# Wildland Fire Decision Support System (WFDSS)

# Region 5 Users Guide

# Draft

**(May 4, 2009)**

WFDSS 3.2 Release  (Deployed April 1, 2009)

# Table of Contents

# Section 1. WFDSS Overview

Welcome to the Wildland Fire Decision Support System (WFDSS)!

This system is intended to assist fire managers and analysts in determining the response for fire incidents. It is designed to replace the WFSA (Wildland Fire Situation Analysis) process with one that is more intuitive and easier to use. WFDSS will also incorporate the Wildland Fire Implementation Plan (WFIP) and Long-Term Incident Planning (LTIP) processes.

WFDSS was conceived as a way of integrating the various applications used to manage incidents into a single system, which streamlines the analysis and reporting processes.

WFDSS is expected to be fully operational in 2009, and when completed, will provide the following advantages over previous systems:

- Combines desktop applications for fire modeling into a web-based system for easier data acquisition.
- Provides an easy way for fire managers and analysts to accurately document their decision-making process by allowing results of analyses to be attached to the decision point and included in the final incident report.
- Provides one decision process and documentation system for all types of wildland fires.
- Is a web-based application for easier sharing of analyses and reports across all levels of the federal wildland fire organization.
- Introduces economic principles into the fire decision process.

**WFDSS Background**

Over the past 30 years, fires have dramatically increased in size and complexity, often stretching the capacity of the management systems in place. The Wildland Fire Decision Support System (WFDSS) project evolved from the need to streamline and improve these decision-making processes, as well as take advantage of improvements in technology, fire modeling, and geospatial analysis.

The former system, Wildland Fire Situation Analysis (WFSA) has been around for 30 years with little change, has become cumbersome to use, and is not scalable or flexible enough for today's fire management needs.

In June 2005, the National Fire and Aviation Executive Board chartered WFDSS to replace WFSA in 2009 with a system that has the following capabilities:

- Develops a scalable decision support system for agency administrators
- Uses appropriate fire behavior modeling, economic principles, and information technology

- Supports effective wildland fire decisions consistent with Resource and Fire Management Plans

WFDSS will also replace the Wildland Fire Implementation Plan (WFIP) and Long-Term Incident Planning (LTIP) processes.

WFDSS has the following advantages over the existing systems:

- Enables spatial data layering
- Reduces text, increases use of map displays
- Reduces input requirements
- Begins process at time of discovery
- Removes alternative comparison and decision tree development
- Pre-loads information from the following sources to allow pre-planning:
    - Land Management Plans
    - Fire Management Plans
- Preplanned decision criteria
- Local spatial data files
- Provides scalability for incident complexity (WFDSS contains three Response Levels: RL1, RL2, RL3, which equate to changing complexity)
- Can be ended at any level, can progress through levels, or jump to appropriate level
- Can be used for single or multiple fire situations.

## WFDSS User Roles

The following sections explain what each user type is allowed to do in WFDSS. To request a change to your user role globally, contact the administrator. To change your user role for a specific incident, contact the author of the incident, or the geographic area editor.

Note: There are also separate user functions associated with the decision-making process. Those functions are incident-specific and not dependent on the system-level roles described here (for example, owner and approver are incident-specific).

### Viewer

All users who have access to WFDSS have at least the following privileges:

- View incident information for all WFDSS incidents and groups.
- View completed analyses and reports.
- Cannot edit.

### Dispatcher

- Enter information for a new WFDSS incident.
- Edit incident information for incidents they create.

- Run simple (unsupervised) fire behavior analyses.

**Author**

- Enter information for a new WFDSS incident.
- Edit incident information for incidents they create.
- Grant privileges to other users for incidents they have authored.
- Run simple (unsupervised) fire behavior analyses.
- Request an analyst be assigned for fire behavior modeling and RAVAR analysis.
- Create a group or complex from individual incidents.

**Data Manager**

- Enter and maintain strategic objectives and fire management unit associations for individual agency units.

**Geographic Area Editor**

- Edit WFDSS incidents within their geographic area (GA).
- Request and cancel analyses for WFDSS incidents in their GA.
- Prioritize analysis requests within their GA.
- Authorize new Viewer, Author, Dispatcher, and Fire Behavior Specialist roles in their GA.
- Does not have privileges specific to Fire Behavior Analysts, RAVAR Analysts, or Administrators.

**National Editor**

- Has maximum authority relative to WFDSS incident management.
- Have all the capabilities of a Geographic Area Editor, but at a national level.
- Delete incidents.
- Does not have privileges specific to Fire Model Analysts, RAVAR Analysts, or Administrators.

**Fire Behavior Specialist**

Formerly the FSPro Analyst role, but the name change reflects additional fire behavior tools available in WFDSS. Users requesting this role should have previous fire behavior modeling experience, including evaluating and modifying landscape files, historic climate, and forecasted weather.

- Conduct "supervised" fire behavior analyses and modify inputs as needed.
- Accept (or reject) the results of the fire behavior analyses.
- Grant privileges to other analysts for analyses they have created.
- Interpret fire behavior analyses for other users.

### RAVAR Specialist

Since the RAVAR analysis tool is not yet completely automated, some manual effort is required to complete a RAVAR analysis. This manual effort is provided by the RAVAR Analysts at the Forestry Science Lab in Missoula, Montana, so users should not request this role.

- Accept or reject a RAVAR analysis request.
- Post RAVAR summary documentation.

### Super Analyst

- Has maximum analysis authority, provides coaching and training to other analysts.
- Run, edit, and accept all types of analyses.
- Delete analyses.

### Help Desk

Located at the National Interagency Fire Center (NIFC) in Boise, Idaho.

- Assist other WFDSS users with technical questions associated with the system.
- Access user profiles.
- Reset passwords.
- View "work in progress" from within the application.

### Administrator

Comprised of the WFDSS core team and IBM developers.

- Authorize new users.
- Disable users.
- Assign and modify user roles.
- Reset passwords.
- Edit user profiles.
- Send WFDSS e-mails and broadcast WFDSS messages.

## Section 2. Federal Wildland Fire Policy

**WFDSS and the Guidance for Federal Wildland Fire Management Policy – February 2009**

These four scenarios depict, in general, the WFDSS process as it relates to Federal Wildland Fire Management Policy given an ignition, regardless of source. Management actions depend on the provisions in the approved Land and Resource Management Plan and/or Fire Management Plan for an area.

