Exploring the ChemResponder Network
March 24, 2022

24th California Unified Program Annual Training Conference
March 22, 23, 24, 29, 30, 31 - 2022

Agenda

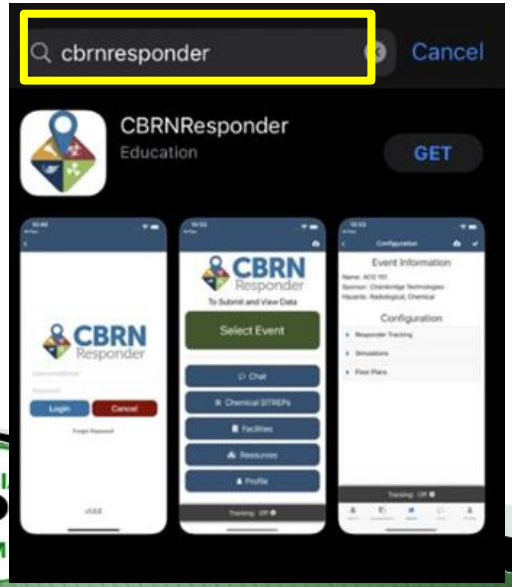
- ❑ Introductions
- ❑ ChemResponder Network Updates
- ❑ CBRNResponder Mobile Application
- ❑ Managing Facility Information
- ❑ IMAAC Portal
- ❑ Data Collection Activity
- ❑ Q&A

Introductions

What You'll Need:

- ❑ ChemResponder Account
- ❑ CBRNResponder mobile application

Note: this is different than the ChemResponder mobile app



Training Accounts:

If you ***DO NOT*** have a ChemResponder Account, you can use one of these temporary accounts:

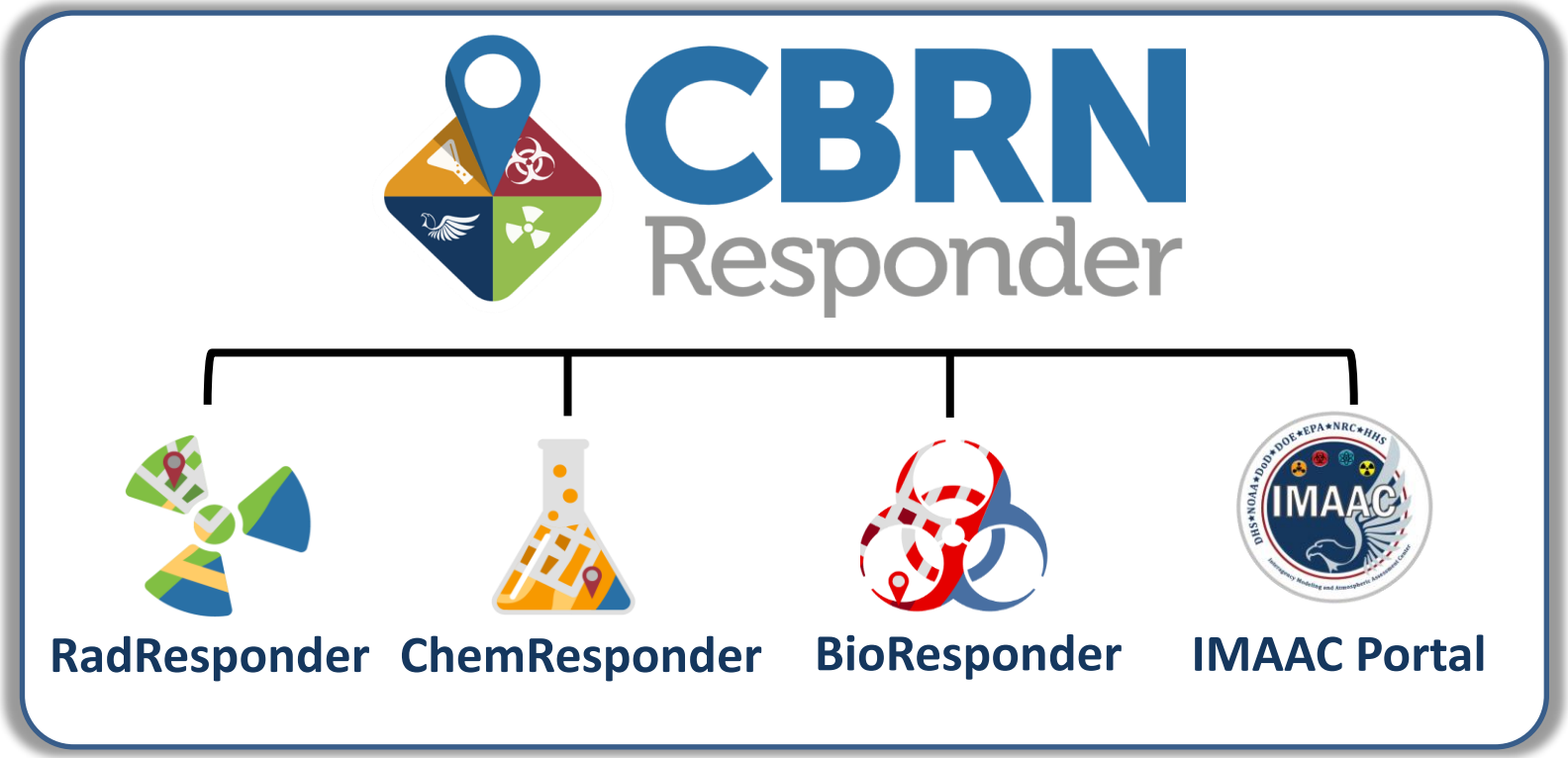
Username: SimulatedUser1-20

Password: SimulatedUser1-20

Example:

Username: SimulatedUser7

Password: SimulatedUser7


CBRN
Responder
RadResponder
ChemResponder
BioResponder
IMAAC Portal
IMAAC

CBRNResponder Evolution Timeline

RadResponder Launched (2013)

RadResponder codified in NRIA (2016)

ChemResponder Launched (2018)

CBRNResponder Launched (2019)

IMAAC Portal Launched (2021)

BioResponder Launched (2022)

ChemResponder

- ChemResponder is a free preparedness and operational system to manage and securely share critical chemical response and facility information in real-time
- ChemResponder can be accessed on smartphones, tablets, and the web
- ChemResponder features a HAZMAT Incident Database to aggregate events, SITREPS and lessons learned into a single tool, allowing organizations to identify trends in chemical incidents that can inform proactive public health and safety measures.

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ChemResponder Network Updates

ChemResponder Updates – Indoor Monitoring

What previously existed…

You could upload floor plans to associate with ChemResponder facilities to then place data on the floor plan for higher location fidelity

Building/Structure	Building A
Floor/Section	8
Room #	822
Direction	North
Surface	--
Material	--
Comment	--

Additional fields for indoor-related information

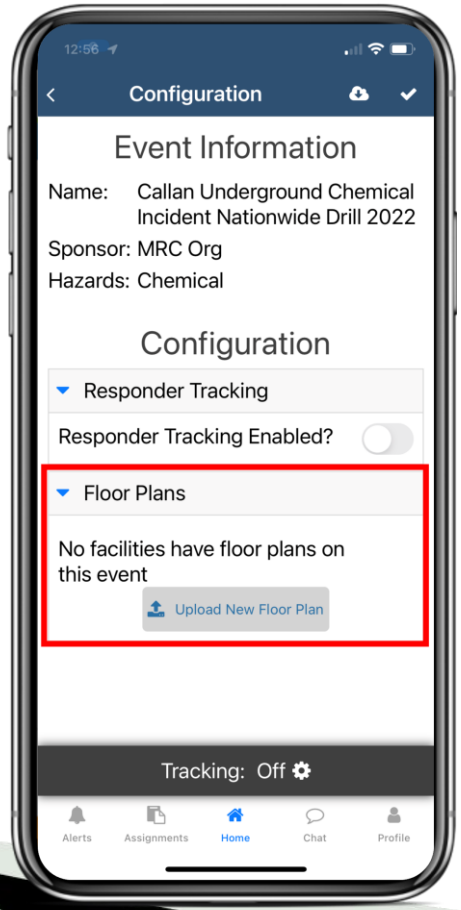
ChemResponder Updates – Indoor Monitoring

What now exists…

- Ability to upload a floor plan via the mobile application
- Move individual data points on a floor plan
- Ability to transfer data from one floor plan to another
- Add a scale to floor plans
- Drawing tools available for floor plans

Uploading Floor Plans from the Mobile App

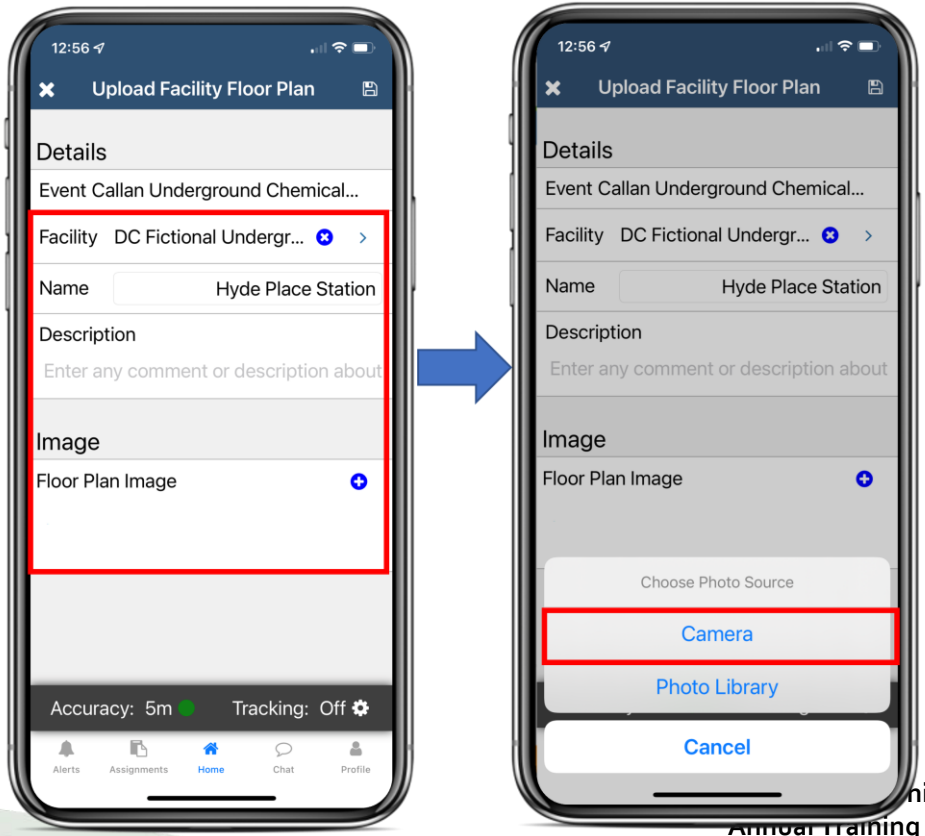
Open the event containing the facility you want to add a floor plan to and select "**Upload New Floor Plan**":



Uploading Floor Plans from the Mobile App

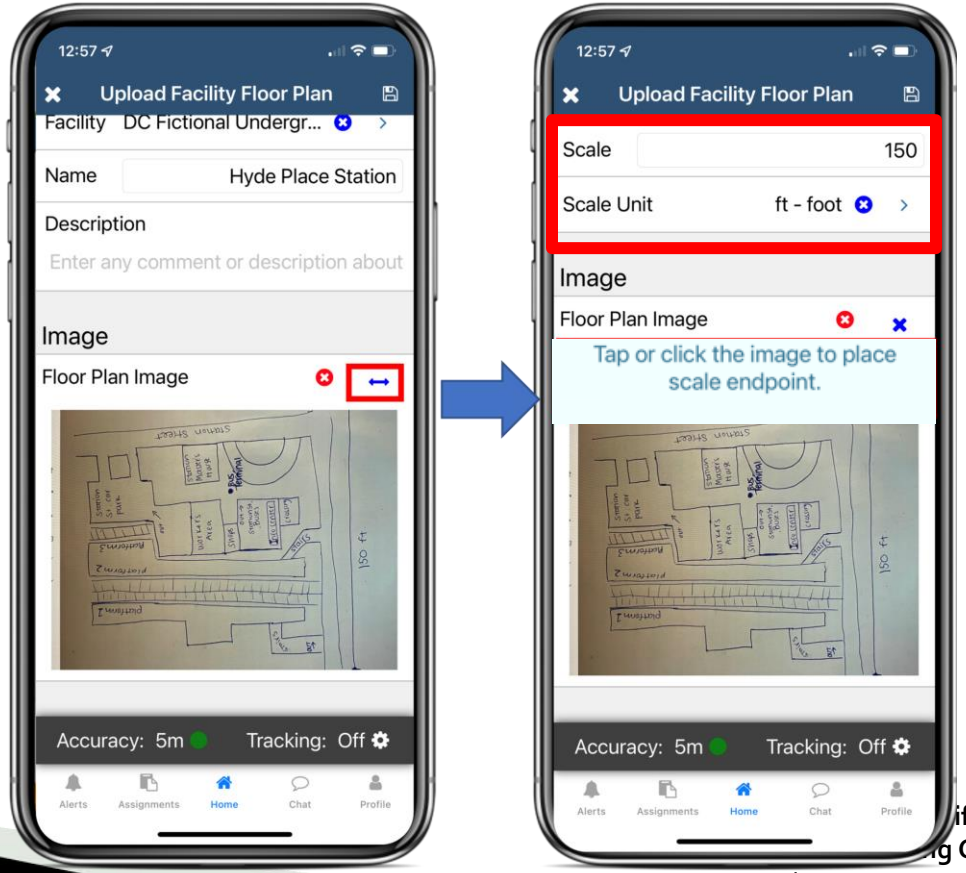
Enter the name, optional description, and select the associated facility.

Choose to take a photo or upload from camera roll:



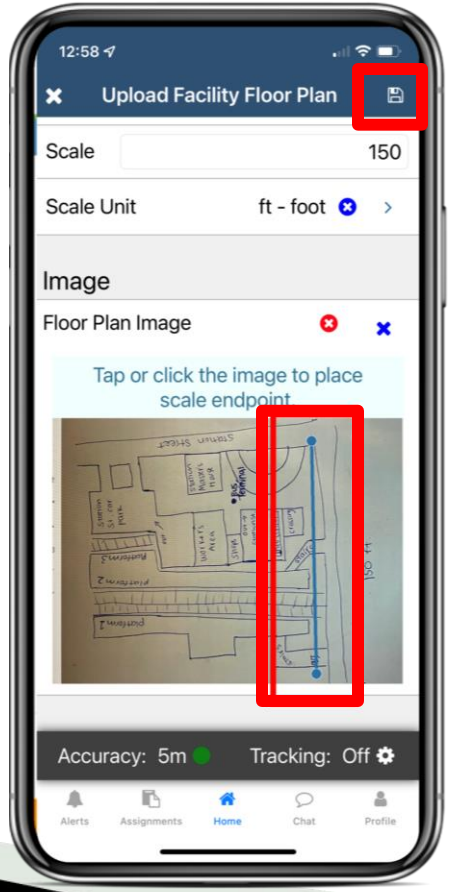
Add a Scale to Floor Plans from the Mobile App

Tap the scale icon (←→) and enter the appropriate scale value and unit:



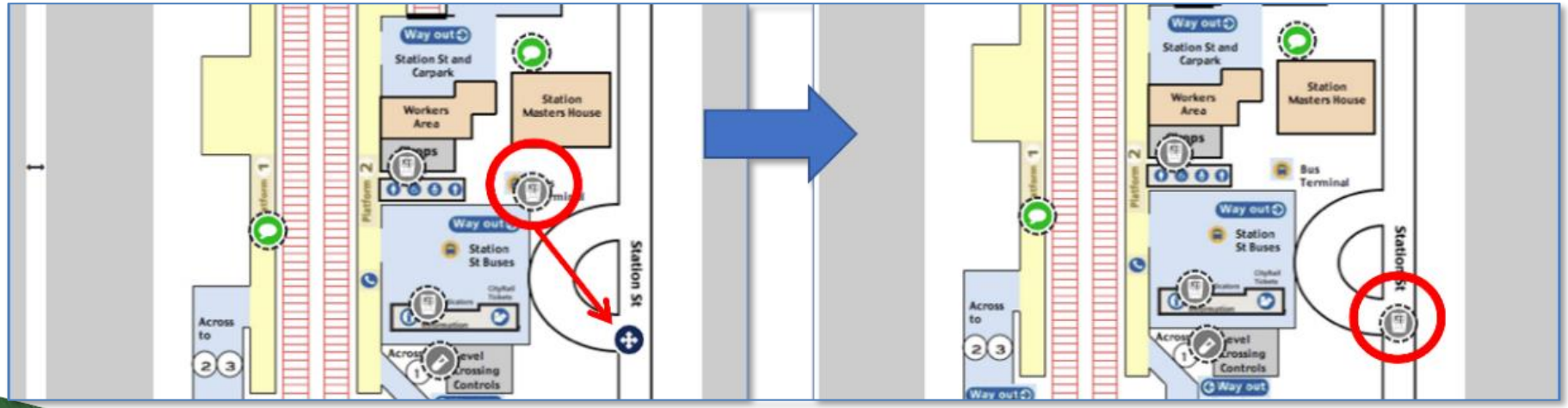
Add a Scale to Floor Plans from the Mobile App

Tap the start and end point of the scale and Save:



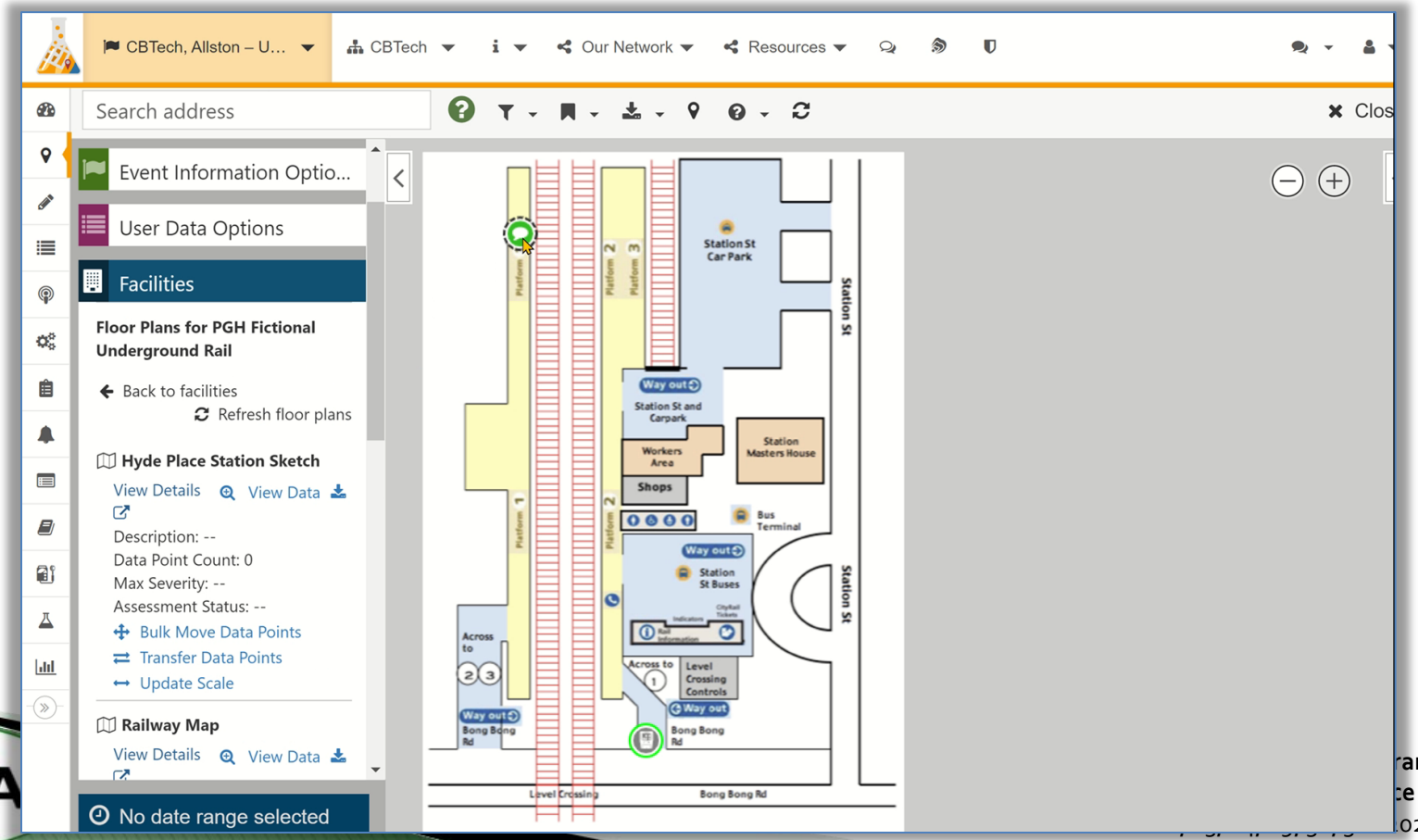
Move Data Points on a Floor Plan

During data collection the location on the floor plan may not be accurate. As you are reviewing the data you can move the location when viewing the floor plan on the map:



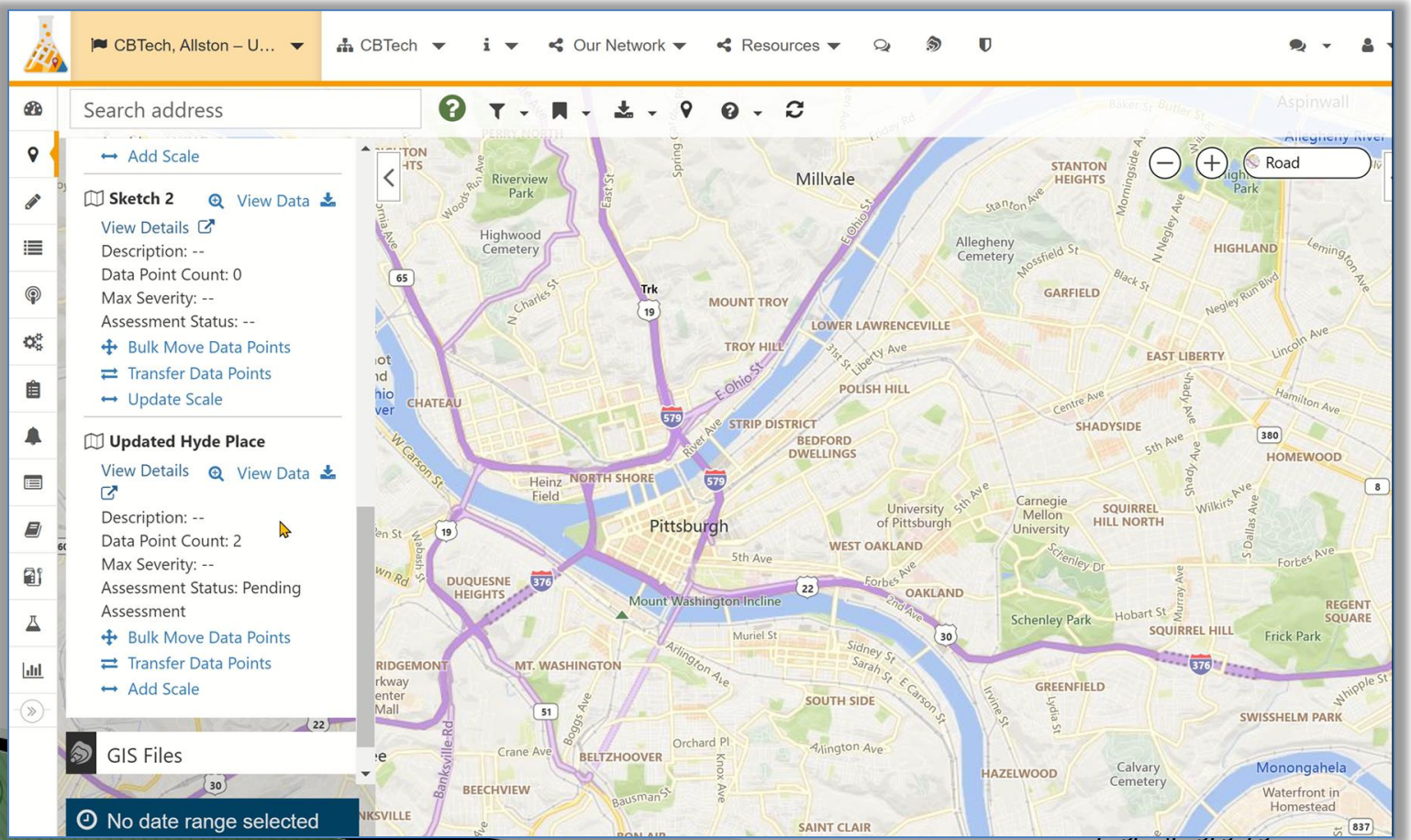
Move Data Points on a Floor Plan

Move single points:



