



Spongy Moth Trapping Field Map

2026 User Manual



SM, USDA APHIS PPQ, Bugwood.org



FSMC, USDA APHIS PPQ, Bugwood.org

Program: Spongy Moth (SM) & Flighted Spongy Moth Complex (FSMC)

Application: ArcGIS Field Maps

Host: USDA-MRP GIS Enterprise (Portal)

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

Map Title: PPQ Spongy Moth Trapping 2026 Field Map

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

***2026 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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Web GIS Contact: WebGIS.Connect@usda.gov

Overview and What's New In 2026

This document provides guidelines for conducting electronic data collection for the Spongy Moth (SM) and Flighted Spongy Moth Complex (FSMC) 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.

The PPQ Spongy Moth Trapping 2026 Field Map combines both surveys for SM and FSMC on a single map. The design will be useful to those who manage traps for both pests, as they can record all information in one map.

By default, both the SM Trap Sites 2026 and FSMC Trap Sites 2026 layers are turned on. If a user is only surveying for one pest, then they can use the layer list to toggle the unnecessary layer off to declutter their map.

There are no functional changes to this mobile application for 2026.

State cooperators are allowed to use this application.

ArcGIS Enterprise (USDA-MRP GIS Portal) Sign In

Refer to the ArcGIS Enterprise Sign In User Guide on the [Mobile Data Collection Tools](#) website for more information on signing in.

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). Using Field Maps in disconnected mode is the only way to ensure that you can continue working in the field if there are ever interruptions to the USDA-MRP GIS 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 1) represents the workflow of the disconnected mode concept.

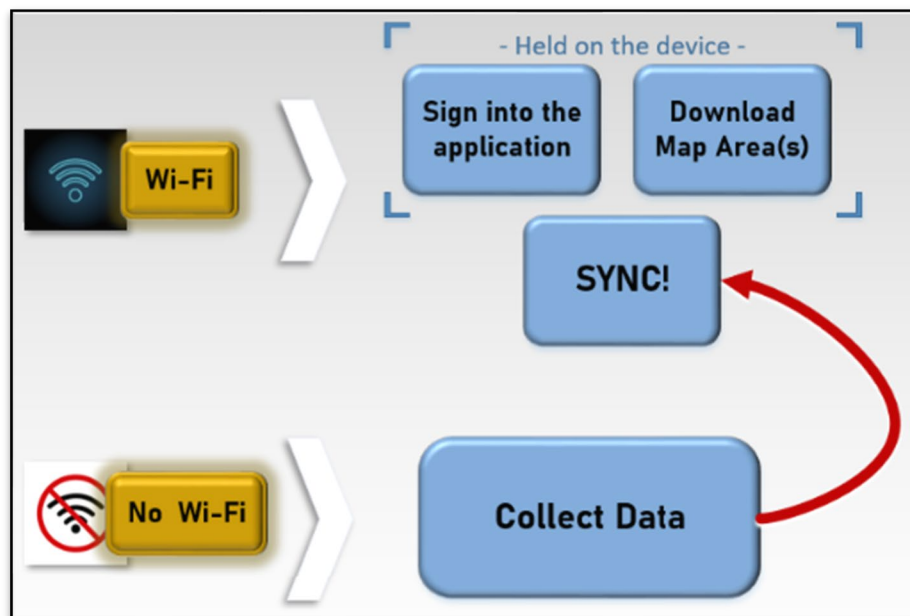


Figure 1. *Wi-Fi preparation and disconnected data collection*

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 Spongy Moth 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 2.

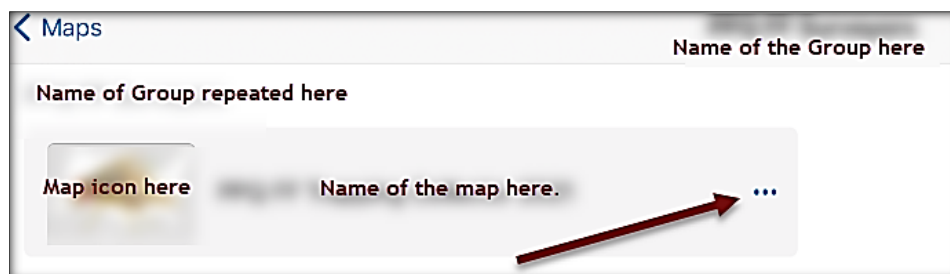


Figure 2. View of map card within a group

Tap the three blue dots to reveal the overflow menu. Next tap “Add Offline Area”. (Figure 3)

