

MRGP Implementation Reporting with ESRI Field Maps and Survey123 Applications

Version 1.0

Date Updated: March 1, 2024

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Please contact the MRGP Coordinator for assistance:

Evelyn Boardman (evelyn.boardman@vermont.gov; 802-636-7396)

I AM USING A...



**Desktop
Computer in
the Office**

1.1

Report MRGP Road
and Outlet
Assessments from a
Desktop Computer



Phone or Tablet



**In the Office
with Cellular
Data or Internet
Connection**

1.2

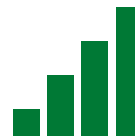
Report MRGP Road
and Outlet
Assessments from a
Phone or Tablet



In the Field



**With Cellular
Data or Internet
Connection?**



Yes

1.2

Report MRGP Road
and Outlet
Assessments from a
Phone or Tablet



No (Offline)




1.3

Offline MRGP Road
and Outlet
Assessments from a
Phone or Tablet

1.1 Report MRGP Road and Outlet Assessments from a Desktop Computer

1. Access the Reporter Tool from the [MRGP DEC Website](#) or [ArcGIS Online MRGP Website](#). Or use this website address to access the Reporter Tool directly: <https://vtanr.maps.arcgis.com/apps/instant/interactivelegend/index.html?appid=0c5ebf5a1fbb4d959cd2e6274bd50278>.
2. Navigate to the road segment or outlet you would like to update and click on it.

See the image on the next page to locate features of the Reporter Tool.

- **Search:** Use the search  (top left) to locate the road by address, segment ID, or outlet ID. The MRGP2ID ('M' + number) is the preferred segment ID for the roads. For better search results when using a segment ID, MRGP2ID, or outlet ID in the search bar, the dropdown  on the left side of the search bar can be used to indicate which ID you are using to search.
- **Zoom:** Use the +/- buttons, zoom slider, or mouse wheel to zoom in-and-out of the map.
- **Pan/Move the Map:** Click and drag with your primary mouse button or use your keyboard arrow keys to move the map.
- **Legend:** Use the interactive filter (lower left) to show only the segments, outlets, and other map layers.
- **Additional Layers:** Use the interactive layers list  (lower right) to turn on and off additional layers. These include the VT Culverts and Bridges structures and Second Cycle Progress on the Road Erosion Inventory reassessment. You may need to zoom in for some layers to be visible.

1.1 Report MRGP Road and Outlet Assessments from a Desktop Computer (continued)

The screenshot displays the 'Reporter for MRGP' web application. The interface includes a search bar at the top left with the text 'M187826'. Below it is a dropdown menu with options: 'All', 'Segment ID', 'MRGP2 ID' (selected), and 'Outlet ID'. A 'Zoom' button is located next to the dropdown. On the right side, there is an 'INSTRUCTIONS' icon. The main map area shows a road segment highlighted in orange, indicating it 'Partially Meets' the criteria. A pop-up window titled 'Partially Meets // 129107.0' provides details about the road segment, including its name 'Maidstone // Maidstone Lake Access Rd // M187826 // First Cycle Inventory // Assessed on October 12, 2018 // Gravel road with open ditches', and a button to 'Update Road Segment Status'. On the left side, there is a 'Current Status' panel with a filter legend showing four categories: 'Does Not Meet' (2), 'Partially Meets' (15), 'Incomplete Data' (0), and 'Fully Meets' (4). At the bottom right, there is an 'INTERACTIVE LAYERS LIST' with options like 'VT Culverts and Bridges', 'Second Cycle Progress', 'Current Status', 'Stormwater Municipal Boundaries', and 'VT Road Centerline - ALL ROADS'. The bottom of the screen shows the footer with 'VCGI, Maxar | Vermont Agency of Transportation (VTrans) : Mapping Section' and 'Powered by Esri'.

Reporter for MRGP

SEARCH BY ADDRESS OR SEGMENT ID

INSTRUCTIONS

DROPDOWN TO SELECT SEARCH BY SEGMENT OR OUTLET ID

ZOOM

OPEN SURVEY FORM (AFTER CLICKING ON ROAD SEGMENT OR OUTLET)

Update Road Segment Status

Partially Meets // 129107.0

Zoom to

Maidstone // Maidstone Lake Access Rd // M187826 // First Cycle Inventory // Assessed on October 12, 2018 // Gravel road with open ditches

INTERACTIVE FILTER LEGEND

INTERACTIVE LAYERS LIST

Current Status

MRGP Outlet Status

Total feature count: 0

MRGP Segment Status

Total feature count: 43

Does Not Meet 2

Partially Meets 15

Incomplete Data 0

Fully Meets 4

VT Culverts and Bridges

Second Cycle Progress

Current Status

Stormwater Municipal Boundaries

VT Road Centerline - ALL ROADS

VCGI, Maxar | Vermont Agency of Transportation (VTrans) : Mapping Section

Powered by Esri

1.1 Report MRGP Road and Outlet Assessments from a Desktop Computer (continued)

- Click on the 'Update Road Segment Status' or 'Update Outlet Status' button in the pop-up to launch the Survey123 assessment form.

