Challenge” message should drop down along the top of the screen. Tap this message to open Entrust. (Figure 10)

If you lose track of the message, tap Home button, locate and open the Entrust application. You may need to tap to open the Challenges menu along the bottom of the Entrust application screen.

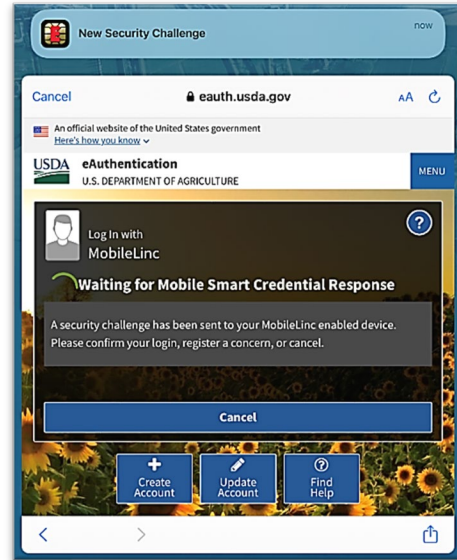


Figure 10. *New Security Challenge*

Enter your PIN. (Figure 11)

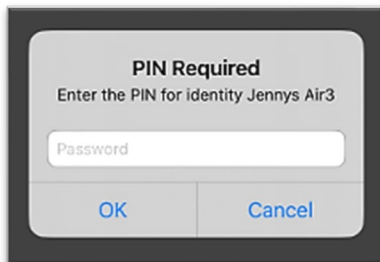


Figure 11. *Entrust PIN*

Tap Confirm (Figure 12) and Yes to allow this action (Figure 13).

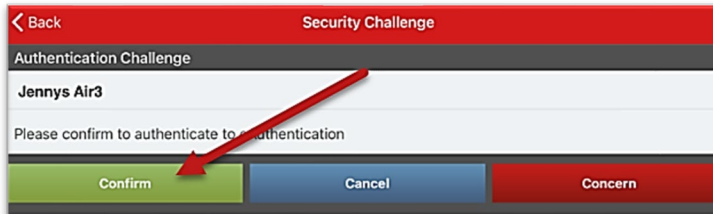


Figure 12. *Confirm Authentication*

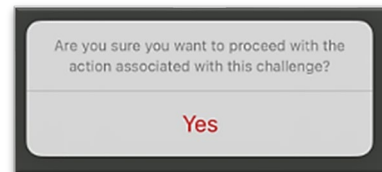


Figure 13. *"Yes" to proceed*

Return to ArcGIS Field Maps. If shown, tap Accept at the U.S. Government information warning message. (Figure 14)

Locate your map or survey and begin field data collection!

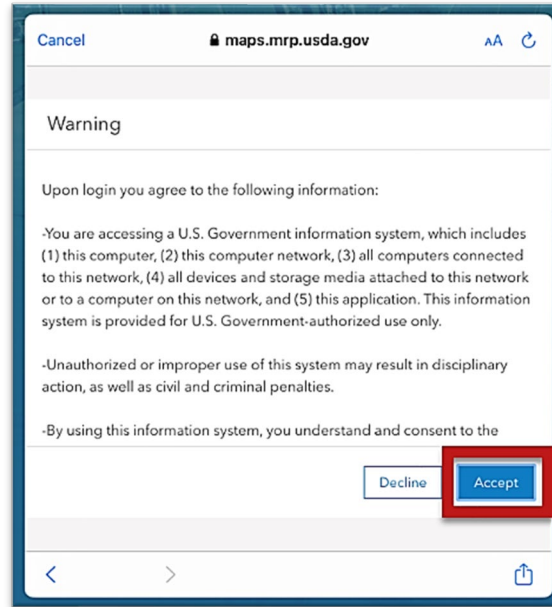



Figure 14. US Government warning

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 15)

Tap “Sign Out” again to confirm the action. (Figure 16)

Then choose “Sign In with ArcGIS Enterprise” to enter the correct URL. For reminders on signing in, see [Sign In](#) section.

