Quick Guide to

SenseNet's Prediction, Detection, and Management Platform

Prepared by

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Contents

I. Introduction to SenseNet

1. Welcome to SenseNet

SenseNet is an advanced wildfire intelligence platform built to predict, detect, and manage wildfires before they become disasters. Using cutting-edge technology, including AI-powered cameras, environmental sensors, satellite imagery, and advanced modeling, SenseNet delivers ultra-early fire detection, accurate risk assessment, and real-time alerts.

Our system empowers municipalities, utilities, railways, industrial operations, and emergency services to protect lives, infrastructure, and ecosystems. With SenseNet, you get a comprehensive solution that works 24/7, day and night, in all weather conditions.

2. What This Guide Covers

This Quick Guide provides essential steps to help you get started and use SenseNet effectively. You'll learn how to:

- Access the platform and set up your account
- Manage incidents and generate reports
- Monitor wildfire activity in real time
- Use and interpret satellite data
- Manage users and control access

Each section is designed to help you navigate the platform easily and make the most of its features for your specific needs.

3. Contact Information

SenseNet Inc.

Website: www.sensenet.ca

Email: support@sensenet.ca

Phone: +1 (888) 302-6005

For Security Issues, Technical Inquiries, User Management, Reports, or Fire Spread Analysis:

Shahab Bahrami, CTO

Email: shahab@sensenet.ca

For Subscriptions, Billing, or Payments:

Hamed Noori

Email: hamed@sensenet.ca

Thank you for choosing SenseNet. We're committed to helping you stay ahead of wildfire threats and protect what matters most. If you have any questions or need support, don't hesitate to reach out. we're here to help.

II. Access the Platform and Manage Your Account

1. Sign In

To access the SenseCore platform and begin managing your wildfire detection and management solution, follow these simple steps to log in:

1. **Open your web browser**: Launch your preferred web browser on your computer, tablet, or mobile device.
2. **Enter the URL:** In the address bar of your web browser, type in the following URL: https://wildfires.app/login
3. **Enter your credentials:** Input your registered username and password into the respective fields.
4. **Read and accept our "Terms of Use":** Once you've read our Terms of Use, select the box beside "Accept Terms of Use".

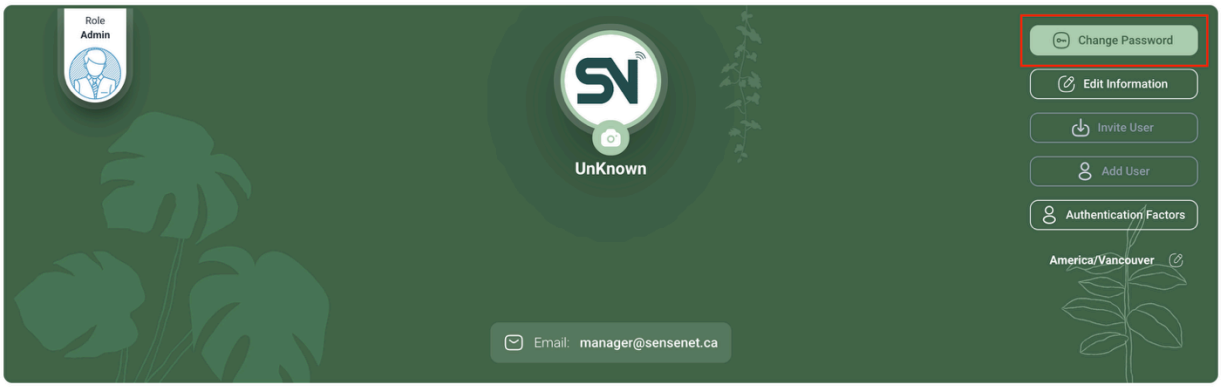
   NOTE: You will not be able to access the platform unless the Terms of Use are accepted.
5. **Click "Sign In":** After entering your SenseCore Enterprise credentials, click the "Sign In" button to proceed.
6. **Navigate the dashboard:** Once logged in, you will be directed to the SenseCore dashboard, where you can access the various features and functionalities of the platform.

Please note that to access the SenseCore platform, you must have valid login credentials provided by the SenseNet team or by being invited by your admin organization. You cannot create your own account. If you encounter any login issues or need further assistance, contact our dedicated support team.

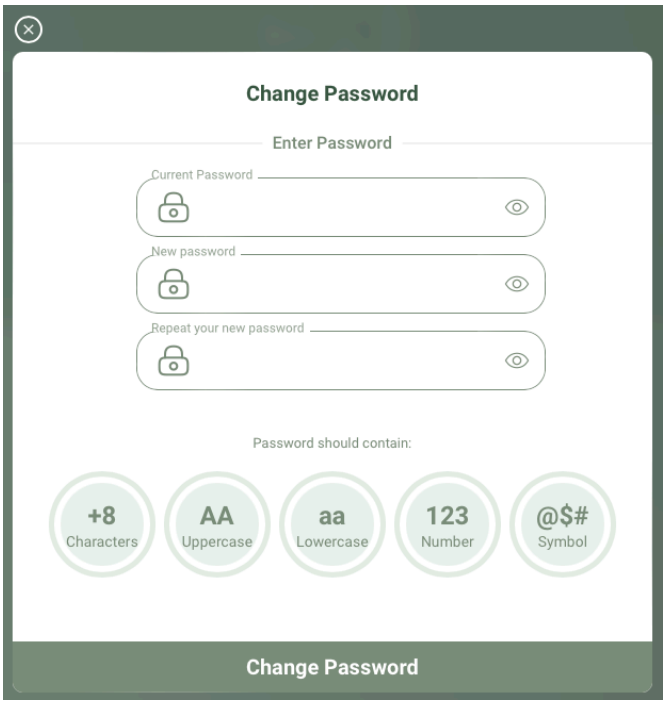
2. Change Password

To change your password once you are logged in, follow these steps:

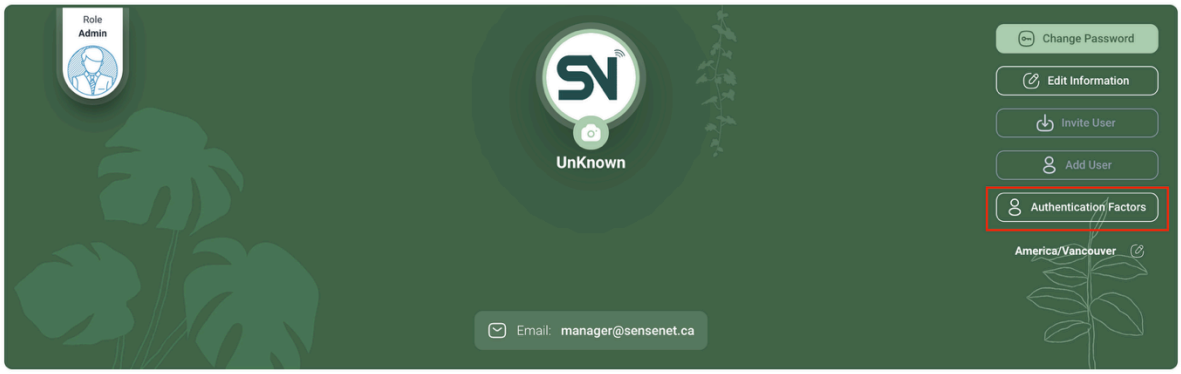
1. Open the navigation toolbar: Click the arrow beside your photo icon on the top left of your screen.
2. Select the "Users" tab: Located at the bottom of the popout menu.
3. Click on "Change Password



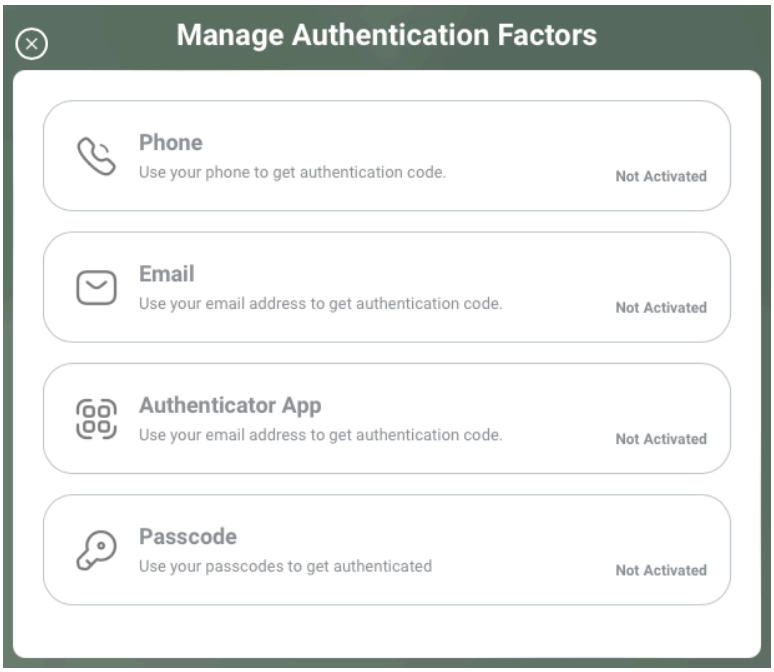
4. Create your new password: You need to know your current password to change to a new one.



While you are on the "Users" page, you are also able to set up multifactor authentication (select "Authentication Factors" located below "Change Password").



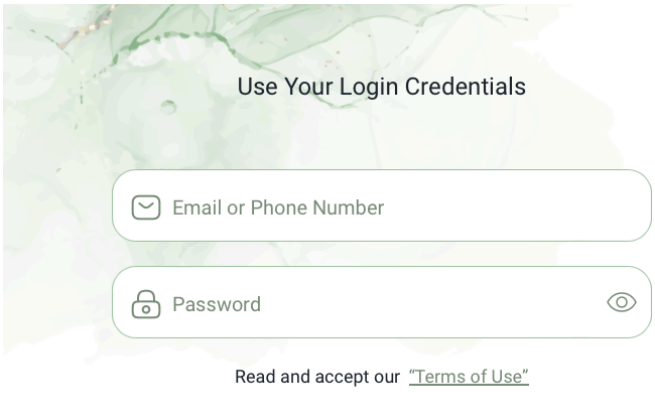
Here, you can choose how you would like to receive authentication codes.



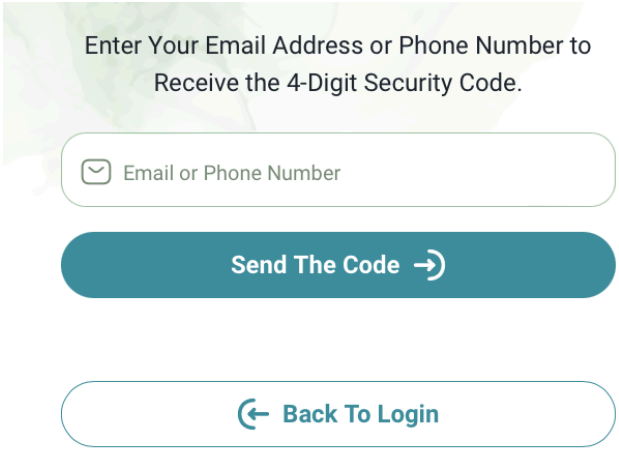
3. Forgot Password

If you have forgotten your password, follow these steps:

1. **Select "Forgot Your Password":** Found on the sign-in page.



2. **Enter the email address or phone number associated with the account:** If you no longer have access to the email or phone number, contact our support team.
3. **Enter verification code:** A 4-digit security code will be sent to the email/phone number entered. If you do not receive a code, select "Resend Verification Code".
4. **Create a new password:** Passwords should include 8 characters, lowercase and uppercase letters, numbers, and symbols.