You may need to click to the next pop-up window to see the Update button:

- Sign in to Survey123 if prompted. Use your VTCulverts account login or the DECpartner account login. If using a VTCulverts or ArcGIS account that is not DECpartner, select 'Sign in to your account on ArcGIS Online' to switch accounts.

Username: DECpartner

Password: Env1r0nment@vt
(the 0 is a zero)

Contact your Regional Planning Commission for additional information on VTCulverts accounts.

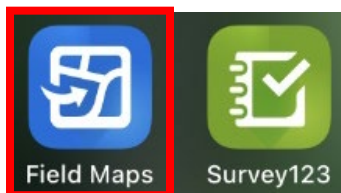
- Fill in the survey form and submit.

To upload a photograph, take a picture on a mobile device or camera. Email it to yourself or connect to the computer. Download photographs to the computer to upload during the survey.

For additional guidance on answering questions in the survey form, see the [Open Drainage Roads Supplement](#) and the [Closed Drainage Roads Supplement](#) for Outlets on the MRGP website.

1.2 Report MRGP Road and Outlet Assessments from a Phone or Tablet

1. Download the two required applications from your device's app store: ArcGIS Field Maps and ArcGIS Survey123. Both applications are developed by ESRI.
 - Google Play Store: [ArcGIS Fields Maps](#) and [Survey123](#)
 - Apple Store: [ArcGIS Field Maps](#) and [Survey123](#)
2. Open the Field Maps Application. Sign in with ArcGIS Online if prompted. Use your VTCulverts login or the DECpartner login. Contact your Regional Planning Commission for additional information on VTCulverts accounts.

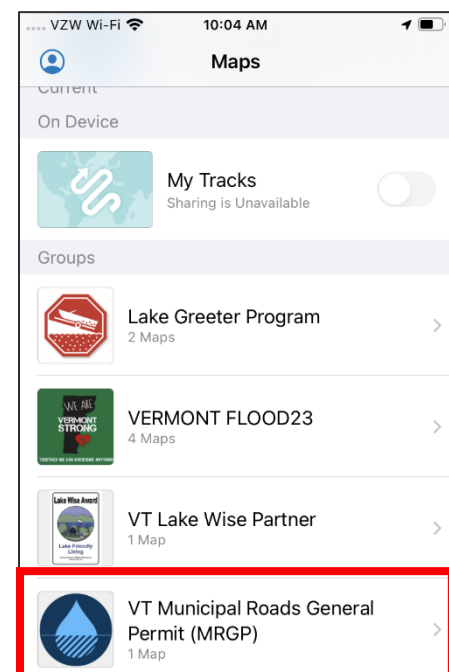


Username: DECpartner
Password: Env1r0nment@vt
(the 0 is a zero)





3. Open the VT Municipal Roads General Permit (MRGP), MRGP Mobile Map.

If you tap and see multiple maps, open the 'MRGP Mobile Map' when connected to a cellular network or WiFi. Other maps are offline areas. **For more information about working offline, without a cellular data or internet connection, see Section 1.3.**



1.2 Report MRGP Road and Outlet Assessments from a Phone or Tablet (continued)

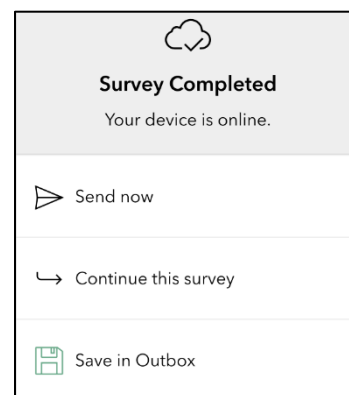
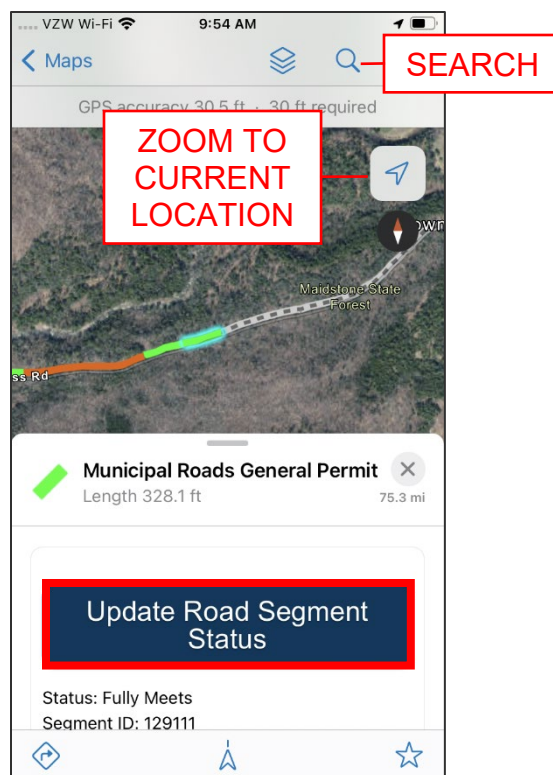
4. Navigate to the road segment or outlet you would like to update and tap on it.

- **Search:** Use the search  (top right) to locate the road by address or segment ID.
- **Zoom:** Use the arrow  (top right) to zoom to your current location. Spreading fingers apart zooms in. Pinching fingers together zooms out. Dragging with your fingers allows you to move the map.