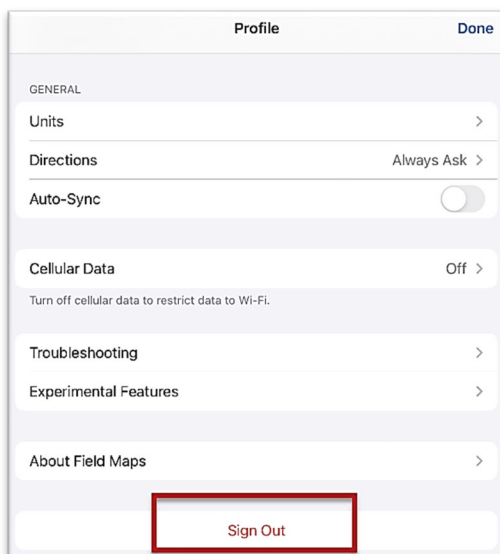


Figure 15. Profile Menu

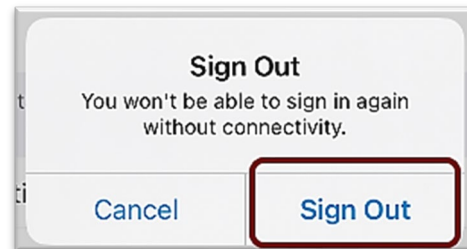


Figure 16. Sign out confirmation

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.

Figure 17 diagrams actions in the workflow that require Wi-Fi and the data collection that does not.

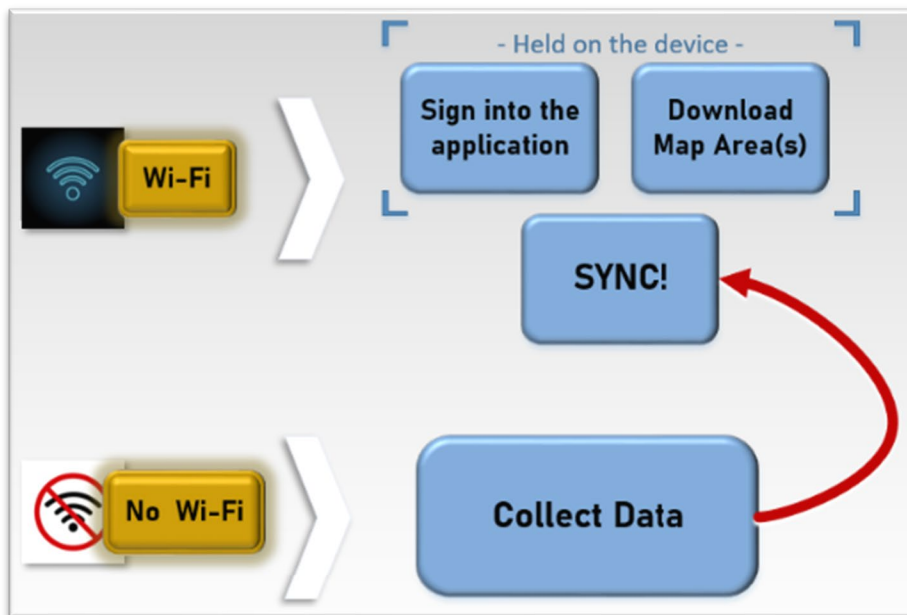


Figure 17. *Wi-Fi preparation and disconnected data collection*

Never assume 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)

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 and Area of Interest.

A strong Wi-Fi connection is key to success. For detailed steps, refer to the [ArcGIS Field Maps Getting Started Guide](#).

Last Checks / 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.**

Egg Mass Monitor Points

Reminder!! [Synchronize your map at the beginning and the end of each workday.](#)


When? The first data entry in the *Egg Mass Monitor Points 2024* layer establishes a location for the monitored site.

****Every Monitor Point entry must also have an Activity entry of:** Establishment/Treatment


All future visits to this site are considered [egg mass monitoring activities](#) and are recorded in the *Egg Mass Monitor Activities 2024* table associated with that location.

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

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 18)

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.

4. Fill out the main data form.

* Asterisks indicate mandatory fields.

Optional fields should be completed following survey protocol.

Drop-down lists are auto-complete enabled. Start typing to narrow options quickly.

Verify the *Treatment Date* entry is correct.