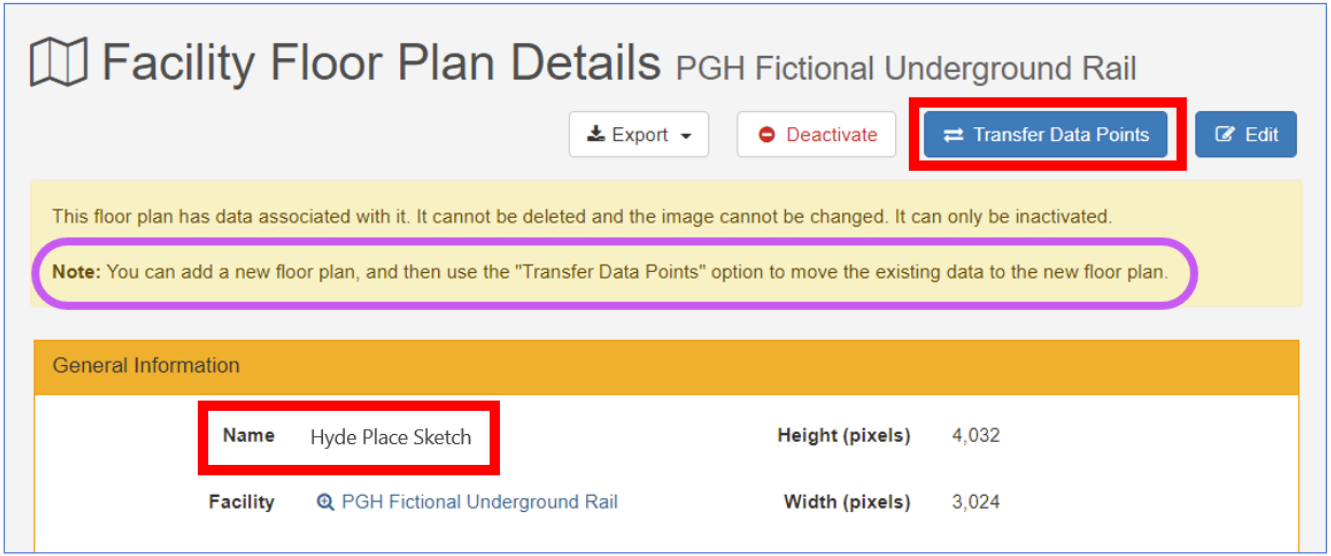
Move Data Points on a Floor Plan

Bulk Move Points:



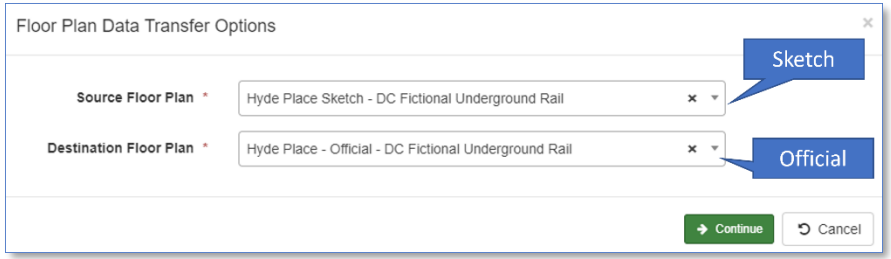
Transfer Data Across Floor Plans

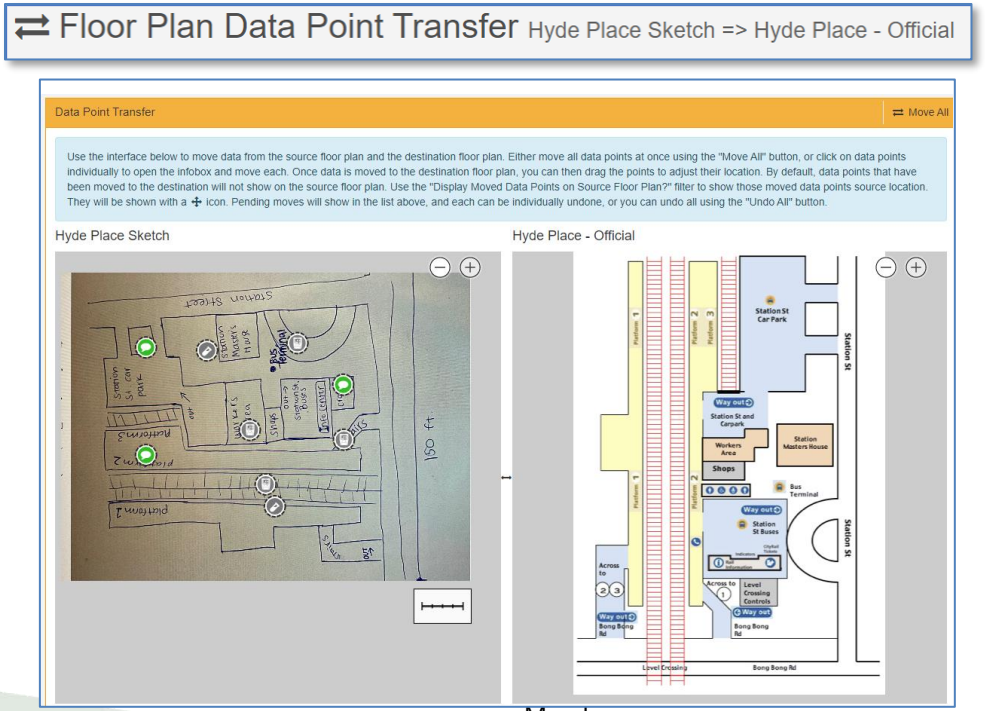
As the event matures, you may obtain more precise, or official floor plans. Transfer data from the initial floor plan to the matured one:



Transfer Data Across Floor Plans

Select your Source and Destination floor plan to open the "Floor Plan Data Point Transfer" page:





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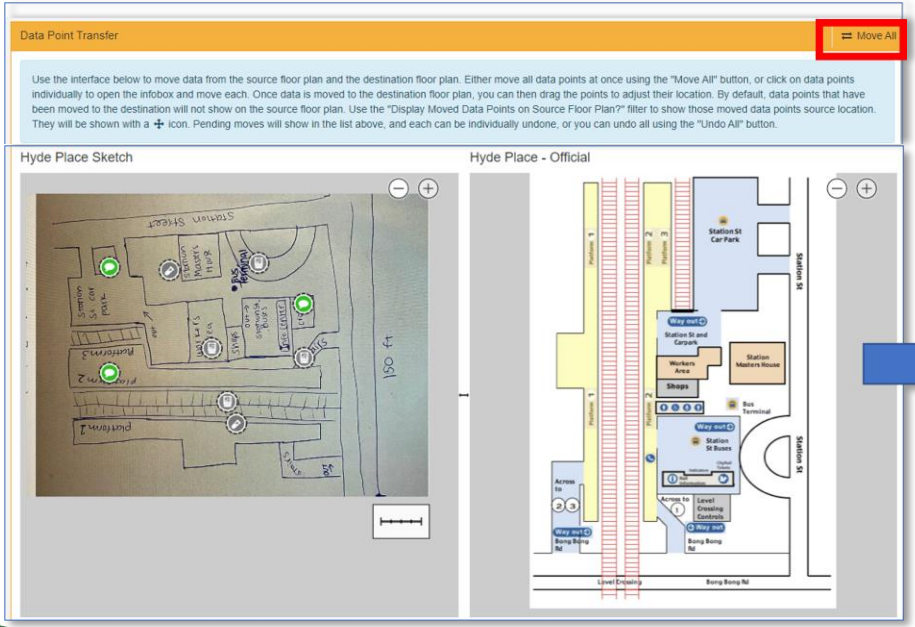
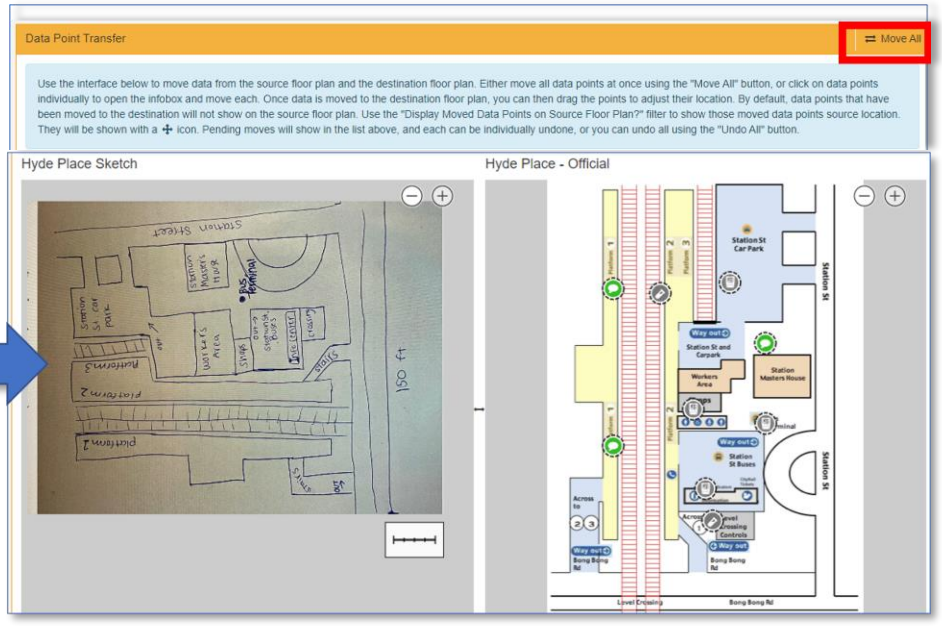
Transfer Data Across Floor Plans

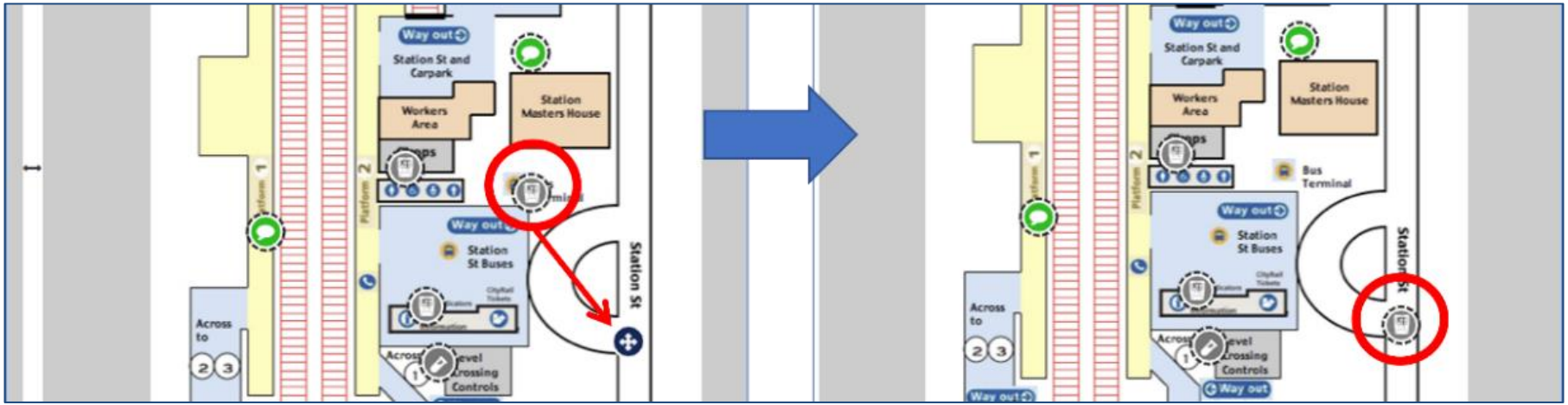
To transfer all data points at once, use the "**Move All**" button:





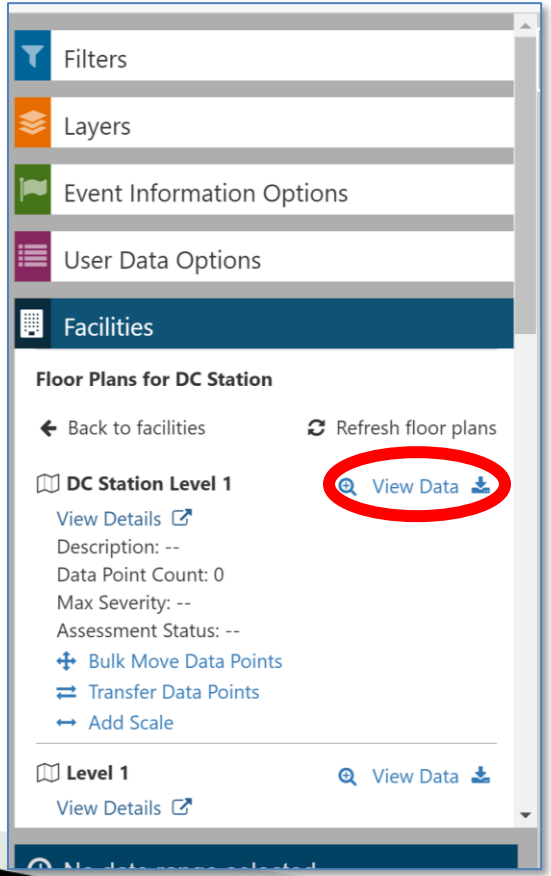
Transfer Data Across Floor Plans

During data collection the location on the floor plan may not be accurate. As you are reviewing the data you can move the location when viewing the floor plan on the map:



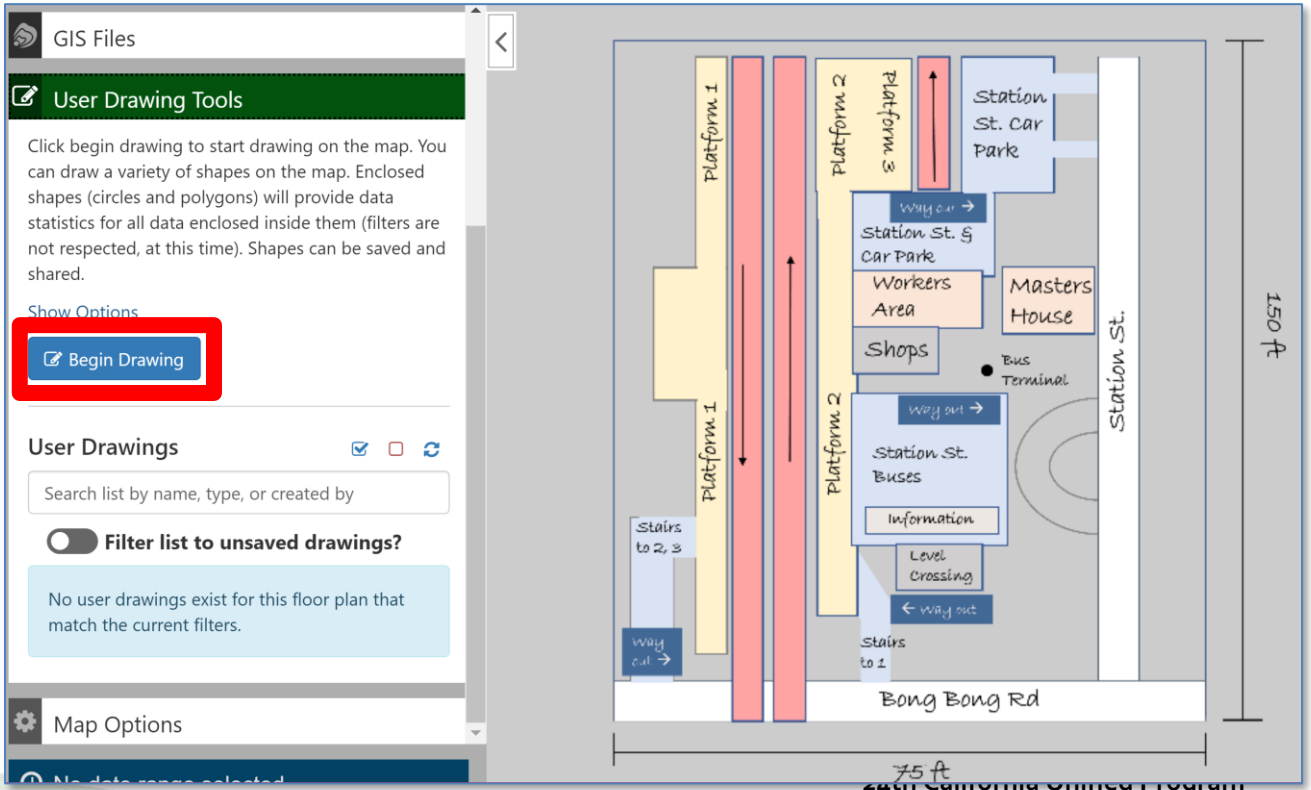
Drawing Tools on Floor Plans

On the event map, open the facility floor plan you will be drawing on:



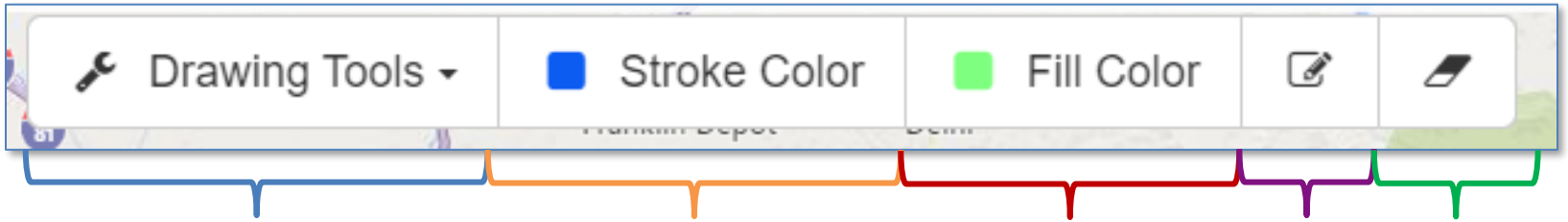
Drawing Tools on Floor Plans

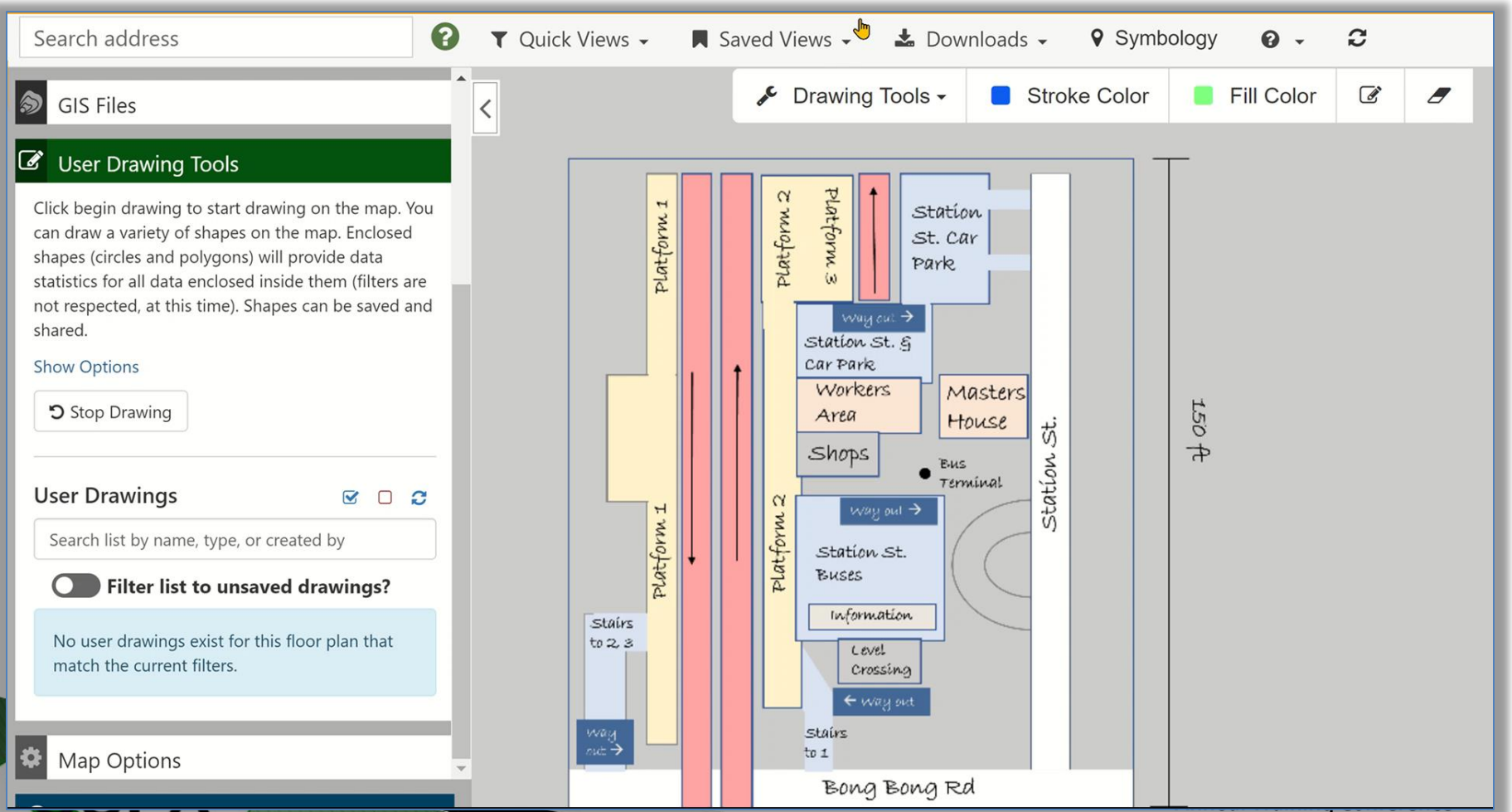
Open the "**User Drawings**" layer and Begin Drawing:



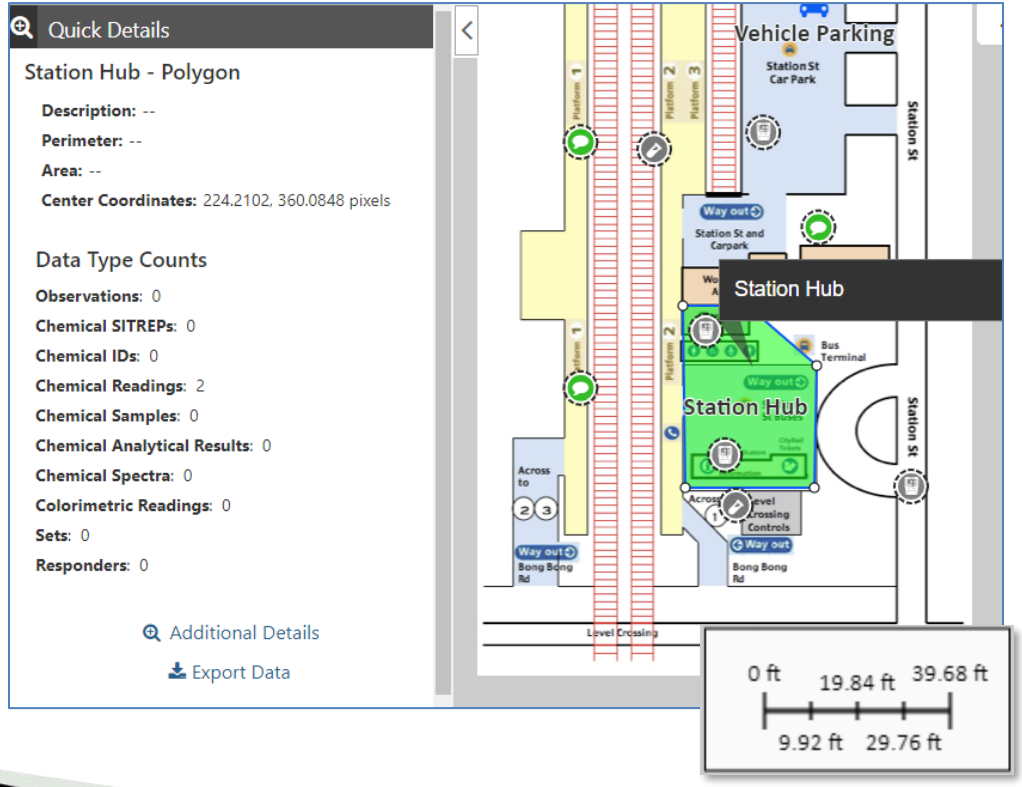
Drawing Tools on Floor Plans

Similar to drawing on the event map view, you will use the drawing ribbon at the top of the map:




Search address
Quick Views
Saved Views
Downloads
Symbology
GIS Files
User Drawing Tools
Click begin drawing to start drawing on the map. You can draw a variety of shapes on the map. Enclosed shapes (circles and polygons) will provide data statistics for all data enclosed inside them (filters are not respected, at this time). Shapes can be saved and shared.
Show Options
Stop Drawing
User Drawings
Search list by name, type, or created by
Filter list to unsaved drawings?
No user drawings exist for this floor plan that match the current filters.
Map Options
Drawing Tools
Stroke Color
Fill Color
Platform 1
Platform 2
Platform 3
Station St. Car Park
Way out
Station St. & Car Park
Workers Area
Masters House
Shops
Bus Terminal
Station St.
Station St. Buses
Information
Level Crossing
Stairs to 2 & 3
Stairs to 1
Bong Bong Rd
150 ft

Drawing Tools on Floor Plans



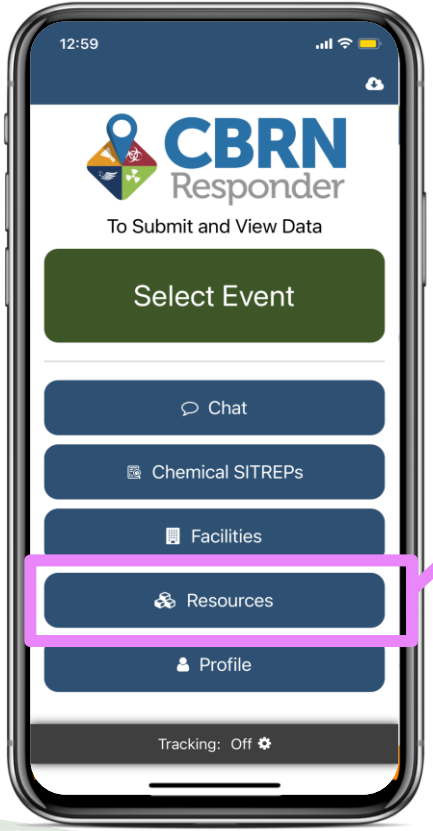
ChemResponder Updates – Mobile Resource Sets

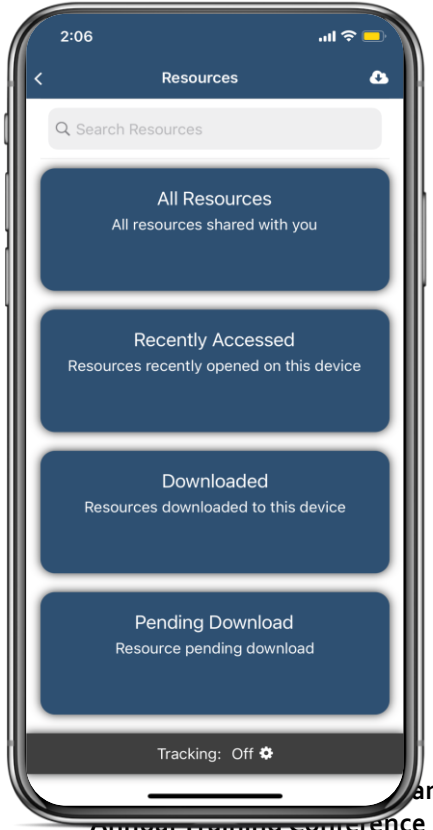
- Mobile Resource Sets are "groups" or "packages" of CBRNResponder resources (documents, videos, tools) that can be sent down to the CBRNResponder mobile application to specific individuals
- Documents in the various Resource Sets can then be downloaded to the CBRNResponder mobile application to access offline

ChemResponder Updates – Mobile Resource Sets

The Resources button allows you to view your mobile resource sets. Resource sets are a group of CBRNResponder resources such as documents, tools, and videos "pushed" to users

These sets are then sent to the targeted users' CBRNResponder mobile application to view, download, and access:





ChemResponder Updates – Chat

- The Chat function was implemented in August 2021 and is available on the CBRNResponder mobile application and the website:

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- [x] Introductions
- [x] ChemResponder Network Updates
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CBRNResponder Mobile Application

CBRNResponder Mobile Application

The separate RadResponder and ChemResponder apps will eventually be removed from the app stores, and we will no longer support them beginning late-Summer 2022

Any new features added to CBRNResponder (which includes RadResponder and ChemResponder) that pertain to mobile will **ONLY** be available on the CBRNResponder app including, but not limited to:

- User drawings and GIS files on event maps
- Uploading Floor Plans
- Chat

CBRNResponder Mobile Application

The CBRNResponder mobile app combines **ALL** features from the ChemResponder and RadResponder-specific apps into one, single application:

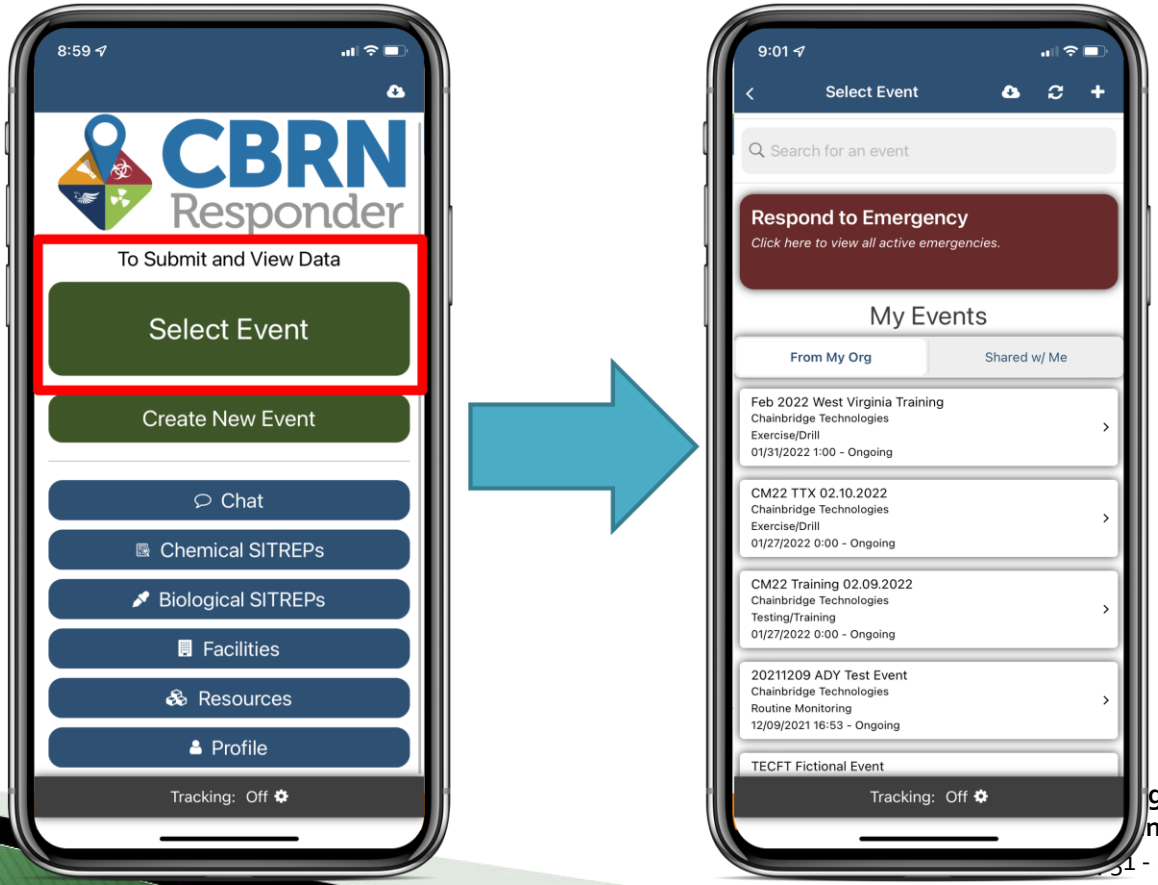
If your organization only has equities in one-hazard, such as chem, you will ***NOT*** see rad or bio-specific features in your CBRNResponder application

CBRNResponder Mobile Application

Log-in to be brought to the homepage:

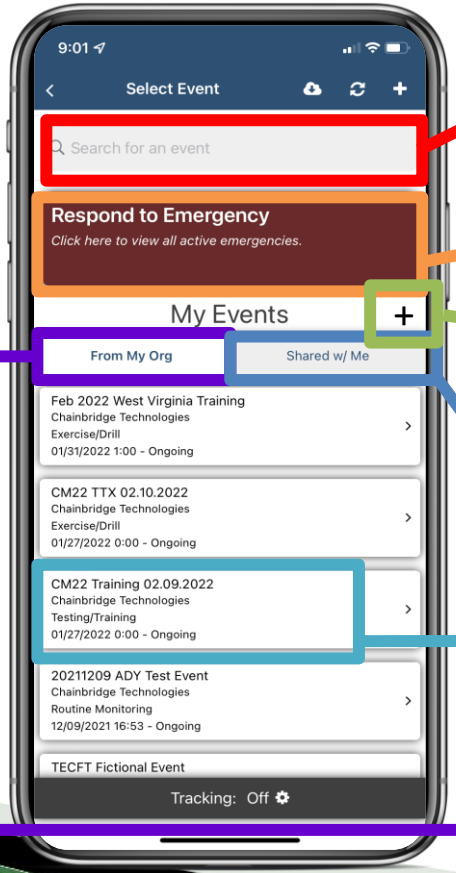
CBRNResponder Mobile Application

If you have not yet selected an event in CBRNResponder, you will just see the "Select Event" option to take you to the events list:



CBRNResponder Mobile Application

From the "Select Event" screen, you will see:



Event search bar

Network-wide emergency response event

Create an event

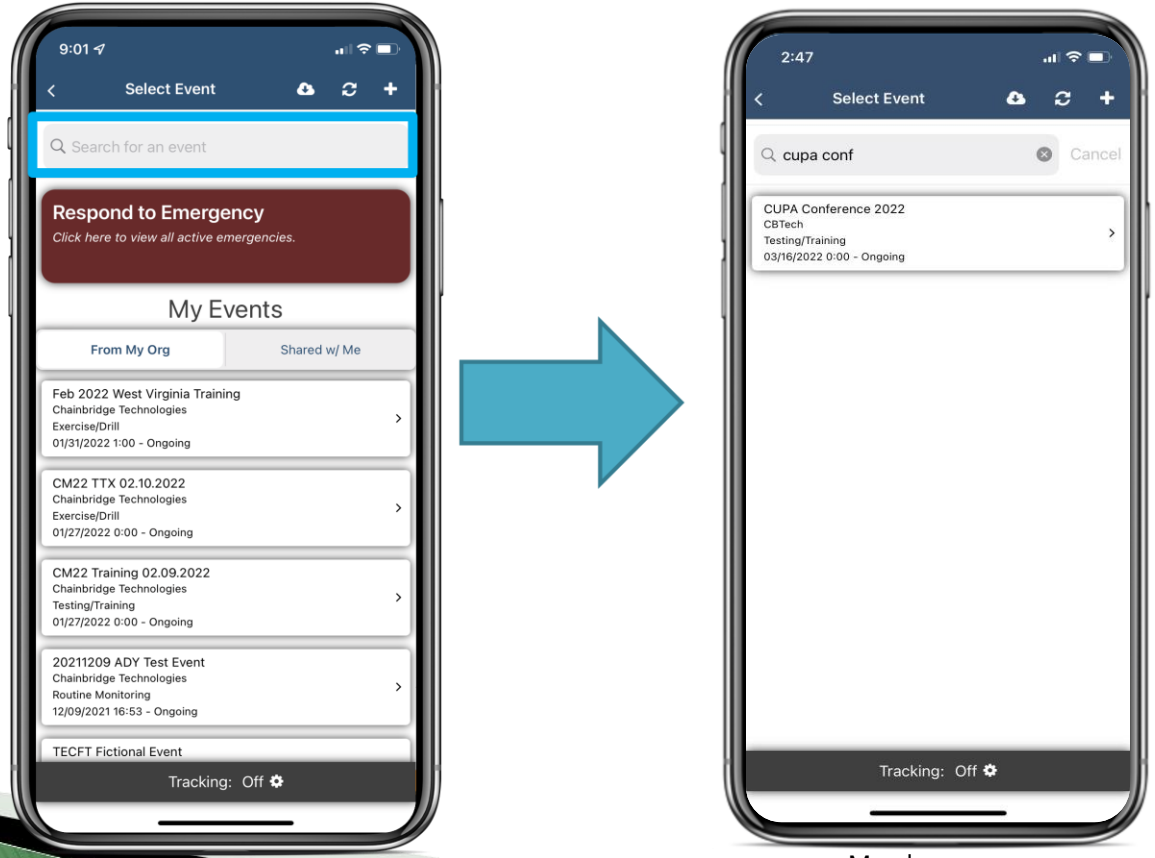
Events your org is partnered on or you've been added as an individual responder

Individual event. Select to open the event's homepage

Events sponsored/ created by your org

CBRNResponder Mobile Application

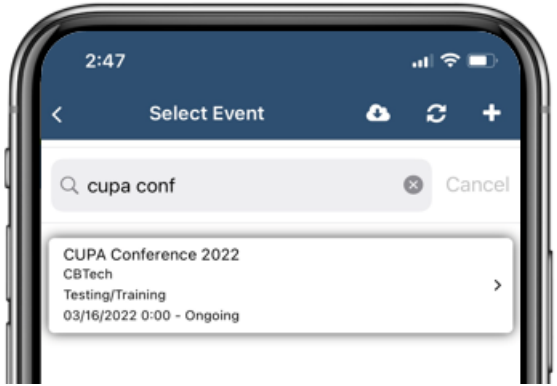
If you do not see the event you need to submit data into on either of your lists, you can use the **search bar** to search for all open events:



CBRNResponder Mobile Application

Search for the event titled:

CUPA Conference 2022



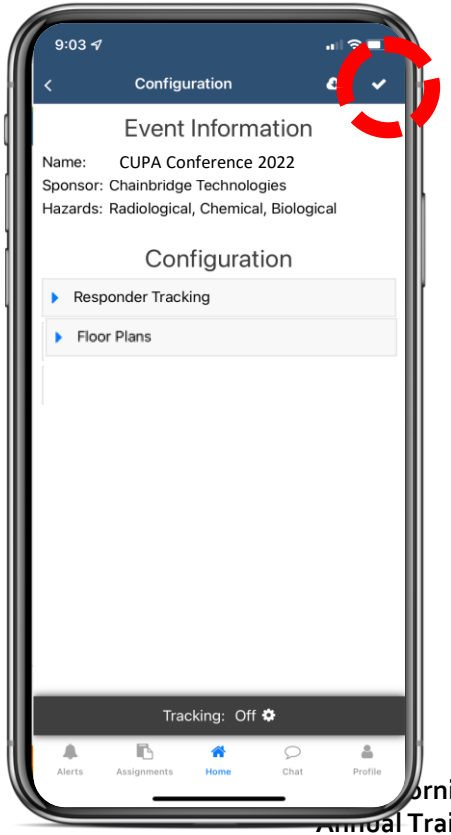
CBRNResponder Mobile Application

The event configuration page is where you can set your **responder tracking preferences**, and **download (or upload) floor plans**:

CBRNResponder Mobile Application

Once your initial preferences have been selected, press the ✓ to be brought to the event home screen

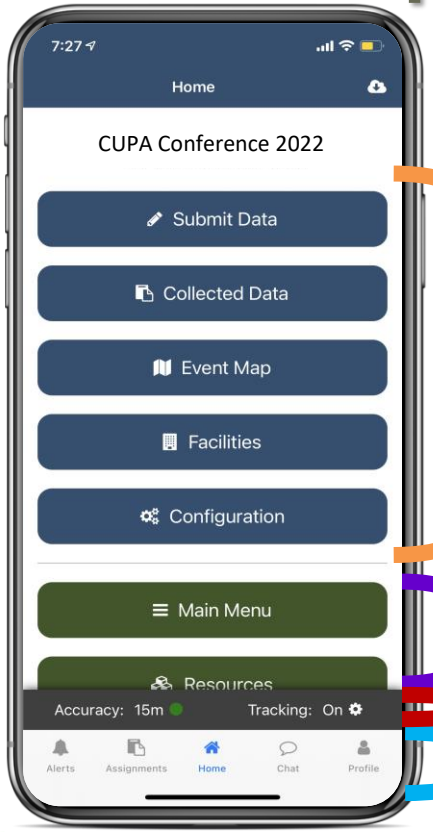
You can always go back to this page to make changes at any point



CBRNResponder Mobile Application

There are four main sections of the event home screen:

1. Data Collection and Event Parameters
2. CBRNResponder App Navigation
3. Responder Tracking
4. Event Notifications, Chat, and Profile



Collect data, view data, manage event parameters

Return to the CBRN app main menu and quick link to resource sets

Location accuracy and manage tracking settings

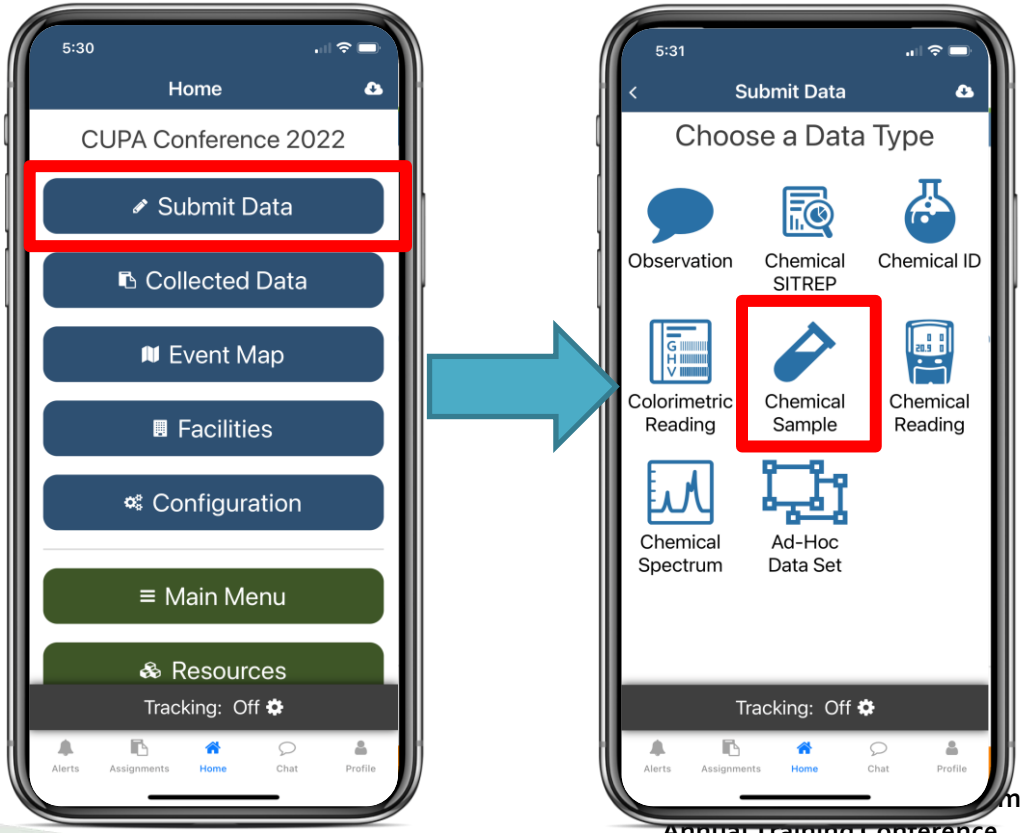
Alerts and assignments. Other useful links

CALIFORNIA CUPA FORUM

CBRNResponder Mobile Application

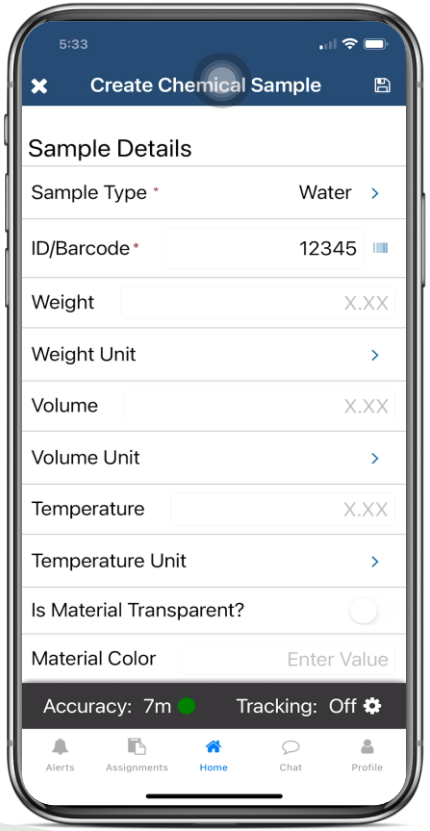
To submit data into the event, select the "Submit Data" button to be brought to the Choose a Data Type page

Select the data type you wish to enter to be brought to the data collection entry form:



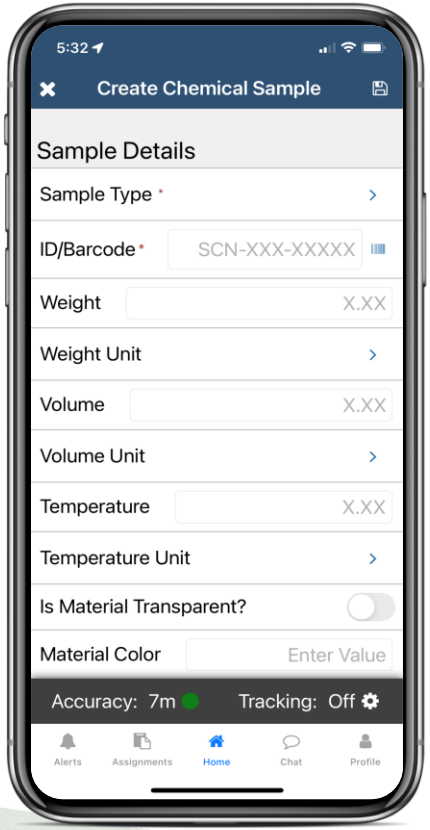
CBRNResponder Mobile Application

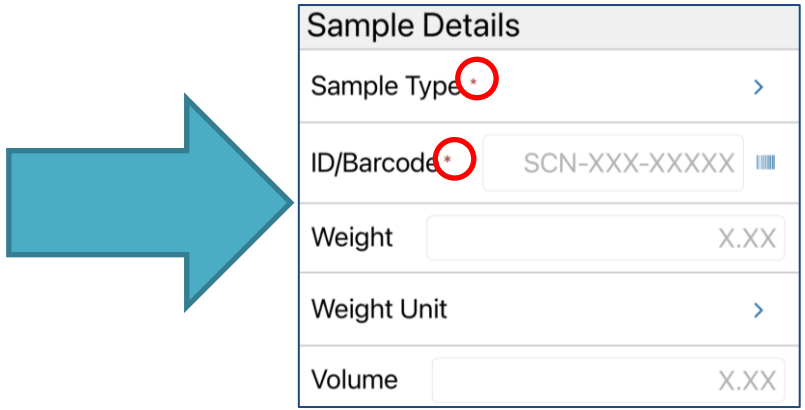
Chemical Sample Form:



CBRNResponder Mobile Application

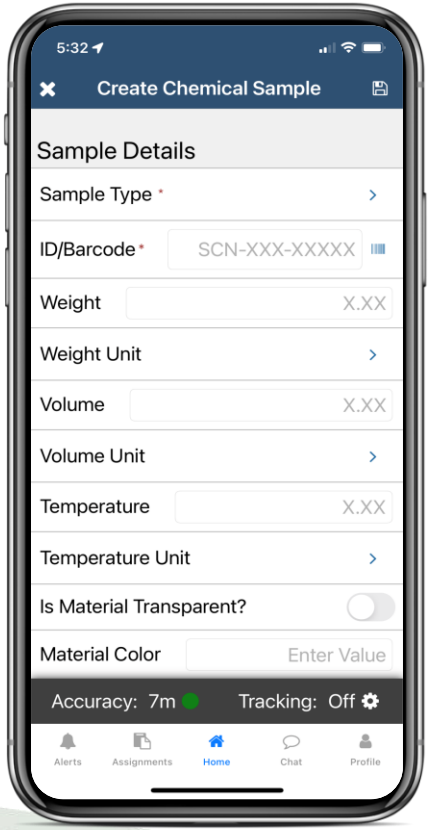
You are required to fill out all required fields (*indicated by a red asterisk*) in order to save the data point:

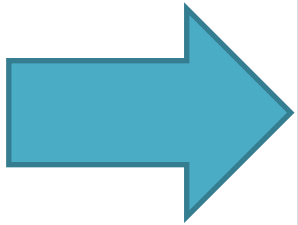


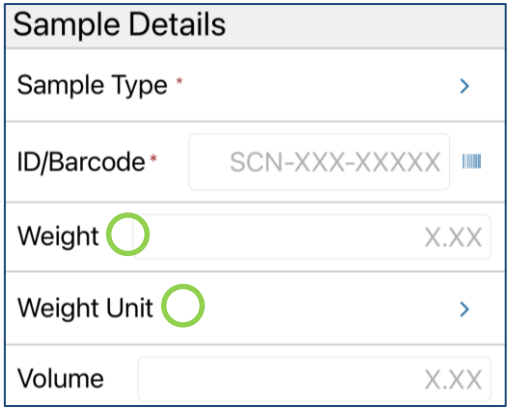


CBRNResponder Mobile Application

You are encouraged to fill out as many optional fields as you can. Optional fields do not have the red asterisk:

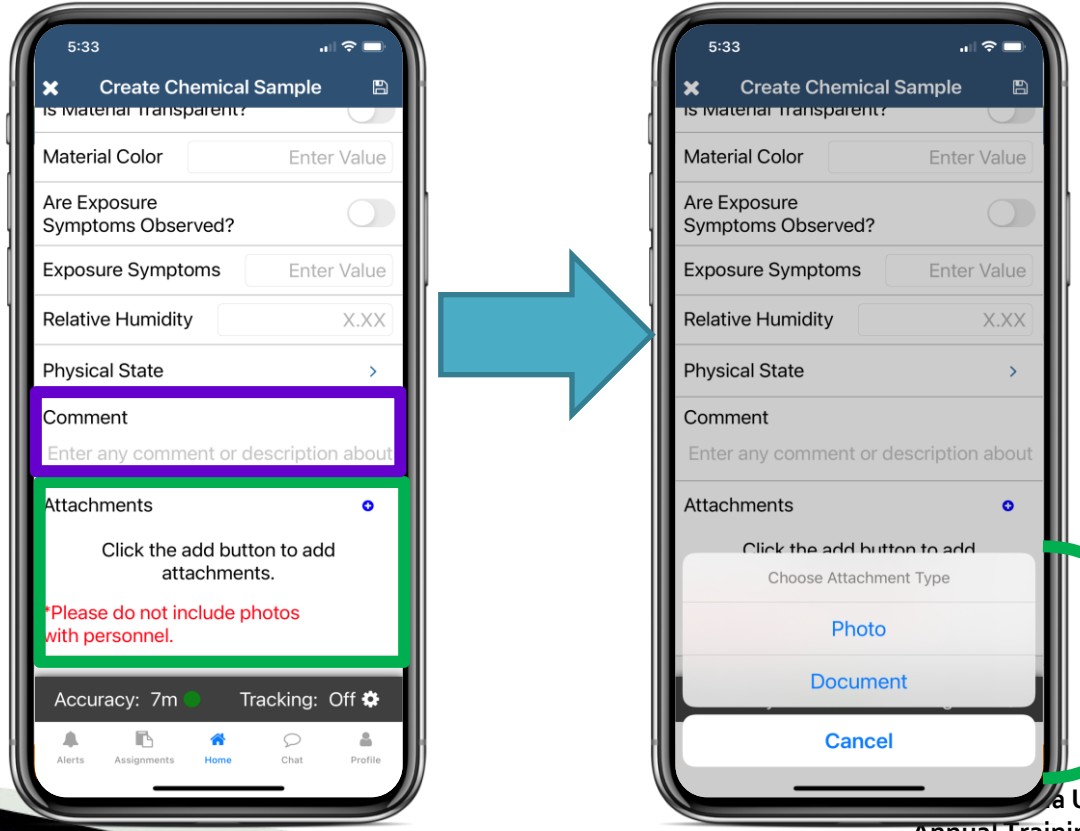






CBRNResponder Mobile Application

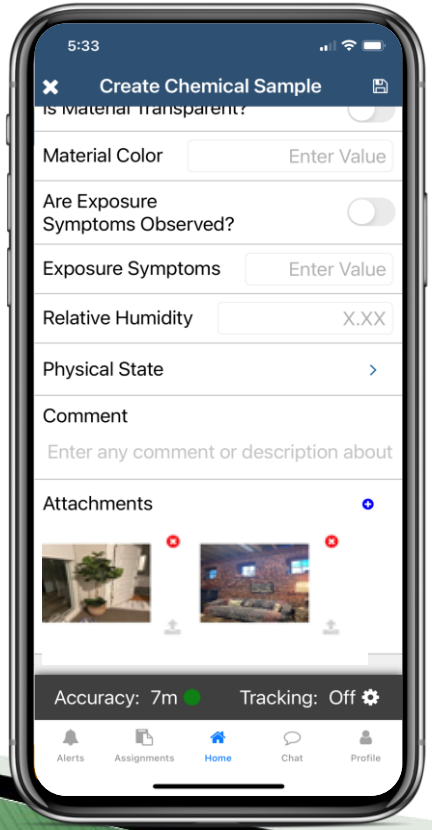
All data point forms have a free-text **comment field** and the ability to add any pictures and documents as **attachments**:



Choose the type of attachment to add to the data point

CBRNResponder Mobile Application

Adding photos, documents, and/or comments allows for data viewers/ assessors to have more information related to the data point:



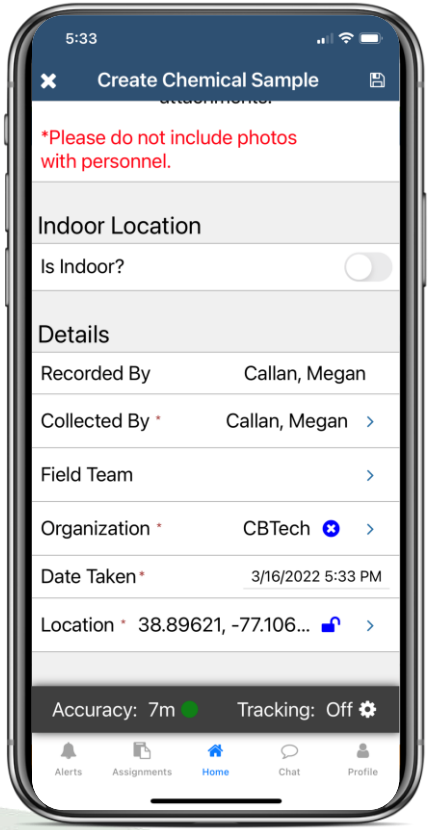
Use these comment/attachment fields to…

- Take a picture of the reading on your piece of equipment for validation
- Take a picture of the location where reading was taken
- Take a picture of where you are located
- Enter weather information in the comments
- Enter the serial # of the equipment (if not already in CBRNResponder) in the comments
- Any other relevant information

Do NOT include photos of or with personnel

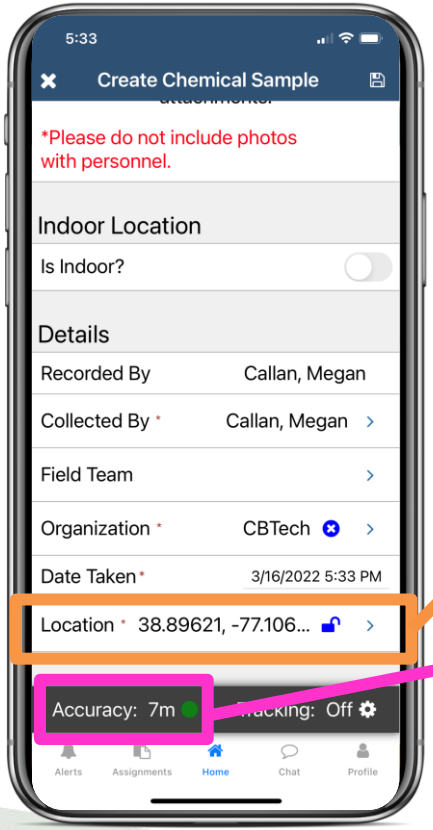
CBRNResponder Mobile Application

At the bottom of all data entry forms, is the general details section. This is where your name, date/time, organization, field team, and location are reported:



CBRNResponder Mobile Application

By default, your location is reported as your **current location** (based on your device's GPS). You can look at your **location accuracy** to see if this margin of error is acceptable for your reading's reported location:

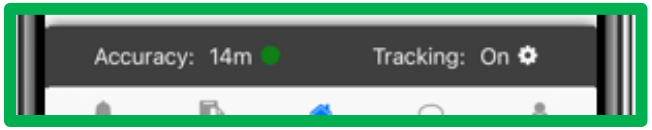


Your reported location determined by your device

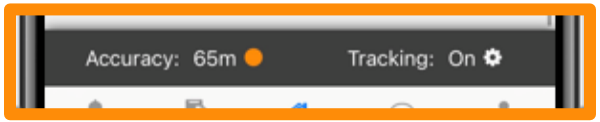
Your location accuracy. This means that your currently reported location has a margin of error of 65 meters

CBRNResponder Mobile Application

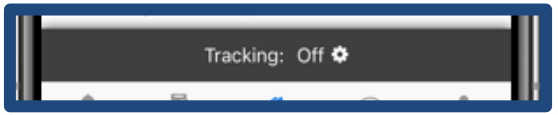
Next to your location accuracy, you may see a colored circle based on your accuracy range:



Green: Accuracy is 30 meters or less



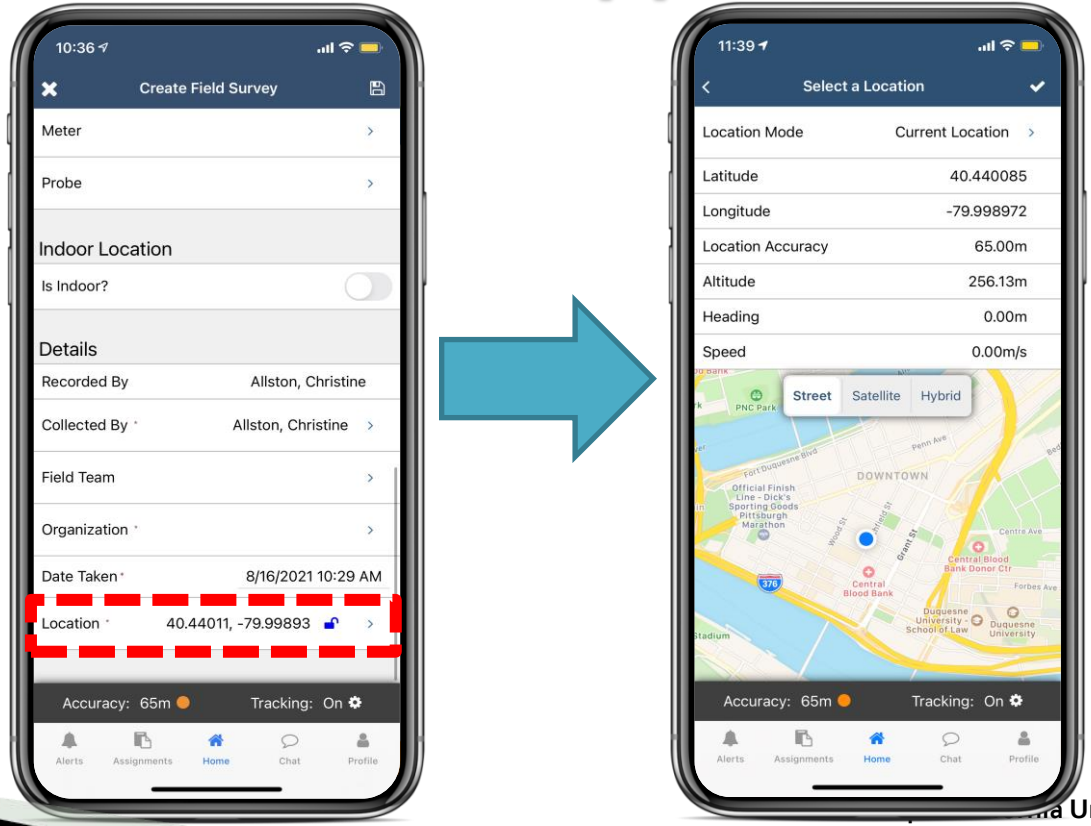
Orange: Accuracy is greater than 30 meters



None: Location services have been turned off

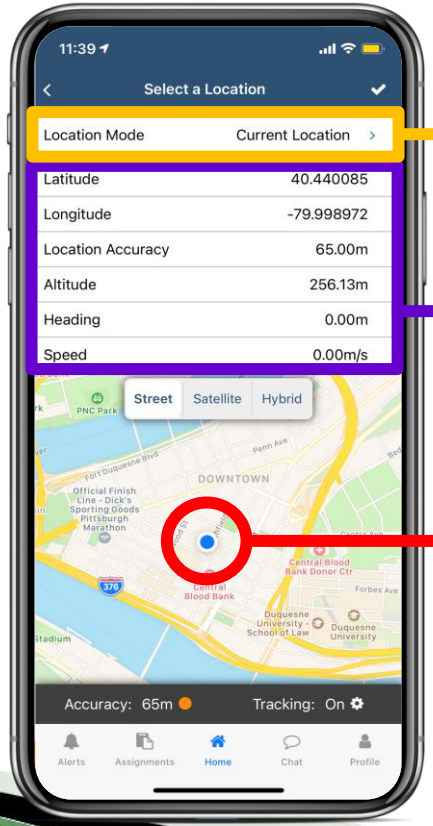
CBRNResponder Mobile Application

If your currently reported location's accuracy is not precise enough for your needs, you can change your location mode to best report your actual location. Select your location to see the details:



CBRNResponder Mobile Application

This is where you will see the details of your current location and where you can change your location mode:



Shows your selected location mode. Select this to change your location mode

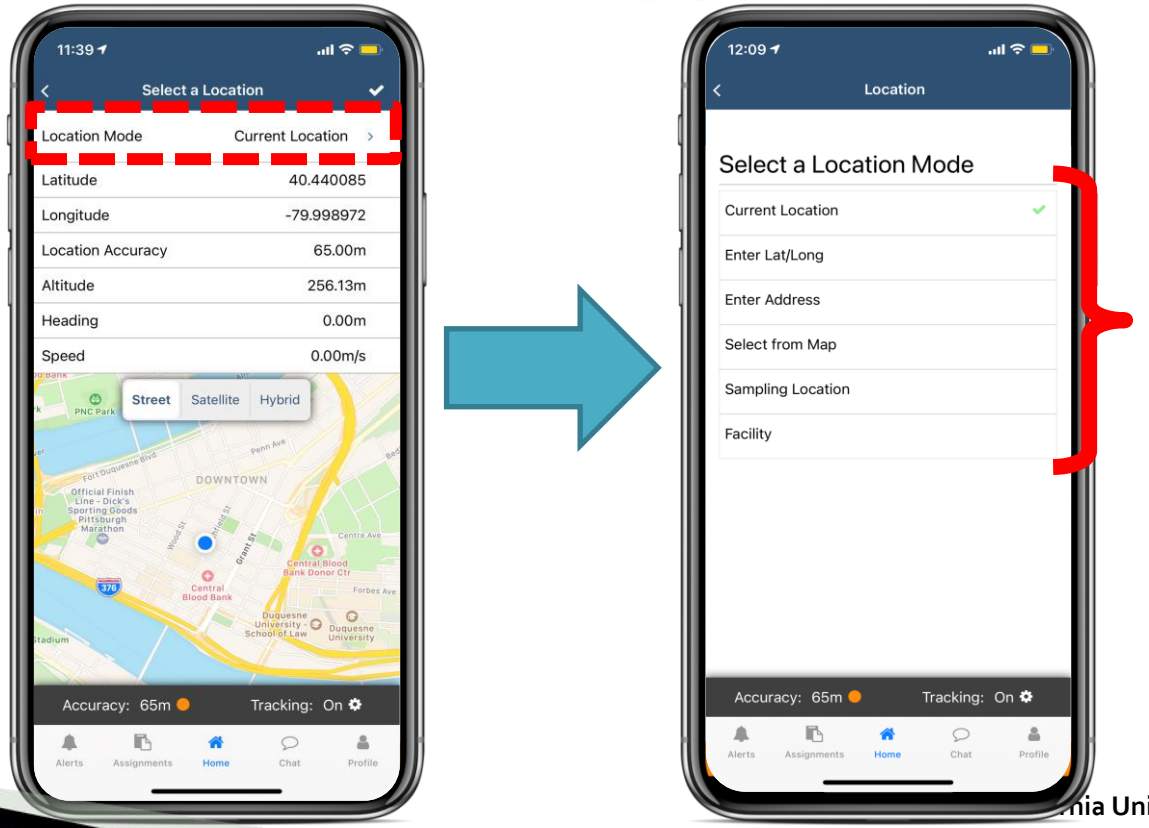
Greater information about your current location

Blue point indicates where your device is reporting your location

CBRNResponder Mobile Application

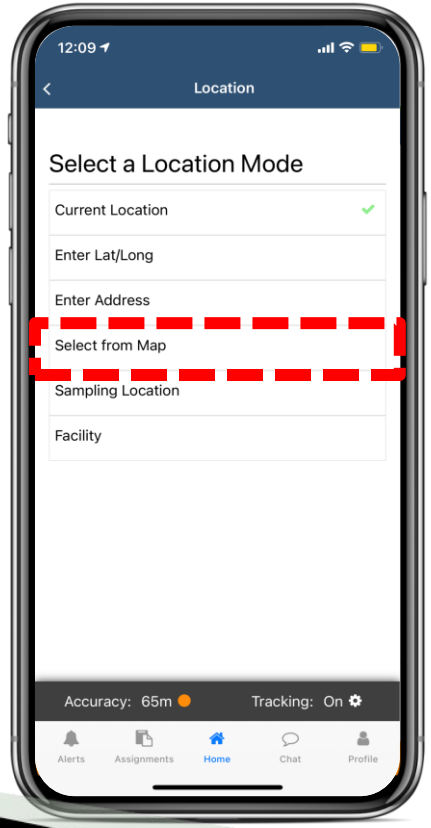
To change your location mode, tap the location mode:

Choose how you want to report your location:



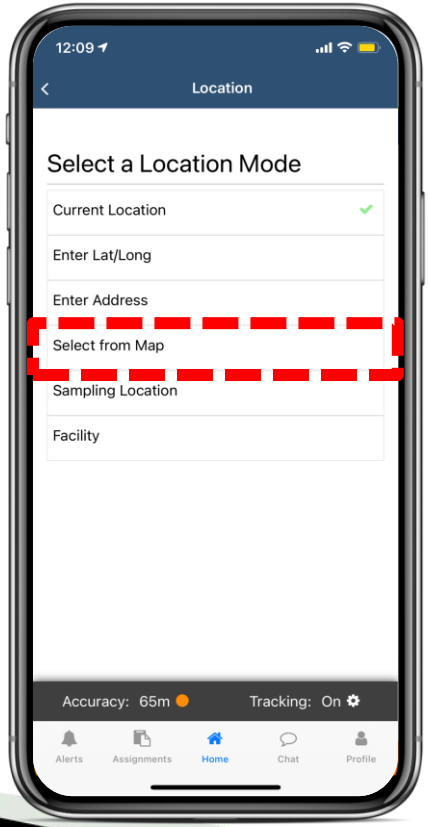
CBRNResponder Mobile Application

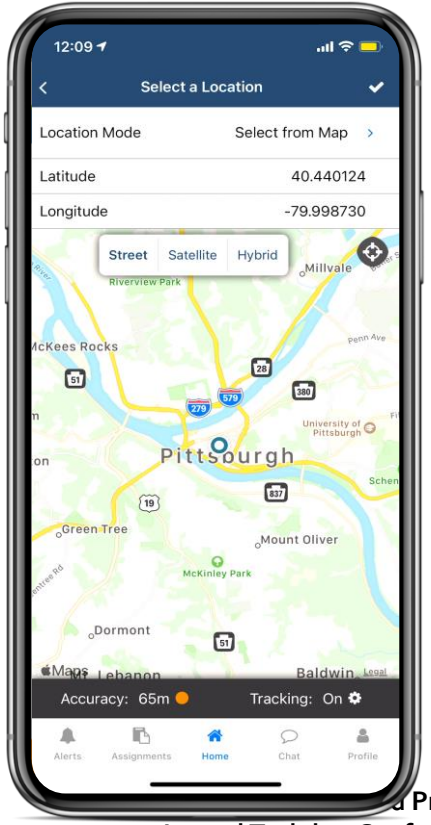
If you choose "Select from Map" you can choose your location by tapping a location on the map:



CBRNResponder Mobile Application

If you choose "Select from Map" you can choose your location by tapping a location on the map:



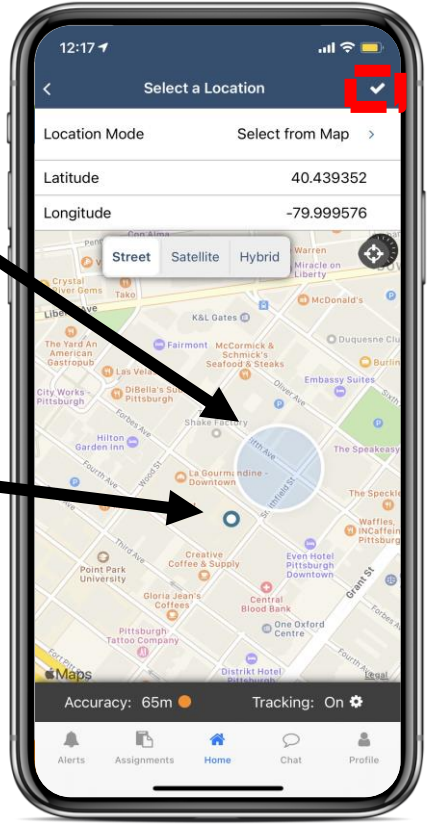


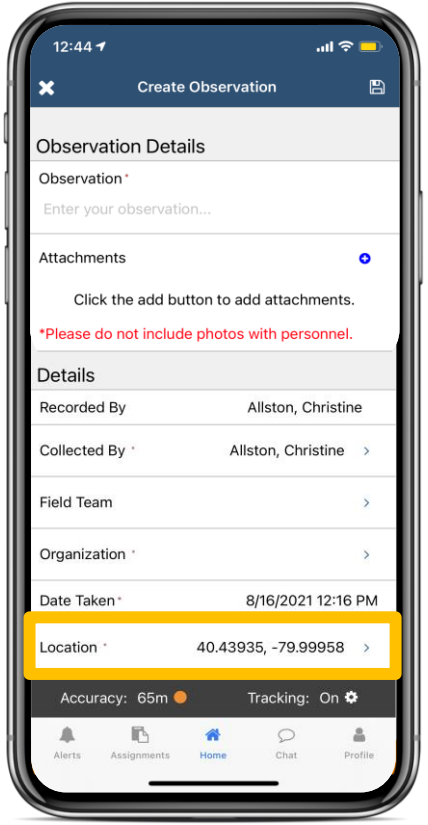
CBRNResponder Mobile Application

Your current location, based on your device's GPS, will be indicated by a white outlined circle

Your new, selected location will be indicated by the ⊙ icon

To save your new location, press the ✓

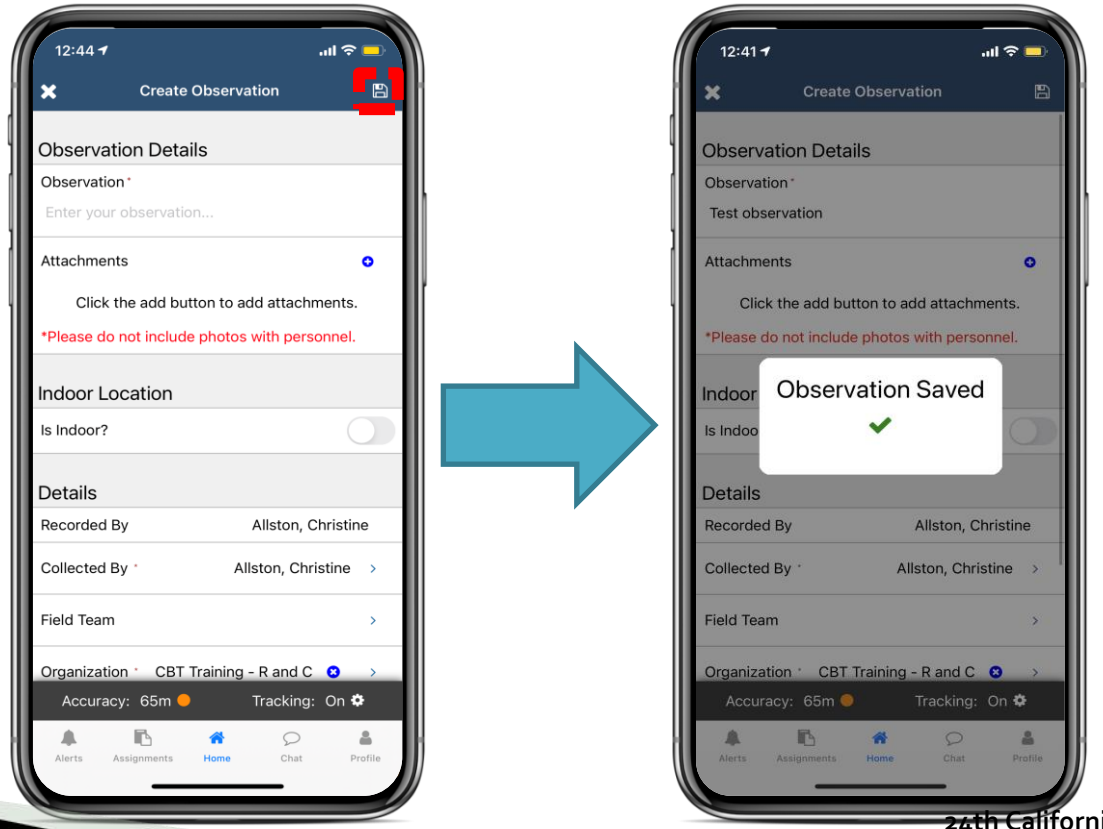




The coordinates of your newly selected location

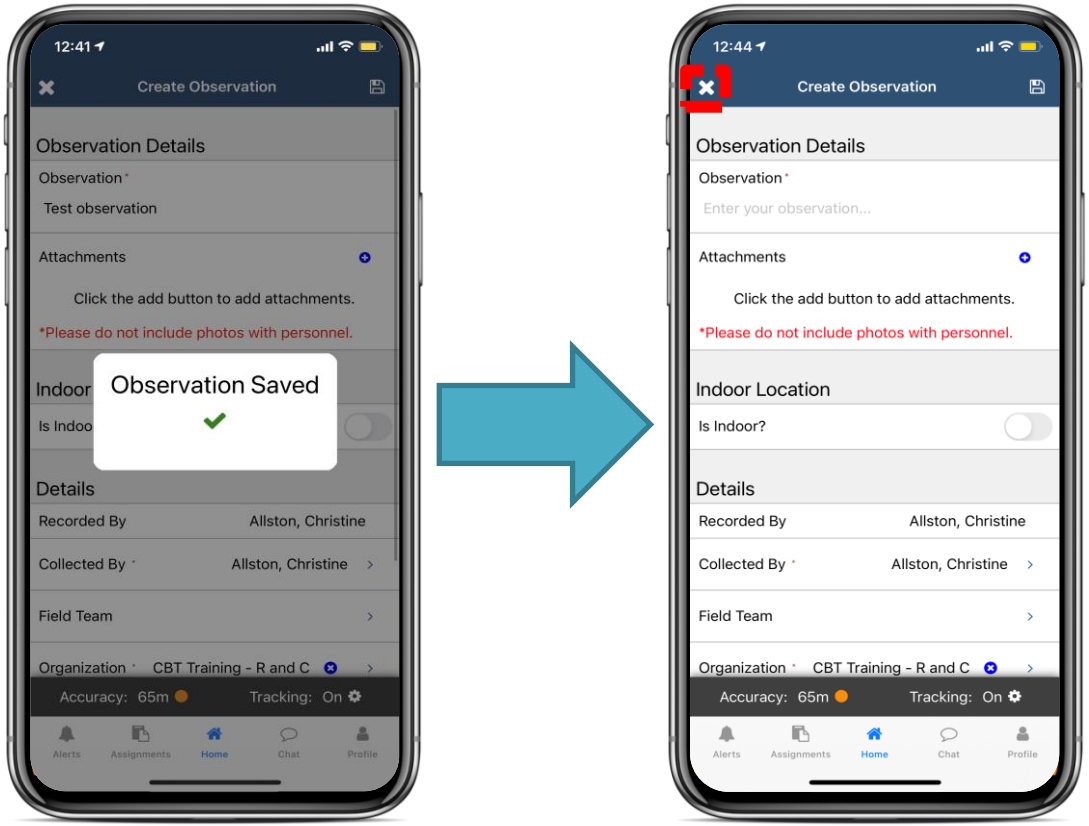
CBRNResponder Mobile Application

Save the data pointand you will receive a message letting you know your data point has been saved:



CBRNResponder Mobile Application

After you save a data point, a new, blank form of the same data type will appear to allow for quick data entry. If you do not want to submit another data point, just select the ✕

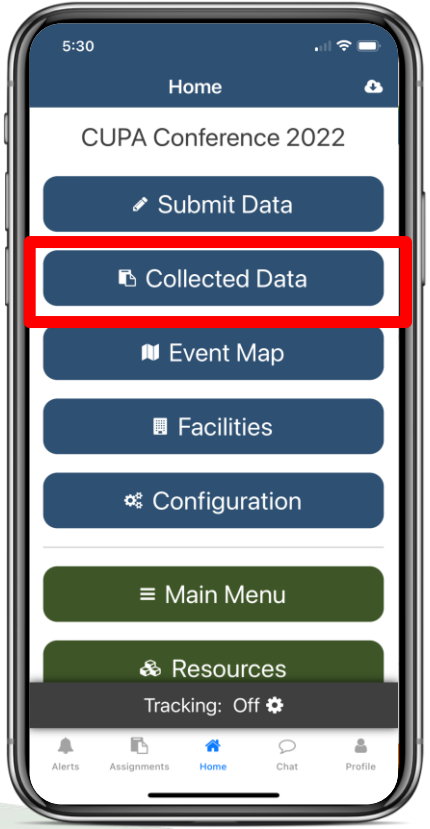


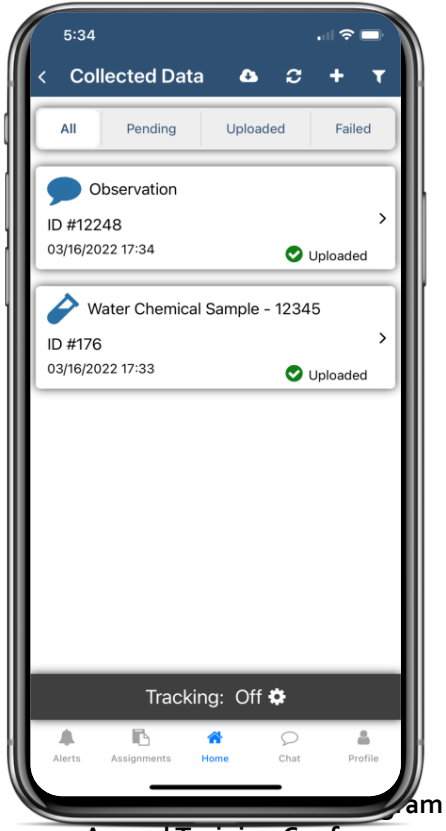
Enter data in "CUPA Conference 2022"

January-April Birthdays	May-August Birthdays	September-December Birthdays
Reading 1: • Chemical Reading • Enter a comment	**Reading 1:** • Colorimetric Reading • Paper type - PH • Enter a comment	**Reading 1:** • Chemical Reading • 8.3 uR/hr • Enter a comment
Reading 2: • Observation • Attach a photo	**Reading 2:** • Observation • Attach a photo	**Reading 2:** • Observation • Attach a photo

CBRNResponder Mobile Application

To view your collected data, select "Collected Data" from the event home screen:

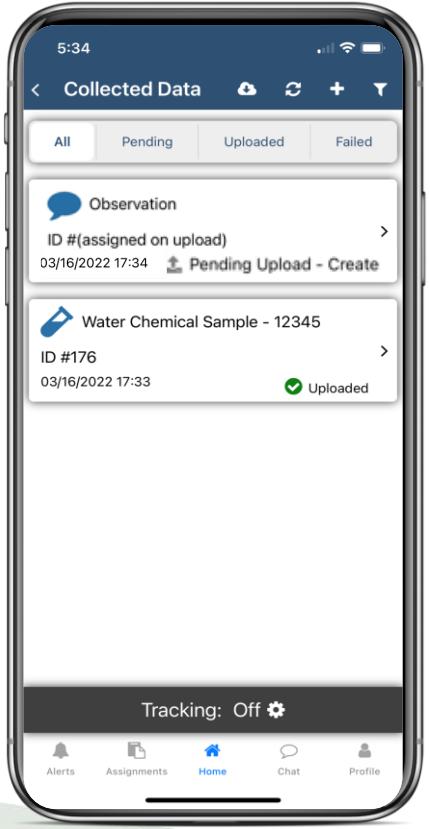


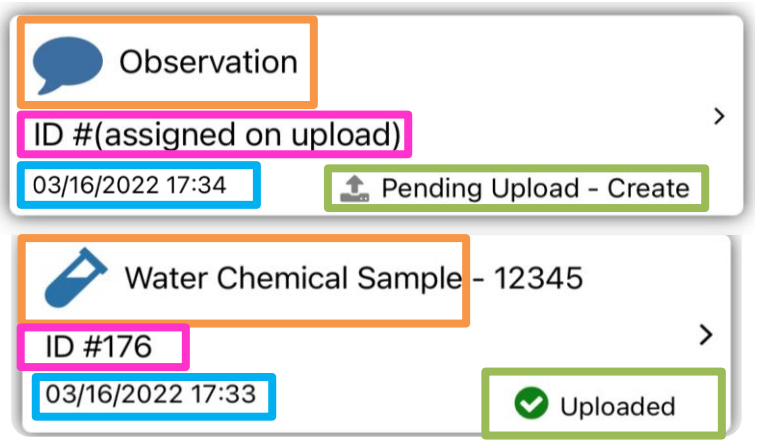


CBRNResponder Mobile Application

This list is NOT comprehensive of all event data; it only shows the data collected by YOU on this DEVICE

Next to each data point, you will see the data type, the ID #, and when it was collected. You will also see its upload status

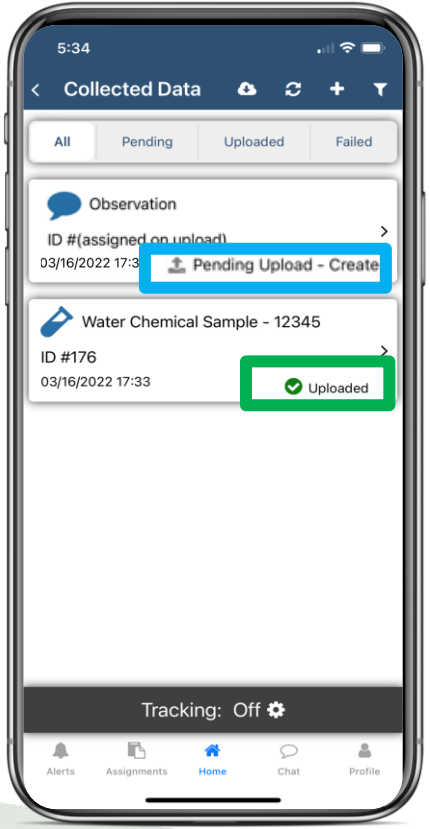




CBRNResponder Mobile Application

A gray arrow means the data point is in the **upload queue**

A green check indicates that the data has been **uploaded to the server**

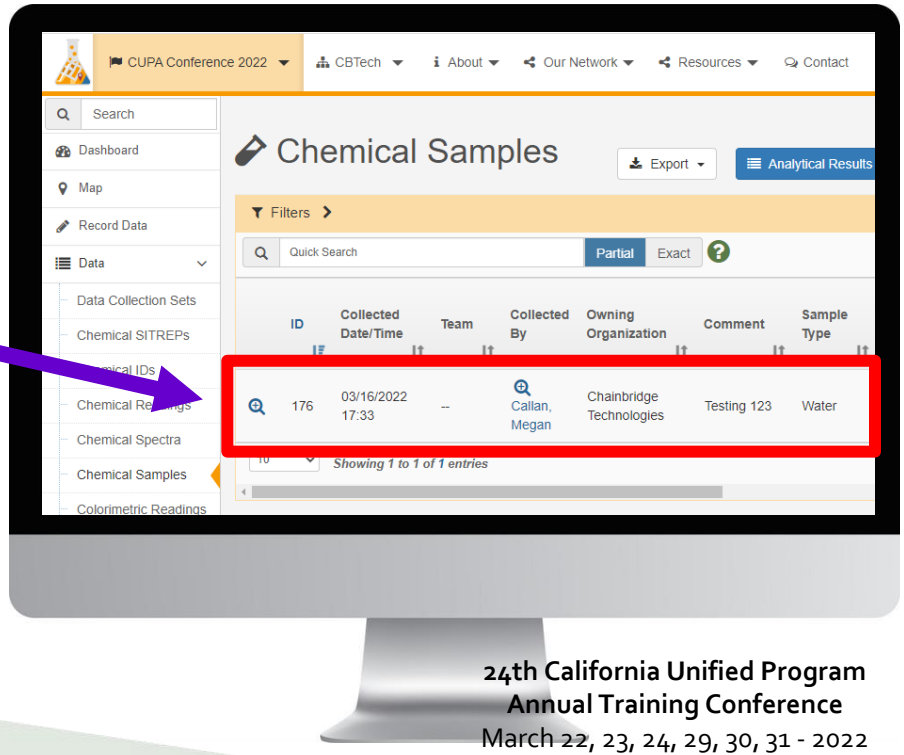


Storing data in the upload queue allows you to collect data offline!

No cell service, WiFi, or data connection is required to collect data. Once data connection is restored, your data point will be uploaded

CBRNResponder Mobile Application

Once the data has been uploaded, it is available for all event responders to see it on the website:



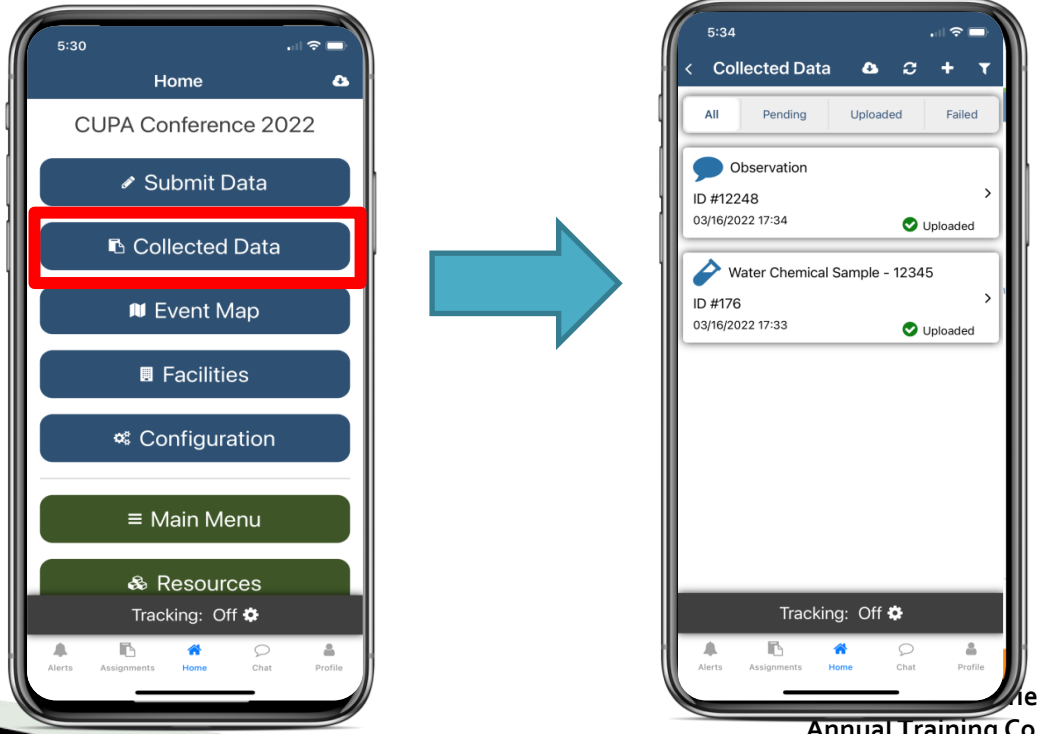
CALIFORNIA CUPA FORUM

24th California Unified Program Annual Training Conference
March 22, 23, 24, 29, 30, 31 - 2022

CBRNResponder Mobile Application

For data that **<u>you entered</u>** in CBRNResponder, you can go back to edit your data at any point if you made a mistake, wanted to add more information to the record, or wanted to delete the record:

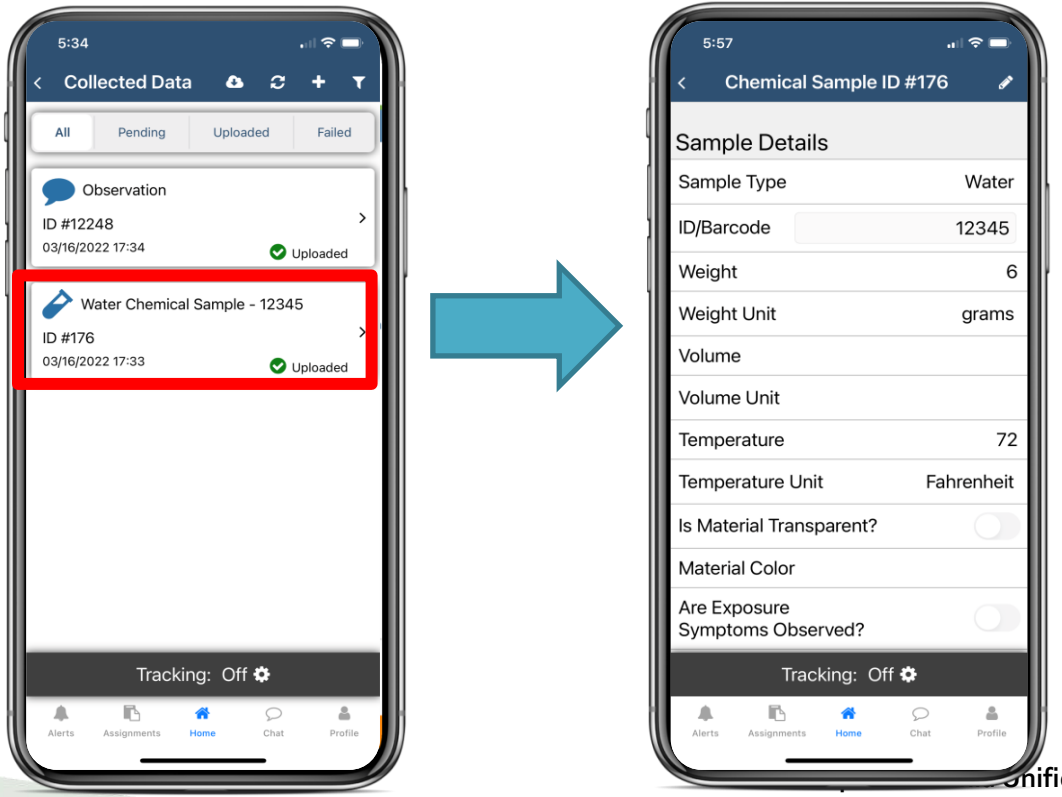
Navigate to your collected data list:



CBRNResponder Mobile Application

Select the data point you want to edit:

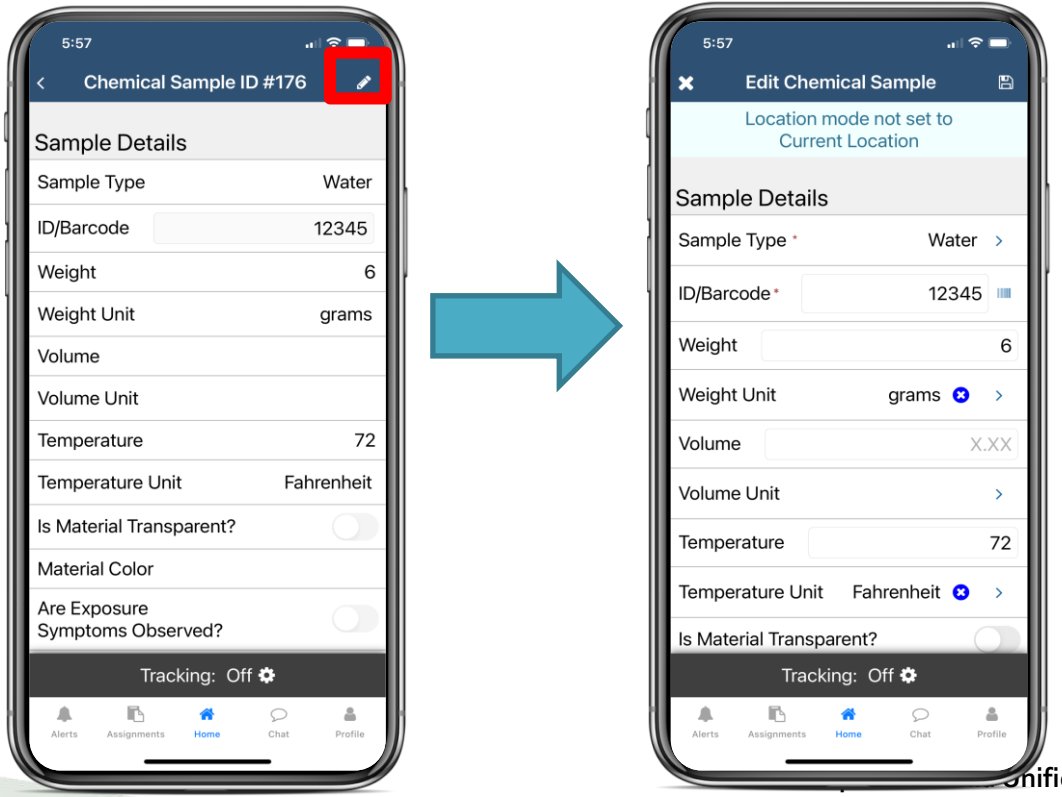
Note that you can edit a data point regardless of its upload status



CBRNResponder Mobile Application

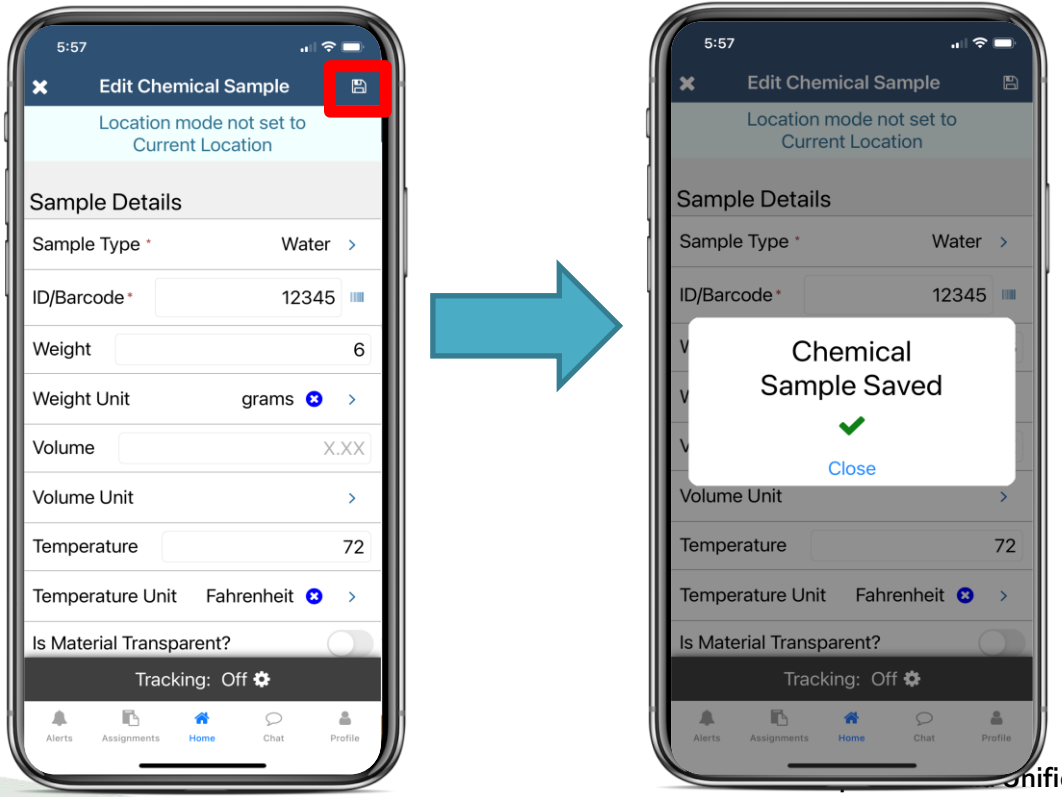
This screen allows you to view all data point details

To edit/delete the data point, tap the edit icon ✎ in the upper right-hand corner:



CBRNResponder Mobile Application

Once you are done editing the point, select the save icon:



Agenda

- [x] Introductions
- [x] ChemResponder Network Updates
- [x] CBRNResponder Mobile Application
- [ ] Managing Facility Information
- [ ] IMAAC Portal
- [ ] Data Collection Activity
- [ ] Q&A

Managing Facility Information

Facility Management

There are 3 different ways you can create facilities:

Tier II XML Format

Upload chemical storage sites in bulk using the XML Tier II Data Standard

1

Standing Facilities at the organization-level

Create Facilities that will be added to your events by default

2

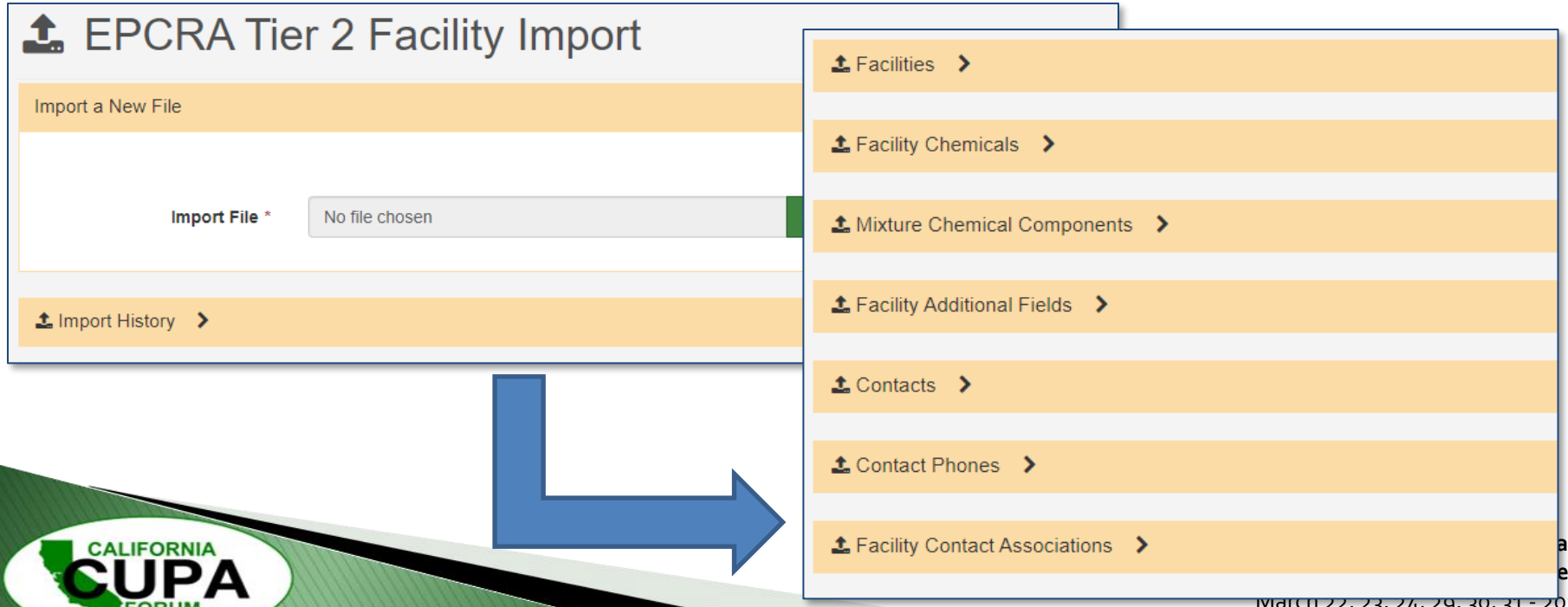
Ad-Hoc Facilities at the event-level

Create Facilities that are specific to the event you created them on

3

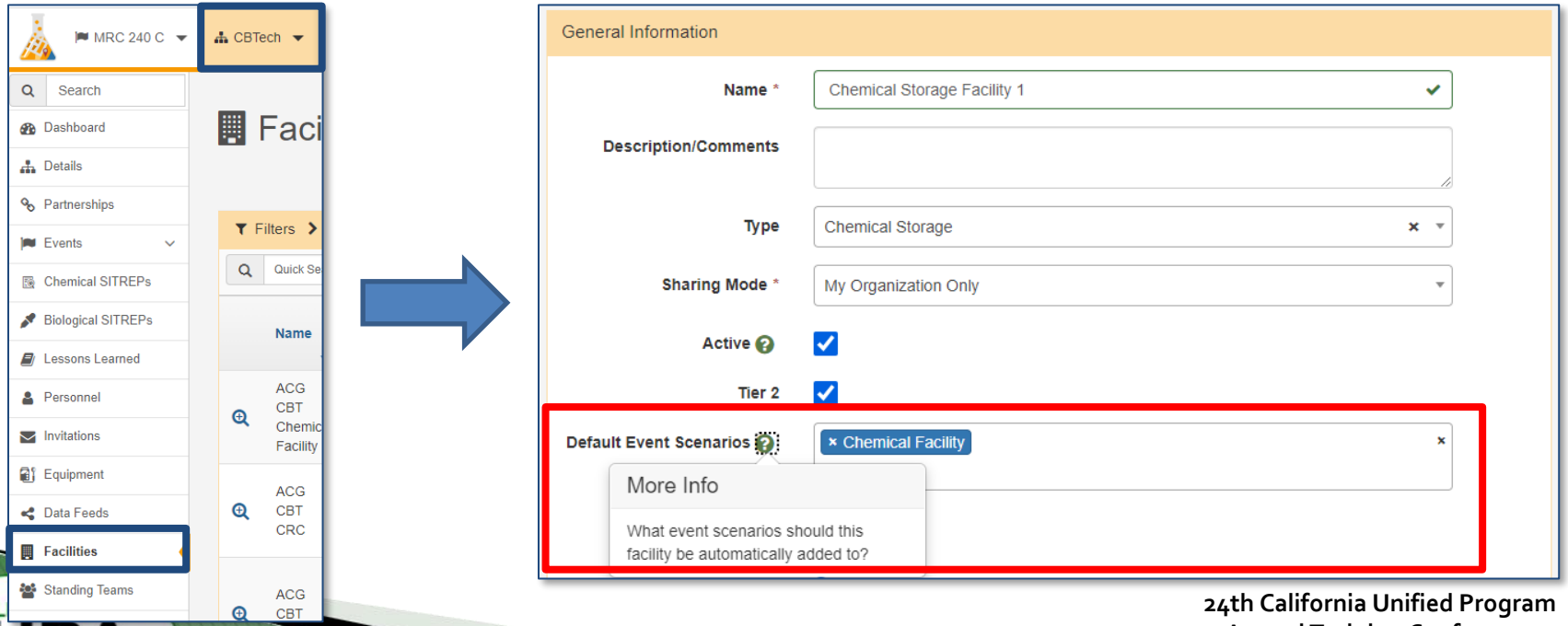
Facility Management – Tier II

The Tier 2 Facility Import allows you to enter multiple facilities with its associated information:



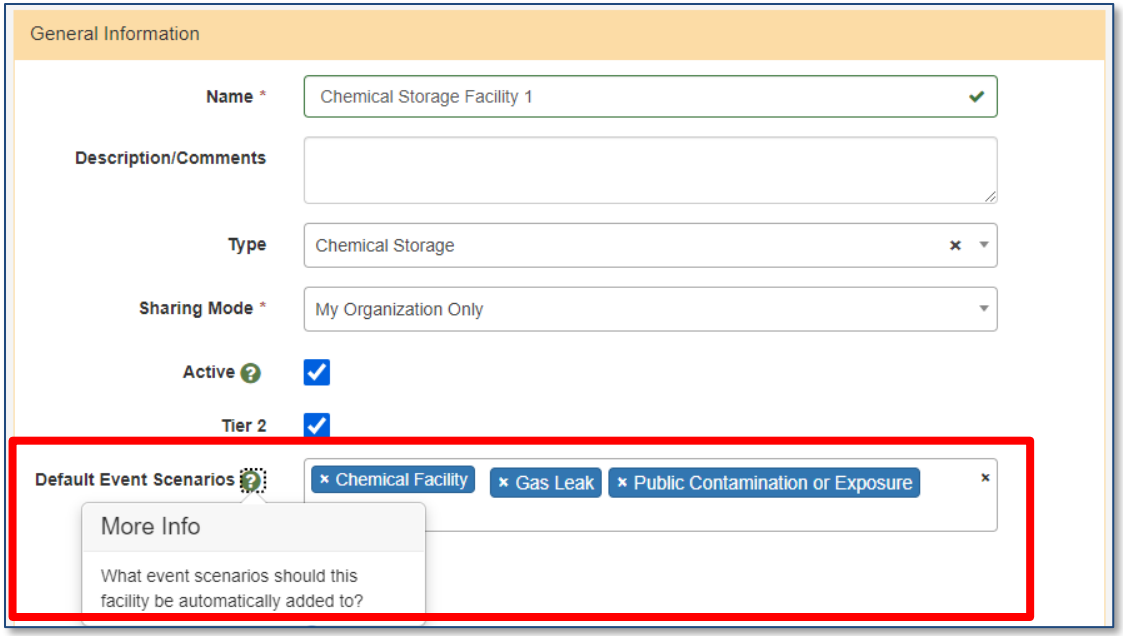
Facility Management – Standing Organization-Level Facilities

Standing-level facilities are added to events by default:



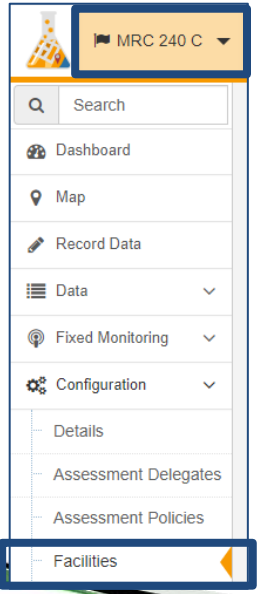
Facility Management – Standing Organization-Level Facilities

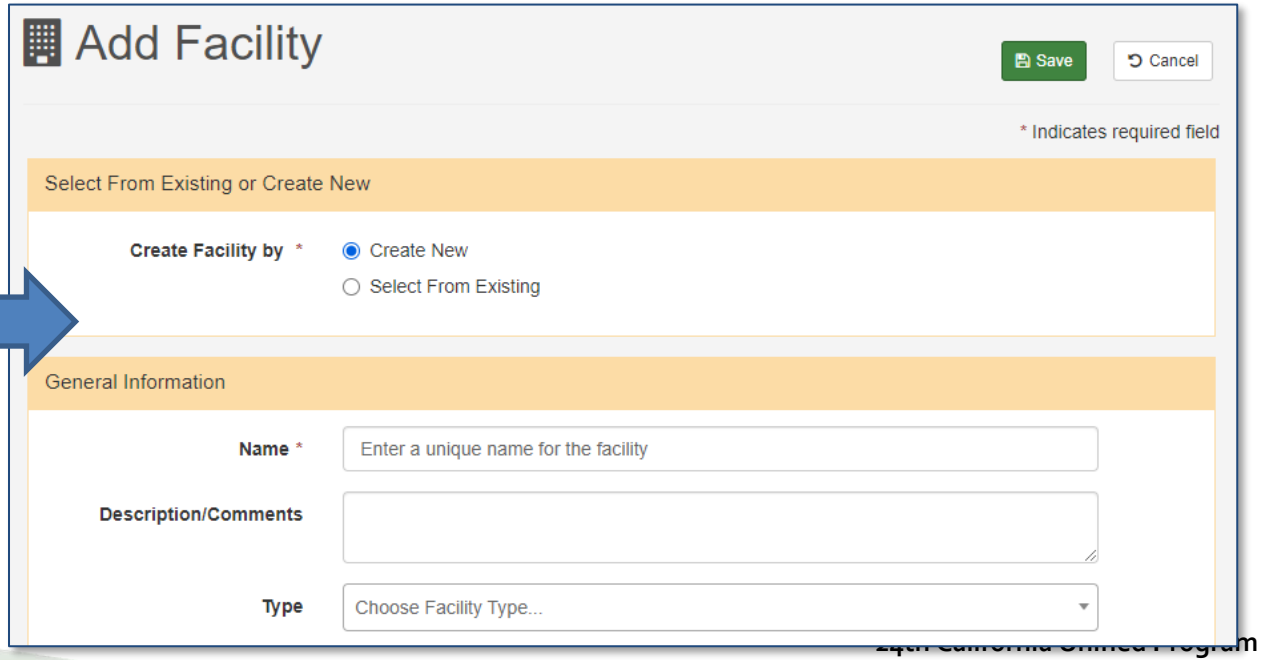
Any event that has the scenario "Chemical Facility", "Gas Leak", or "Public Contamination or Exposure" will automatically add this facility:



Facility Management – Event-Level Facilities

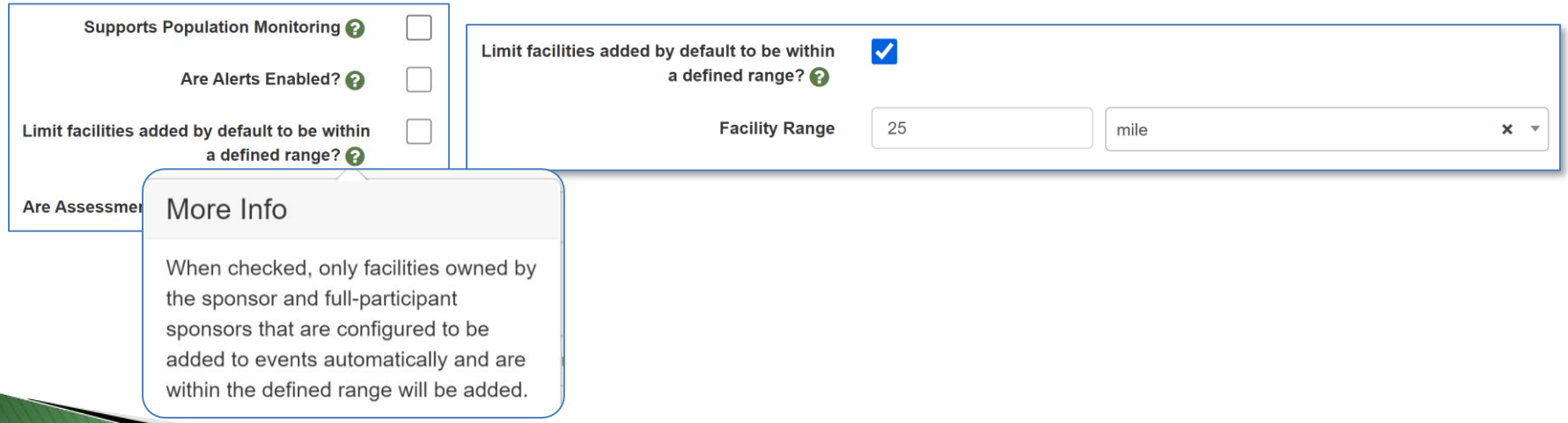
Create a new facility or select an existing facility from your organization:





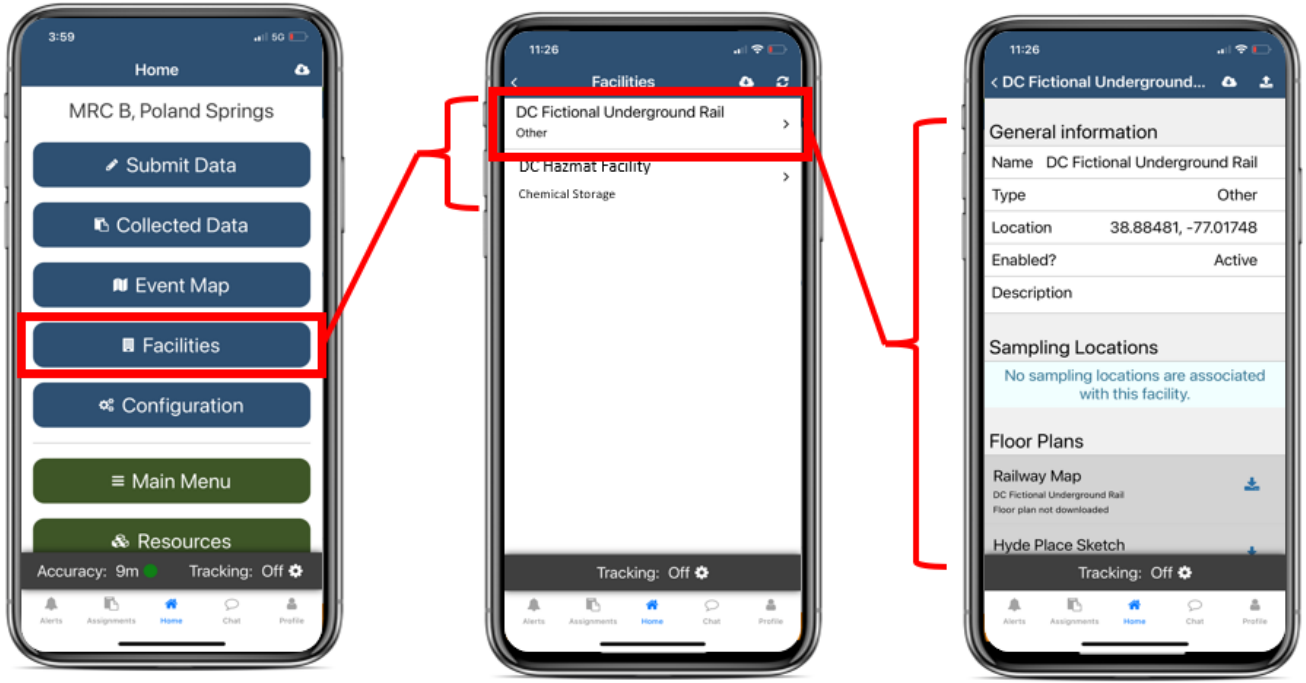
Facility Management – Event Creation Tip