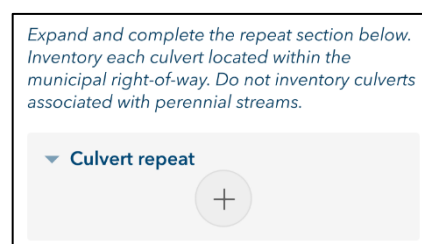
5. Tap on the 'Update Road Segment Status' or 'Update Outlet Status' button to launch the Survey123 assessment form.

6. Sign in to Survey123 if prompted. Use the same login as in step 2.

7. Fill in the survey form. Select 'Send now' to submit right away. If working offline, select 'Save in Outbox' to submit from Survey123 later (see Section 1.3.2).



Note: If you answer 'Yes' there are existing driveway, drainage, or intermittent stream culverts, you must add a culvert repeat for every culvert in the segment. Expand the culvert repeat section and tap the '+' sign to add a culvert and answer questions about the culvert. This is required to submit a complete survey.



1.3 Offline MRGP Road and Outlet Assessments from a Phone or Tablet

1.3.1 Download an Offline Area

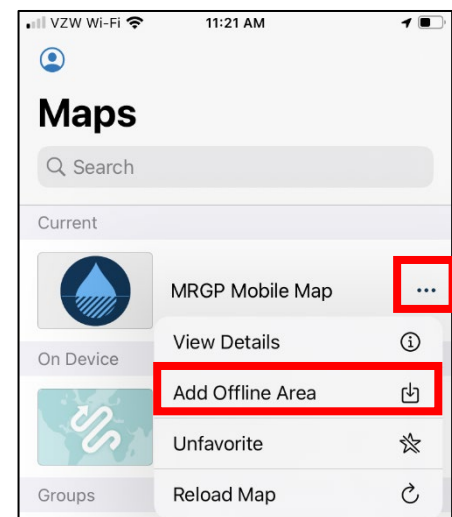
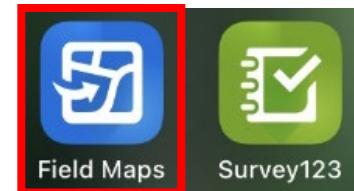
1. Open the Field Maps Application. Sign in with ArcGIS Online if prompted. Use your VTCulverts login or the DECpartner login.

See Section 1.2 for instructions on downloading the applications.

Username: DECpartner
Password: Env1r0nment@vt
(the 0 is a zero)

Contact your Regional Planning Commission for additional information on VTCulverts accounts.

2. While connected to a cellular network or WiFi, select the three dots '...' next to the MRGP mobile map and choose 'Add Offline Area'.



1.3.1 Download an Offline Area (continued)

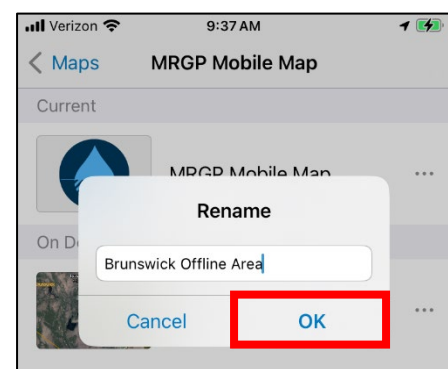
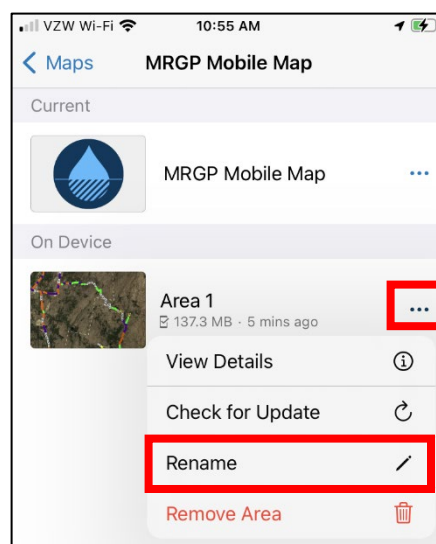
3. Pan and zoom to the area where you will be working offline.

'Level of detail: Street' is recommended for MRGP surveys. If the device does not have enough memory available, the download will fail. You may either download multiple offline areas or change the level of detail to lower the imagery resolution. Change the level of detail by tapping 'Street'. Then, select 'Streets' or 'Neighborhood' to make the file smaller.

Select 'Download Area' to download the selected area.