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

6. Tap the [Submit](#) button on the upper-right corner of the form to save the new trap site record.

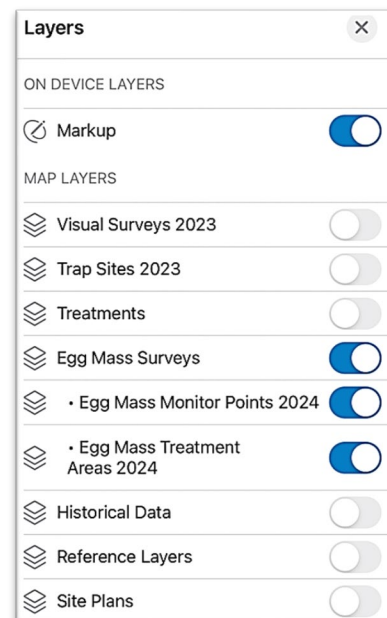


Figure 18. Map layers with Egg Mass Surveys enabled

Record an Egg Mass Monitor Activity

****Every Monitor Point entry must also have an Activity entry of:** Establishment/Treatment

The Egg Mass Monitor Activity related table is used to record every activity, including contact attempts made and site visits done for the property, in preparation for treatment.

Contacting property owners for permission to treat their property occurs year round.

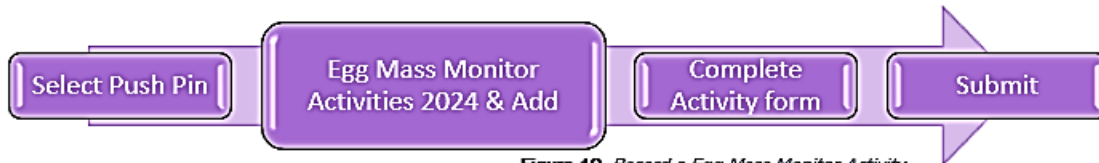


Figure 19. Record a Egg Mass Monitor Activity

1. Tap the push pin symbolized on the map to select it.

Select carefully (by zooming in) and verify that the site selected is correct.

When selected, the push pin is highlighted in cyan, and the data form opens on the left side of the screen.

2. Scroll down and tap "Egg Mass Monitor Activities 2024" or tap the link icon. (Figure 20)



Figure 20. Site Plan Activities link

3. Tap the blue Add button to add a new activity (Figure 21).

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.

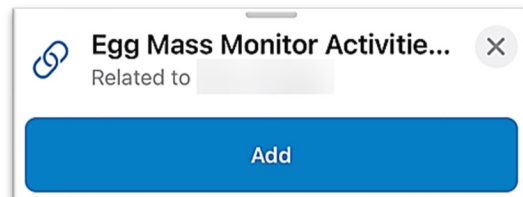


Figure 21. Add a monitor activity



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

Egg Mass Treatment Areas

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

Use the “Egg Mass Treatment Areas 2023” layer to record treatments performed on a designated area.

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

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.
2. Stand near the survey location. Be sure you are starting at the first point on the area you will “draw”. If needed, tap and drag the GPS crosshair on the map to the start of the perimeter.
3. Complete the area’s perimeter first:
 - a. Tap the blue icon with the white plus sign  located in the lower-right corner of the screen to add a new treatment area.
 - b. Then tap to choose the “Egg Mass Treatment Areas 2024” layer. This initiates the first point (the start) of drawing the area.
 - c. Tap and drag the map to the next corner of the area to draw
 - d. Tap the blue **Add Point** button to record each corner
A green check will flash over the Add Point button when Field Maps recognizes the close of an area.
4. Fill out the main data form. * Asterisks indicate mandatory fields. Optional fields should be completed following survey protocol. Verify the *Establishment Date* is correct.
5. Review your entered data carefully prior to submitting the form.
6. Tap the **Submit** button on the upper-right corner of the form to save the new survey record.

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

Record an Egg Mass Treatment Area Activity

Once a treatment area is recorded, any future visit to the area to perform treatment is considered a Treatment Area Activity and is recorded on a related table.

Data collection workflow arrow from left to right with steps: Select Area, Egg Mass Monitor Activities & Add, Complete Activity form, Submit



Figure 22. Record a Trap Activity workflow

1. Tap the appropriate area on the map to select it.
When selected, the treatment area is highlighted in cyan, and the data form opens on the left side of the screen.

Select carefully (by zooming in) and verify the area you selected is correct by reviewing the Locality Parcel ID or other unique field.

2. Scroll down the data form and tap "Egg Mass Treatment Area Activities 2024" or tap the link icon. (Figure 23)



Figure 23. Activities link



3. Tap the blue Add button to 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 *Treatment Start Time* and *Treatment End Time* entries are correct.
5. Verify all is correct and tap **Submit** in the upper right corner of the screen to complete the activity entry.