**Scenario 1:** Protection Objectives Only and the wildfire is expected to be contained on the initial attack.

**Scenario 2:** Protection Objectives Only and the wildfire has escaped the initial attack.

**Scenario 3:** Resource Objectives are met and the wildfire is being managed for Resource Benefits.

**Scenario 4:** A Wildfire is being managed for both Resource and Protection Objectives.

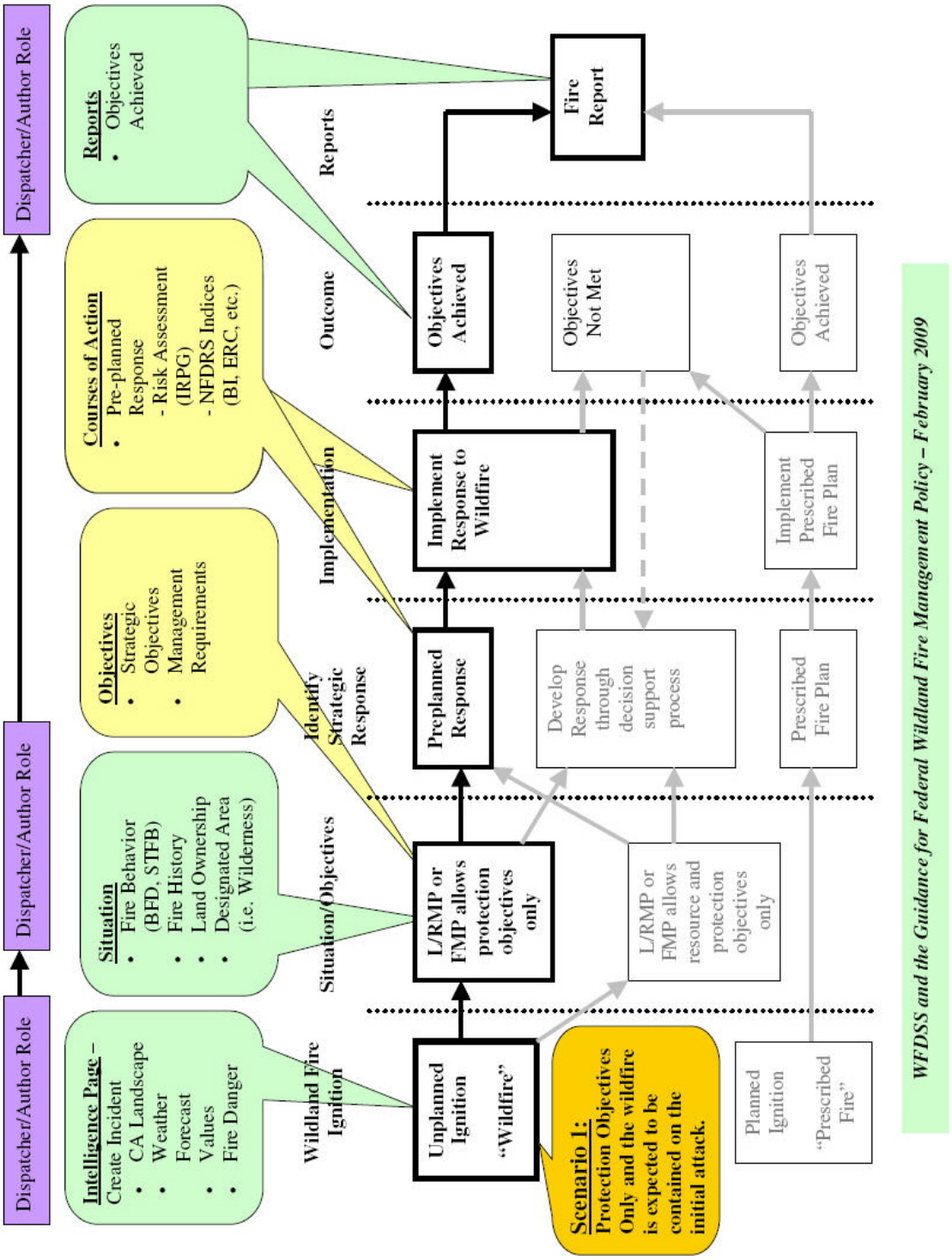
**Color Coding of the Scenarios:**

Scenario Descriptions

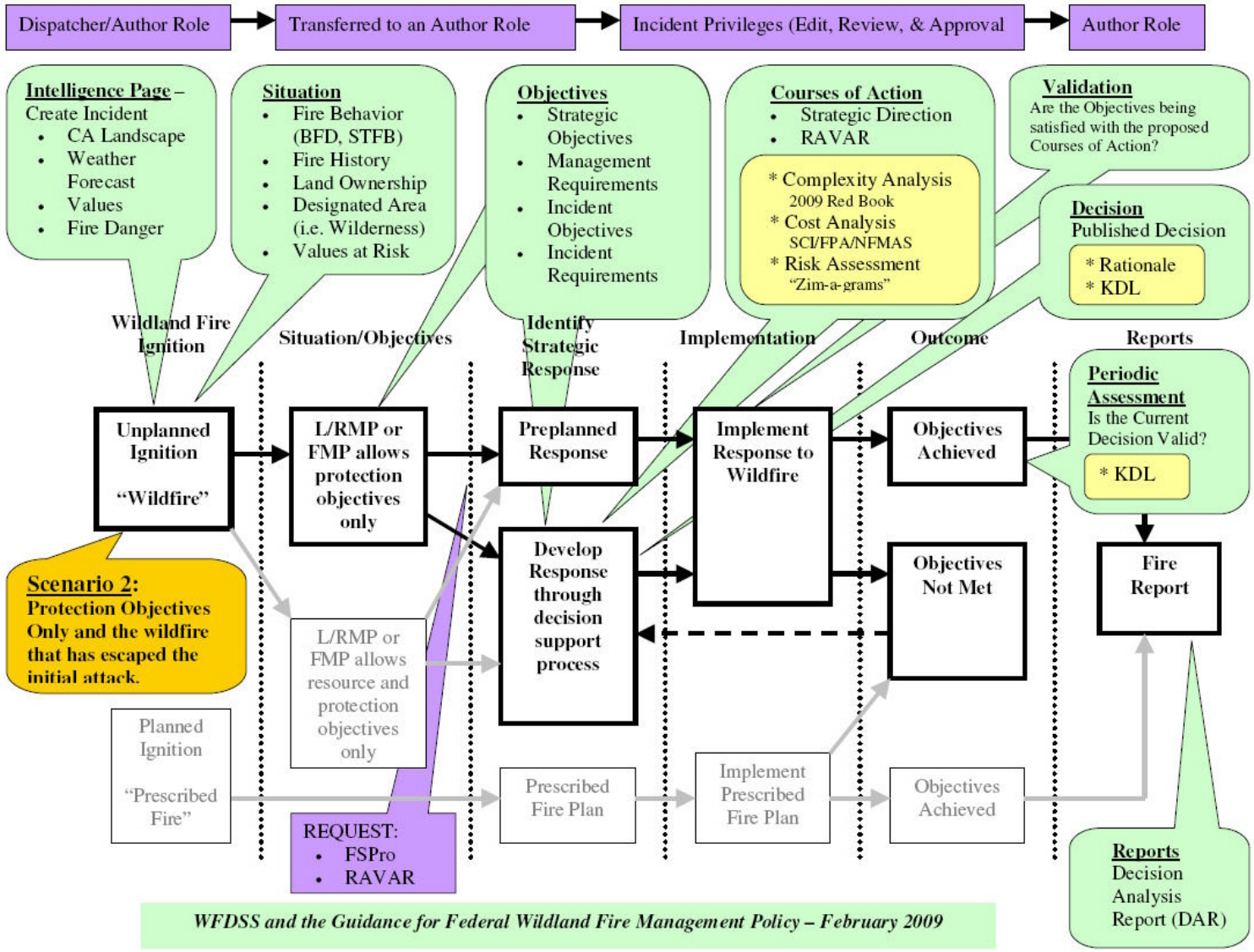
WFDSS required actions

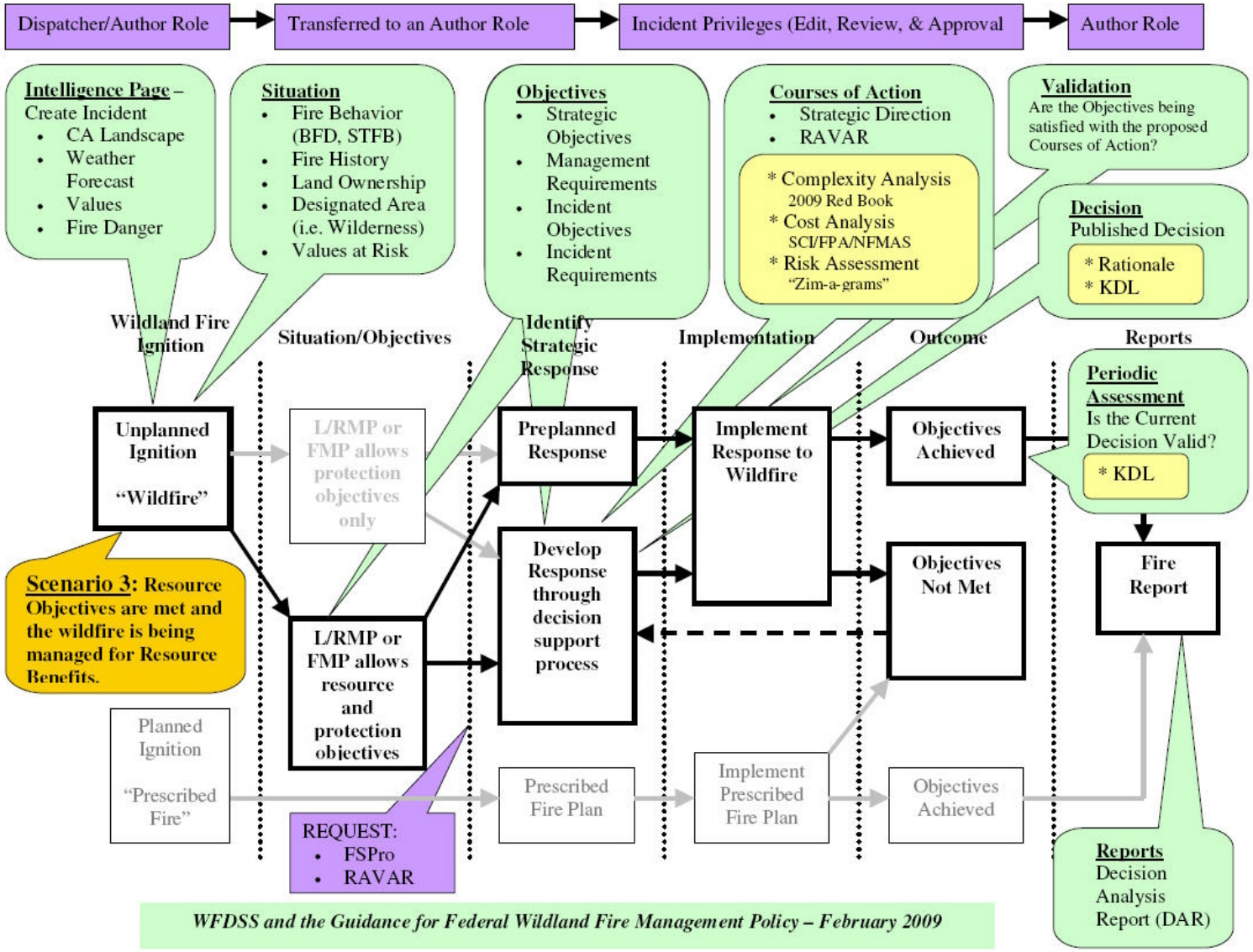
Required actions outside of the WFDSS process.

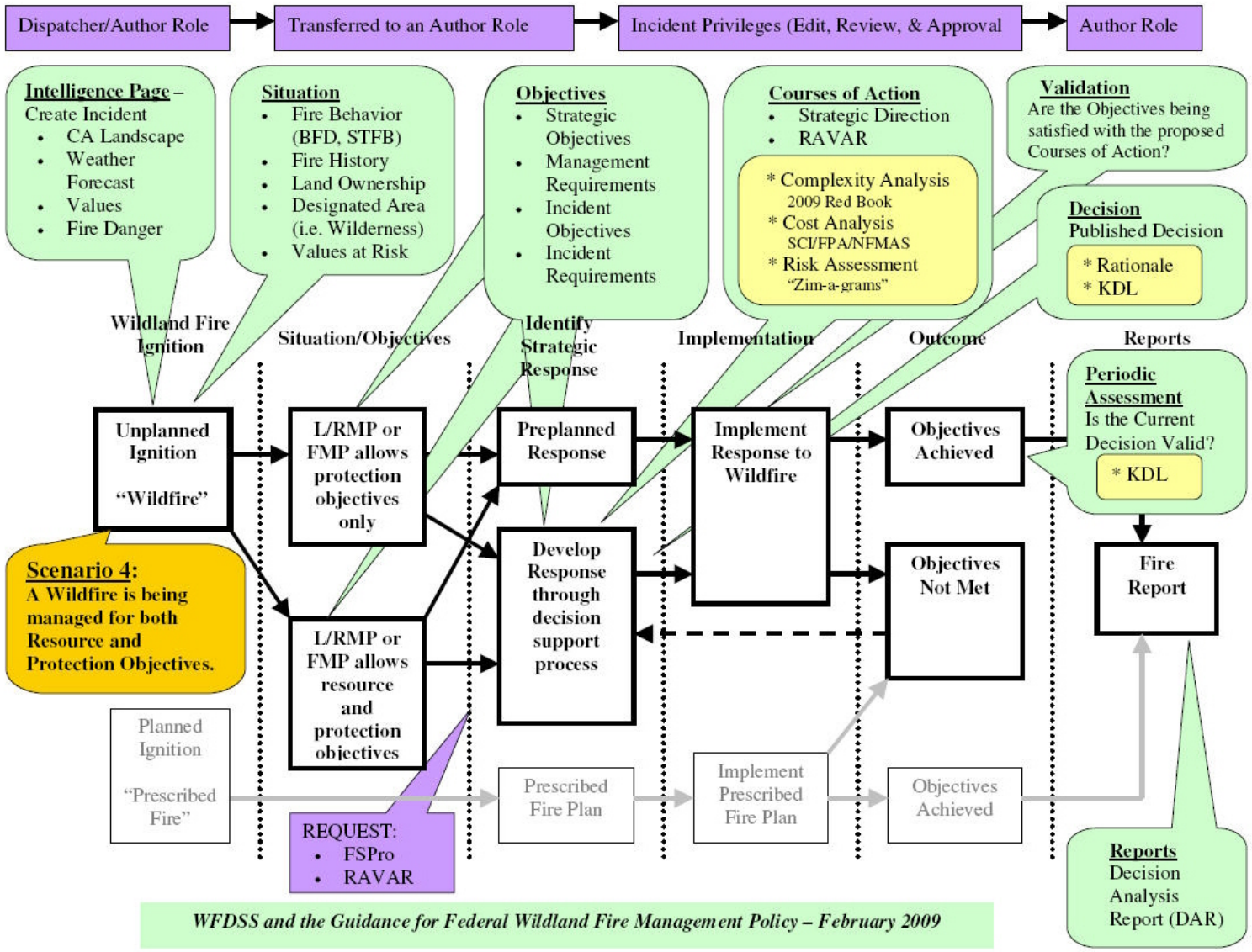
Roles for completing the WFDSS and required actions




*WFDSS and the Guidance for Federal Wildland Fire Management Policy – February 2009*


Dispatcher/Author Role
Transferred to an Author Role
Incident Privileges (Edit, Review, & Approval
Author Role
Intelligence Page – Create Incident
CA Landscape
Weather Forecast
Values
Fire Danger
Situation
Fire Behavior (BFD, STFB)
Fire History
Land Ownership
Designated Area (i.e. Wilderness)
Values at Risk
Objectives
Strategic Objectives
Management Requirements
Incident Objectives
Incident Requirements
Courses of Action
Strategic Direction
RAVAR
* Complexity Analysis 2009 Red Book
* Cost Analysis SCI/FPA/NFMAS
* Risk Assessment "Zim-a-grams"
Validation
Are the Objectives being satisfied with the proposed Courses of Action?
Decision
Published Decision
* Rationale
* KDL
Wildland Fire Ignition
Situation/Objectives
Identify Strategic Response
Implementation
Outcome
Reports
Unplanned Ignition "Wildfire"
L/RMP or FMP allows protection objectives only
Preplanned Response
Implement Response to Wildfire
Objectives Achieved
Periodic Assessment
Is the Current Decision Valid?
* KDL
Develop Response through decision support process
Objectives Not Met
Fire Report
Scenario 2: Protection Objectives Only and the wildfire that has escaped the initial attack.
L/RMP or FMP allows resource and protection objectives only
Planned Ignition "Prescribed Fire"
Prescribed Fire Plan
Implement Prescribed Fire Plan
Objectives Achieved
REQUEST:
FSPro
RAVAR
Reports
Decision Analysis Report (DAR)
WFDSS and the Guidance for Federal Wildland Fire Management Policy – February 2009