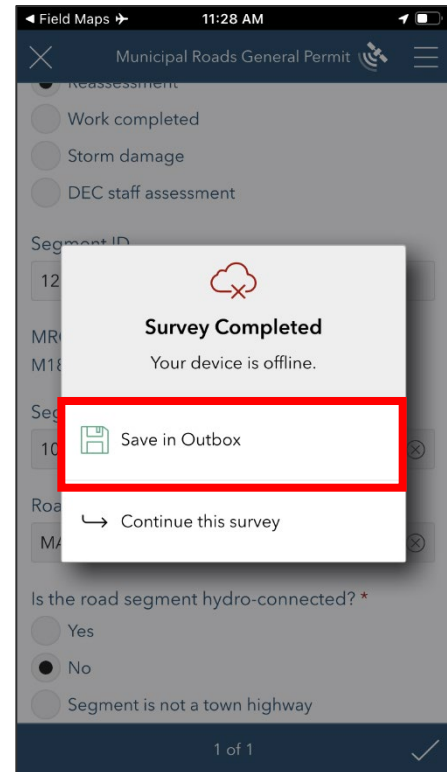


4. Optional: Rename the offline area. Select the three dots '...' next to the offline area and choose 'Rename'. Type in a new name for the map then select 'OK'.

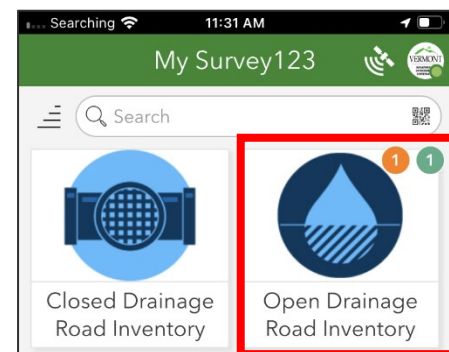
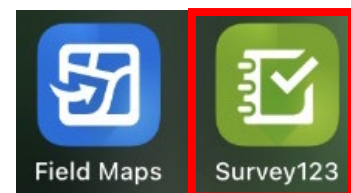


1.3.2 Collect and Send Offline Surveys

1. Collect offline surveys using the Field Maps application. When each survey is complete, select 'Save in Outbox'.

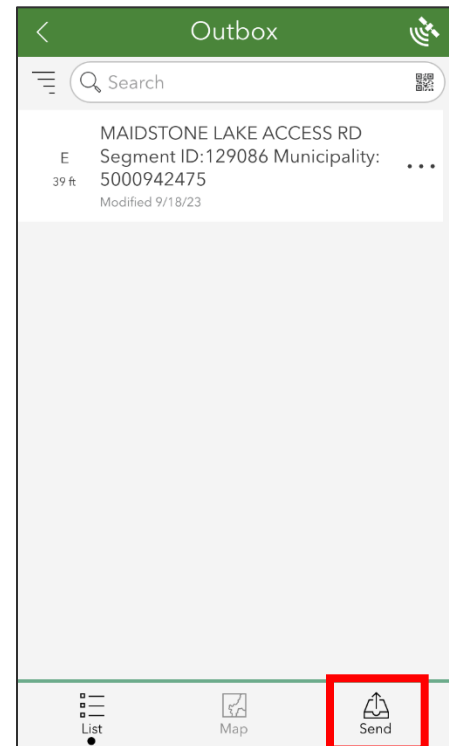
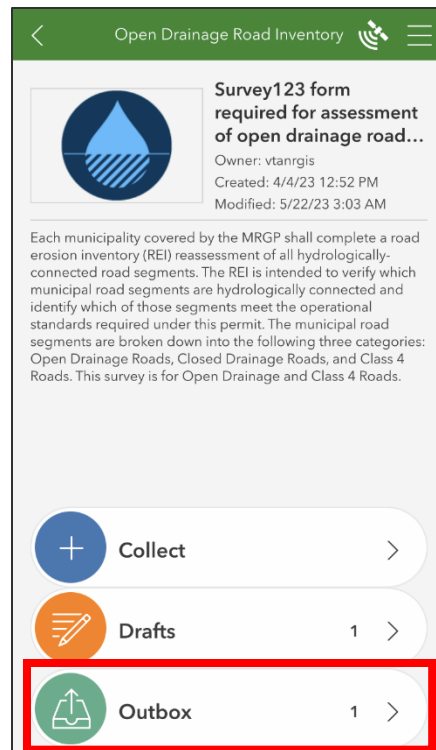


2. When you are reconnected to a cellular network or WiFi, open the Survey123 Application. Select the Open Drainage Road Survey.



1.3.2 Collect and Send Offline Surveys (continued)

3. Open the Outbox.
4. Select 'Send'.

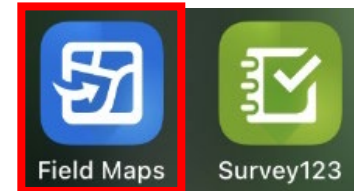


5. Repeat to send assessments from the Closed Drainage Road Inventory for outlets/outfalls if needed.

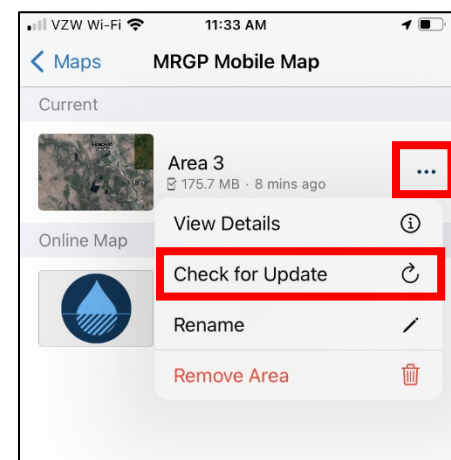
1.3.3 Check for Updates to an Offline Area (for minor application updates)

Recommended Frequency: Weekly, when using the offline area.