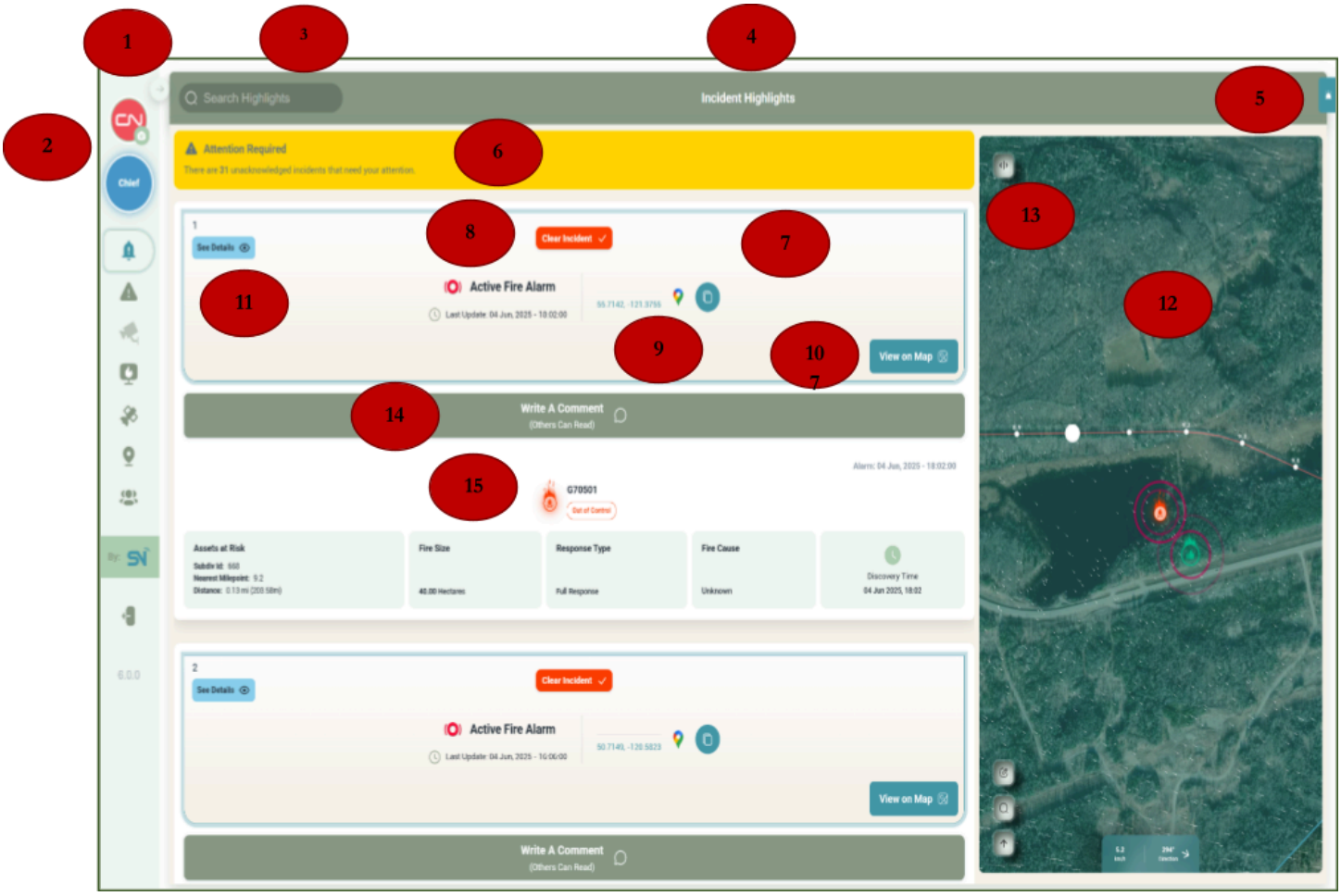


III. Review and Manage Incidents

1. Incident Highlights

The Incident Highlights page provides a quick summary of all active wildfire incidents detected in your area of coverage—such as within a 10 km buffer zone around railway tracks. This page is designed to give you an at-a-glance overview of critical events so you can act quickly and effectively.

The figure below shows the main parts of the Incident Highlights page. Each numbered item is explained in detail to help you understand how to use the interface:



1. **Main Menu** – Located on the left, this is where you navigate through the platform.
2. **Profile & Role** – Your logo or profile picture appears here, along with your user role (Chief, Manager, Observer). Click the arrow at the top-right of photo to expand or collapse the menu.
3. **Incident Search Bar** – Type an incident name or part of it (e.g., "705") to search for specific incidents (e.g., "G70501").
4. **Page Title** – Displays the current page title, such as *Incident Highlights*.
5. **System Alarms & Warnings** – Shows alerts generated by the system for active incidents.
6. **Incident Review Count** – Indicates how many incidents require your attention.
7. **Incident Summary Box** – Contains key information for each incident such as name, location, and type.
8. **Clear Incident** – Clicking this lets you mark the incident as reviewed. It will be removed from Incident Highlights for your organization but will remain visible on the wildfire monitoring map.
9. **Incident Location Tools** – Click the Google Maps icon to view the location on Google Maps or copy the coordinates using the blue icon.
10. **View on Map** – Instantly centers the platform map on the selected incident.
11. **Go to Incident Management** – Opens the detailed incident page. Only use this if you're ready to manage that specific incident.
12. **Interactive Map Panel** – Displays incidents, nearby railway tracks, installed cameras and sensors, wind direction, and fire spread analysis. You can also measure distances and click on railway milepoints for more information.
13. **Expand Map View** – Makes the map area wider for better viewing.
14. **Add Comments & Media** – Share insights, photos, or videos related to the incident for other users in your organization.

15. **Detailed Incident Info** – Provides additional data such as fire size, time of detection, possible cause, nearest milepoint, and at-risk assets.

2. How to Measure Distance

The **distance measurement tool** helps you quickly calculate the distance between two or more points on the map. This is useful for understanding how close a wildfire is to critical infrastructure such as railway tracks, cameras, or sensor nodes. To use the measurement tool:

1. **Activate the Tool** – On the **left side of the map**, click the icon labeled **1** to enable the distance measurement tool. Once activated, you can start selecting points on the map.
2. **Select Points** – Click on two or more points anywhere on the map. The platform will automatically calculate and display the total distance between them.
3. **Delete a Single Point** – If you want to remove a specific point, click on the **red recycling bin icon** shown next to that point (labeled **2**).
4. **Clear All Points** – To delete the entire measurement path and start over, click the **top recycling icon** on the map, labeled **3**.

Use this tool to estimate fire spread proximity, response range, or asset vulnerability with just a few clicks.

3. How to Write a Comment for an Incident

The **comment tool** allows you to share updates and important information about a specific incident with other users in your organization. This is especially useful if you are on-site or have new insights, photos, or videos to report.

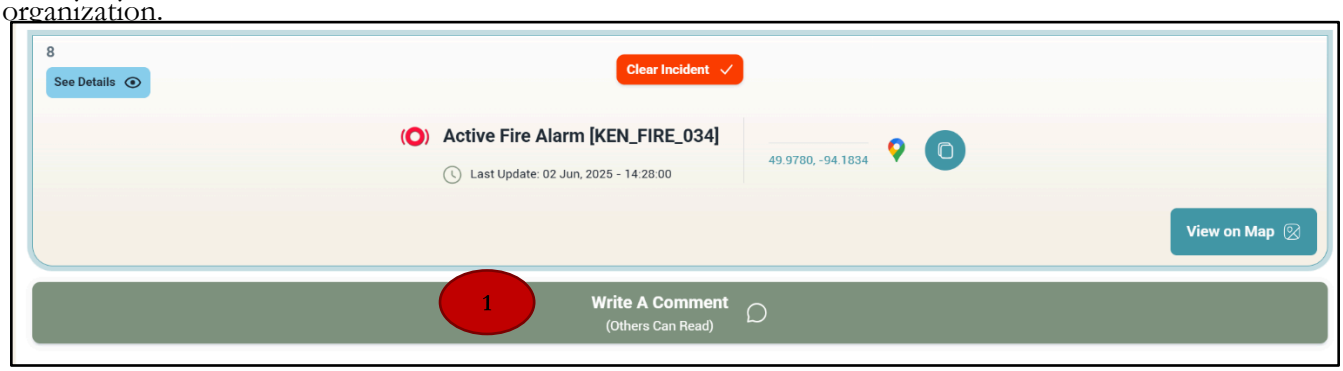
For example, you might want to inform others about:

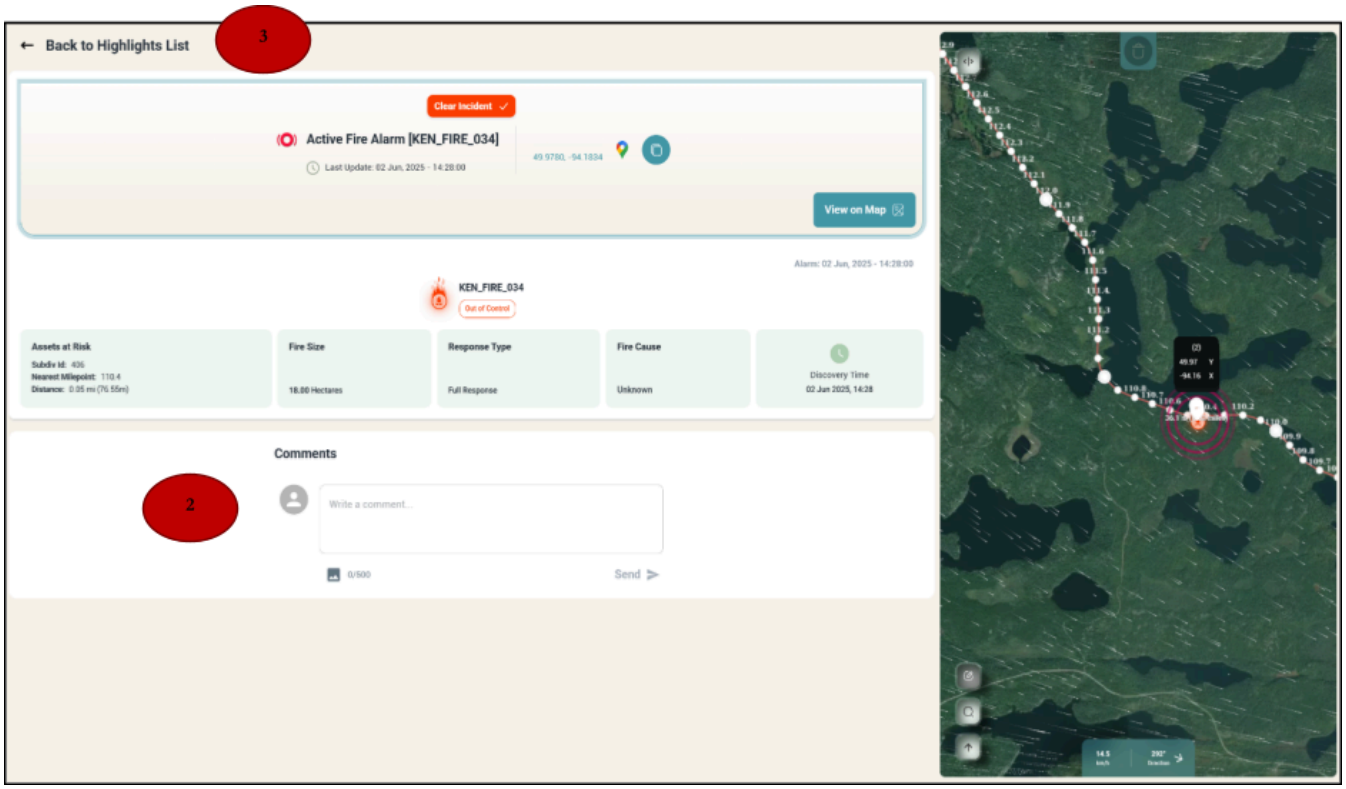
- The current fire size
- Photos from the site
- Nearby assets at risk
- Changes in conditions