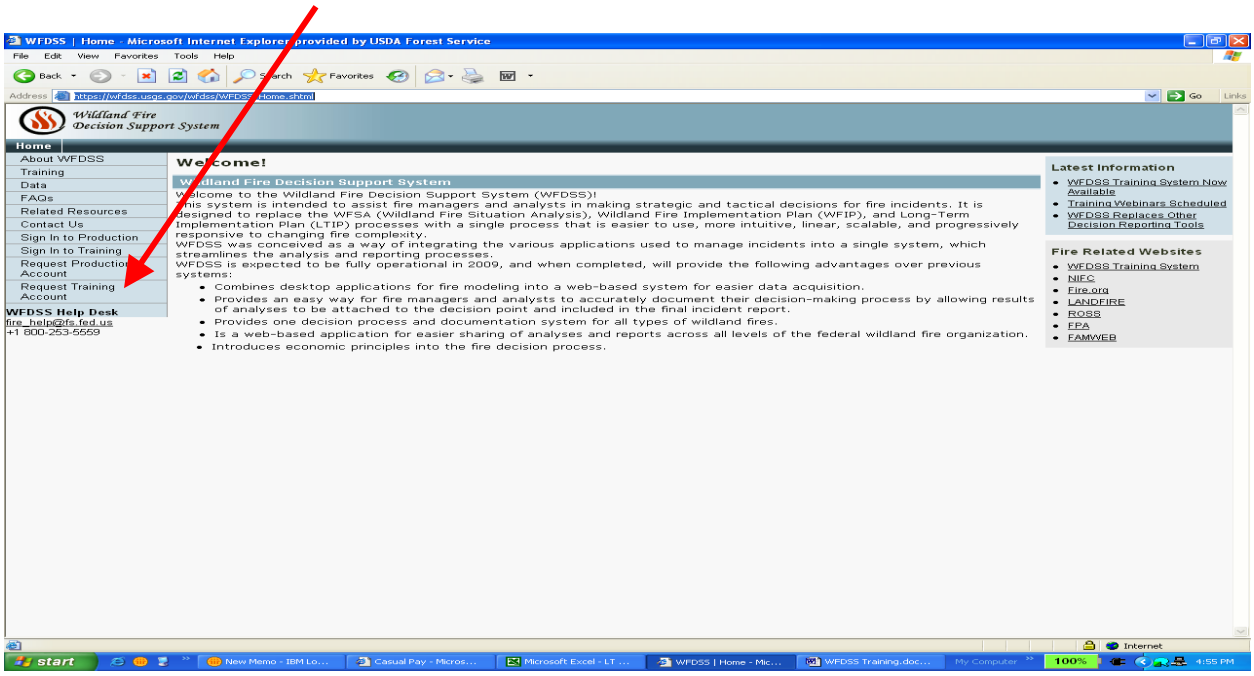

Dispatcher/Author Role
Transferred to an Author Role
Incident Privileges (Edit, Review, & Approval
Author Role
Intelligence Page – Create Incident
• CA Landscape
• Weather Forecast
• Values
• Fire Danger
Situation
• Fire Behavior (BFD, STFB)
• Fire History
• Land Ownership
• Designated Area (i.e. Wilderness)
• Values at Risk
Objectives
• Strategic Objectives
• Management Requirements
• Incident Objectives
• Incident Requirements
Courses of Action
• Strategic Direction
• RAVAR
* Complexity Analysis 2009 Red Book
* Cost Analysis SCI/FPA/NFMAS
* Risk Assessment "Zim-a-grams"
Validation
Are the Objectives being satisfied with the proposed Courses of Action?
Decision
Published Decision
* Rationale
* KDL
Wildland Fire Ignition
Situation/Objectives
Identify Strategic Response
Implementation
Outcome
Reports
Unplanned Ignition "Wildfire"
L/RMP or FMP allows protection objectives only
Preplanned Response
Implement Response to Wildfire
Objectives Achieved
Periodic Assessment
Is the Current Decision Valid?
* KDL
Scenario 3: Resource Objectives are met and the wildfire is being managed for Resource Benefits.
L/RMP or FMP allows resource and protection objectives
Develop Response through decision support process
Objectives Not Met
Fire Report
Planned Ignition "Prescribed Fire"
Prescribed Fire Plan
Implement Prescribed Fire Plan
Objectives Achieved
REQUEST:
• FSPro
• RAVAR
Reports
Decision Analysis Report (DAR)
WFDSS and the Guidance for Federal Wildland Fire Management Policy – February 2009


Dispatcher/Author Role
Transferred to an Author Role
Incident Privileges (Edit, Review, & Approval
Author Role
Intelligence Page – Create Incident
CA Landscape
Weather Forecast
Values
Fire Danger
Situation
Fire Behavior (BFD, STFB)
Fire History
Land Ownership
Designated Area (i.e. Wilderness)
Values at Risk
Objectives
Strategic Objectives
Management Requirements
Incident Objectives
Incident Requirements
Courses of Action
Strategic Direction
RAVAR
* Complexity Analysis 2009 Red Book
* Cost Analysis SCI/FPA/NFMAS
* Risk Assessment "Zim-a-grams"
Validation
Are the Objectives being satisfied with the proposed Courses of Action?
Decision
Published Decision
* Rationale
* KDL
Wildland Fire Ignition
Situation/Objectives
Identify Strategic Response
Implementation
Outcome
Reports
Unplanned Ignition "Wildfire"
L/RMP or FMP allows protection objectives only
L/RMP or FMP allows resource and protection objectives
Preplanned Response
Develop Response through decision support process
Implement Response to Wildfire
Objectives Achieved
Objectives Not Met
Periodic Assessment
Is the Current Decision Valid?
* KDL
Fire Report
Scenario 4:
A Wildfire is being managed for both Resource and Protection Objectives.
Planned Ignition "Prescribed Fire"
Prescribed Fire Plan
Implement Prescribed Fire Plan
Objectives Achieved
REQUEST:
FSPro
RAVAR
Reports
Decision Analysis Report (DAR)
WFDSS and the Guidance for Federal Wildland Fire Management Policy – February 2009

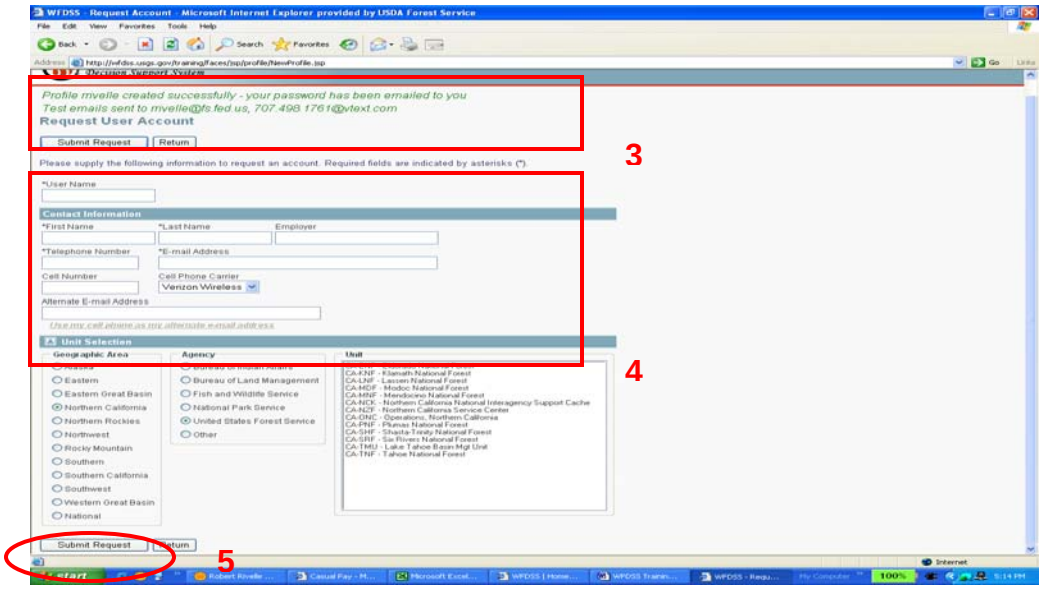
# Section 3. Request an Account

To request the WDFSS account, complete the following steps.

1. Go to the WFDSS website site **https://wfdss.usgs.gov/wfdss/WFDSS_Home.shtml**
2. Click on Request Training Account




3. Complete the information requested
4. Click the Submit Request button.
5. Your password will be emailed to you.



# Section 4. User Profile

In this section, you can find out how to maintain an account and manage your user settings from the **My Home** tab in WFDSS.

The **My Home** tab in WFDSS contains the following user-defined settings:

- Contact Information
- Password
- Privileges
- System Preferences
- Address Book

## Updating Your Contact Information

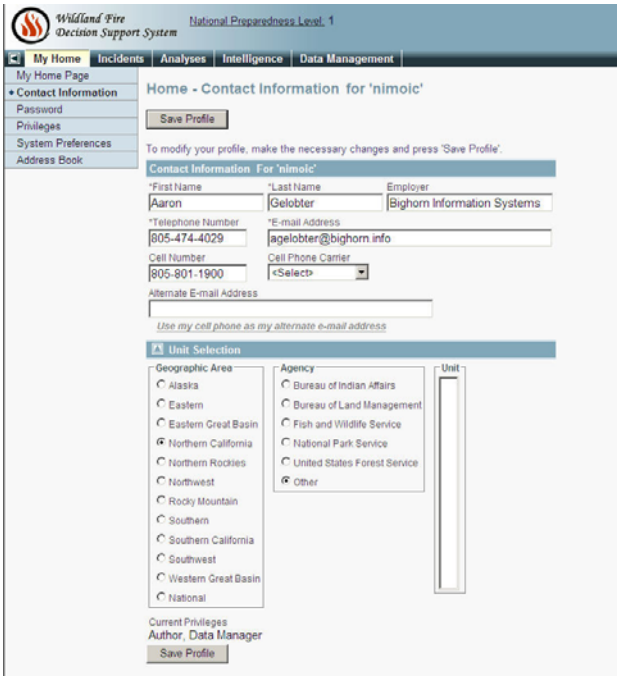
WFDSS uses the information provided in your user profile to notify you of changes to incidents and decision reports that you are associated with. It is important to keep your profile up to date with your current contact information; as you know, fire management is time-critical work.

> Note: You must update your information in both the Production and Training applications. They do not share data.

To update your contact information:

1. Login to the appropriate WFDSS application.
2. Click **My Home > Contact Information**. The Home - Contact Information page appears with your contact information pre-filled.
3. Review each field and make the appropriate changes.
4. To receive text messages from WFDSS, click the link "Use my cell phone as my alternate email address".
5. Verify that your geographic area, agency, and unit are accurate.
6. Verify that your current privileges are correct.
7. Click **Submit**.