1. To ensure your offline map stays up to date, check for updates while connected to a cellular network or WiFi before returning to the field. Return to the MRGP mobile map in the Field Maps Application.



2. Select the three dots '...' next to the offline area and choose 'Check for Update'.

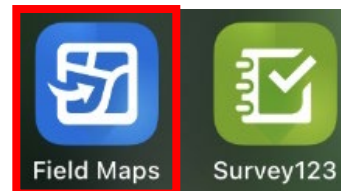


1.3.4 Delete and Re-Download an Offline Area (for major application updates)

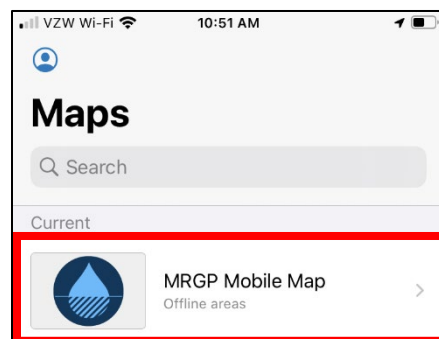
Recommended Frequency: Annually, at the beginning of each field season. The MRGP program will notify users if more frequent updates are needed.

1. Open the Field Maps Application. Sign in with ArcGIS Online if prompted. Use your VTCulverts login or the DECpartner login.

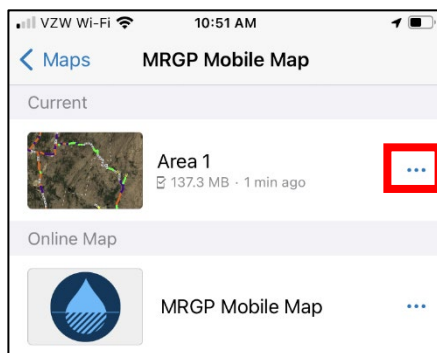
Username: DECpartner
Password: Env1r0nment@vt
(the 0 is a zero)



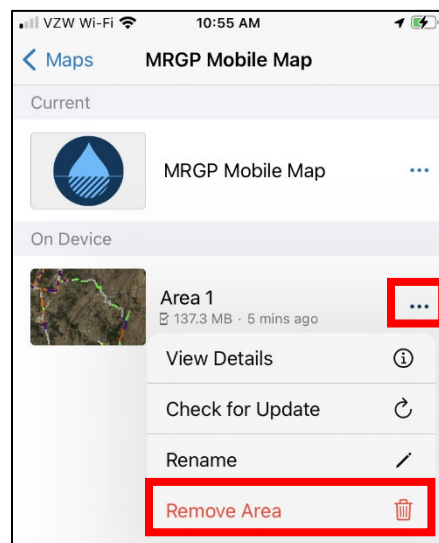
2. Open the VT Municipal Roads General Permit (MRGP), MRGP Mobile Map.



3. Select the three dots '...' next to the Offline Area and choose 'Remove Area'.

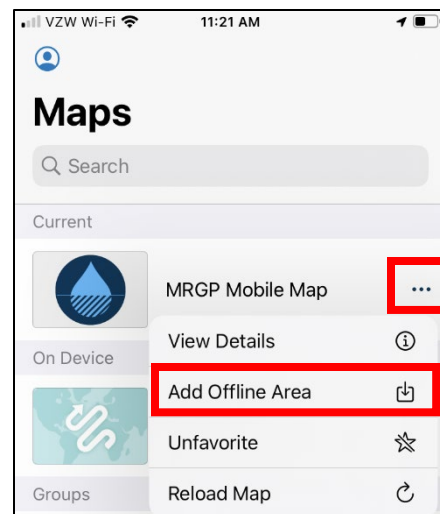


Hint: Choose the map with the file size displayed (in this example, 137.3 MB). This is the offline map.



1.3.4 Delete and Re-Download an Offline Area (continued)

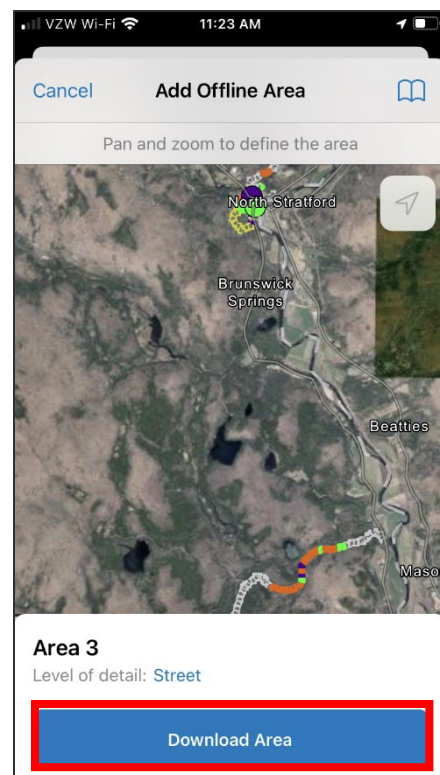
4. While connected to a cellular network or WiFi, select the three dots '...' next to the MRGP Mobile Map and choose 'Add Offline Area'.