As a feature request from one of the CUPA organizations, facilities can now be added/limited based on a **facility range** from the event release point :



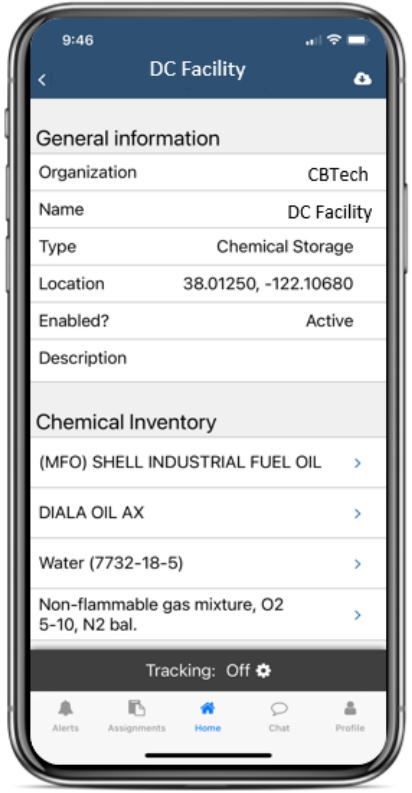
Facility Management – Mobile App

With the CBRNResponder mobile application, you can now view facility information at the touch of a button:



Facility Management – Mobile App

Chemical Storage Facility Information:

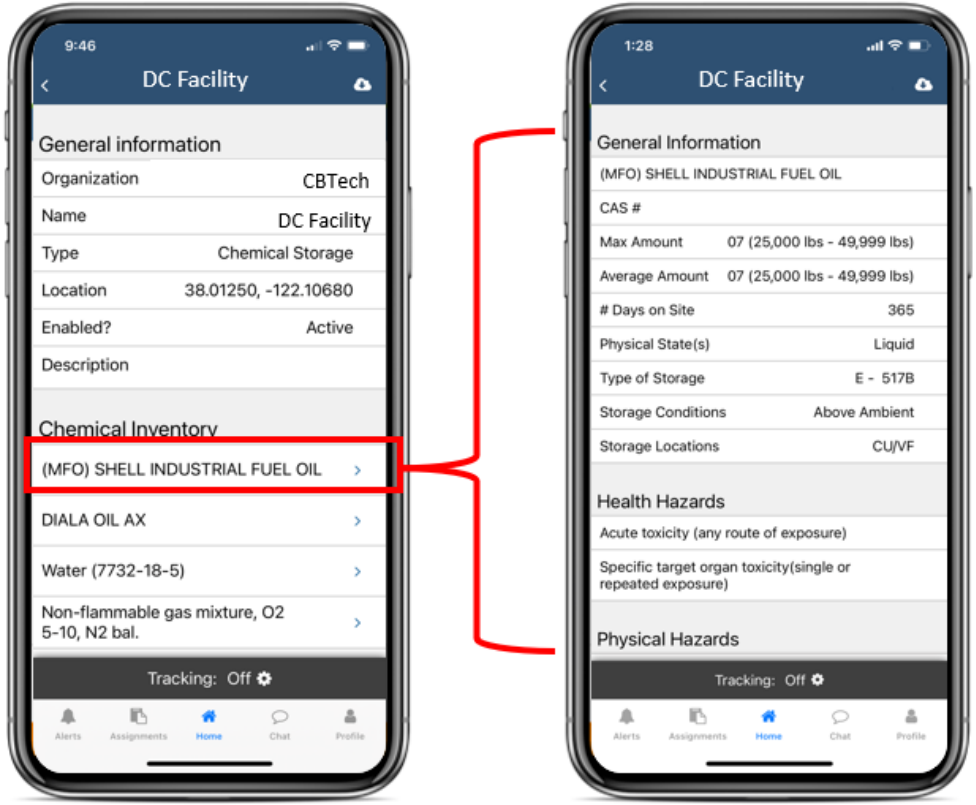


General Information about the Facility

List of Chemical Inventory

Facility Management – Mobile App

Chemical Inventory Information:



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- [ ] Data Collection Activity
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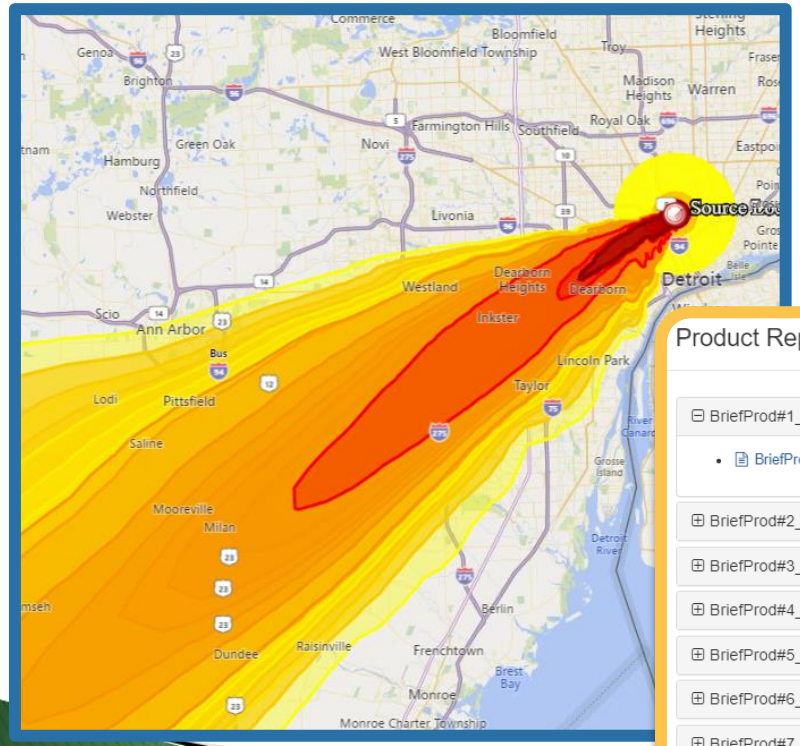
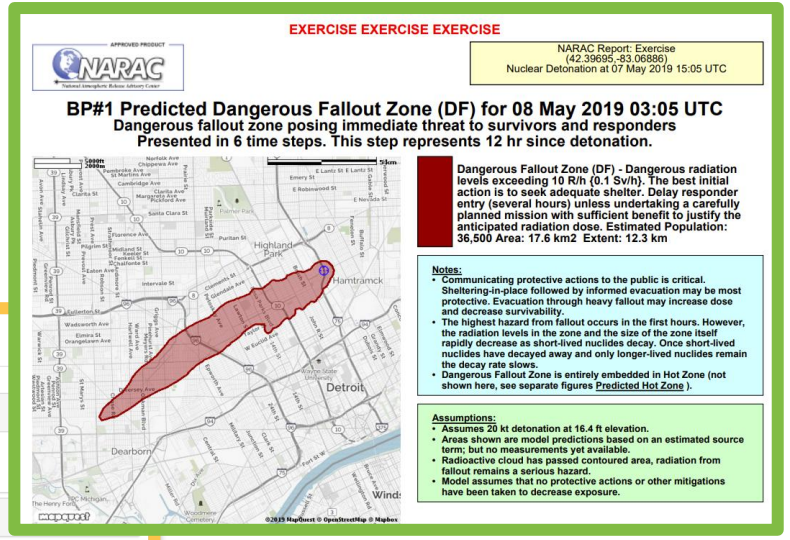
IMAAC Portal

IMAAC Portal as Part of the CBRNResponder Suite

- IMAAC is the Interagency Modeling and Atmospheric Assessment Center
- Provides a single point for the coordination and dissemination of Federal dispersion modeling and hazard prediction products that represent the Federal position during actual, or potential, incidents involving hazardous atmospheric releases
- IMAAC Portal allows any CBRNResponder user to request IMAAC models for exercises, and allows IMAAC to seamlessly push models and briefing products to users' events for exercises and/or real-world emergency events
- The IMAAC Portal was launched in September 2021

IMAAC Portal as Part of the CBRNResponder Suite





Product Reports

- ⊟ BriefProd#1_Dangerous_Fallout_Zone_TimeSeries
  - BriefProd#1_Dangerous_Fallout_Zone_TimeSeries.pdf
- ⊞ BriefProd#2_Hot_Zone_TimeSeries
- ⊞ BriefProd#3_Damage_Response_Zones_TimeSeries
- ⊞ BriefProd#4_Fallout_Casualties_TimeSeries
- ⊞ BriefProd#5_Prompt_Casualties
- ⊞ BriefProd#6_Evac_Shelter_Avoidable_Dose_TimeSeries
- ⊞ BriefProd#7_Relocation
- ⊞ Early Fallout Casualties
- ⊞ Early Phase Evac Shelter PAGs (12-108 hrs)
- ⊞ Early Phase Groundshine Dose (0.96 hrs)

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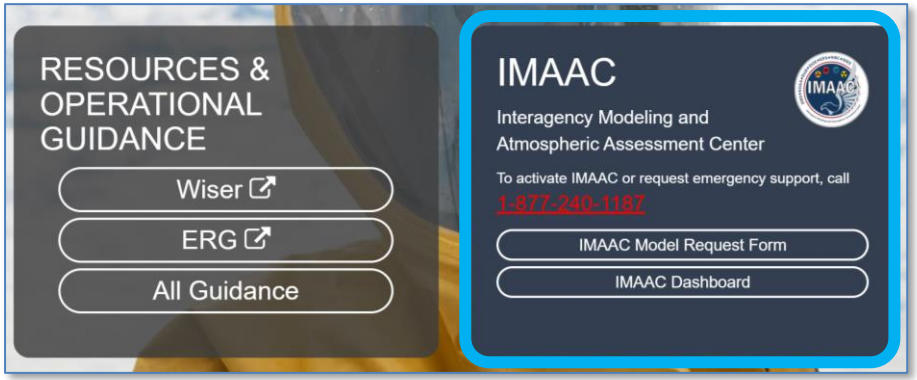
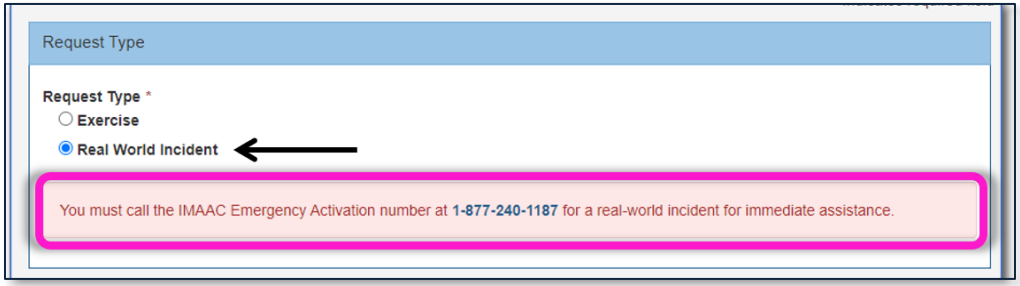
IMAAC Portal – Real World Incident

- Activate IMAAC by calling the emergency support number on the **ChemResponder Dashboard**
- To initiate a Real-World Incident model request you must call:

  1-877-240-1187

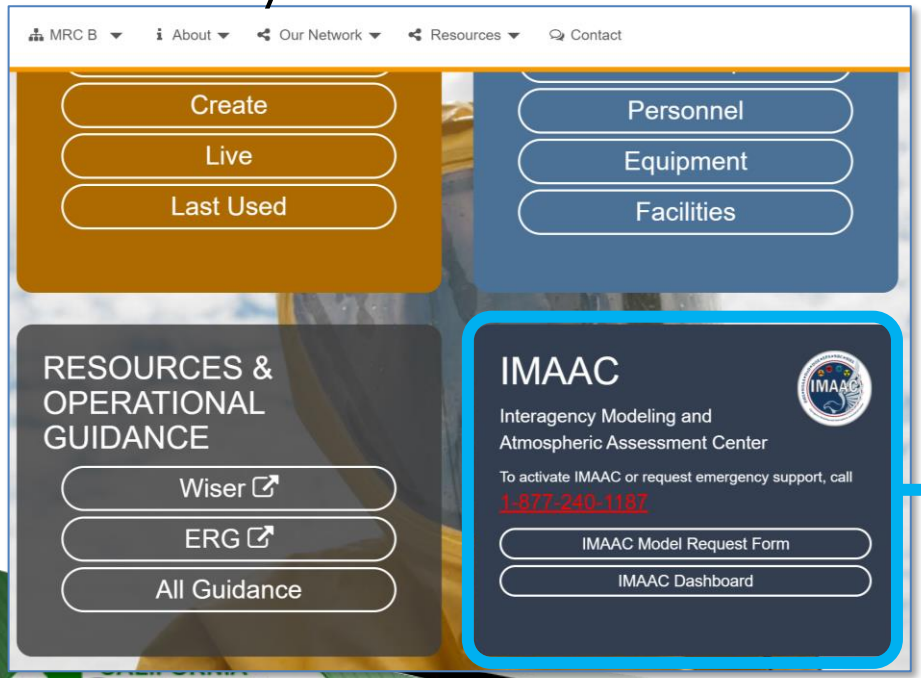
- Tell the IMAAC responder the name of your ChemResponder event to directly associate briefing products and models

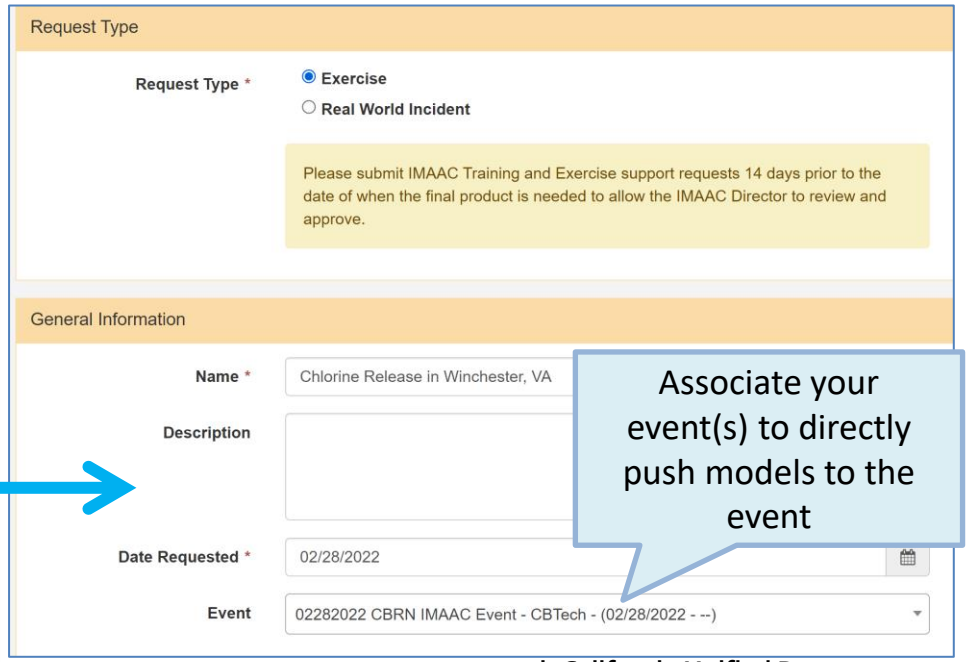




IMAAC Portal – Exercise Requests

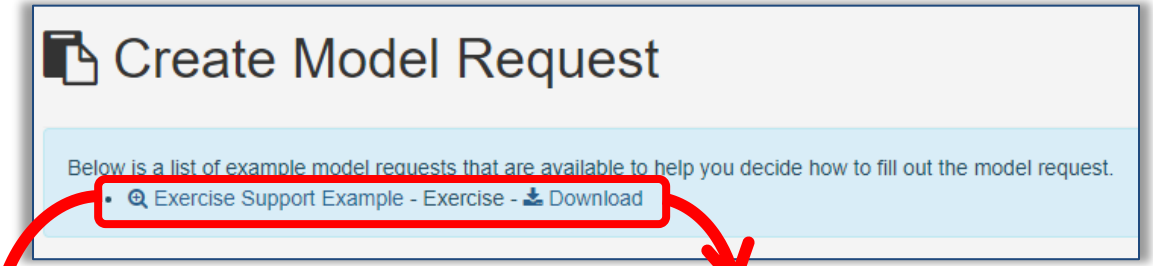
For Exercise Requests, fill out the information on the request form and associate your events:

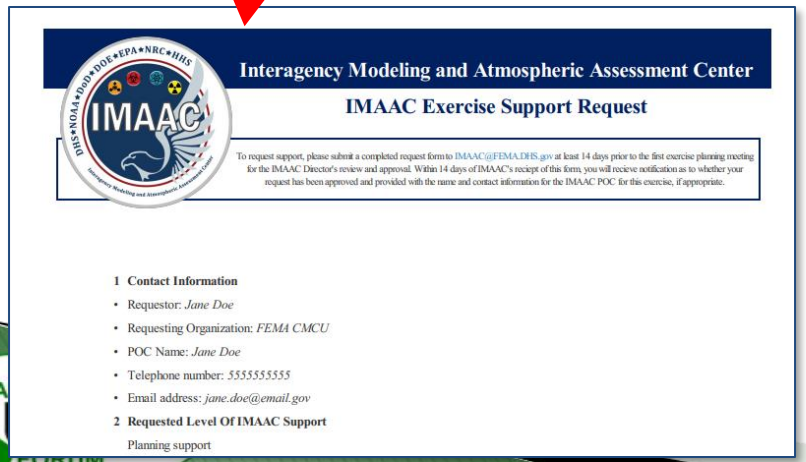




IMAAC Portal – Exercise Requests

Here, you can view an example model request form provided by IMAAC:





Interagency Modeling and Atmospheric Assessment Center

IMAAC Exercise Support Request

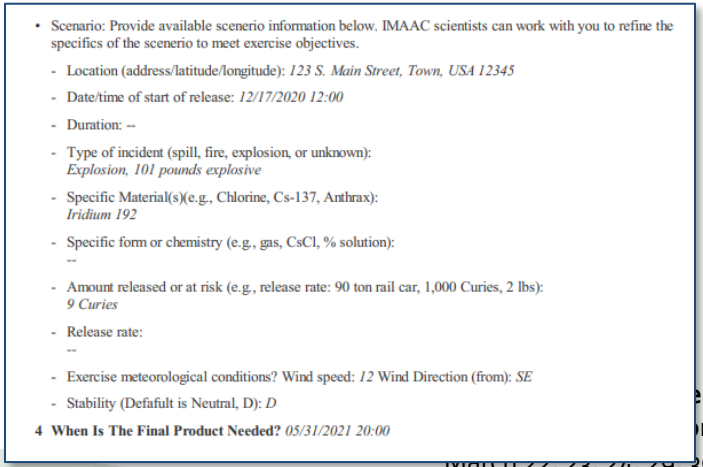
To request support, please submit a completed request form to IMAAC@FEMA.DHS.gov at least 14 days prior to the first exercise planning meeting for the IMAAC Director's review and approval. Within 14 days of IMAAC's reciept of this form, you will recieve notification as to whether your request has been approved and provided with the name and contact information for the IMAAC POC for this exercise, if appropriate.

1 Contact Information

- Requestor: *Jane Doe*
- Requesting Organization: *FEMA CMCU*
- POC Name: *Jane Doe*
- Telephone number: *5555555555*
- Email address: *jane.doe@email.gov*

2 Requested Level Of IMAAC Support

Planning support



- Scenario: Provide available scenerio information below. IMAAC scientists can work with you to refine the specifics of the scenerio to meet exercise objectives.
  - Location (address/latitude/longitude): *123 S. Main Street, Town, USA 12345*
  - Date/time of start of release: *12/17/2020 12:00*
  - Duration: --
  - Type of incident (spill, fire, explosion, or unknown): *Explosion, 101 pounds explosive*
  - Specific Material(s)(e.g., Chlorine, Cs-137, Anthrax): *Iridium 192*
  - Specific form or chemistry (e.g., gas, CsCl, % solution): --
  - Amount released or at risk (e.g., release rate: 90 ton rail car, 1,000 Curies, 2 lbs): *9 Curies*
  - Release rate: --
  - Exercise meteorological conditions? Wind speed: *12* Wind Direction (from): *SE*
  - Stability (Defaufit is Neutral, D): *D*

4 When Is The Final Product Needed? *05/31/2021 20:00*

IMAAC Portal – Exercise Requests

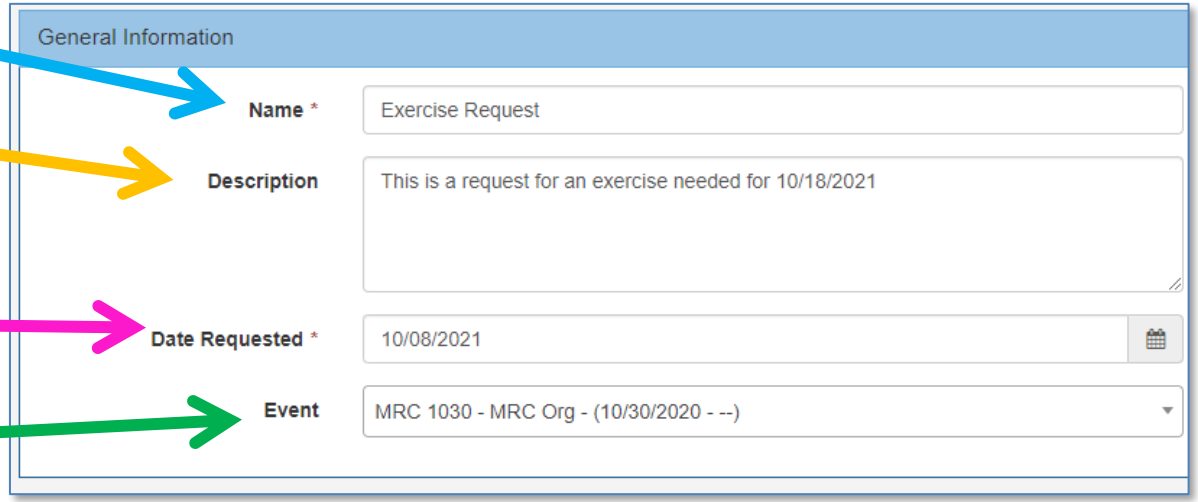
Fill out the General Information section of the form:

Name of your exercise request; i.e., "Cobalt Magnet 2022"