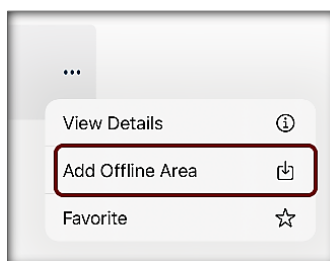


Figure 3. Overflow menu

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 4)

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”

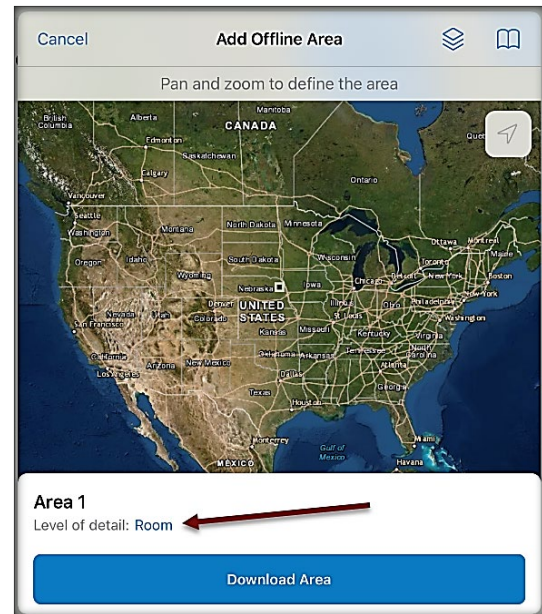


Figure 4. Add Offline Area

The new offline map card is created with a progress message – “Downloading” and a blue progress circle updating the status of the download. (Figure 5)

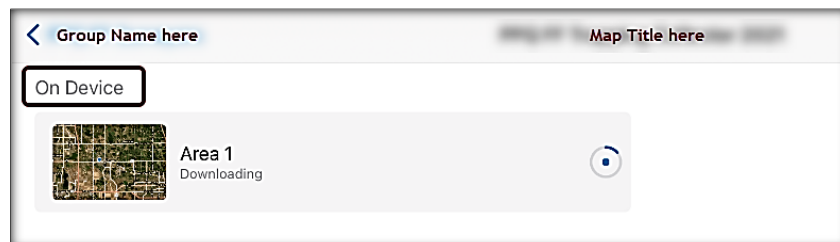


Figure 5. Map area download in progress

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 6)

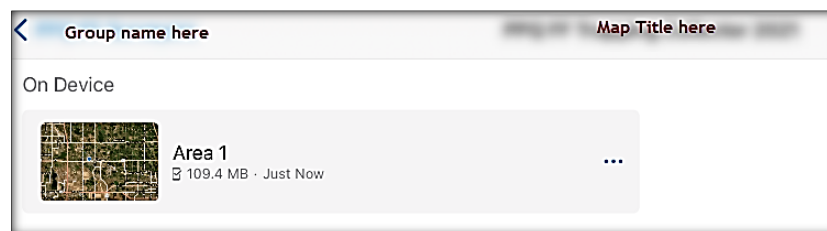


Figure 6. Map area download complete

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 7)

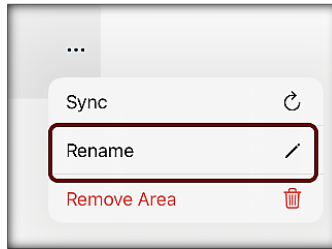


Figure 7. *Downloaded map area overflow*

Never assume you are prepared for offline data collection. ALWAYS perform a test in the parking lot each day before you leave for the field. For a sample set of steps to test your readiness, see the next section on [Parking Lot Test](#).

Parking Lot Test

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 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 Spongy Moth Trapping 2026 Field Map has two layer groups (Spongy Moth (SM) and Flighted Spongy Moth Complex (FSMC)). By default, the SM Trap Sites 2026 and FSMC Trap Sites 2026 layers are turned on. Use the toggle to turn layers on and off within the layer list as needed to keep the map organized.