5. Pan and zoom to the area where you will be working offline.

'Level of detail: Street' is recommended for MRGP surveys. If the device does not have enough memory available, the download will fail. You may either download multiple smaller offline areas or change the level of detail to lower the imagery resolution. Change the level of detail by tapping 'Street'. Selecting 'Streets' or 'Neighborhood' will make the file size smaller.

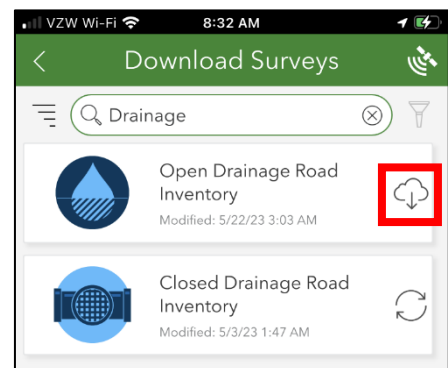
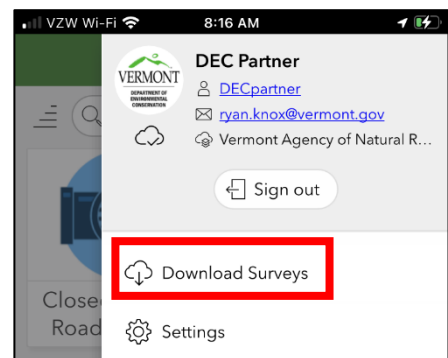
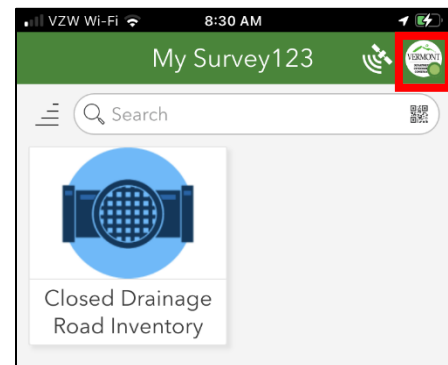
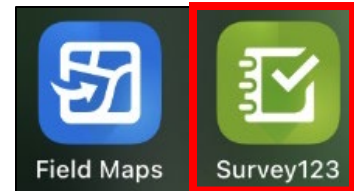
Select 'Download Area' to download the selected area.



1.4 Working with Survey123 Forms and Surveys

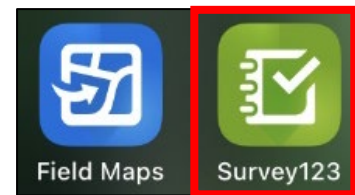
1.4.1 Download a Survey Form

1. While connected to a cellular network or WiFi, open the Survey123 Application.
2. In the Survey123 main menu, select the user icon in the upper right corner.
3. Select 'Download Surveys'
4. Search for 'Drainage' and download the survey.

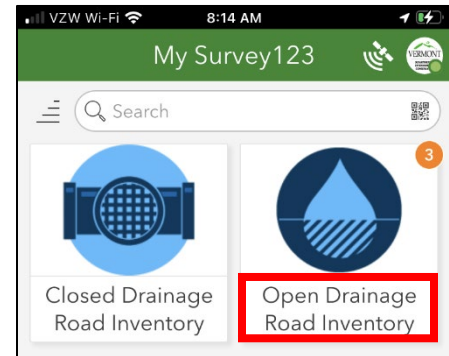


1.4.2 Delete a Survey Form

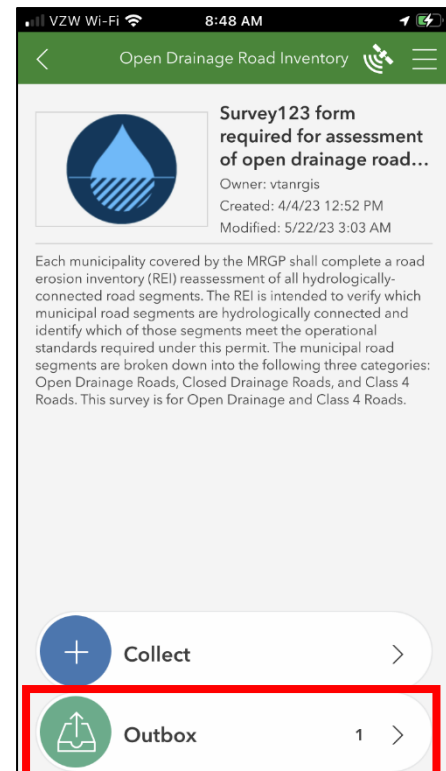
1. Open the Survey123 Application.