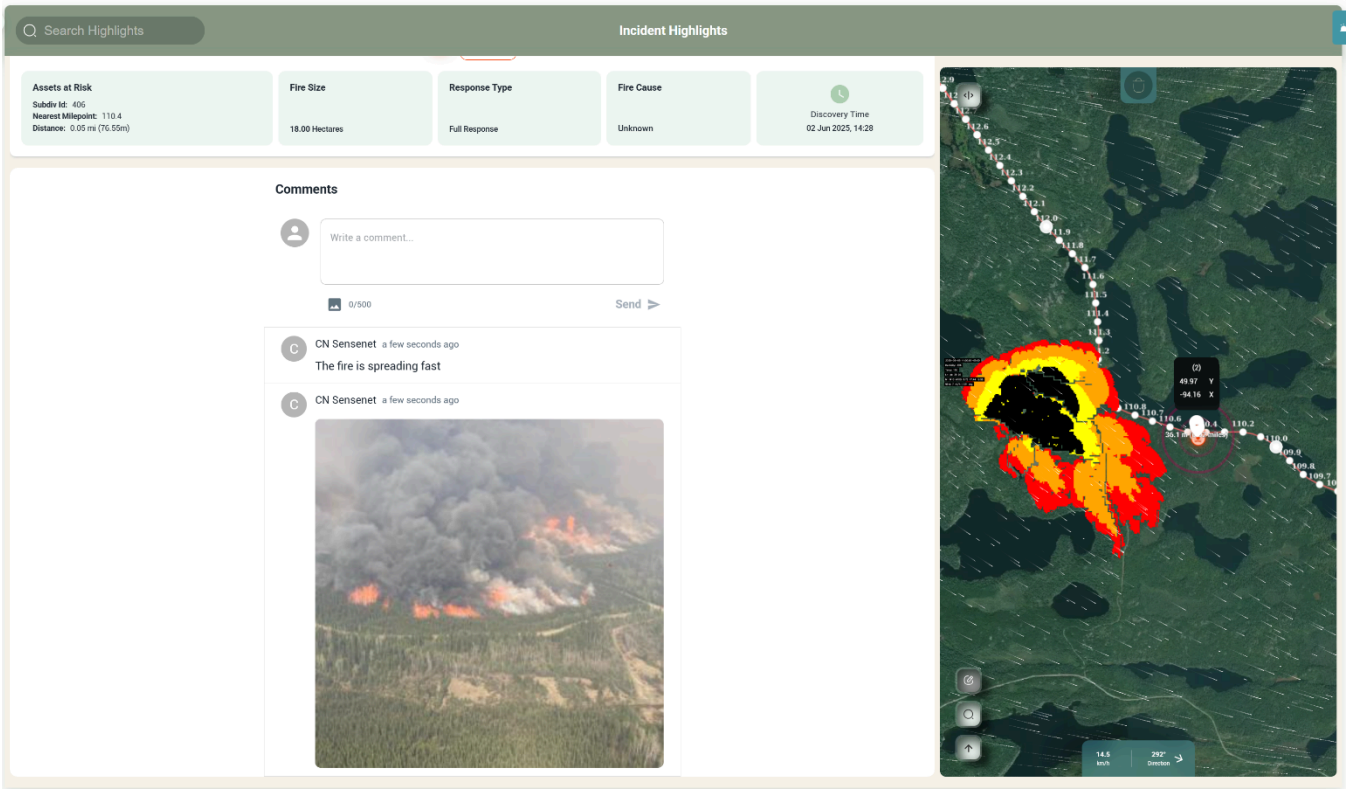
To post a comment:

1. **Click "Write a Comment"** – On the incident box, click the button labeled **1**. This will open a dedicated page for that specific incident.
2. **Add Your Content** – In the box labeled **2**, write your comment and attach any relevant **photos** or **videos**. This helps your team stay informed with the latest developments.
3. **Submit & Go Back** – After submitting your comment, you can return to the **Incident Highlights** page by clicking the **Back** button at the top of the screen, labeled **3**.

By using this feature, you contribute to a more coordinated and informed response within your organization.




Back to Highlights List
3
Clear Incident
Active Fire Alarm [KEN_FIRE_034]
Last Update: 02 Jun, 2025 - 14:28:00
View on Map
KEN_FIRE_034
Out of Control
Assets at Risk
Fire Size
18.00 Hectares
Response Type
Full Response
Fire Cause
Unknown
Discovery Time
02 Jun 2025, 14:28
Comments
2
Write a comment...
0/500
Send

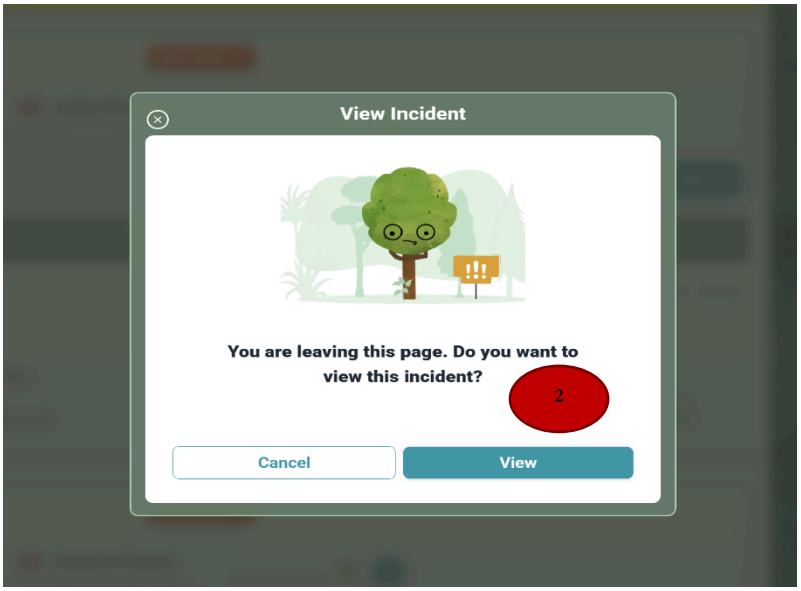

Search Highlights
Incident Highlights
Assets at Risk
Fire Size
18.00 Hectares
Response Type
Full Response
Fire Cause
Unknown
Discovery Time
02 Jun 2025, 14:28
Comments
Write a comment...
0/500
Send
CN Sensenet a few seconds ago
The fire is spreading fast
CN Sensenet a few seconds ago

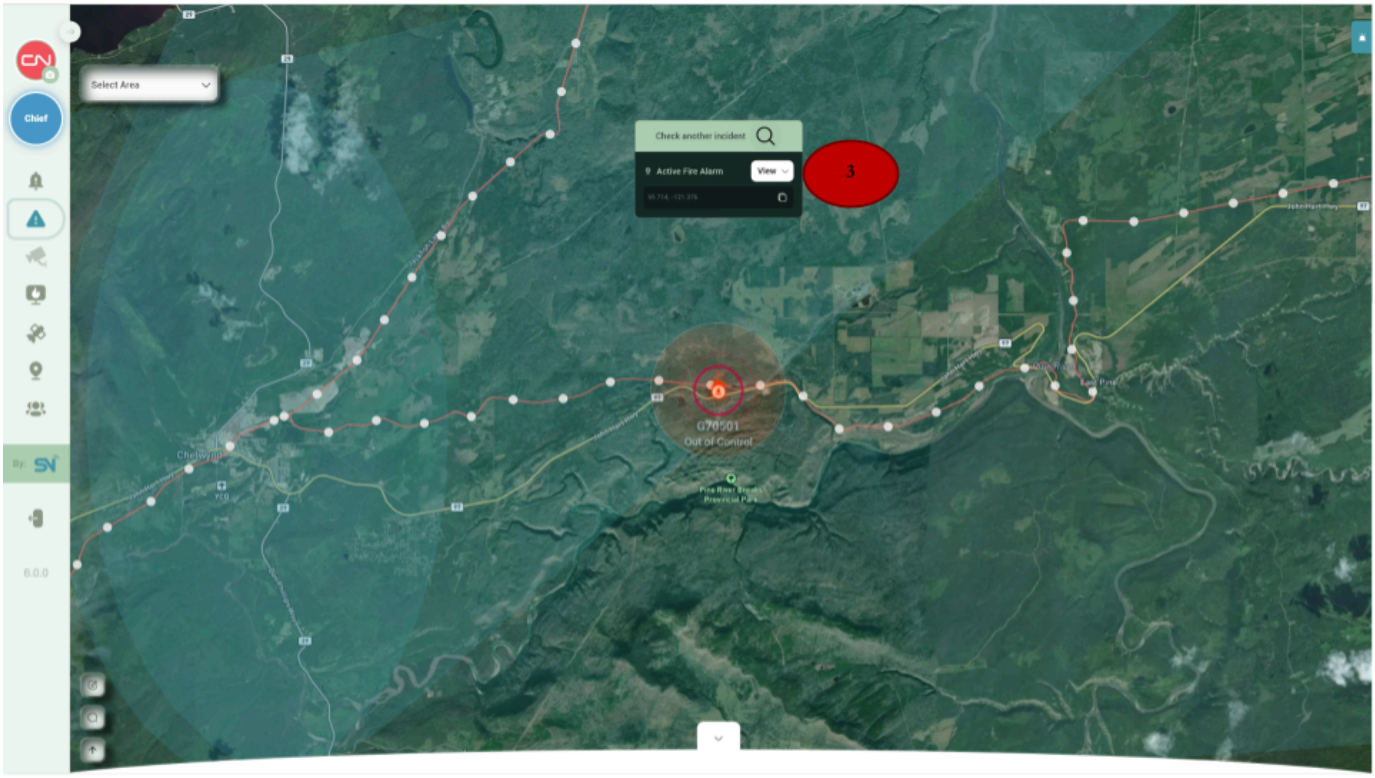
4. Incident Management

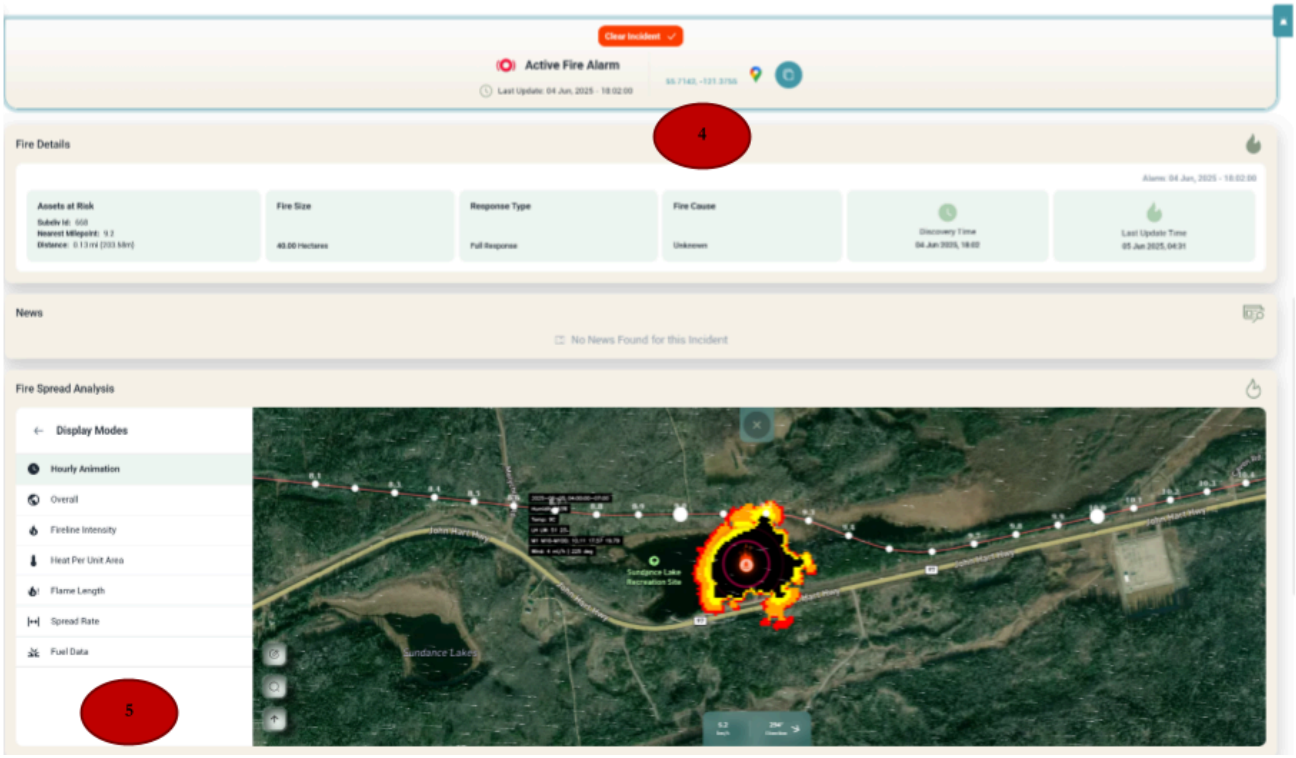
The **Incident Management** page provides a detailed view and advanced tools for analyzing specific wildfire incidents. It is designed for users who want deeper insights and interactive visualizations to support decision-making and planning.