Enter a description of the request; optional

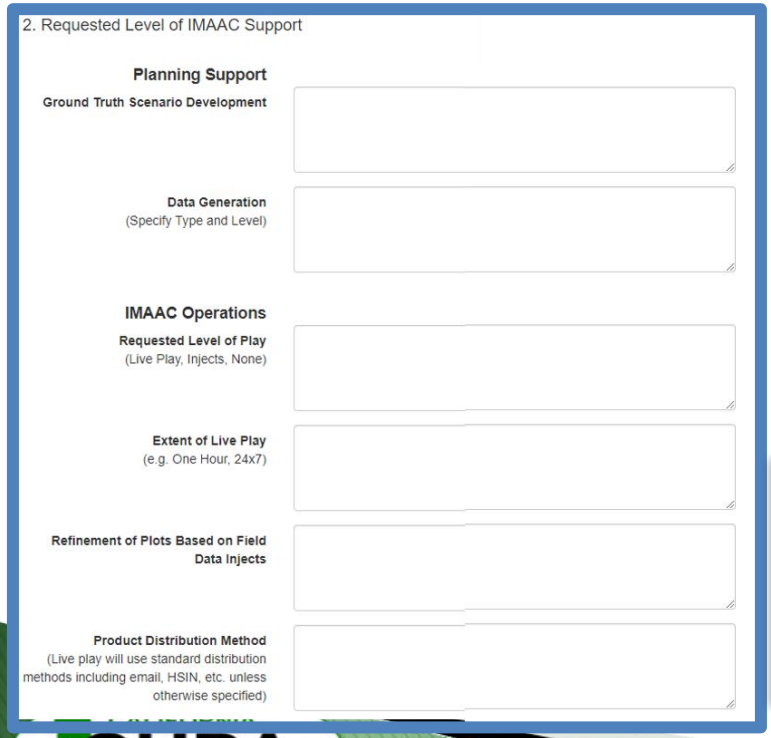
Date you submit the request; defaults to today

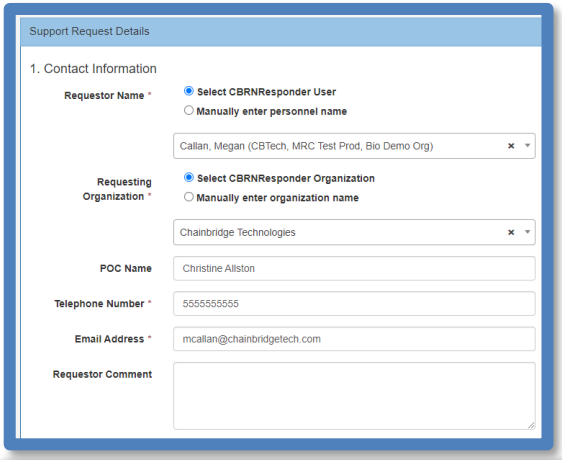
The name of the CBRNResponder event that you want the model to be pushed to

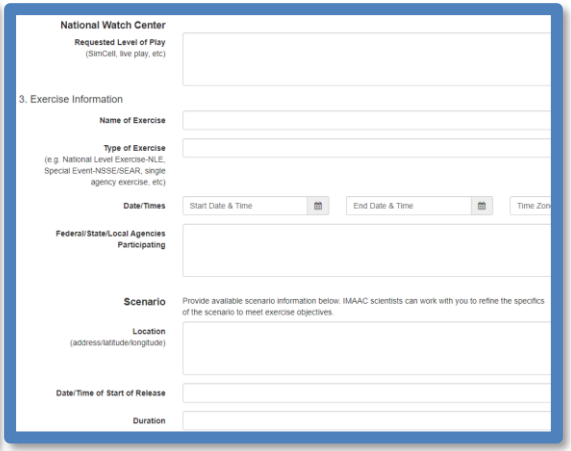


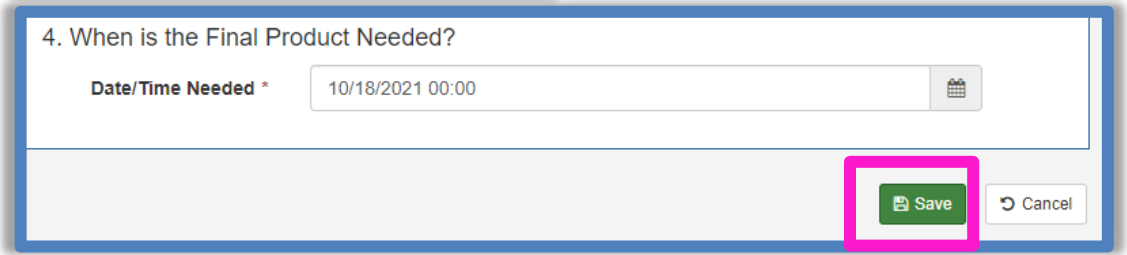
IMAAC Portal – Exercise Requests

Support Request Details:



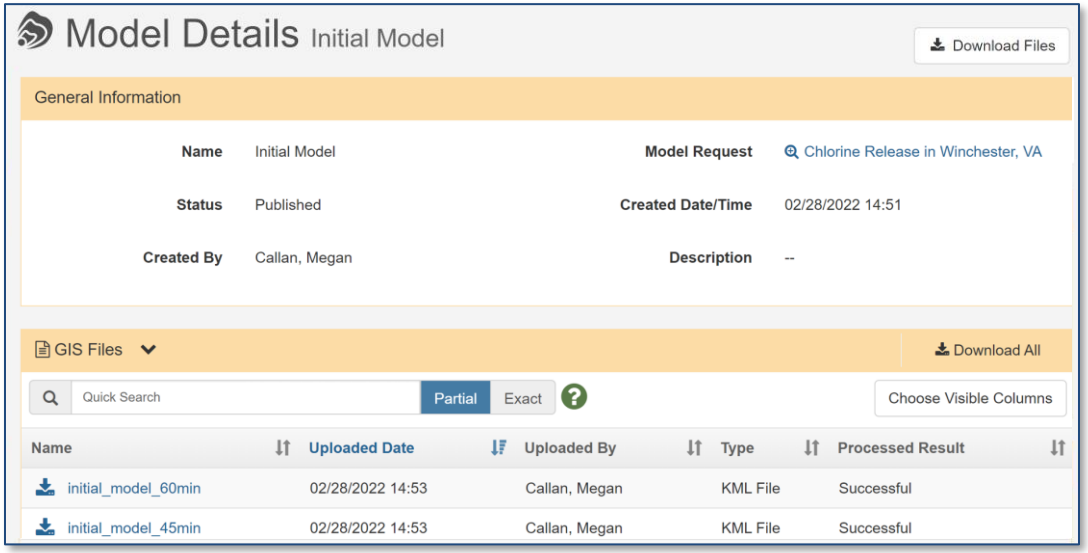


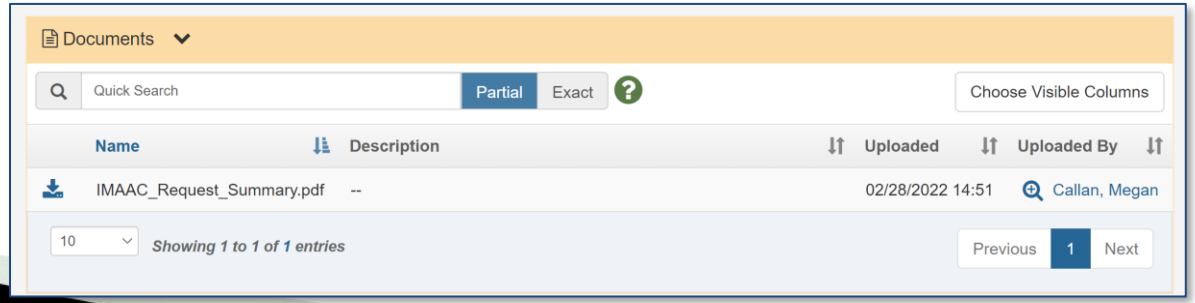




IMAAC Portal – Exercise Requests

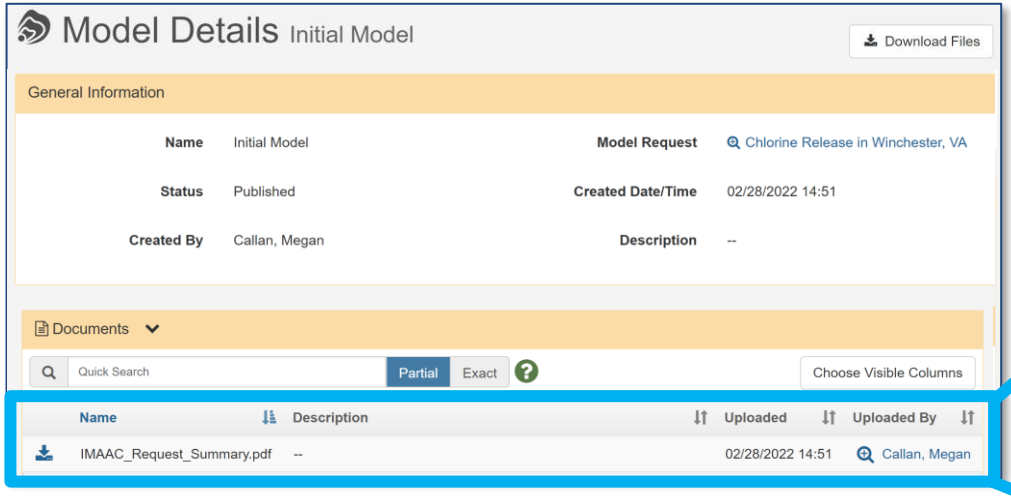
Once your request has been approved, the IMAAC office will publish modeling and briefing products to the associated request form ***and*** the event you associated with the request:

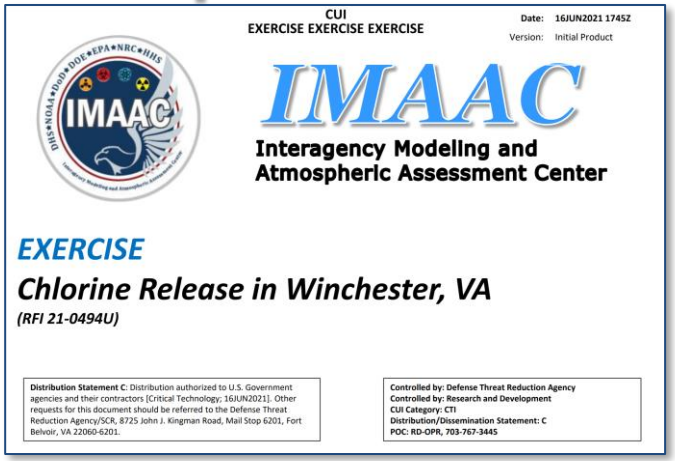


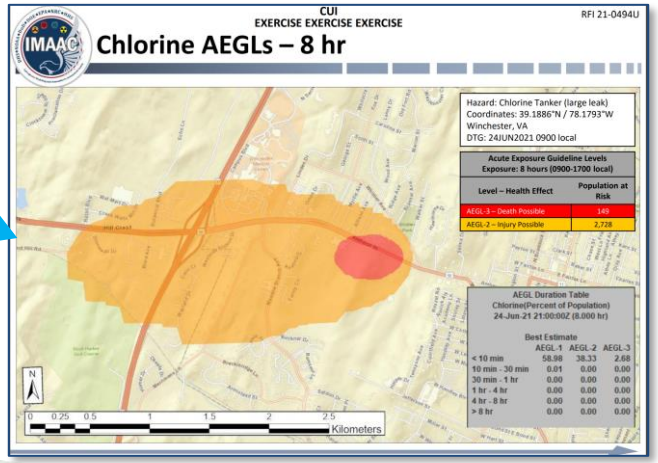


IMAAC Portal – Exercise Requests

Briefing products:







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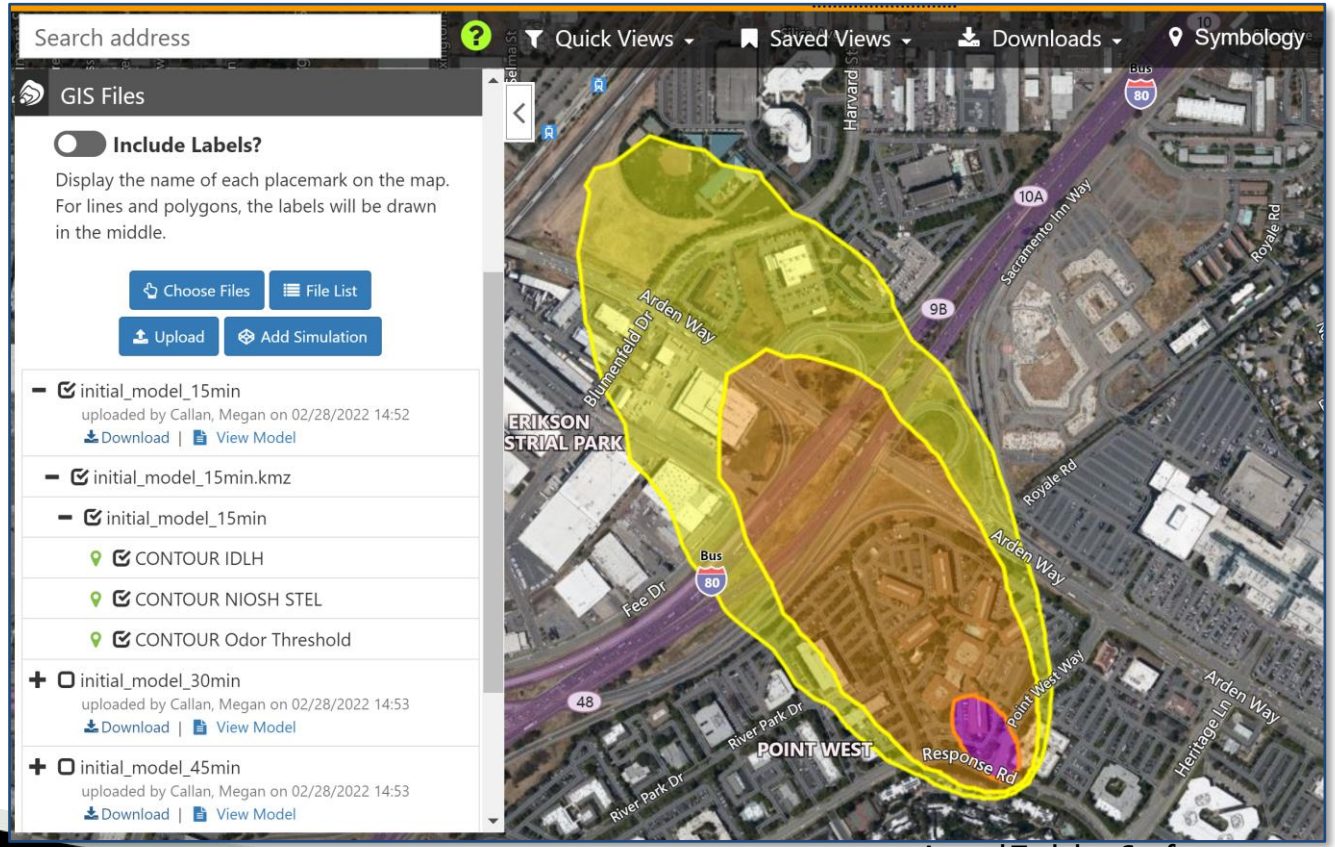
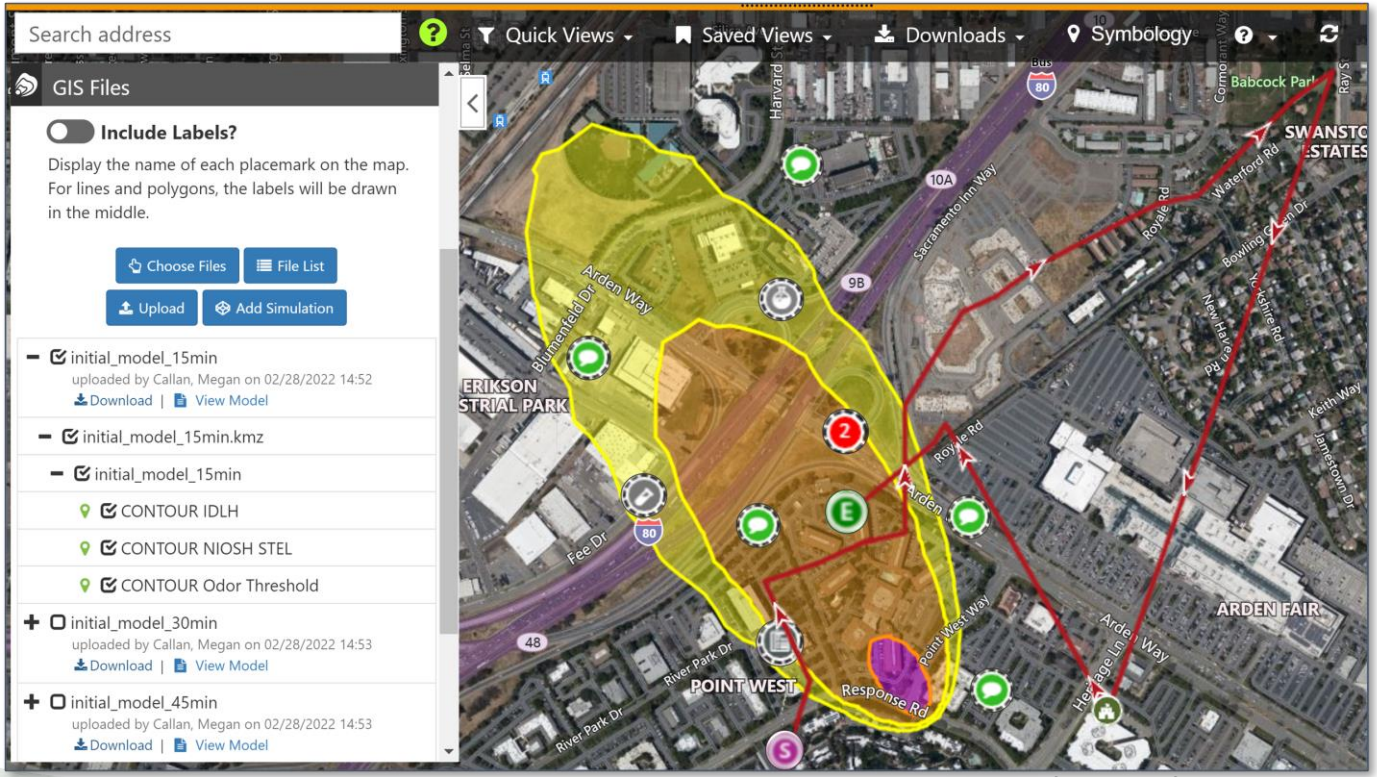
IMAAC Portal – Exercise Requests

Model files pushed directly to the event map for customized viewing:



IMAAC Portal – Exercise Requests

The IMAAC model completes the common operating picture on the event map:



Data Collection Activity

Incident

There is a fictional fire around the CUPA Refining Company chemical storage facility. An event has already been created titled, "**CUPA Conference 2022**". You are responsible for using the mobile app for situational awareness and to assist in the response.

DRILL DRILL DRILL DRILL DRILL DRILL DRILL

You have 5 minutes to walk around the area and complete your respective task(s):

Jan. – Mar. Birthdays	Apr. – Jun. Birthdays	Jul. – Sept. Birthdays	Oct. – Dec. Birthdays
Collect a Chemical Sample 1. Sample Type – Water 2. ID/Barcode – scan or manually enter	**Collect an Observation** 1. Set the location to the "CUPA Refining Company" facility	**Collect a Chemical Reading** 1. Add the chemical "Chlorine" to the record	**Collect an Observation** 1. Add an image to the record

DRILL DRILL DRILL DRILL DRILL DRILL DRILL

Event Map Live View

DRILL DRILL DRILL DRILL DRILL DRILL DRILL

CALIFORNIA CUPA FORUM

24th California Unified Program Annual Training Conference
March 22, 23, 24, 29, 30, 31 - 2022

Answer the Following Questions:

Open the "Facilities" for the CUPA Conference 2022 Event and select "CUPA Refining Company". Answer your respective question:

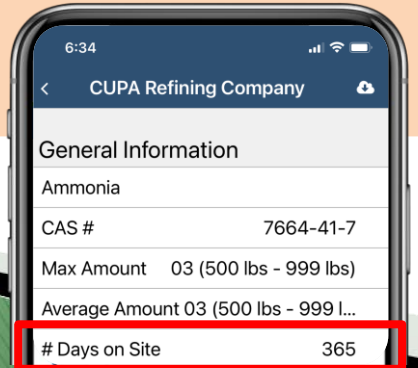
How many Chemicals are stored in the facility?	How many days has the "Ammonia" chemical been on site?	Are there any "Health Hazards" for the "Chlorine" chemical?	What is the physical state of the "Hydrogen Sulfide" chemical?

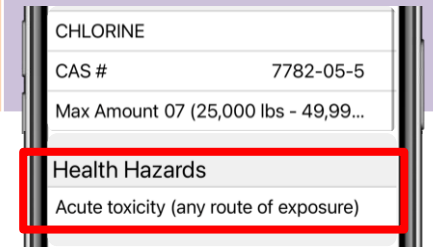
DRILL DRILL DRILL DRILL DRILL DRILL DRILL

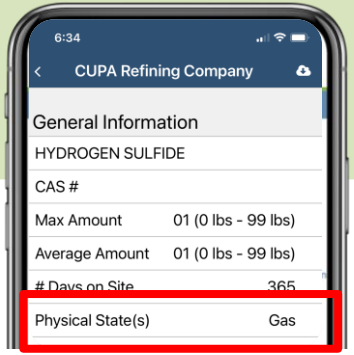
Answers:

Open the “Facilities” for the CUPA Conference 2022 Event and select “CUPA Refining Company”. Answer your respective question:

How many Chemicals are stored in the facility?	How many days has the “Ammonia” chemical been on site?	Are there any “Health Hazards” for the “Chlorine” chemical?	What is the physical state of the “Hydrogen Sulfide” chemical?
3 Chemicals: 1. Ammonia 2. Chlorine 3. Hydrogen Sulfide	**365 Days**	**Yes (1); Acute Toxicity**	**Gas**





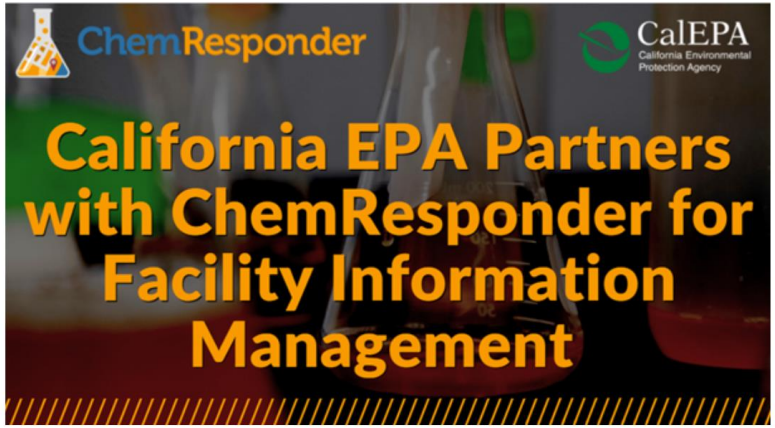


CALIFORNIA CUPA FORUM

Agenda

- [x] Introductions
- [x] ChemResponder Network Updates
- [x] CBRNResponder Mobile Application
- [x] Managing Facility Information
- [x] IMAAC Portal
- [x] Data Collection Activity
- [ ] Q&A

California EPA Partners with ChemResponder for Facility Information Management



The California Environmental Protection Agency (CalEPA) is exploring how ChemResponder can help close the information gap between the state's chemical facility information collection system and first responders at the ground level. The agency has initiated a pilot program to investigate whether ChemResponder can add to the arsenal of data tools the state's emergency responders can rely on when responding to chemical facility incidents and support statewide planning efforts.

Read More

Any Questions?

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callston@chainbridgetech.com, 703-424-4632