2. Select the survey you wish to delete.

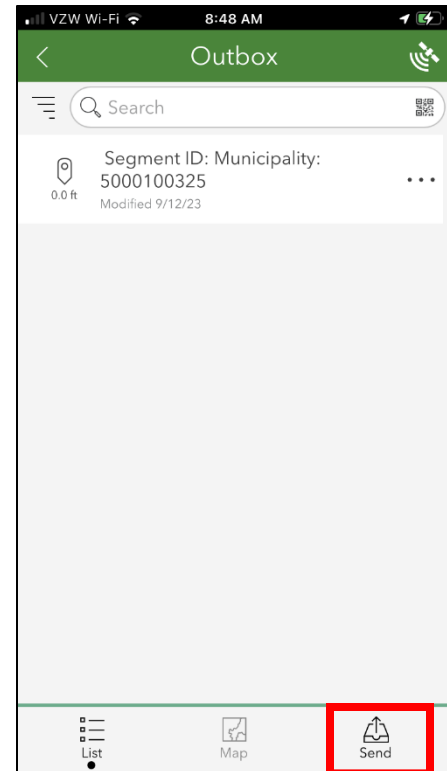


3. Check the outbox for unsent surveys.
These will be deleted with the survey.
They must be sent first, or the
information will be lost.

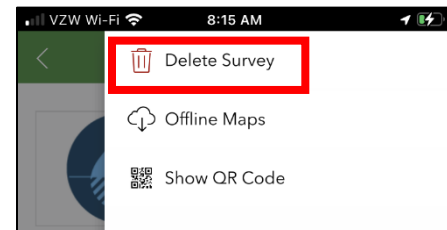
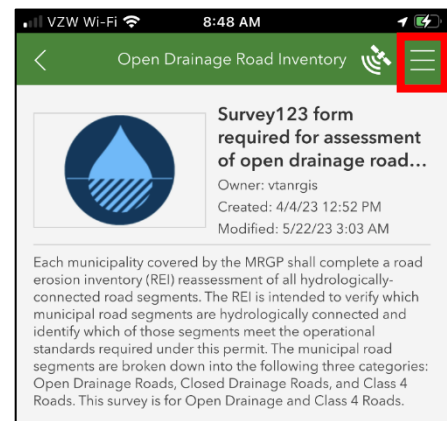


1.4.2 Delete a Survey (Continued)

4. Send surveys in the outbox if needed. This step requires cellular network or WiFi connection.

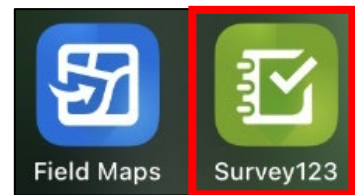


5. Select the three horizontal lines to open more options. Select 'Delete Survey'

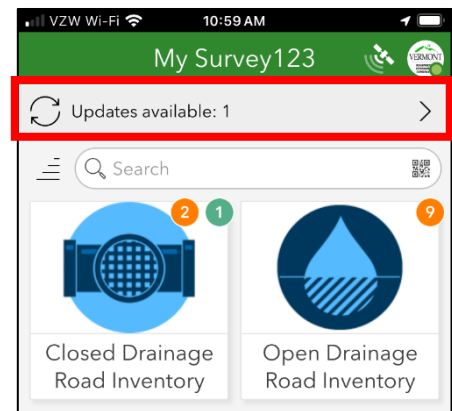


1.4.3 Update a Survey Form

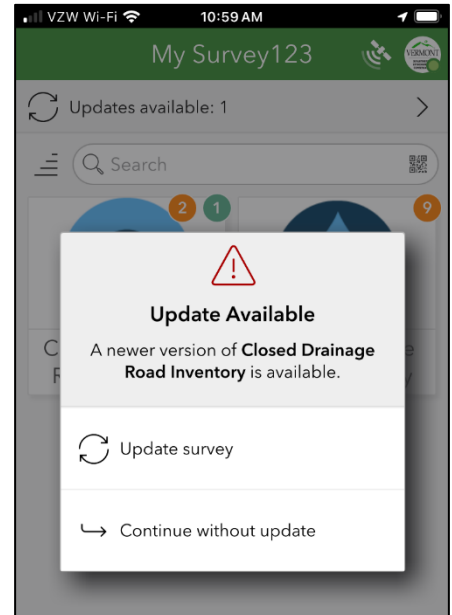
1. While connected to a cellular network or WiFi,, open the Survey123 Application.



2. Select the bar across the top to see surveys with available updates.



If you attempt to open a survey that has an available update, a notification of the update will also appear with the option to update the survey.

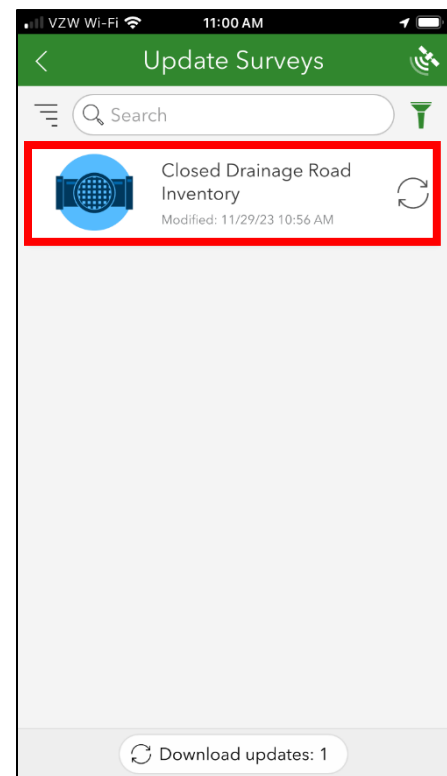


1.4.3 Update a Survey Form (Continued)

3. Select the survey to download updates.

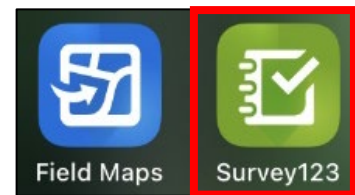
Send any unsent surveys in the outbox if prompted to prevent data loss.