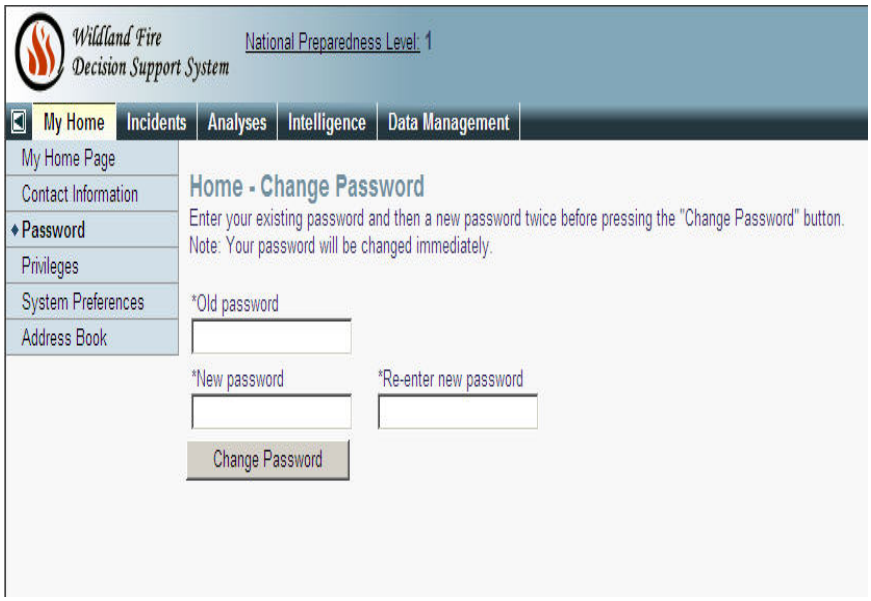
Your changes are saved in the database.



## Changing Your Password

When you first set up an account in WFDSS, you receive a system-generated password. It's a good idea to change that password the first time you log on.

To change your password:




1. Log into the appropriate WFDSS application. (Production and Training have different user names and passwords.)
2. Enter your old password.
3. Enter your new password.
4. Re-enter your new password. (Be sure to enter it exactly the same way as in step 3.)
5. Click **Submit**.

Your password is now reset

## Requesting Additional System Privileges

You can have multiple system-level roles in WFDSS. Some roles imply privileges associated with other roles:

- All roles have Viewer privileges
- National Editors and Geographic Editors also have Author privileges.
- Super Analysts also have Fire Behavior Specialist and RAVAR privileges.
- Help Desk supersedes all other role assignments.

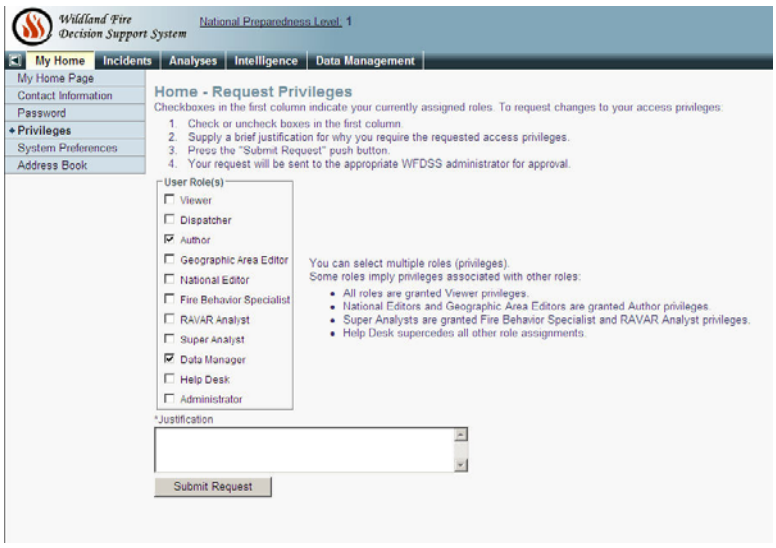
In addition, you might have incident-specific roles, such as Owner, Reviewer, or Approver.

Note: You must update your information in both the Production and Training applications. They do not share data.

To request additional system privileges:

1. Login in to the appropriate WFDSS application.

2. Click **My Home > Privileges**. The Home - Privileges page appears, with your current privileges checked in the User Roles box.
3. Check the additional privileges that you want.
4. Write a justification for the request. Your justification should explain why you need the additional privileges.
5. Click **Submit**.




A WFDDSS Administrator will review your request

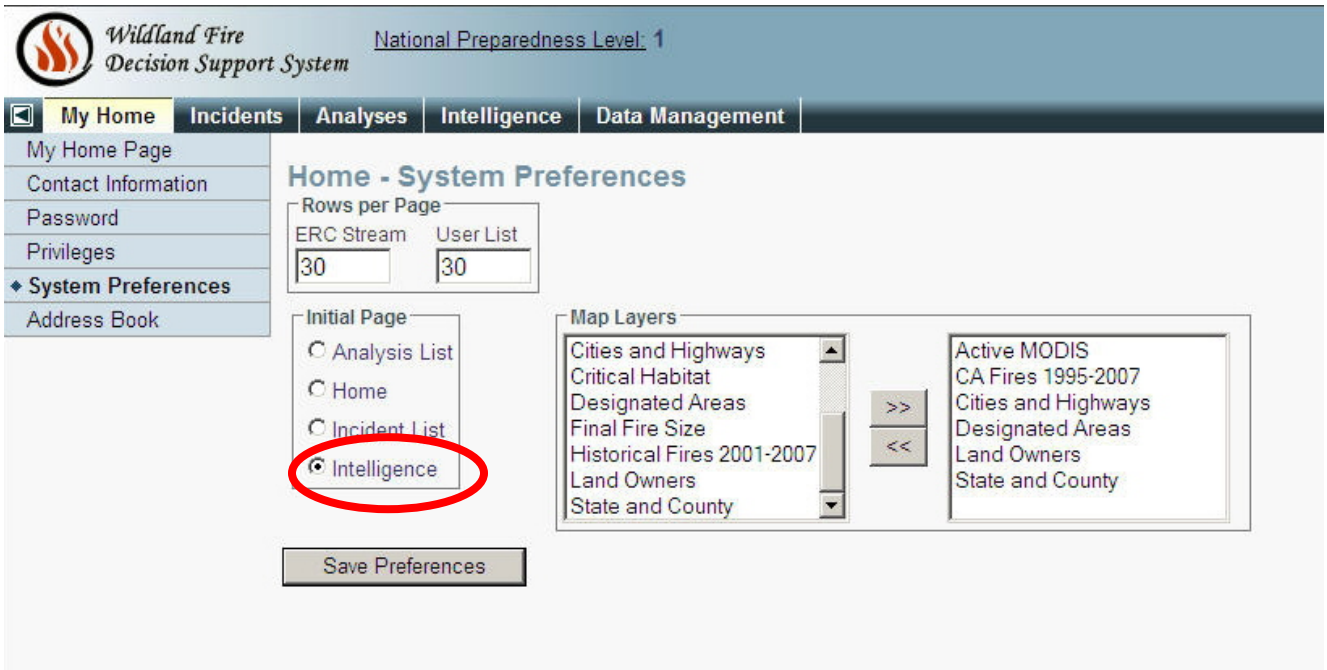
## Changing Your System Preferences

(So Intelligence Page appears as the first page when you log in)

With WFDSS, you also can change the following:

- How many data rows appear
- Which map layers get used

Note: You must update your information in both the Production and Training applications. They do not share data.



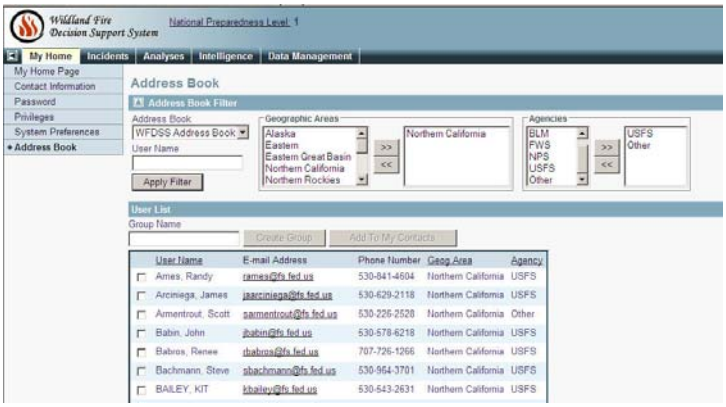
To change your system preferences:

1. Login to the appropriate WFDSS application.
2. Click **My Home > System Preferences**. The Home - System Preferences page appears.
3. Enter the number of rows you want to appear per page for ERC Stream and User List data.
4. Select the Initial Page (**Intelligence Page**). This is the first page you will see after logging into the application.
5. Select the map layers that you want to use.
6. Click **Save Preferences**.

Your changes are saved and the pages change accordingly.

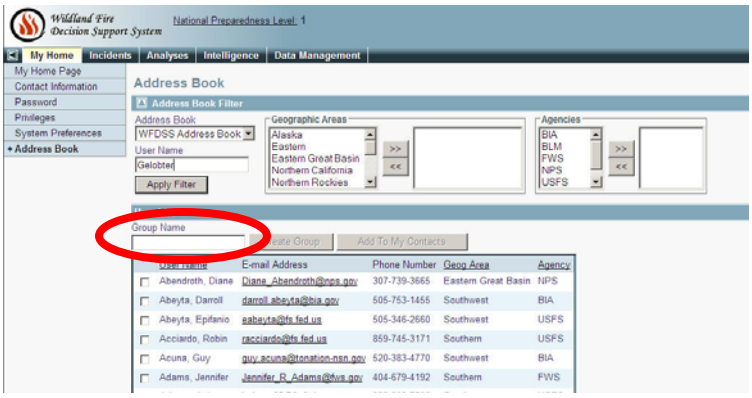
## Address Book

The address book in WFDSS allows you to easily find other WFDSS users, and to create groups based on your area of responsibility, geographic area, or other criteria.



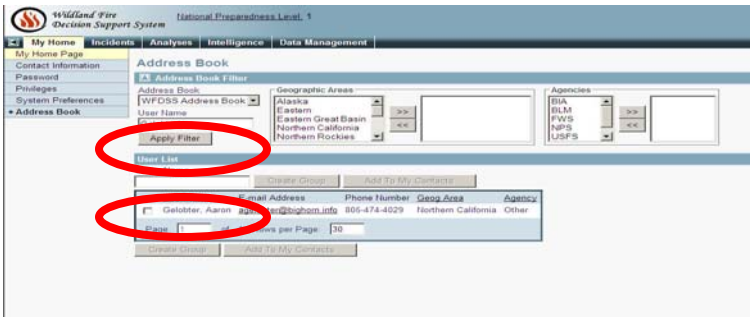

***Filtering Addresses*** You can also use the address book to search for a specific person.

1. Type in the name you want to locate in the User Name area.

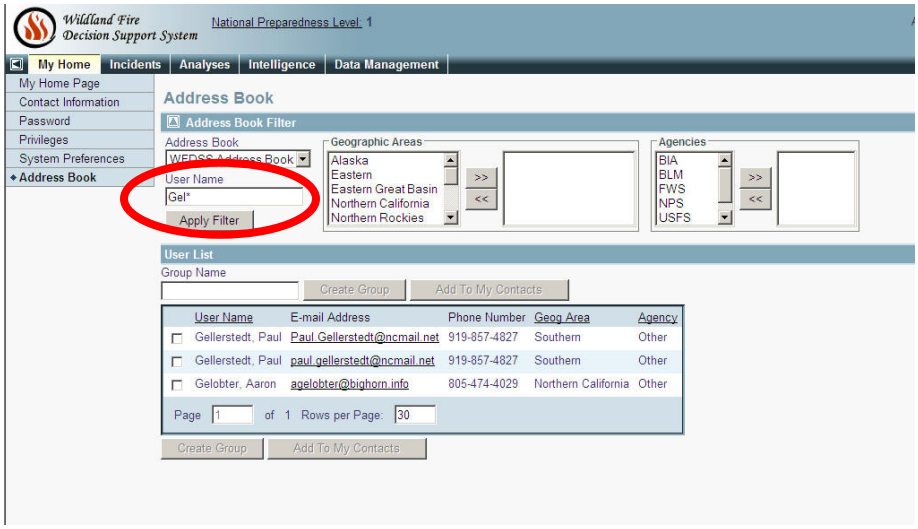



2. Click **Apply Filter**

3. View name that you just filtered.



4. You can do the same with a “Wildcard” feature. Type just a few letter of the name followed by an asterisk *****
5. Then Click **Apply Filter**