Map Notes Points

Not program required.

Use the “Map Notes Points” layer (found within the Reference layer group) to record hazards and other information.

Be aware that this is a *shared* layer and other surveyors will have access to your notes.

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 24)
2. Stand near the location for the map note.
3. Tap the blue icon with the white plus sign  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 25)
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.

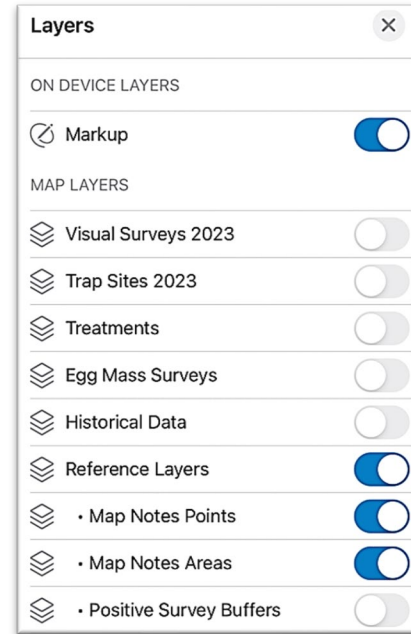


Figure 24. Map layers with Map Notes Points/Areas enabled

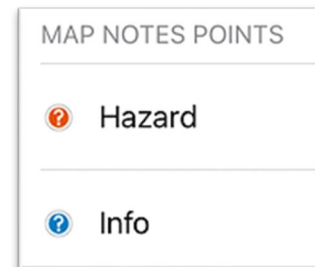




Figure 25 Map Notes Points: Hazard or Info

Map Notes Areas

Not program required.

Use the “Map Notes Areas” layer (found within the Reference layer group) to record hazards and other information.

Be aware that this is a shared layer and other surveyors will have access to your notes.

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 location for the map note.
3. Tap the blue icon with the white plus sign  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 27)
5. Complete the area's perimeter first:
 - a. Tap and drag the map to the next corner of the area to draw
 - b. Tap the blue Add Point button to record each corner
 - c. A green check will flash over the Add Point button
6. Fill out the data form.
* Asterisks indicate mandatory fields.
Verify the Note Date is **Today**.
7. Review your entered data carefully prior to submitting the form.
8. Tap the **Submit** button on the upper-right corner of the form to save the new map note.

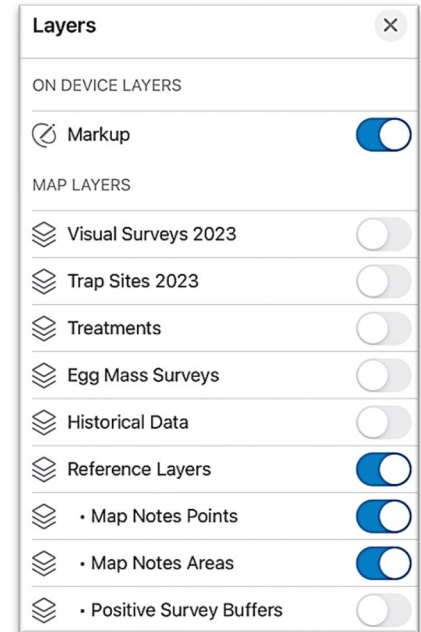


Figure 26. Map layers with Map Notes Points and Areas enabled

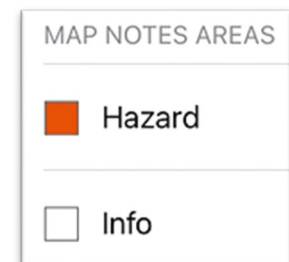


Figure 27. Map Notes Areas: Hazard or Info

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

Site Plans

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



The Site Plans 2022 layer is provided for reference. Site Plans are the property boundaries (parcels) at the point in time they were pulled from the county dataset.

Geometry is not editable using the mobile application.

****Geometry edits must be requested by the state coordinator and performed by the Field GIS Specialist. This includes changes to existing shapes or additional shapes. Field Maps appears to allow a new shape but will fail to submit.**

Selecting a parcel opens property information. Parcel attributes are editable.

Edit Parcel Attributes

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 28)
2. Tap to select the parcel shape from the map.
3. Confirm the parcel from the offered name to the left and tap to open the associated data form.
4. Scroll down and tap Edit or tap the pencil icon. 
5. Carefully, enter the data changes and tap **Submit**.