To access this page:

1. **Click "See Details"** – On the **Incident Highlights** page, click the **See Details** button labeled **1**.
2. **Confirm Navigation** – A pop-up will appear asking if you want to proceed. Click **Yes** (labeled **2**) to open the **Incident Management** page.




Select Area
Chief
Check another incident
Active Fire Alarm
View
3
G70501
Out of Control


Clear Incident
Active Fire Alarm
Last Update: 04 Jun, 2025 - 18:02:00
4
Fire Details
Assets at Risk
Fire Size
Response Type
Fire Cause
Discovery Time
Last Update Time
News
No News Found for this Incident
Fire Spread Analysis
Display Modes
Hourly Animation
Overall
Fireline Intensity
Heat Per Unit Area
Flame Length
Spread Rate
Fuel Data
5

What you'll see on the Incident Management page?

- A **wide interactive map** at the top displays all incidents in your coverage area.
- You can **select or switch between incidents** by clicking on the pop-up box over the desired incident on the map (labeled 3).
- Below the map, you will see several **information boxes (labeled 4)** about the selected incident, including:
    - Incident name and ID
    - Location
    - Fire size
    - Time of discovery
    - Nearest infrastructure or assets

Fire Spread Map (labeled 5): This section visualizes detailed **fire behavior layers**, including:

- Hourly fire perimeters
- Overall fire perimeter
- Fire spread rate
- Flame length
- Wind conditions

These layers help estimate how fast and in which direction the fire might move.

Fire Risk Map (labeled 6): Below the fire spread map, the **Fire Risk Map** provides insight into potential fire impacts in the area using several key indices:

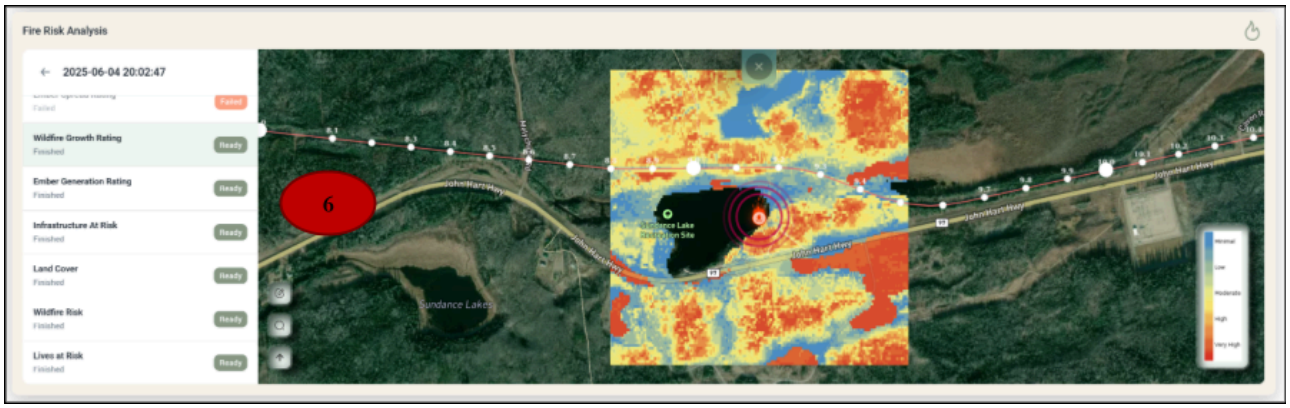
- Fire Growth Rating

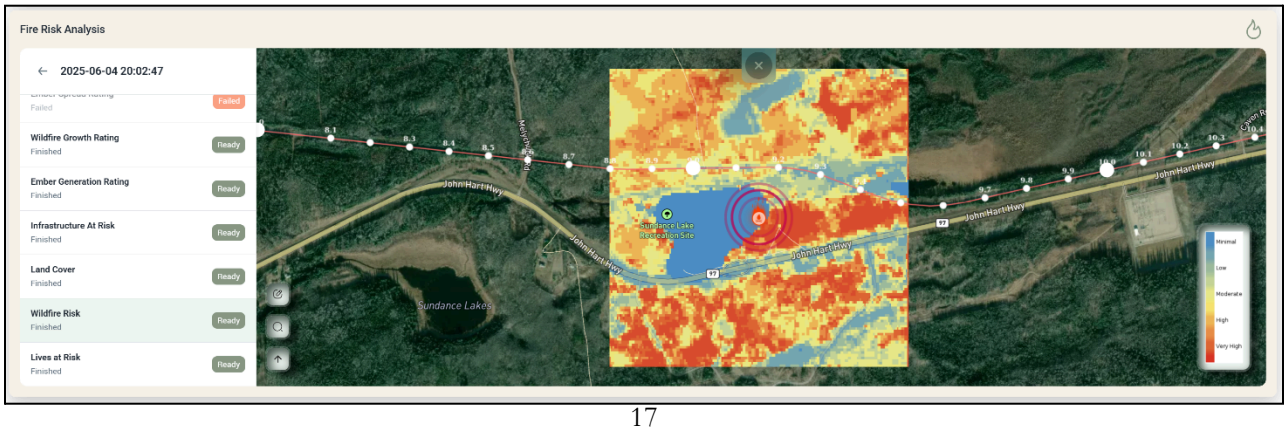
- Fire Risk Rating
- Ember Generation Rating
- Fire Spread Rating
- Lives at Risk
- Infrastructure at Risk

These indices are calculated using real-time data and fire behavior models, offering a more complete picture of the risks and urgency associated with each incident.

Note:

If you see an item labeled **"Failed"** in red, it usually means the satellite image was not clear enough—often due to cloud cover or other environmental conditions. This is normal and nothing to worry about. The system automatically updates the satellite data every **6 to 12 hours**, and the maps will be refreshed as soon as new, usable imagery becomes available.



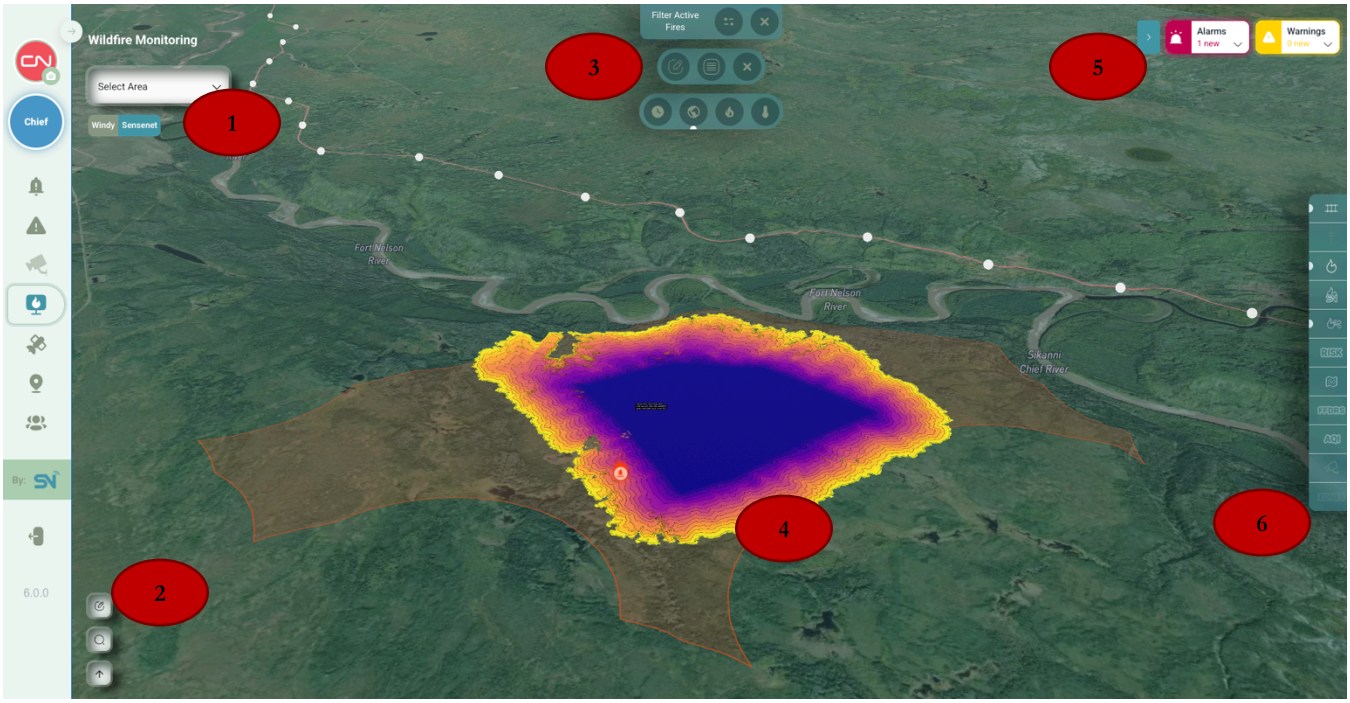


IV. Monitor Wildfires Activity in Real Time

1. Wildfire Monitoring Overview

The Wildfire Monitoring page provides a robust suite of capabilities for real-time wildfire intelligence across North America, including integration of government fire identifiers, fire size, and incident metadata. It also serves as the core environment for geospatial analytics; supporting fire risk modeling, spread simulation, active fire point detection, and automated alerts for wildfire activity within client-defined buffer zones.

The figure below shows the main parts of the Wildfire Monitoring page. Each numbered item is explained in detail to help you understand how to use the interface:



1. **Select Area** – Located on the left, this is where you navigate through all the locations of covered areas in your user profile. Click the dropdown to expand or collapse the menu.

2. **Toolbar** – Located on the bottom left corner of the map display, there is a pop-up toolbar where more features are stored. This is where you can zoom in/out, search locations with coordinates, change to 3D map viewer, and remove/include basemap placenames.

3. **Sub-tools** – This feature is paired with item 6 (parent tools), where this allows the user to fine-tune the selected parent tool's function (for example, if the "Active Fires" parent tool is selected, the user can use the linked sub-tools to adjust the timeframe, and extent of the output shown in the monitoring platform).

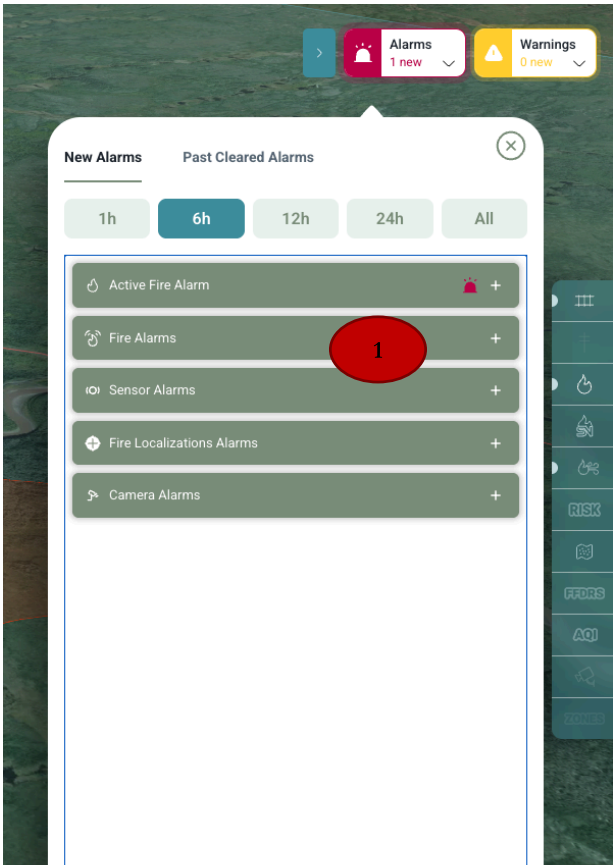
4. **Data Insights & Analytics** – The wildfire monitoring dashboard combines real-time fire monitoring with analytics on historical fire patterns, weather trends, and environmental conditions. All user selections and model outputs, including fire spread predictions, are rendered directly within the interactive map viewer.

