HOW TO USE THE CALTOPO APP FOR MAMA

CalTopo is a mapping app that MaMA uses for the following purposes:

1) Viewing georeferenced MaMA action maps (of a state or a region) so you can use them to identify prioritized actions for different areas based on their EAB detection histories and ash mortality data; 2) Viewing maps of locations of MaMA Rapid Ash Mortality Assessments (RAMAs) and/or Lingering Ash Searches that have already been done so you can choose locations for new data collection to complement existing data; 3) Recording tracks of MaMA RAMAs and Lingering Ash Searches while you are performing them.

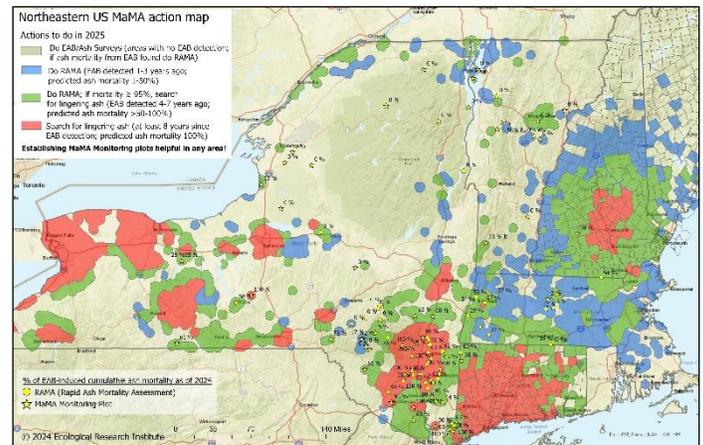**To start using the CalTopo app for MaMA**:

1) Download the CalTopo app

2) Set up a free CalTopo account.

3) To record tracks for the MaMA Lingering Ash Search project or the MaMA RAMA project (or to simply view the locations of tracks already recorded for these projects), you'll need to open and save the CalTopo map for the respective project. Also, to be able to view the Northeast US MaMA Actions map on its own or use it as a map layer (see below) when recording data for a project, you'll need to do the following:

4) First, use its specific QR code or the link provided (provided in table below).

5) When prompted to Create a bookmark for each map, confirm "Create Bookmark".

6) Once you have the particular maps saved, to select one to use (e.g., MaMA RAMA or Lingering Ash Search) in CalTopo, go to the menu shown as "≡" (three horizontal lines) at the top left corner, click on **Your Data** and then click on the map of interest.

7) To see your location on the map, click on the target symbol ⊕ in the bottom right corner of the screen. Your location will be projected as a blue point with an arrow. Then, to start recording your track, click on the 4 dots symbol ⬚ at the bottom right corner. Then click on **RECORD TRACK** and edit the **Track Name** so it contains the date of your survey, your name, and the location name e.g., "7/27/2025 John Smith - Highmount State Park". Click on **START** to start recording your track. When done recording, make sure to click on the 4 dots symbol, then on **TRACK DETAILS** and then on **Finish**. Now your track will be visible to others who are recording data in the same map.

VIEWING MAMA ACTION MAP SHEETS IN CALTOPO

All of our CalTopo maps have the most recent MaMA action maps available as Map Sheets, so the action map can be shown as an overlay in the relevant CalTopo map.

To see a MaMA action map (state or regional, like the one on the right),

1) open the map of your choice

2) click on the layers symbol ⬚ in the top right corner. This will open the **Map Layers** window. In the Map Layers window, the available action maps will be listed under **Map Sheets**.

3) Click on the space next to the "X" symbol and select the action map you want to have displayed.

4) On the right side, next to the map's name, you'll see the degree of opaqueness for the map sheet (100% is completely opaque; 0% is completely transparent). Change the percentage to something like 70% so you can also see the baseline map under it.

Northeastern US MaMA action map

Available CalTopo MaMA maps:

The QR codes and links for the following maps are provided below:

Northeast US MaMA Actions – Consult this map to help guide your actions in your area of interest or you can use this as a layer when collecting data for a MaMA project. You cannot enter data directly into any action maps because changes to them can only be done by these maps' creator (ERI).

MaMA RAMA – use this map to record the track of your MaMA RAMA while walking from first to the last tree included.

Lingering Ash Search – use this map to track where you systematically search for lingering trees (which should only be done in areas with very high ash mortality). Save your search routes even if you do not find any lingering ash or even any ash at all, because these tracks will be used to avoid duplicating search effort.

Northeast US MaMA Actions	MaMA RAMA	Lingering Ash Search
CalTopo Map	CalTopo Map	CalTopo Map
K22UVEL - Read	3UD45 - Update	RG38N - Update
https://caltopo.com/m/K22UVEL	https://caltopo.com/m/3UD45/33S7CNMKSDR1BRB2	https://caltopo.com/m/RG38N/11T8K3JTN0K3DU00