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

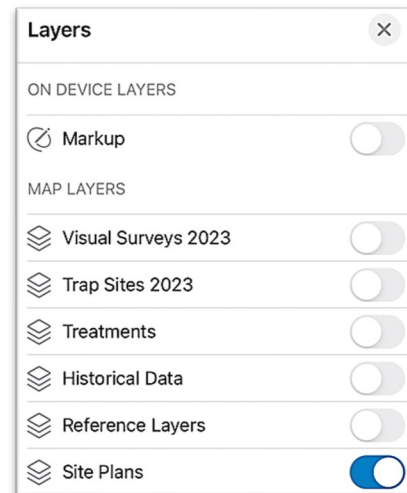


Figure 28. Map layers with Site Plans layer enabled

Record a Site Plan Activity

The Site Plan Activities related table is used to record every activity, including contact attempts made and site visits done for the property, in preparation for treatment.

Contacting property owners for permission to treat their property occurs year round.

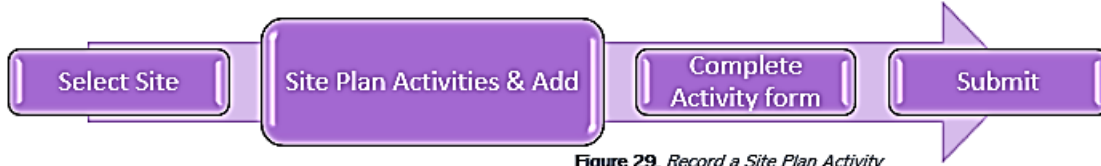


Figure 29. Record a Site Plan Activity

1. Tap the area symbolized on the map to select it.

Select carefully (by zooming in) and verify that the site selected is correct.

When selected, the parcel shape is highlighted in cyan, and the site plan data form opens on the left side of the screen.

2. Scroll down and tap "Site Plan Activities" or tap the link icon. (Figure 30)



Figure 30. Site Plan Activities link

3. Tap the blue Add button and complete the activities data form. Verify the Activity Date field is Today.
4. Complete the data form, review your entered data carefully, and tap the Submit button in the upper right corner.

Trapping

Record a trap site



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

When? The first data entry in the *Trap Sites 2023* layer establishes a location for the trap site.

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

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

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 31)
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 Trap Status (defaulted to Current) from the option on the left. (Figure 32)
4. Fill out the main data form.
* Asterisks indicate mandatory fields.
Optional fields should be completed following survey protocol.
Drop-down lists are auto-complete enabled. Start typing to narrow options quickly.
Verify the *Install Date* entry is correct.
5. Review your entered data carefully prior to submitting the form.
6. Tap the [Submit](#) button on the upper-right corner of the form to save the new trap site record.

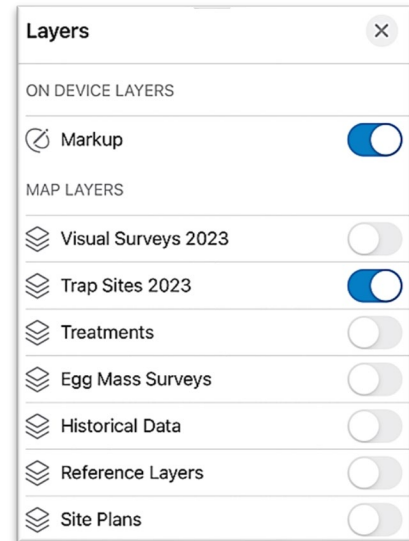


Figure 31. Map layers with Trap Sites 2023 enabled

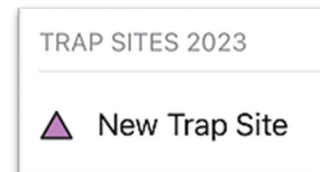


Figure 32. Trap site symbol "New Trap Site"

NOTE: If the [Submit](#) button fails, you have not completed all required fields or GPS accuracy requirements were not met.

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.