5. **Alarm Centre** – Located at the top right of the display, this panel displays all alerts triggered by sensors or fire activity within the user's buffer zone. Users can analyze each alert by location, type, and shifts in fire behaviour enabling rapid situational awareness and timely response.

6. **Parent Tools** –Located to the right of the dynamic map interface, the parent tools panel provides interactive overlays and analytical layers for wildfire monitoring. These include infrastructure references such as railways, active fires, and modeling tools like fire spread simulations and risk mapping.

2. How to View Alarms

The Alert Center, located at the top right of the map display, signals triggered alarms with a flashing icon and sends SMS or email notifications. Users can view active and cleared alarms via the dropdown menu and filter alerts by time (1h, 6h, 12h, 24h, All) using the buttons at the top of the menu display.



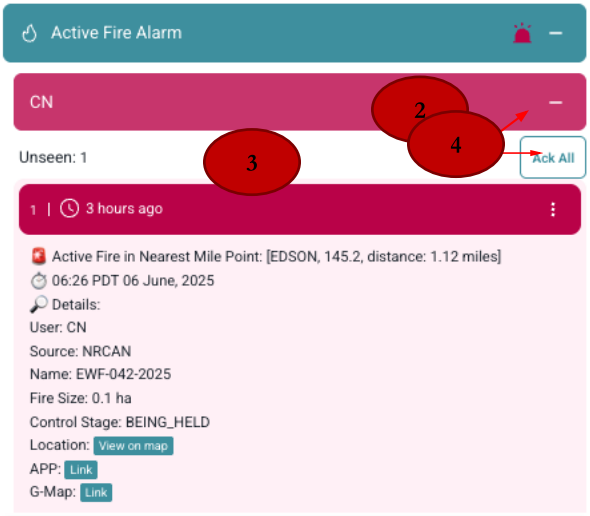
To view a new alarm:

1. **Click the Active Alert** – Within the dropdown, select the type of alert with the

active alarm icon (in this example, the "Active Fire Alarm" has an active alert). Once selected, a dropdown will appear.

2. **Select User** – Clicking the dropdown "CN" (labeled **2**), a dropdown with unseen alerts will open.

3. **Review Unseen Alarms** – All unseen alarms will pop up with the details of the alert depending on the type of alarm (for example, different information is included if it is an "Active Fire Alarm" or a "Sensor Alarm".



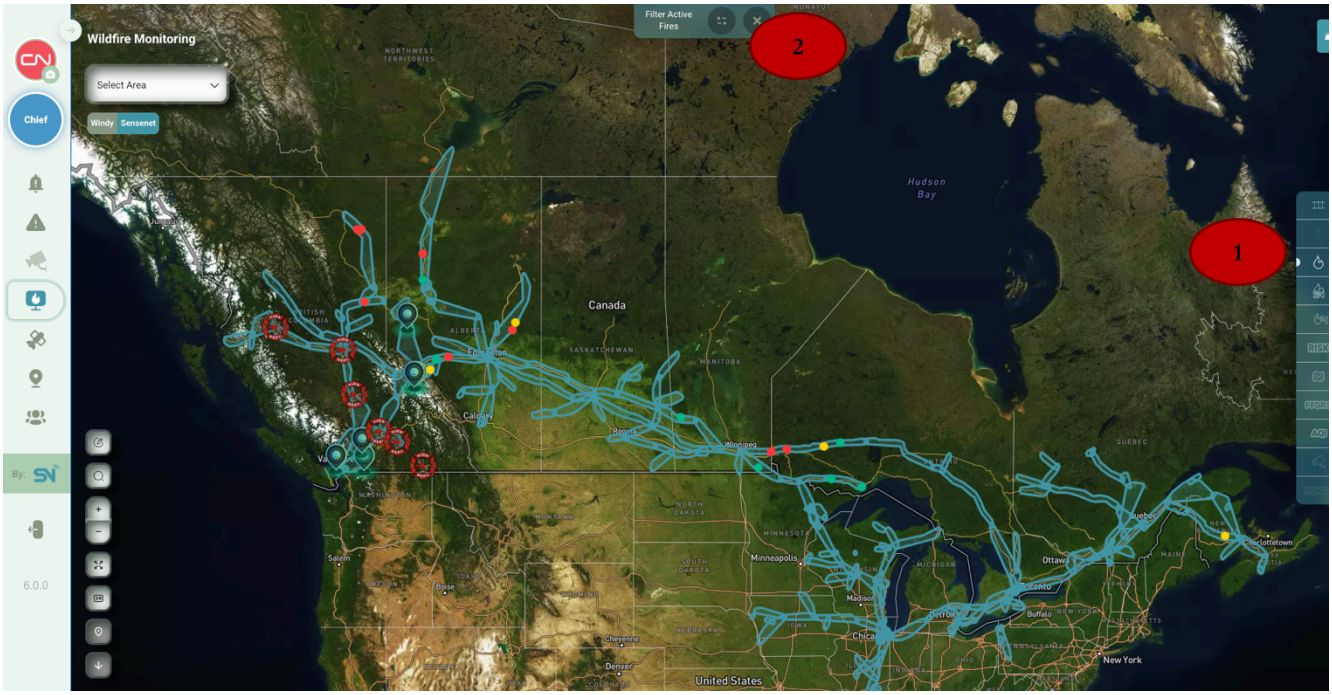
4. **Acknowledge Alarms** –To acknowledge the alarms within the window, the user can do so for individual fires by selecting the three dots on the right of the alarm header and pressing "Ack" from the dropdown. Alternatively, the user can choose the "Ack All" button above the listed active fires within the window.

3. How to View Active & Historical Fires

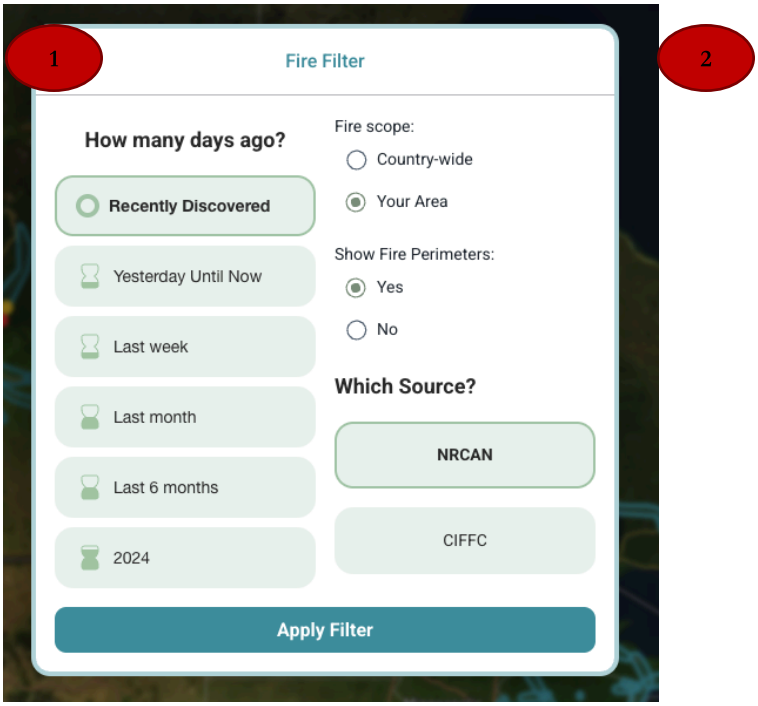
you select the "Active Fires" parent tool from the bar on the right side of the display (shown by icon 1), and the sub-tool will populate at the top of the display (shown by icon 2). Select the toggle button shown on the sub-tool and the Fire Filter will pop up.

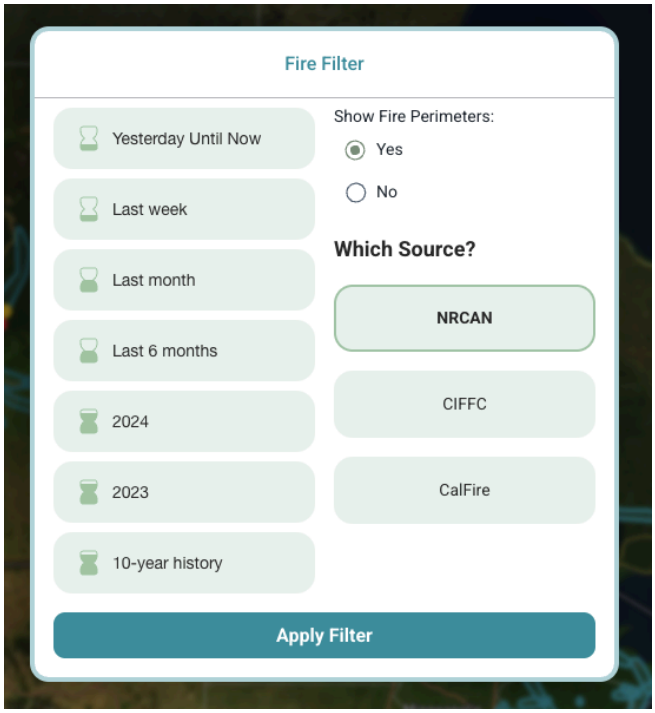
To view active and historical fires:

1. **Select the "Active Fires" parent tool** – Located in the toolbar on the right of the map display.
2. **Select the "Fire Filter" button** – The toggle button shown within the sub-tool, found at the top of the map display. Once selected, a dropdown will appear.



3. **Use the Filters to Adjust the Output** – The fire filter tool allows users to define the temporal range, data source, and visual parameters of fire layers (e.g., scope, perimeter) on the map display. Additional sources and historical datasets can be accessed by scrolling through the filter panel (icons 1–2).


1
Fire Filter
2
How many days ago?
Recently Discovered
Yesterday Until Now
Last week
Last month
Last 6 months
2024
Fire scope:
Country-wide
Your Area
Show Fire Perimeters:
Yes
No
Which Source?
NRCAN
CIFFC
Apply Filter

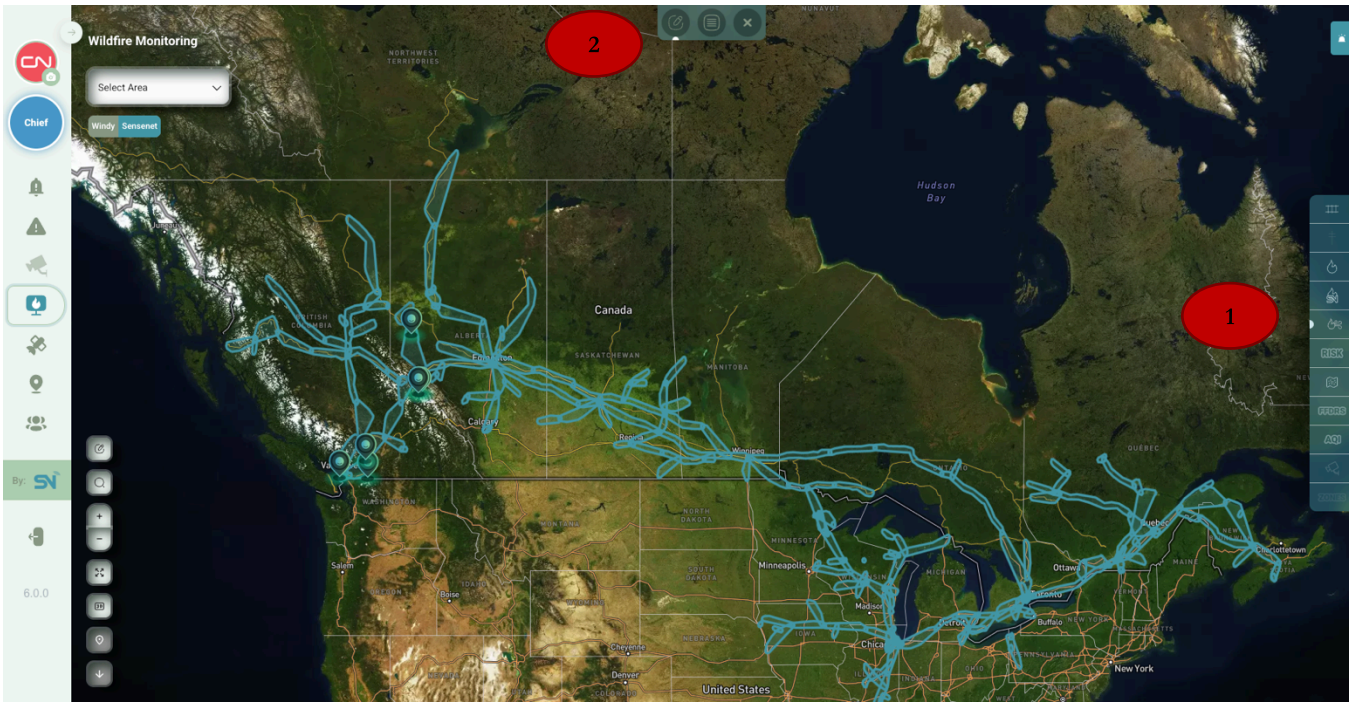

Fire Filter
Yesterday Until Now
Last week
Last month
Last 6 months
2024
2023
10-year history
Show Fire Perimeters:
Yes
No
Which Source?
NRCAN
CIFFC
CalFire
Apply Filter

4. How to Generate a Fire Spread Prediction

The fire spread prediction tool simulates potential fire growth from hypothetical ignitions or active wildfires points, using integrated weather, topography, and vegetation datasets. This capability supports proactive planning and enhances situational awareness in dynamic wildfire scenarios.