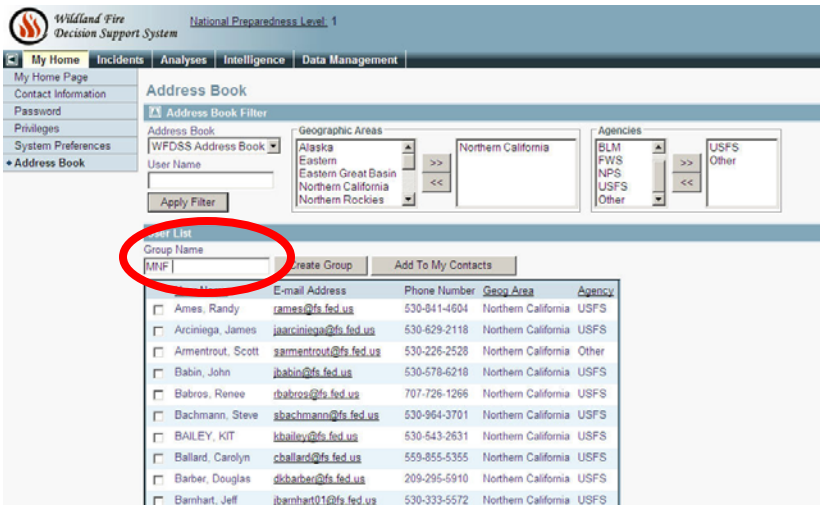



## Setting Up Your Personal Address Book

### Creating Groups

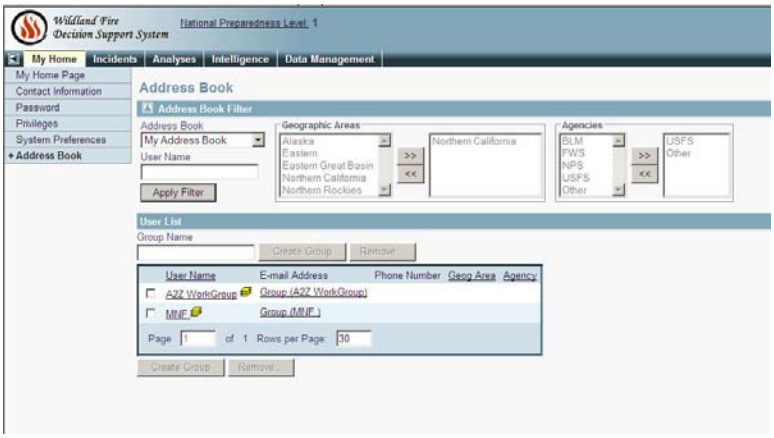
1. Select the individuals you want in your group by Click by their names

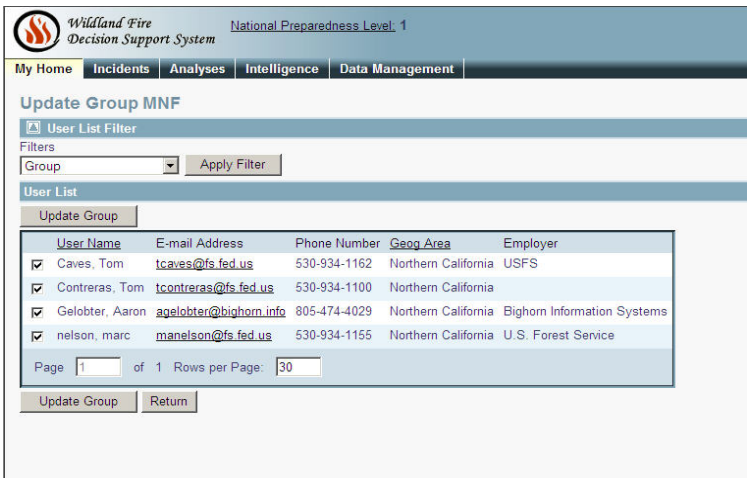

2. Then type in the name of your Group
3. Click on **Create Group**



## Update Groups

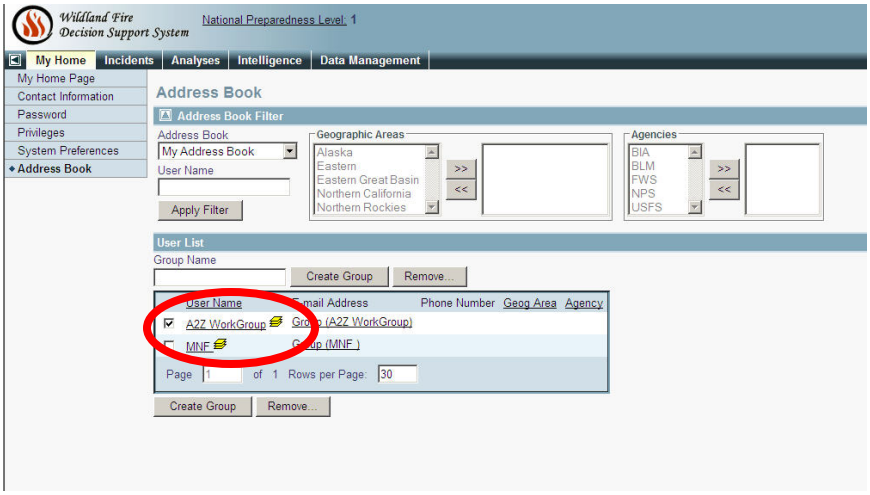
Double Click on Group you want to update.