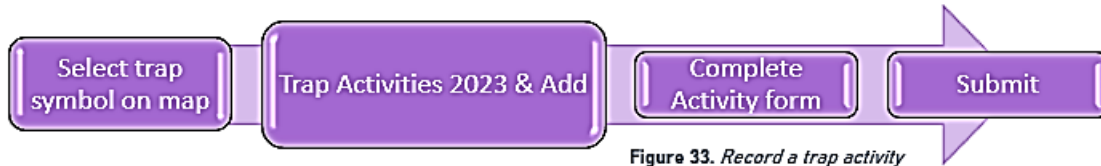


Figure 33. Record a trap activity

1. Tap on the appropriate trap site to select it. When selected, the point's symbol is highlighted in cyan, and the *Trap Sites 2023* 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 *Trap Sites 2023* data form and tap "Trap Activities 2023" or tap the link icon. (Figure 34)



Figure 34. Activities link

3. Tap the blue Add button to add a new activity. (Figure 35)

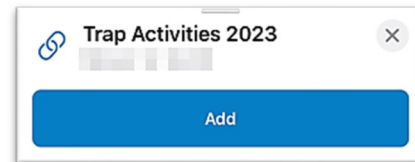


Figure 35. Add a new trap activity

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.

Trap Schedule Status

Defaulted to begin as "Current", the Trap Site 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



Figure 36. Trap Sites 2023 legend

(See legend in Figure 36)

Relocate a Trap

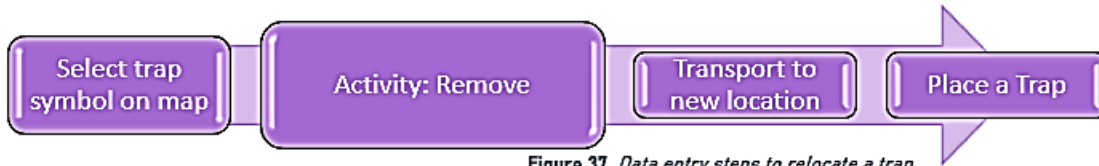


Figure 37. Data entry steps to relocate a trap

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

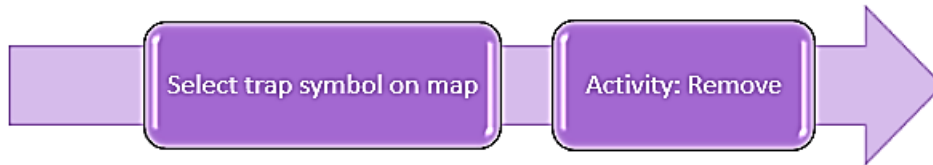


Figure 38. Data entry steps to remove a trap.



1. Tap the trap symbol on the map to select it. The data form opens on the left.
2. Enter a [Trap Activity](#) 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.

Treatment Points

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

Use the "Treatment Points 2023" layer to record an assessment or treatment activity of an individual host tree.

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 39)
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 to add a new treatment site.
4. Select the appropriate "Treatment Plan" from the list – Herbicide, Insecticide, Mechanical Removal, or Unassigned. (Figure 40)

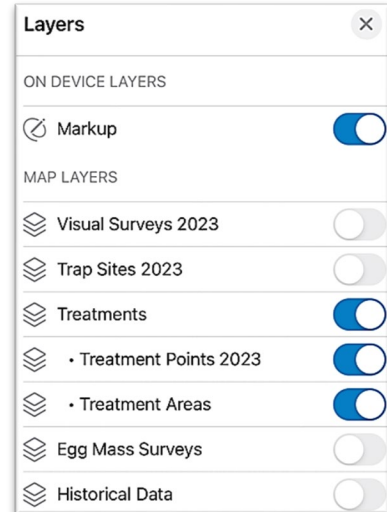


Figure 39. Map Layers with Treatment Points/Areas enabled.

The point on the map has a blue circle around it if your location meets GPS accuracy requirements and red if not.

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

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

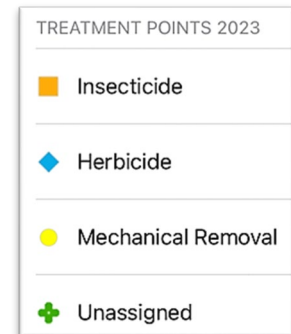


Figure 40. Treatment Points 2023: Treatment Plans

Treatment Areas

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



Use the "Treatment Areas 2022" layer to record assessments and treatments of areas with multiple host trees.

Record a Treatment Area

Treatment Areas are used to record the location of an area designated for treatment.

A [Treatment Area Activity](#) must be recorded each time a treatment is performed on that Treatment Area.