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 or reference. A blue toggle switch indicates the layer is visible. (Figure 8)

Tap the blue icon with the white plus sign to begin data collection. (Figure 9)

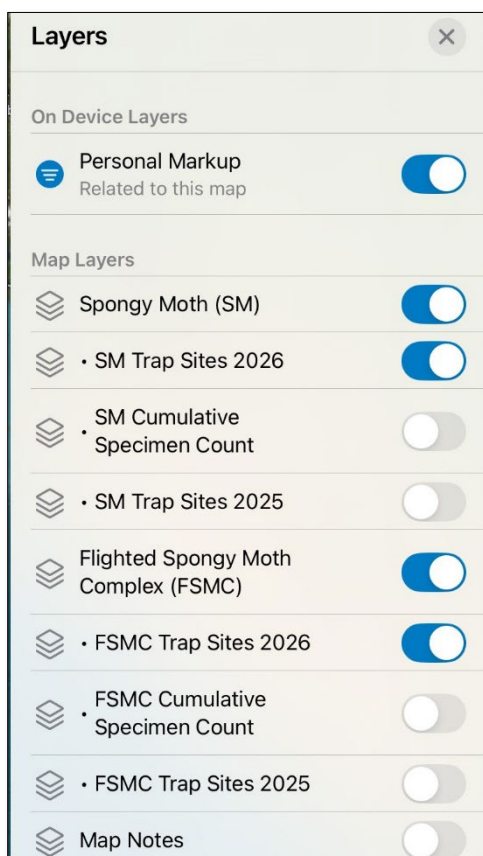


Figure 8. Map Layers menu

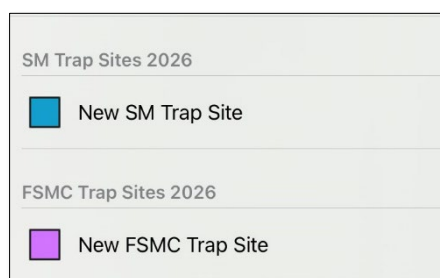


Figure 9. Add data options

The following section will demonstrate how to place a trap for both Spongy Moth and Flighted Spongy Moth Complex.

Place a Trap

When? The first data entry in the *SM Trap Sites 2026* or *FSMC Trap Sites 2026* layer establishes a location for the trap site.

All future visits to this site are considered [trap activities](#) and are recorded in the *SM Trap Activities 2026* or *FSMC Trap Activities 2026* table associated with that location.

1. Tap the layers icon  and, if necessary, tap the toggle switch to the right of the desired layer name to make it visible for data entry. A blue toggle switch indicates the layer is visible. Close the Layers menu.
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 New SM Trap Site or New FSMC Trap Site from the list on the menu.
4. Fill out the main data form.
* Asterisks indicate mandatory fields.
Optional fields should be completed following survey protocol.
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 screen to save the new survey record.

NOTES:

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

All trap sites default to a “Current” schedule status initially. This field and the symbol on the map are updated by GIS with a nightly script. The trap schedule status changes to “Due” 14 days after the last data entry. (Figures 10 & 11)

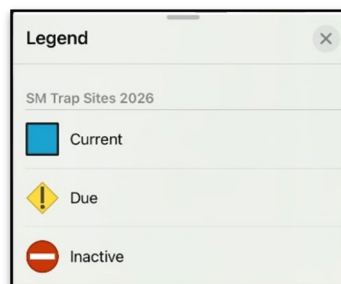


Figure 10. *SM Legend*

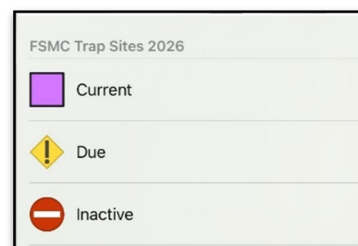


Figure 11. *FSMC Legend*

Trap Activities

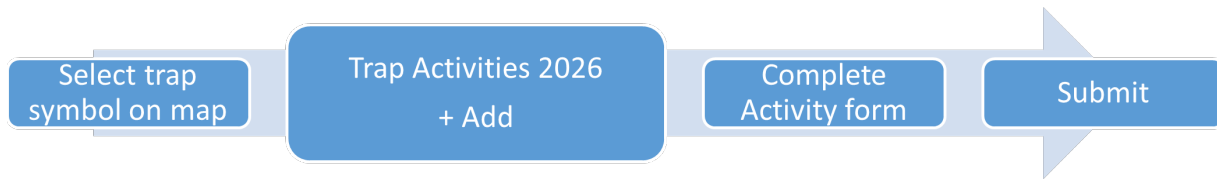


Figure 12. Record a trap activity

Once a trap is placed, an action performed on any future visit is considered a Trap Activity. An overview of the process is illustrated above in Figure 12.