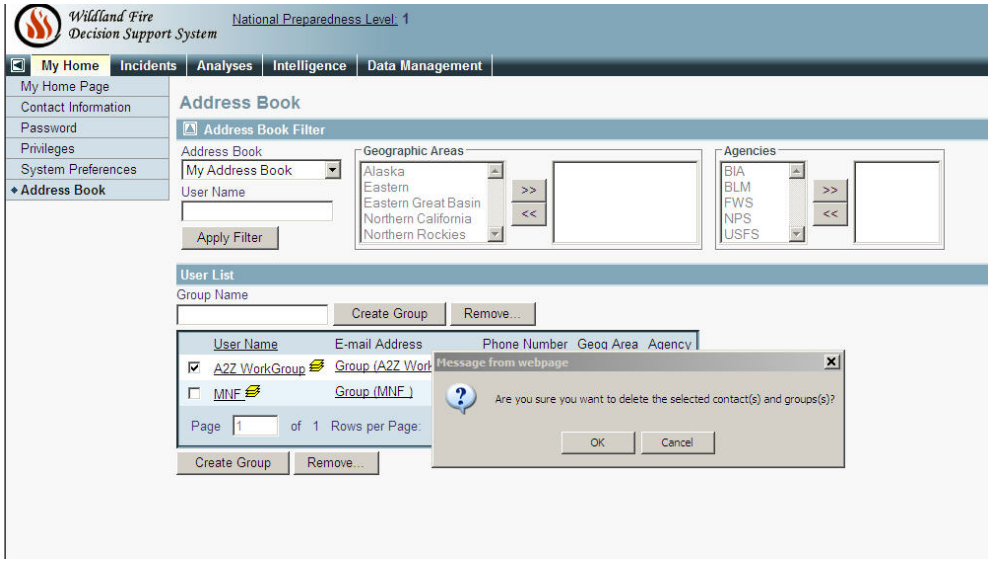

## Deleting Groups

1. Click on the drop tab under Address Book Filter and select My Address Book, this is where the Groups are located.

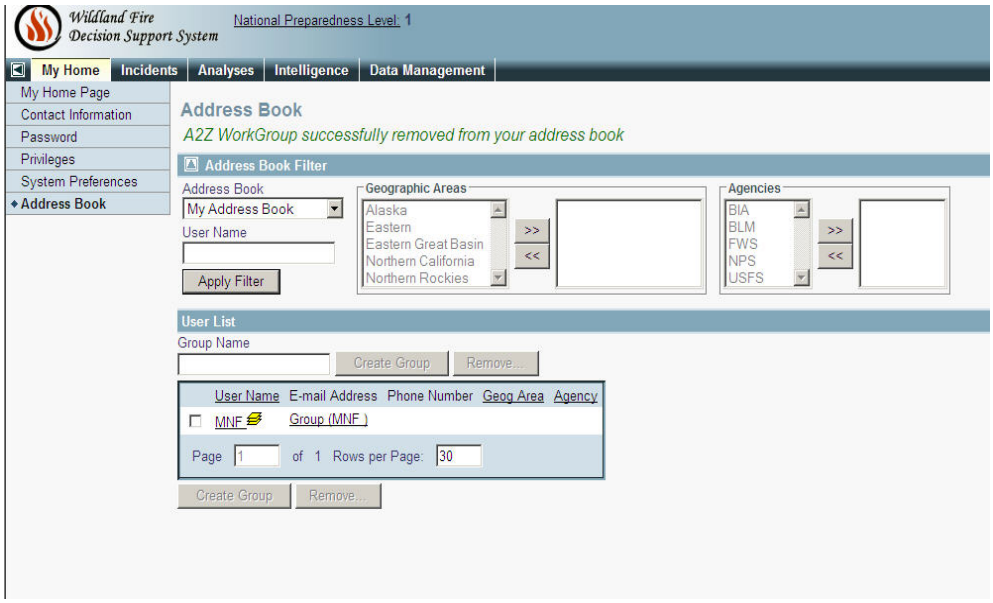



2. Click on the Group to be deleted.
3. Click on the **Remove** button.

4. A message will appear and Click “OK” to continue.




5. A green message will appear indicating you have successfully removed the group.

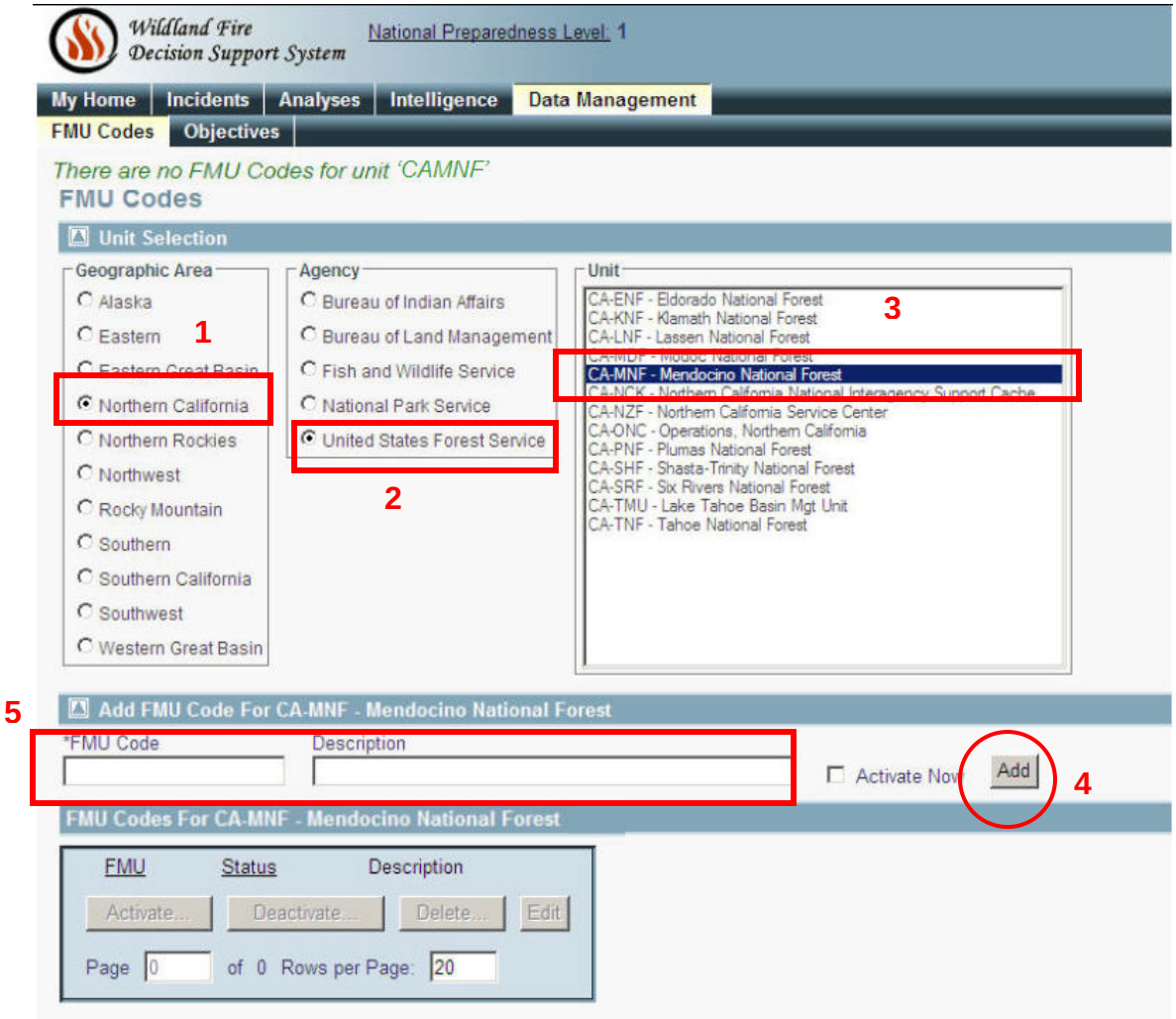


# Section 5. Data Management

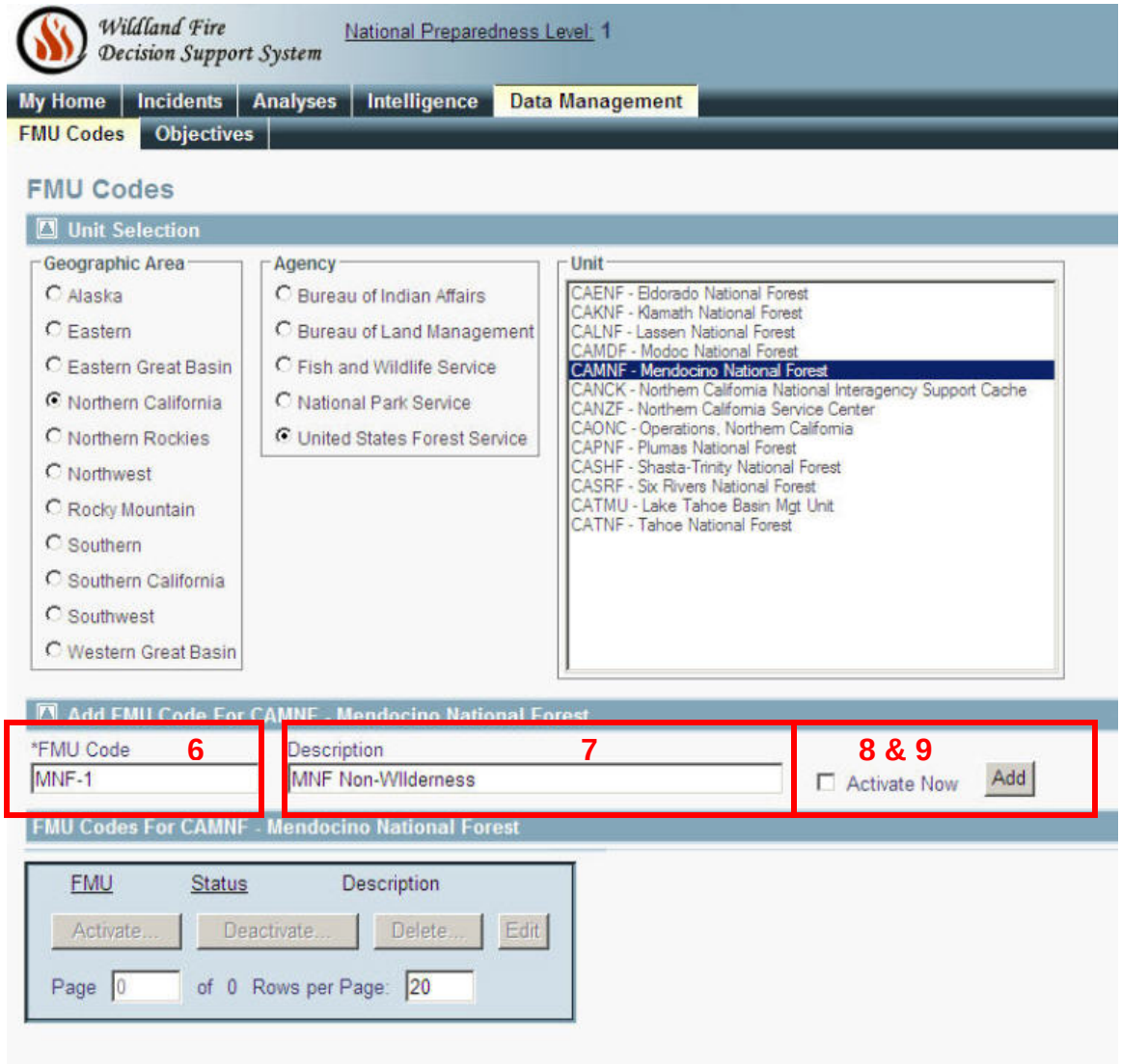
## Fire Management Units (FMU)

Navigate to the DATA MANAGEMENT tab to Create FMU Codes.
Click on the FMU Codes tab to Create Fire Management Unit descriptions and codes.

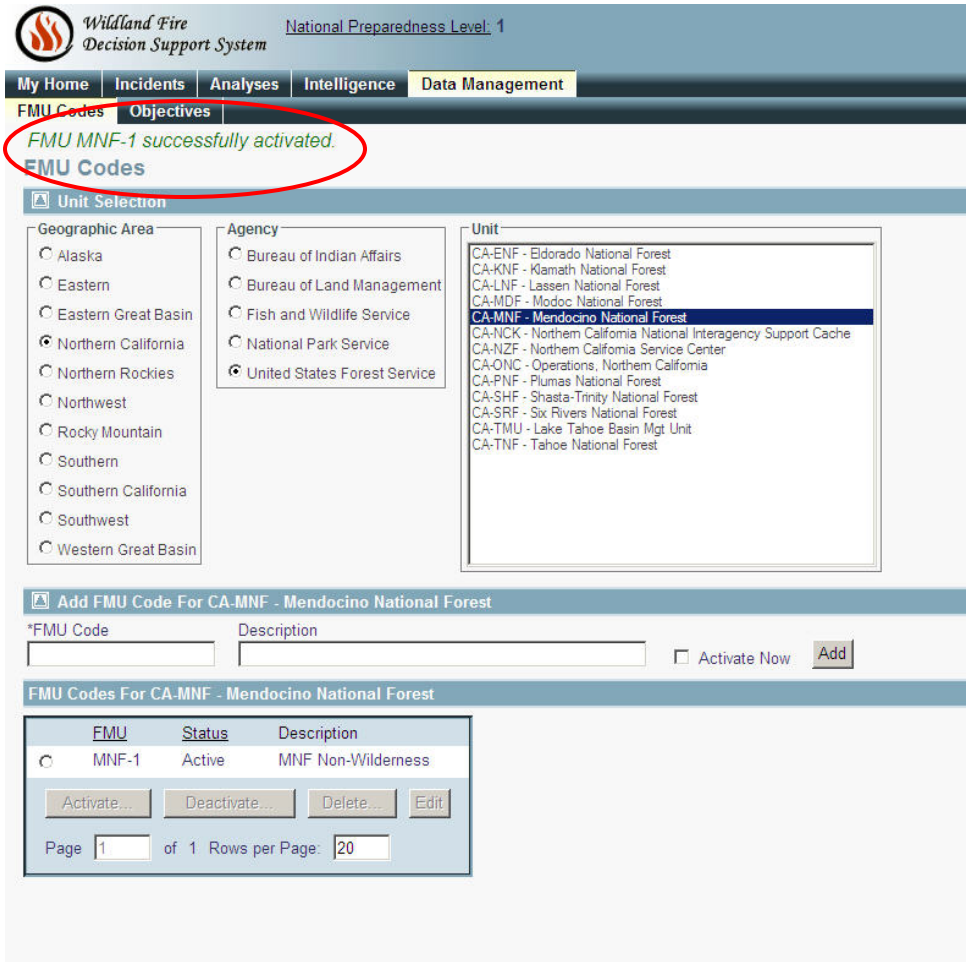
**FMU Codes will be used in the future to link to spatial data for fire management units.**




1. Select the Geographic Area.
2. Select the Agency.
3. Select the Unit.
4. Now see a box to ADD FMU Codes for the unit selected.
5. If we already have FMU Codes entered, below the ADD box we will see a list of FMUs previously created.



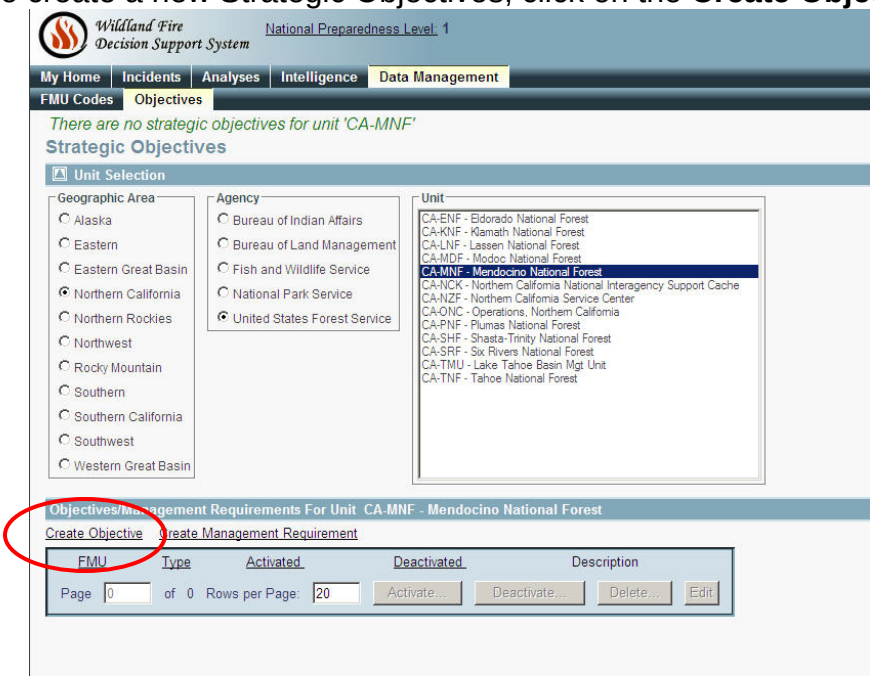

6. Enter FMU Code. This code will be utilized in the future to link your Strategic Objectives and Management Requirements to spatial FMU Data. The FMU Code needs to match the code used in the spatial data layer of FMU polygons.
7. Enter FMU Description/Name.
8. Choose to activate FMU for use now by clicking **ACTIVATE NOW**.
9. Click **ADD** to create FMU Code.