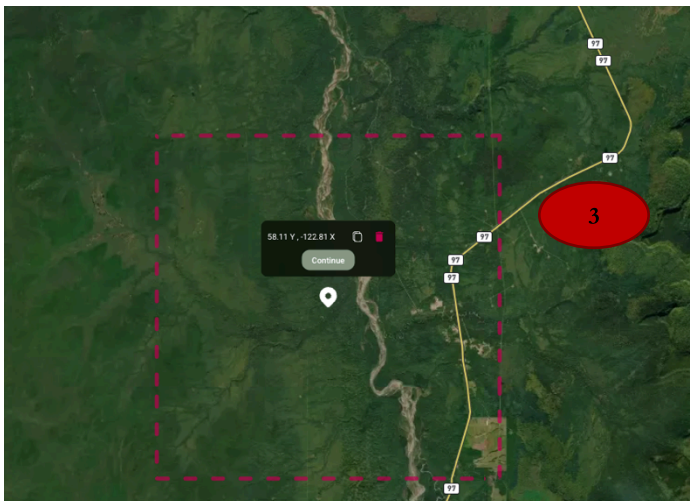
To generate a fire spread prediction:

1. **Select the "Fire Spread Analysis" parent tool** – Located in the toolbar on the right of the map display.
2. **Select the "Create Fire Spread Analysis" button** – The toggle button shown within the sub-tool, found in the left of the top of the map display (notepad and pen icon).



For a hypothetical ignition:

3. **Select an Ignition Point within the Map Display** – Once the desired



point of ignition is determined, press "Continue".

For an active fire prediction:

4. **Select the Ignition Point of the Active Fire** – Once the desired point of ignition is selected, create a polygon around the areas of active fire (shown further down).

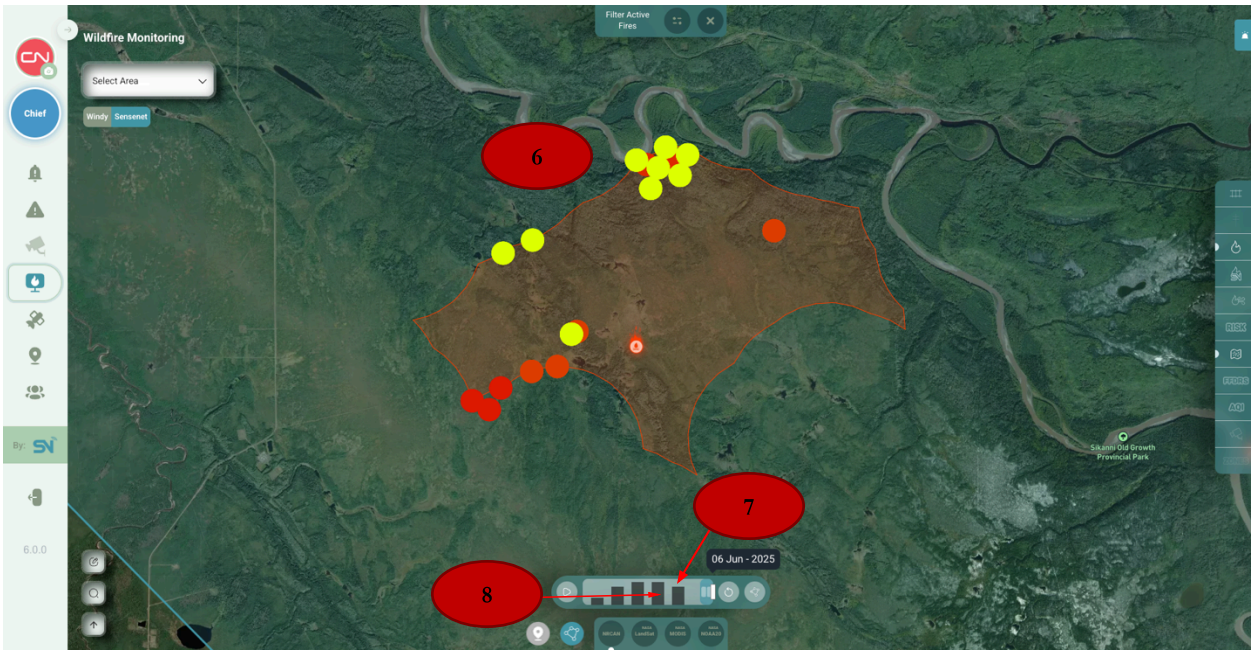
NOTE: To determine specific areas where fire is still active within the perimeter, use the "Fire Points" parent tool to see the active hotspots within the fire perimeter. This next sub-section will quickly summarize how to generate hotspots of an active fire.

1. **Select the "Fire Points" Tool** – Located in the toolbar on the right of the display.
2. **Select Data Source** – Along the bottom of the display, multiple satellite data sources will appear (i.e. NRCAN, NASA, etc.). Select the desired source.
3. **Click on the grey polygon icon** – This action opens a pop-up interface where users can define a temporal range for hotspot data and specify a geographic area of interest.

4. **Select Timeframe** – Click the dropdown labelled "Not Specified" and select the desired timeframe (Past Month, Past 3 Months, Past 6 Months).

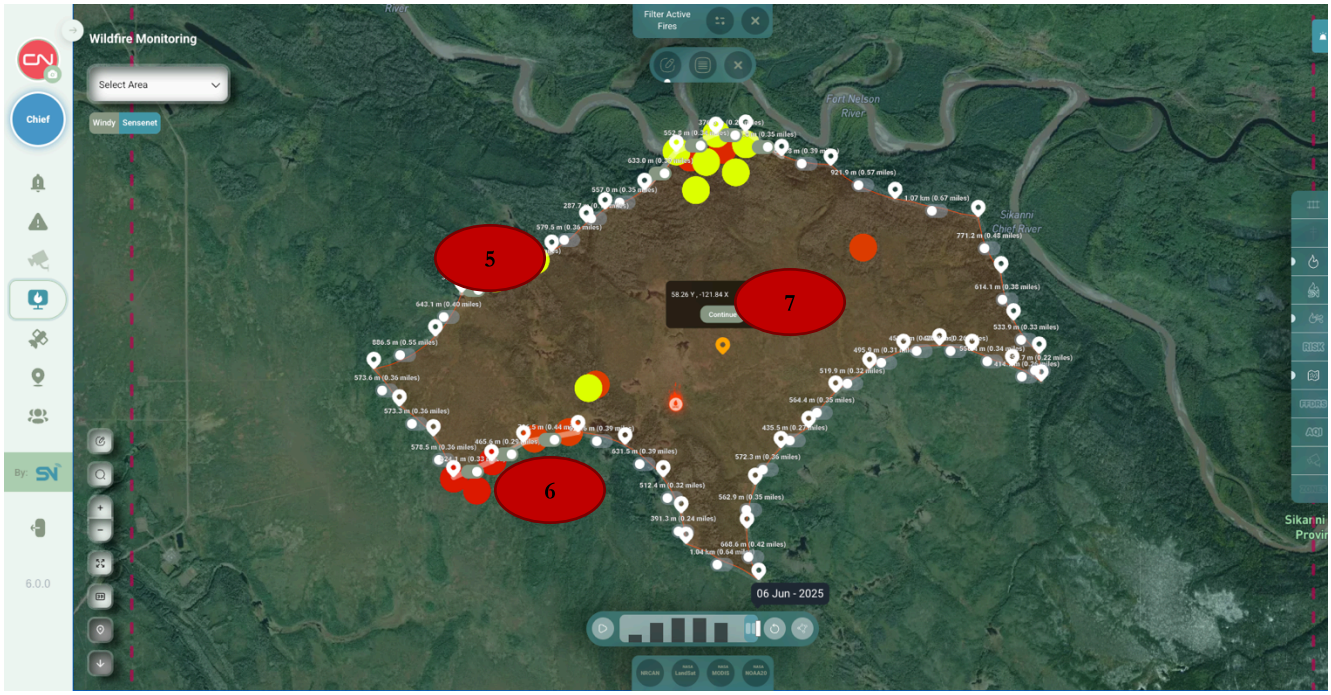
5. **Select Area of Interest** – Click and drag your mouse across the area of an active fire, this will generate a rectangle across the map viewer. Once at the desired size, click your mouse to set the rectangle.
6. **Click "Fetch Data"** – This will generate the fire's hotspot progression within the selected timeframe.

7. **Minimize Pause Bar** – Use the white bar on the side of the "pause bar" to minimize it. This action shortens the timeframe of the hotspots displayed; reduce to display only one day's data.
8. **Hold and Drag "Pause-Bar"** – Hold and drag the blue pause bar to the end of the defined timeframe. This will show the active hotspots of the fire on the current day.

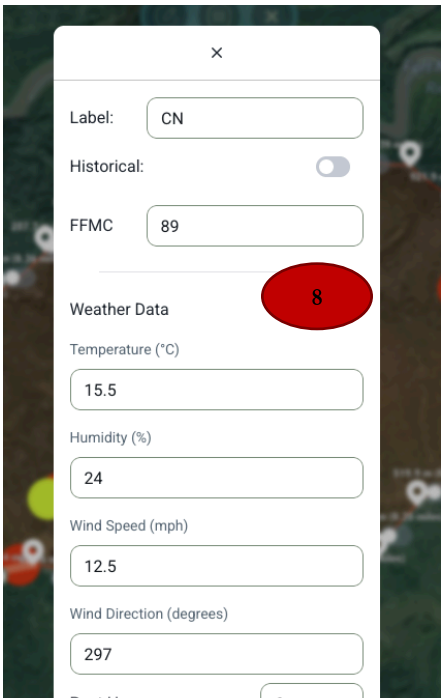


The current active fire points have now been generated, highlighting which parts of the fire are still active and spreading within the fire perimeter. This can be used with the fire spread tool to select active and inactive points of the fire perimeter. We will now continue with the fire spread prediction steps.