Troubleshooting Tip: If the updated survey has duplicate choices for any of the questions, delete the survey and download it again. See the Sections 1.4.2 and 1.4.3 for instructions on how to do this.

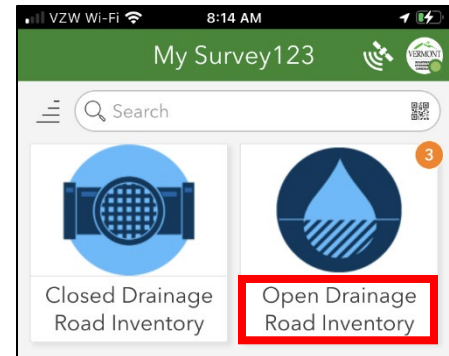


1.4.4 Save Name and Organization Information to Favorites

1. Open the Survey123 Application

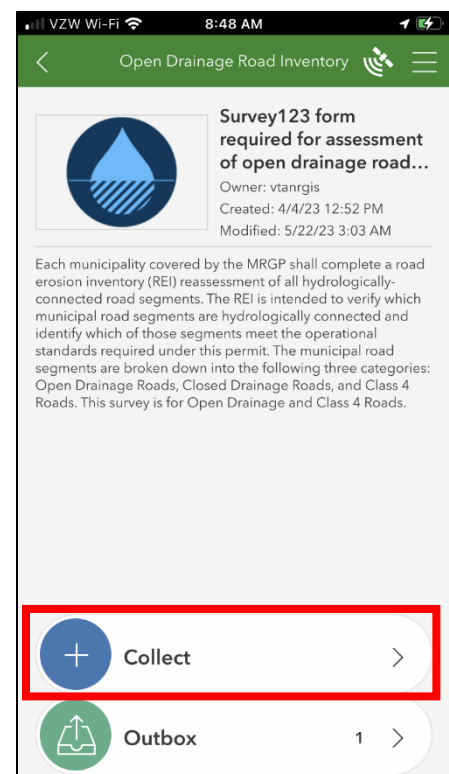


2. Select the survey for which you will be saving name and organization information.



3. Select "Collect" to open a blank survey form.

Note: It is important to open a blank form so that the same Segment ID and road information is not saved and applied to all surveys.



1.4.4 Save Name and Organization Information to Favorites (Continued)

4. Fill in 'Name' and 'Organization'.
Clear the 'Date of assessment' field
(x-button).

Verizon LTE 2:12 PM

Municipal Roads General Permit

Survey and Segment Information

Required Survey123 form for completing road erosion inventories on open drainage and Class 4 roads; VT Department of Environmental Conservation, Municipal Roads Program.

Name *

John Doe

Organization *

VTDEC

Date of assessment

Tuesday, December 5, 2023

Municipality *

Purpose for assessment *

☐ Reassessment

☐ Work completed

1 of 1

5. Select the three lines in the top right corner of the survey. Select 'Set as favorite answers'.

Verizon LTE 2:13 PM

Municipal Roads General Permit

Survey and Segment Information

Required Survey123 form for completing road erosion inventories on open drainage and Class 4 roads; VT Department of Environmental Conservation, Municipal Roads Program.

Name *

John Doe

Organization *

VTDEC

Date of assessment

Date

Municipality *

Purpose for assessment *

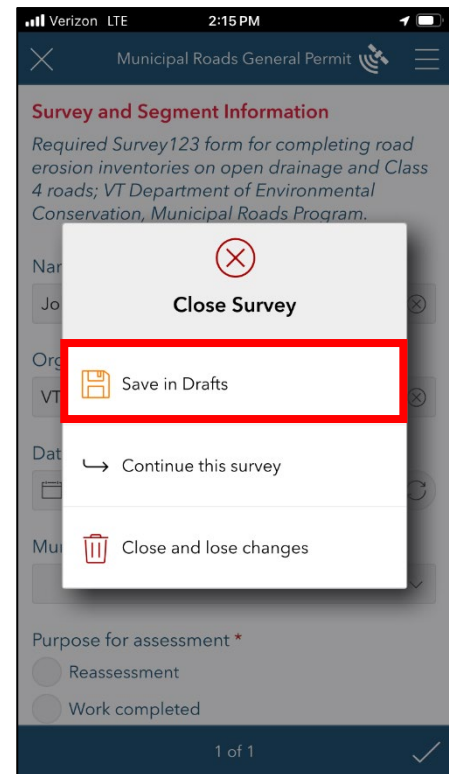
☐ Reassessment

☐ Work completed

1 of 1

1.4.4 Save Name and Organization Information to Favorites (Continued)

6. Close the survey and select 'Save in Drafts'.



7. When a new survey is launched from the Field Maps application, select 'Paste answers from favorite' to fill in name and organization.