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

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 41)
2. Stand near the survey location. Be sure you are starting at the first point on the area you will "draw". If needed, tap and drag the map to the start of the perimeter.
3. Tap the blue icon with the white plus sign  located in the lower-right corner of the screen to add a new trap site.
This initiates the first point (the start) of drawing the area.
4. Select the appropriate "Treatment Plan" from the list – Herbicide, Insecticide, Mechanical Removal, or Unassigned. (Figure 42)

The point on the map has a **blue** circle around it if your location meets GPS accuracy requirements and **red** if not.

5. Complete the area's perimeter first:
 - a. Tap and drag the map to the next corner of the area to draw
 - b. Tap the blue **Add Point** button to record each corner
 - c. A green check will flash over the **Add Point** button
6. Fill out the main data form. * Asterisks indicate mandatory fields.
Optional fields should be completed following survey protocol.
Verify the Assessment Completion Date is **Today**.
7. Review your entered data carefully prior to submitting the form.
8. Tap the **Submit** button on the upper-right corner of the form to save the new survey record.

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

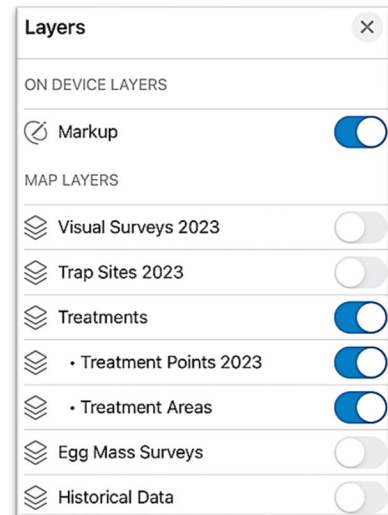


Figure 41. Map Layers with Treatment Points/Areas enabled.

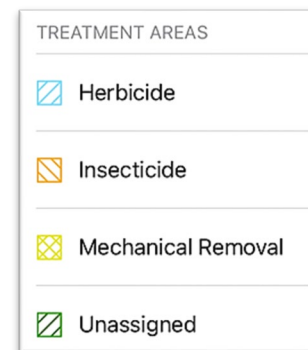


Figure 42. Treatment Areas: Treatment Plans

Record a Treatment Area Activity

Once a treatment area is recorded, any future visit to the area to perform treatment is considered a Treatment Area Activity and is recorded on a related table.



Figure 43. Record a Treatment Area Activity workflow

1. Locate the appropriate treatment area and tap its symbol on the map. When selected, the treatment area is highlighted in cyan, and the Treatment Area data form opens on the left side of the screen.

Select carefully (by zooming in) and verify the area you selected is correct by reviewing the Locality Parcel ID or other unique field.

2. Scroll down the Treatment Areas data form and tap "Treatment Area Activities" or tap the link icon. (Figure 44)



Figure 44. Activities link

3. Tap the blue Add button to add a new activity. (Figure 45)
4. Fill out the activity data form. * Asterisks indicate mandatory fields. Optional fields should be completed following survey protocol. Verify the Treatment Date field is **Today**.

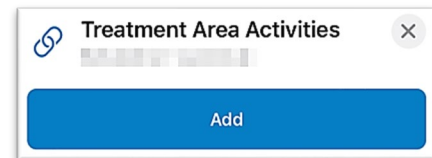




Figure 45. Add new Treatment Area activity

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

Visual

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

The “Visual Surveys 2023” layer is visible by default. If needed, toggle this layer to ON in the layers menu as described in Step 1 below.

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 46)
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 to add a new trap site.
4. If collecting data for visual surveys, tap the pest status (Positive, Negative, or Undetermined). This initial entry determines the symbol placed on the map. (Figure 47)

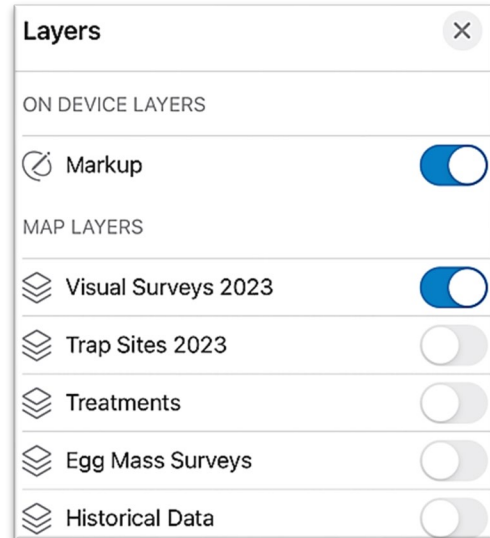


Figure 46. Map Layers with Visual Surveys 2023 enabled.