For details on when and how to apply each Activity Type, see [Appendix: 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 *Trap Sites 2026* popup window opens, revealing information about the selected trap site.

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

2. Tap the “Related” link button (Figure 13) or scroll down the *Trap Sites 2026* popup and tap “SM Trap Activities 2026” or “FSMC Trap Activities 2026”.

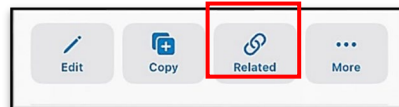


Figure 13. Related activities link

3. Tap the blue Add button to add a new activity. (Figure 14)

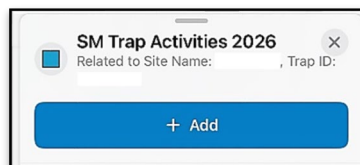


Figure 14. Add an activity

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 correct.
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.

Relocate a Trap



Figure 15. Data entry steps to relocate a trap

1. Tap the trap symbol on the map to select it. The popup window opens.
2. Enter a [Trap Activity](#) of "Remove Trap".
3. Transport the trap to its new location.
4. Complete [Place a Trap](#) steps.

Remove a Trap

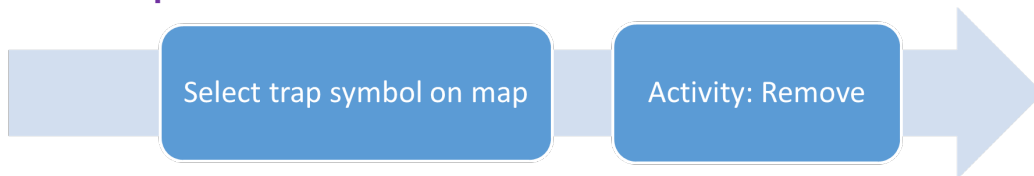


Figure 16. Data entry steps to remove a trap

1. Tap the trap symbol on the map to select it. The popup window opens.
2. Enter a [Trap Activity](#) of "Remove Trap".

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.

Map Notes

Not program required.

Use the “Map Notes” layer to record hazards and other information.

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

****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 location of the hazard or other information you wish to note on the map.
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. Choose the Map Notes type from the list. (Figure 17)
5. Fill out the data form.
* Asterisks indicate mandatory fields.
Verify the *Note Date* is correct.
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.

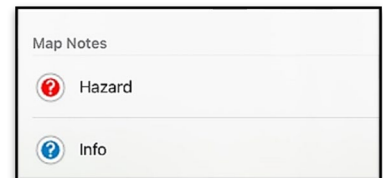


Figure 17. Add data to Map Notes

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

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 18)

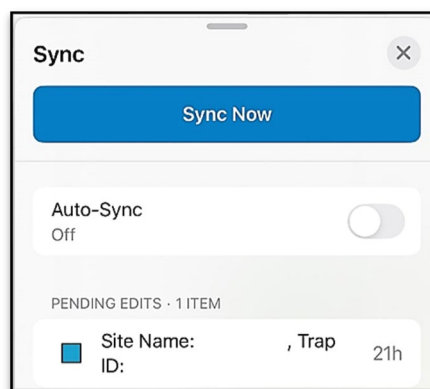


Figure 18. Auto-Sync toggled to OFF

You may use the sync button from the main menu when a map is opened. Tap the sync button at the top right of the map. (Figure 19)



Figure 19. Sync button on main menu in map

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 20)

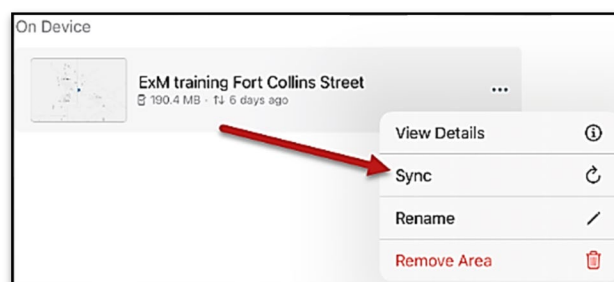


Figure 20. Offline Area menu

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, please visit the [CEC's Digital Workplace](#), or send an email using this shortcut on your Desktop. (Figure 21)

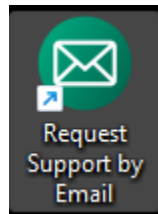


Figure 21. *Request Support by Email*

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 PPQ GIS Team at WebGIS.Connect@usda.gov.

Appendix: 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.

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 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.