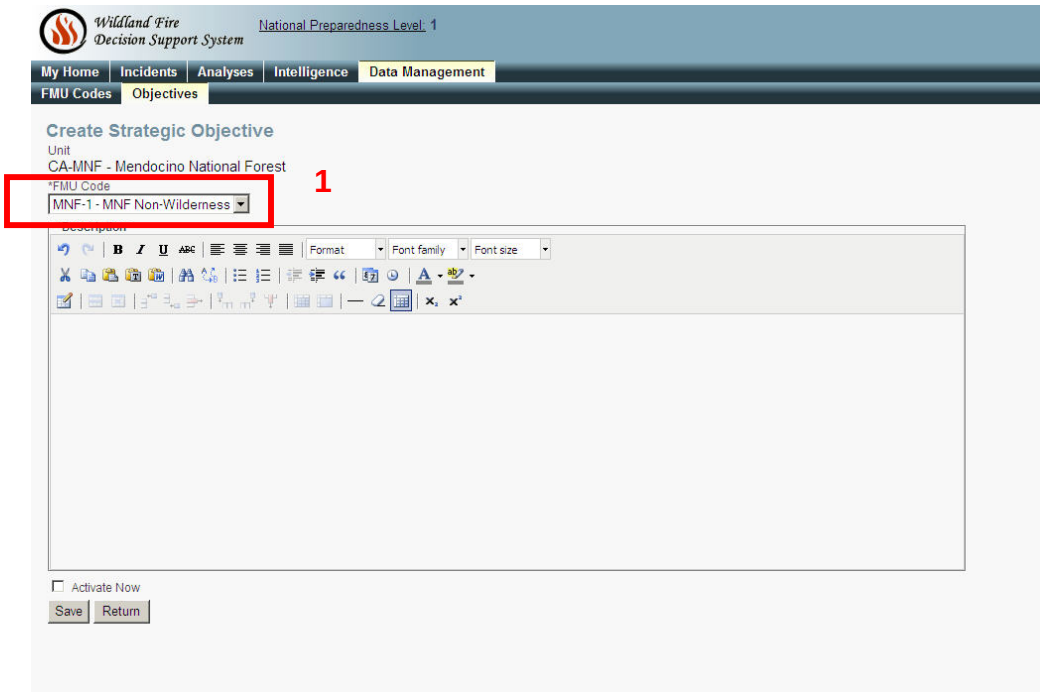

10. A message at the top of the screen will appear to show you that your FMU was successfully created.

## Strategic Objectives

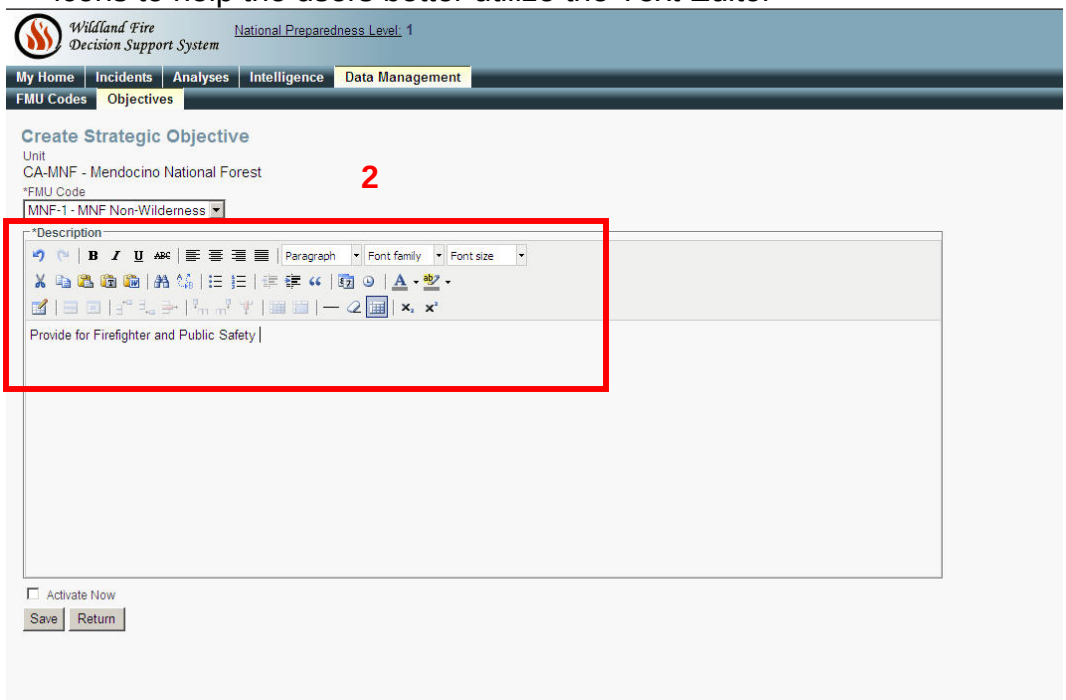
To create a new Strategic Objectives, click on the **Create Objective**



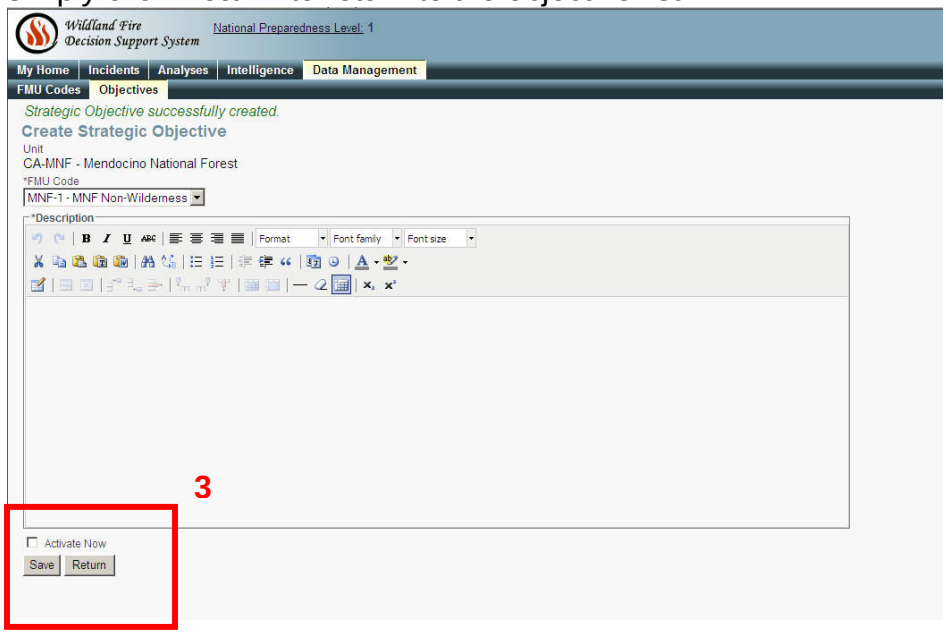

1. Choose a FMU Code from a drop down list of FMUs. This list was created where we created FMU Codes.



2. Enter your Strategic Objective from Land and Fire Management Plans. The Text Editor box for free text will have hover text associated with the icons to help the users better utilize the Text Editor

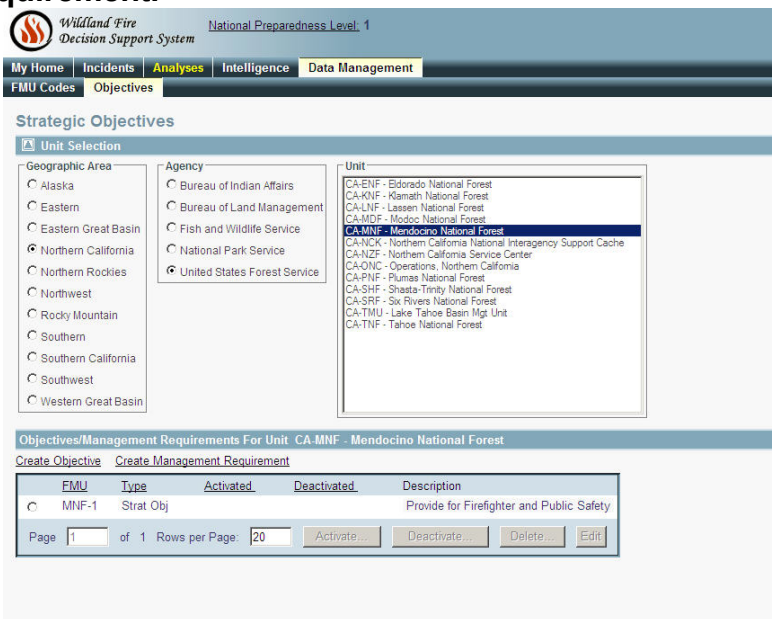



3. When finished, you can choose to activate the objective now by clicking the **Active Now** box. You can then click **Save** to save your objective and return to the objective list. If you choose NOT to save your objective, simply click **Return** to return to the objective list.

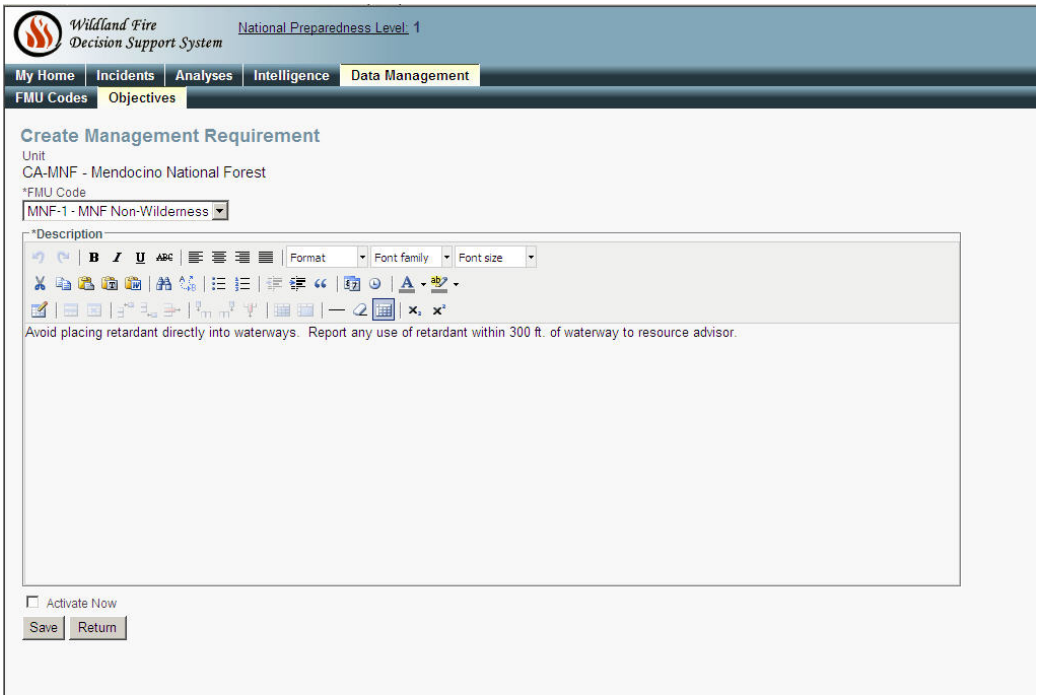


## Management Requirement

To create a new Management Requirement, click on the **Create Management Requirement.**