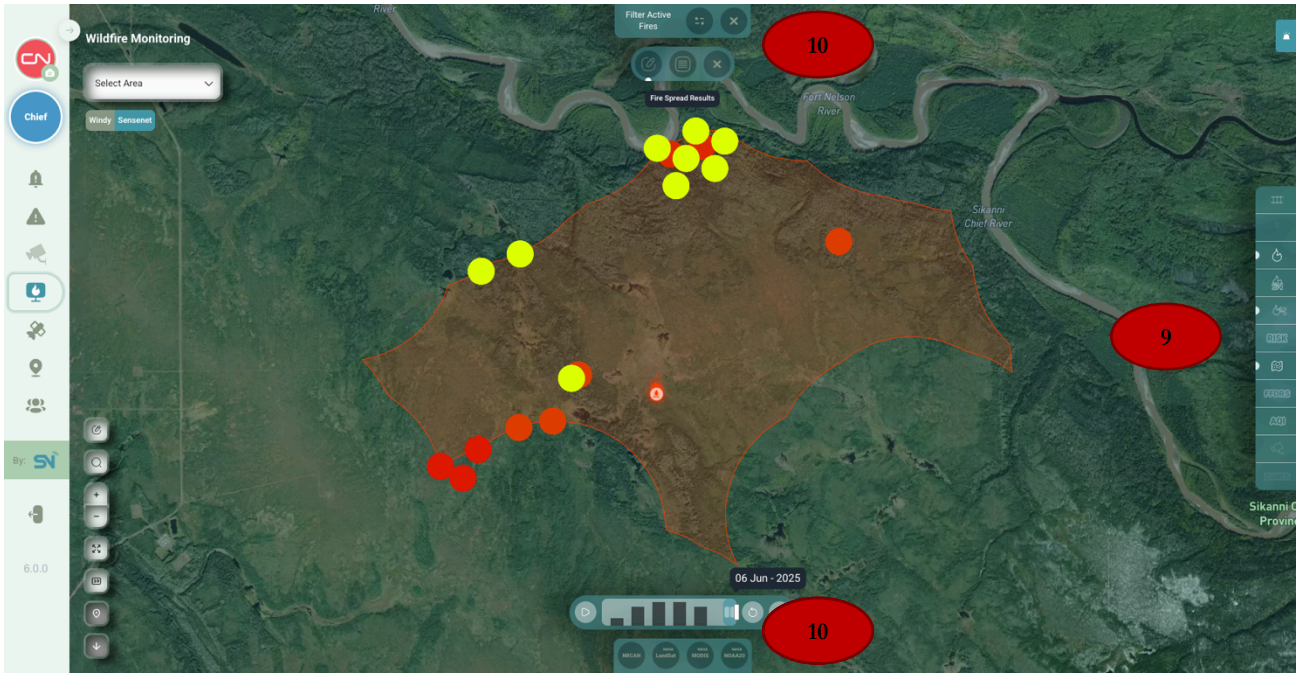
5. **Draw a Polygon on the Fire Perimeter** – After placing the ignition point, use the mouse to delineate a fire perimeter by selecting sequential points to form and close a polygon, similar to distance measurement tools.
6. **Use Toggles to Set Active/Inactive Perimeters** – Between each point there is a toggle that allows the user to define active or inactive segments of the perimeter. Use the active fire points to determine where to leave the toggle's set to active, all other portions can be set to inactive.



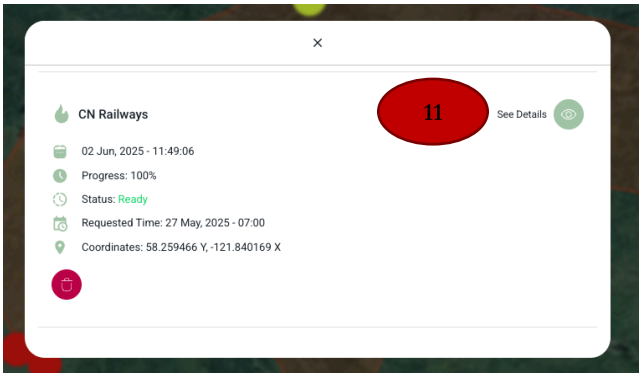
7. **Select the "Continue" button** – This step is the same for both the hypothetical ignition and the active fire prediction.
8. **Input Data for the Prediction** – Create a label for the prediction, and adjust the input's as needed (for example, the user can use historical data to simulate predictions, however, for current spread predictions keep the historical toggle off).
9. **Select "Start Fire Spread Analysis"** – Once satisfied with the inputs, you can generate the spread prediction.



10. **Select the "Fire Spread Results" button** – In the toolbar on the top of map display, select the middle button to access previous and generating predictions. Generating predictions will display the analysis progress as a percentage-based indicator.
11. **Click the "See Details" eye icon** – Once the prediction is completed, the status will read "Ready" in green. To view the fire spread prediction, select the green eye-icon to the right of "See Details".

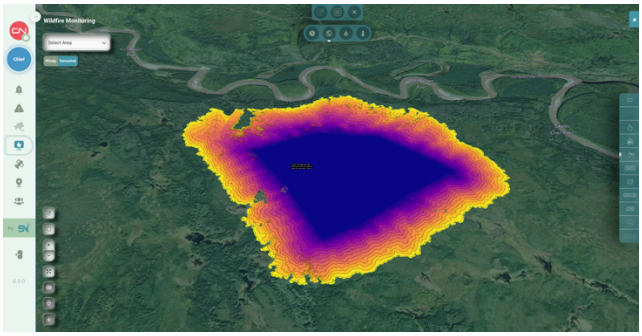


This action will take you back to the map display with an additional toolbar along the top of the map display where you can view the hourly projection, overall projection, fireline intensity, heat per unit area, flame length, spread rate, and fuel data.



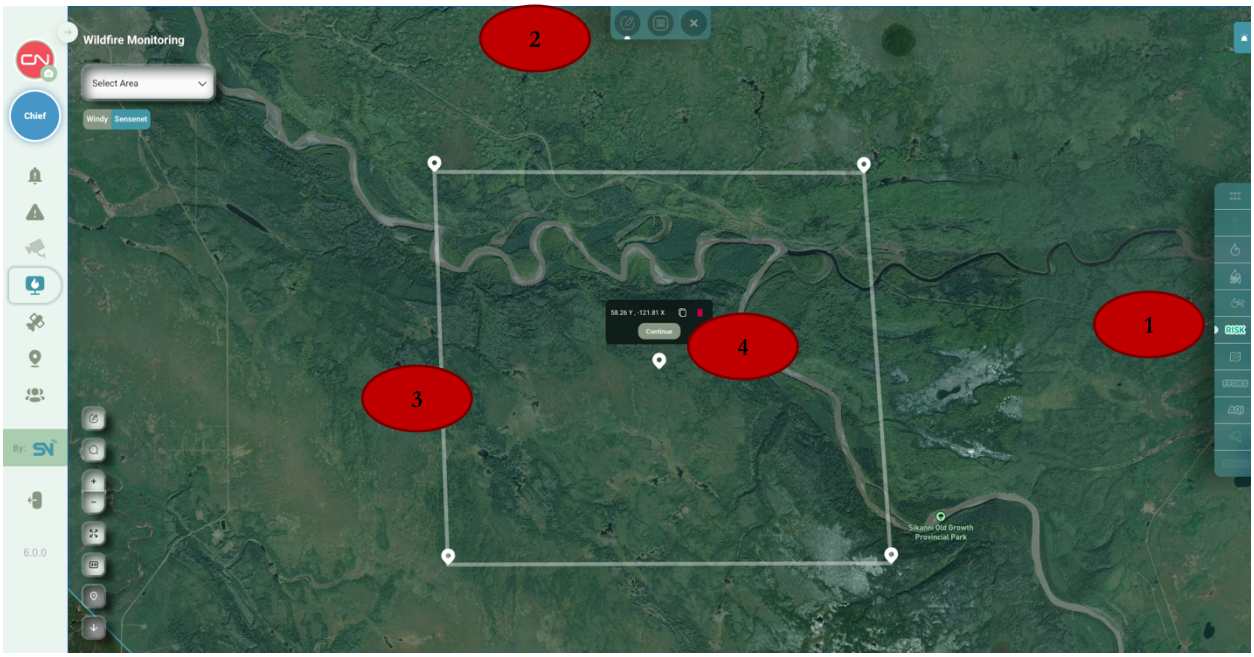
5. How to Create a Fire Risk Map

The fire risk mapping tool enables users to evaluate spatial variation in wildfire risk by applying multiple risk indicators within a user-defined polygon. These maps support identification of high-risk zones and provide insight into how risk levels vary based on specific objectives, input layers, or assessment criteria.

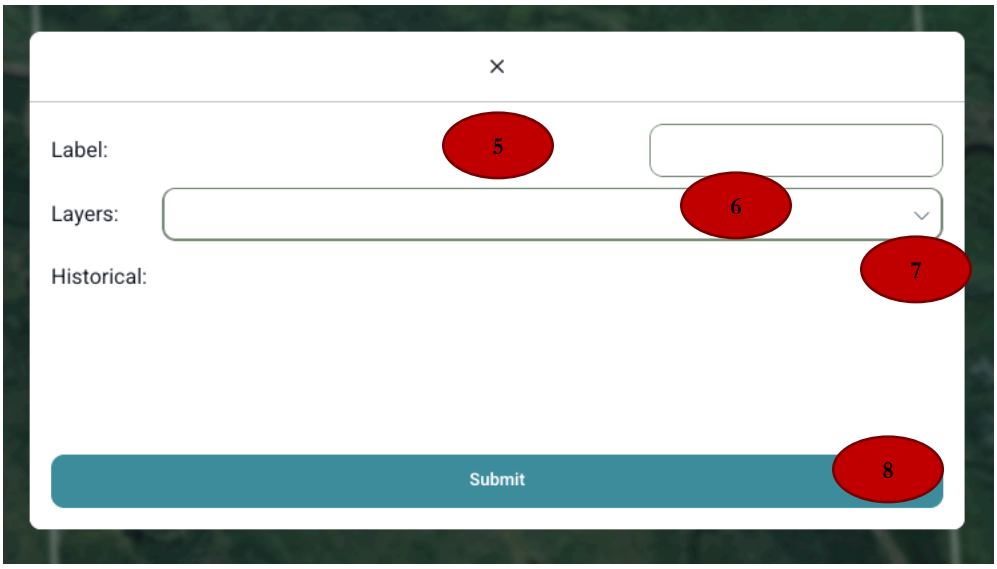


To view create a fire risk map prediction:

1. **Select the Fire Risk Tool** – Located in the toolbar on the right side of the map display.
2. **Select the "Create Fire Risk Analysis" button** – The toggle button shown within the sub-tool, found in the left of the top of the map display (notepad and pen icon).
3. **Defined desired area** – Define a custom polygon over the target area for analysis. The polygon is fully configurable, allowing users to tailor boundaries. For example, by tracing along geographic features such as rivers to exclude specific regions.
4. **Select "Continue".**

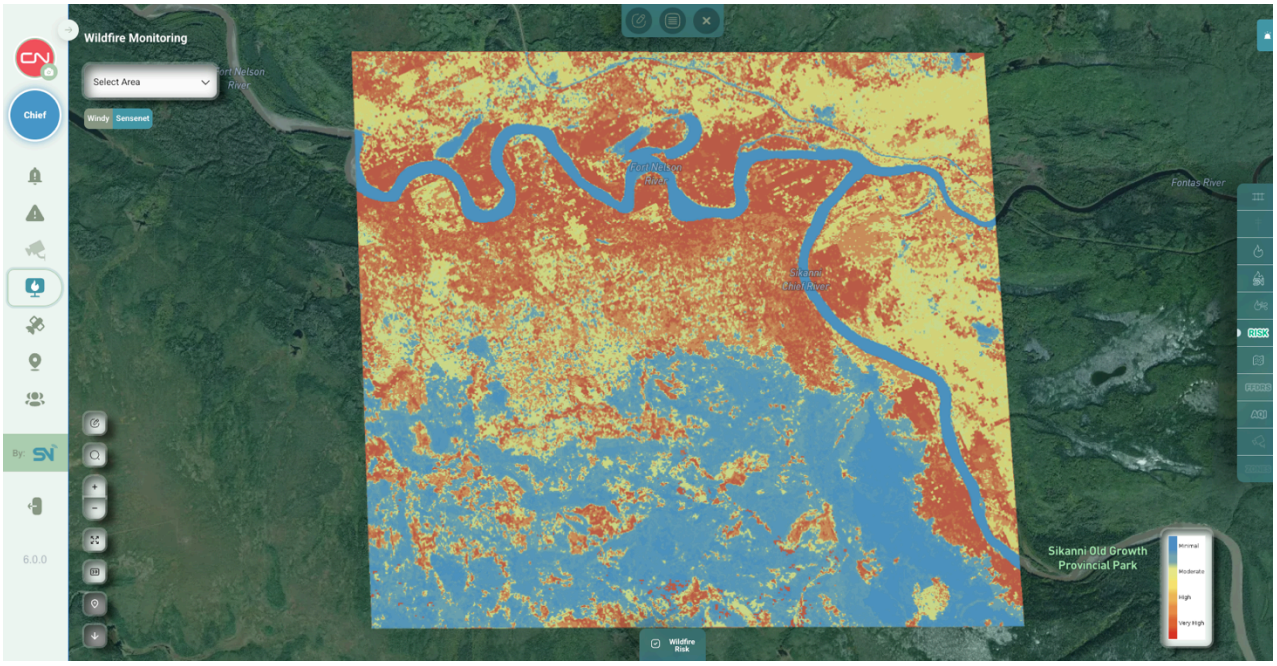


5. **Label Risk Map**.
6. **Select Layers** – The dropdown menu allows users to select one or more of 17 available risk analysis layers for the defined area. These include wildfire risk, fire intensity, land cover classification, dead fuel moisture content, satellite-derived images, and other assessments of risk.
7. **Optional: Select Historical Data** – Users can generate risk maps using either current or historical data. To access historical data, enable the toggle and use the 'Date' selector to specify the desired day and corresponding datasets.
8. **Click "Submit"**.