The point on the map has a **blue** circle around it if your location meets GPS accuracy requirements and red if not.

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

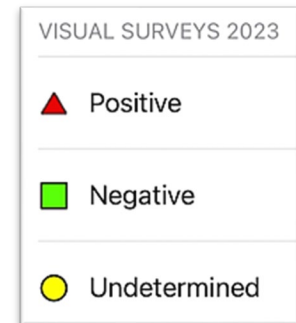


Figure 47. Visual Surveys 2023 – Pest Status



Note:

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

Wetlands

Not program required.

The wetlands layer is used to mark areas to avoid while performing treatments.

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 48)
2. Stand near the survey location. Be sure you are starting at the first point on the area you will “draw”. If needed, tap and drag the map to the start of the perimeter.
3. Tap the blue icon with the white plus sign  located in the lower-right corner of the screen to add a new wetland. This initiates the first point (the start) of drawing the area.
4. Select the Wetland symbol from the list on the left. (Figure 49)
The point on the map has a **blue** circle around it if your location meets GPS accuracy requirements and **red** if not.
5. Complete the area's perimeter first:
 - a. Tap and drag the map to the next corner of the area to draw
 - b. Tap the blue **Add Point** button to record each vertex (corner)
 - c. A green check will flash over the **Add Point** button
6. Fill out the main data form.
The only field (optional) is Comment.
7. Review your entered data carefully prior to submitting the form.
8. Tap the **Submit** button on the upper-right corner of the form to save the new feature.

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

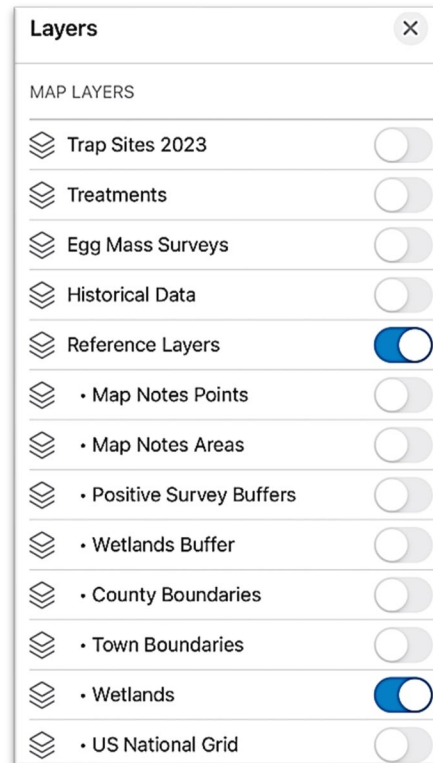


Figure 48. Map Layers with Wetlands enabled.



Figure 49. Wetland symbol

Daily Data Sync

****Sync your data first thing in the morning AND last thing at night – DAILY!**

This both pushes your data collection out and brings in other edits to your map.

NOTE:

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.

1. You may choose the sync icon from within a map area. Tap the sync icon at the top right of the map. (Figure 50)



Figure 50. Icon menu within the map

OR

2. You may also choose to sync by choosing the ellipsis menu found on each Offline Area. You will have the option to Sync, Rename, or Remove Area. (Figure 51)

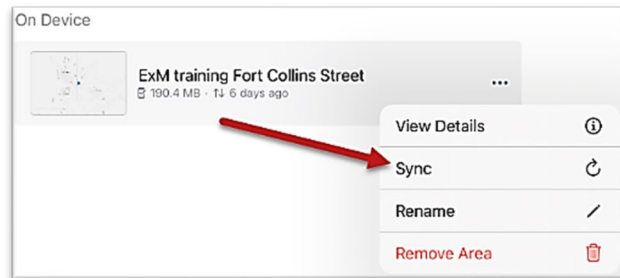


Figure 51. Offline Area menu

NOTE: Be sure Auto-Sync is OFF. Tap the sync button



and then toggle to disable Auto-Sync. (Figure 52)

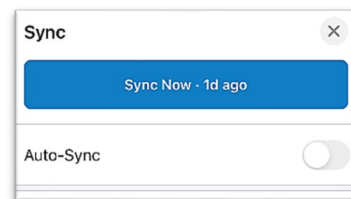


Figure 52. Auto-Sync toggled to OFF

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.