9. **Select "Fire Risk Results"** – Similar to retrieving the spread prediction results, select the middle icon in the toolbar at the top of the map display ("Fire Risk Results"). Generating predictions will display the analysis progress as a percentage-based indicator.
10. **Click the "See Details" eye icon** – Once the map is complete, select the green eye icon beside "See Details".

This action returns you to the map display, showing the generated risk layers and legends, along with a bottom toolbar for toggling between outputs such as wildfire risk, intensity, and related indicators.

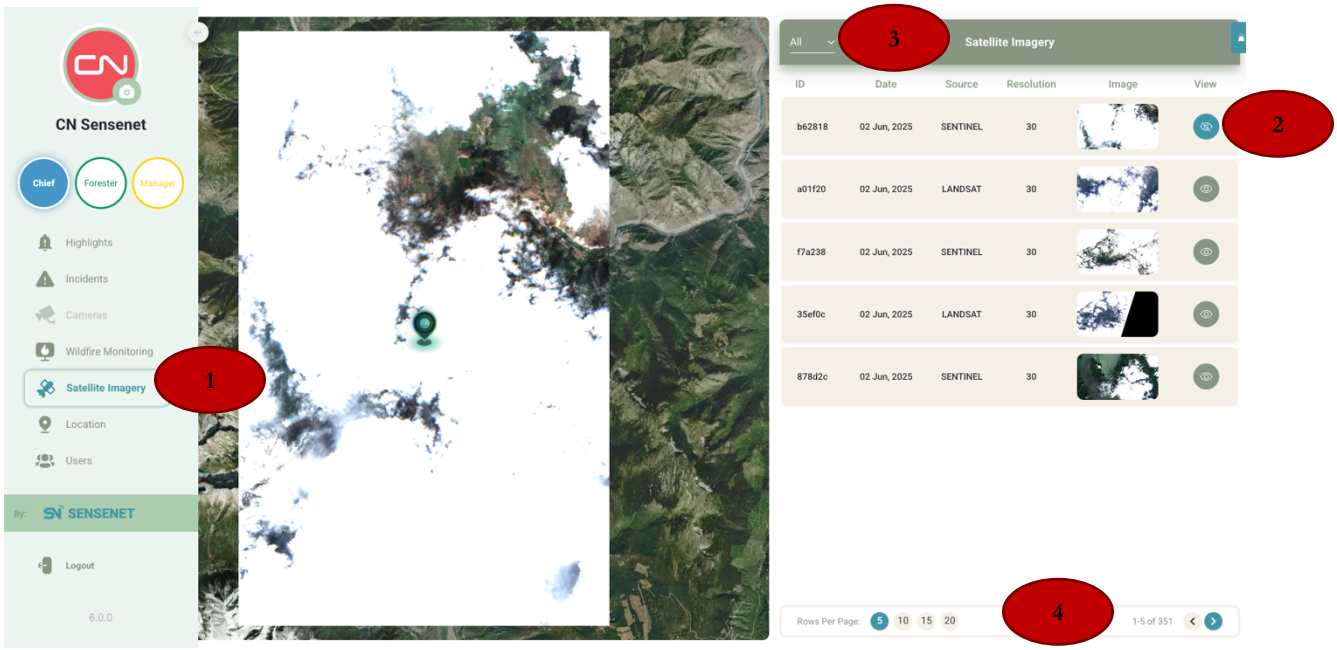


V. Use and interpret satellite data

1. View Satellite Imagery

To find and view satellite images of the users' sites:

1. **Open the Navigation Toolbar** –Open the tab titled "Satellite Imagery".
2. **Select the "View" Eye-Icon** – Clicking on this icon will take you to the location of the satellite image and overlay it on the interactive map display.
3. **Optional**: Select Desired Satellite –Use the dropdown menu to filter and display imagery from specific satellite sources, such as LANDSAT or SENTINEL.
4. **Retrieve Historical Satellite Images** – Use the navigation controls to browse satellite imagery from previous dates across the user's various covered locations.



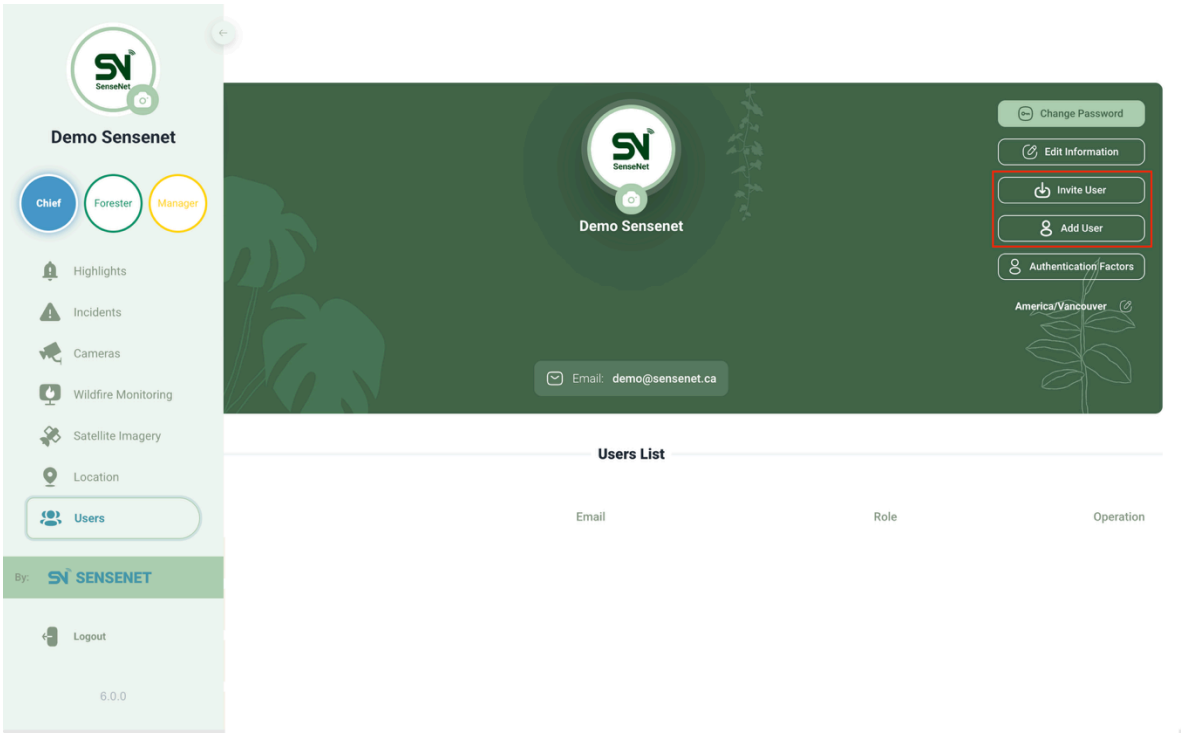
VI. Manage Users and Control Access

1. Invite/Add New User

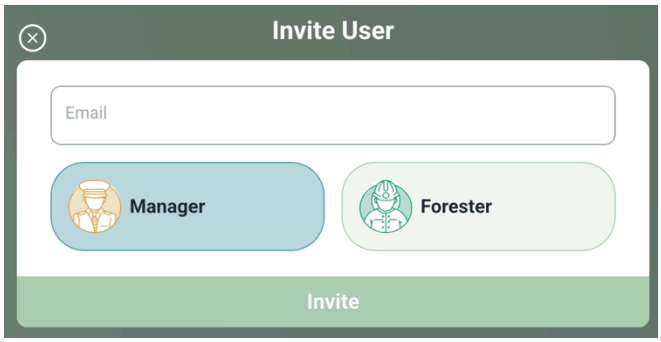
If you want to add another user to have access to the platform, follow these steps:

Option 1: Invite User

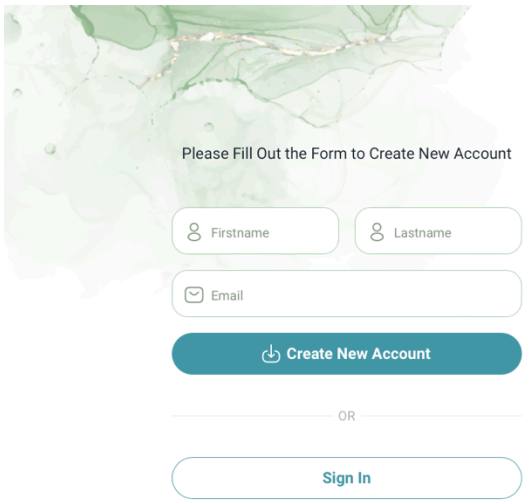
1. **Open the Navigation Toolbar and Select "Users":** Select the arrow beside the profile image to expand the toolbar, and the "Users" tab is at the bottom.



2. **Select "Invite User".**
3. **Enter Email for Desired User:** An invitation will be sent to the entered email.
4. **Select User Role:** The users' capabilities and permissions will be dictated based on their selected role.

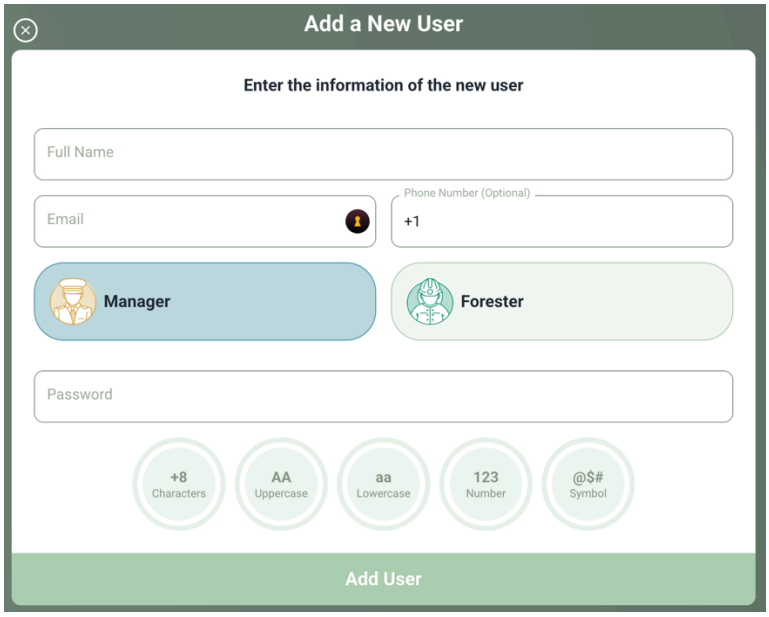


5. **Click "Invite":** The invited user can accept the invitation in their inbox.
6. **Click Link in Email: The invited user will receive an email with a link to create a new account.**
7. **Fill Out Form to Create New Account:** The link will take the invited user to our register page where they will enter their full name and email to create a new account.



Option 2: Add New User

1. **Step 1 is the same as above.**
2. **Select "Add User".**
3. **Enter the Information of the New User:** Enter the new user's full name, email, phone number, role, and the password associated with the account.
4. **Click "Add User":** Now the added user can access the account using their personal email.


Add a New User
Enter the information of the new user
Full Name
Email
Phone Number (Optional)
+1
Manager
Forester
Password
+8
Characters
AA
Uppercase
aa
Lowercase
123
Number
@$#
Symbol
Add User