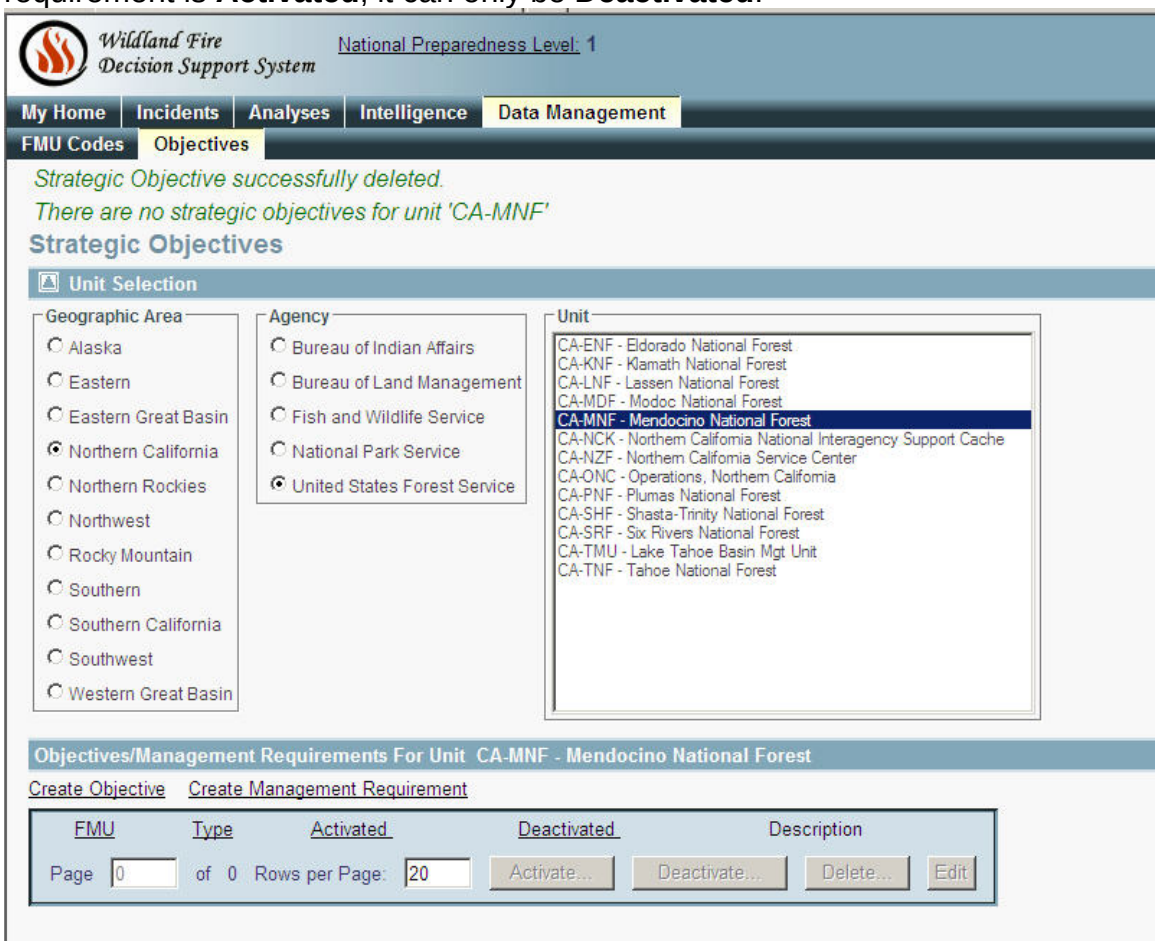

1. Choose a FMU Code from a drop down list of FMUs. This list was created where we created FMU Codes. Enter your Management Requirements from Land and Fire Management Plans. The Text Editor box for free text will have hover text associated with the icons to help the users better utilize the **Text Editor.**



2. When finished, you can choose to activate the objective now by clicking the **Active Now** box. You can then click **Save** to save your objective and return to the objective list. If you choose NOT to save your objective, simply click **Return** to return to the objective list.

3. Data Managers can click the radio button next to a Strategic objective or Management Requirement to select.

4. Once there is a selection, Data Mangers will be able to **Activate** or **Deactivate** an objective or requirement. If an objective or requirement was never **Activated**, it can be **Edited** or **Deleted**. Once an objective or requirement is **Activated**, it can only be **Deactivated**.



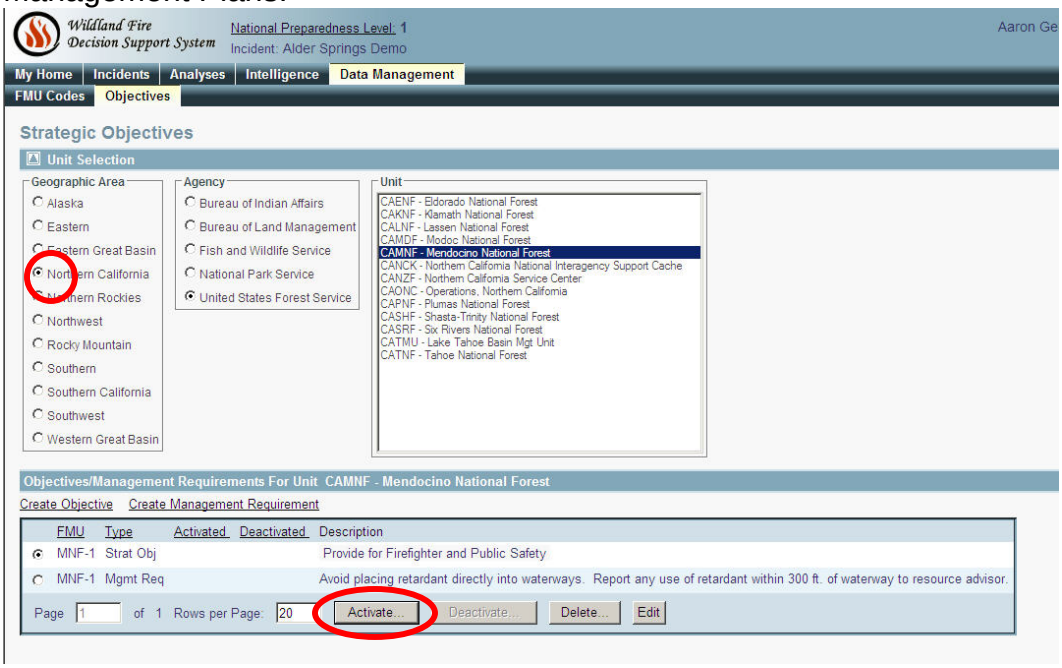

## Activate Strategic Objectives or Management Requirement

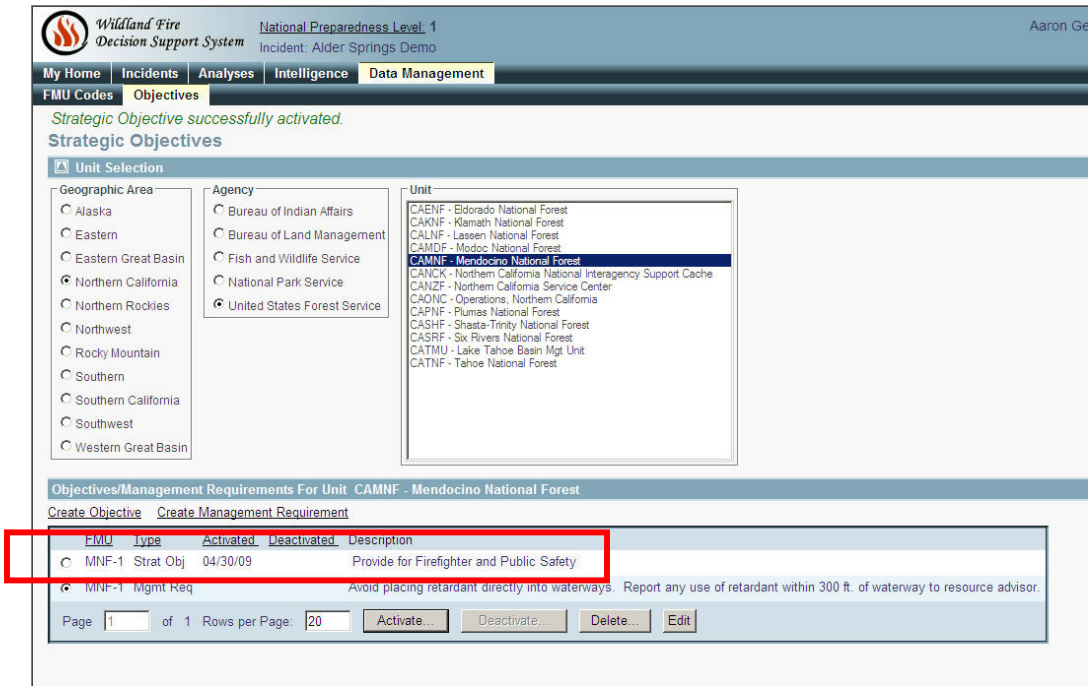
Data Managers can click the **Radio** button next to a Strategic objective or Management Requirement to select.

Once there is a selection, Data Mangers will be able to Activate or **Deactivate** and objective or requirement. If an objective or requirement was never

**Activated**, it can be **Edited** or **Deleted**. Once an objective or requirement is **Activated**, it can only be **Deactivated**.

This statement means that once an objective is activated, it can never be edited or deleted. This action leaves a track log in the system of all objectives and requirements that were active in the decision system. It prohibits someone other than the Data Manager from changing objectives/requirements that have been entered per Land and Fire Management Plans.



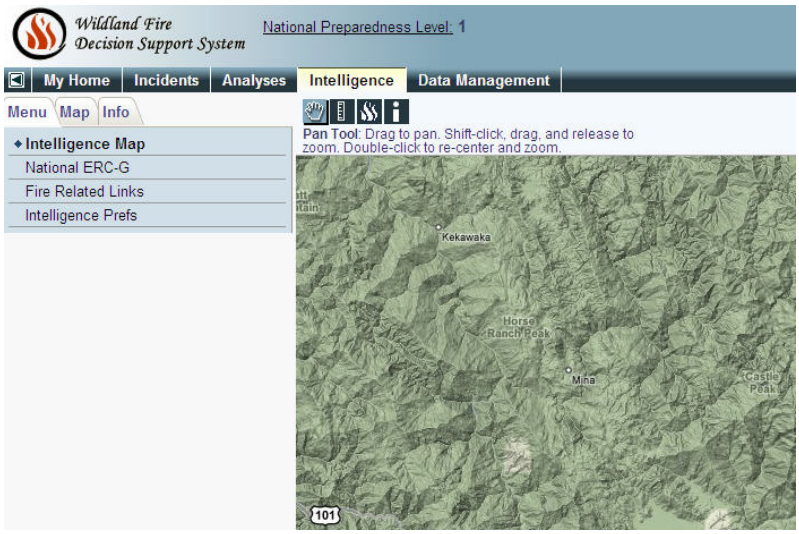



# Section 6. Intelligence

## A. Intelligence Page

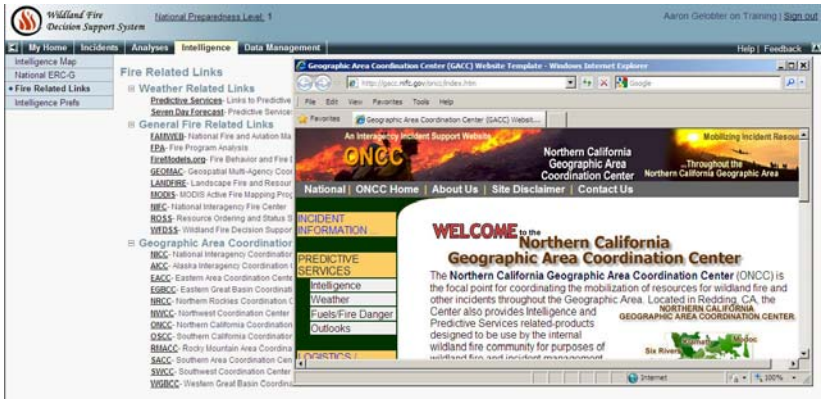
### Menu Tab

When that link is clicked, the user is moved to the **Intelligence Tab**. The map that appears shows all incidents that are in the user's geographic area that was specified in their profile. Users can edit their profile.

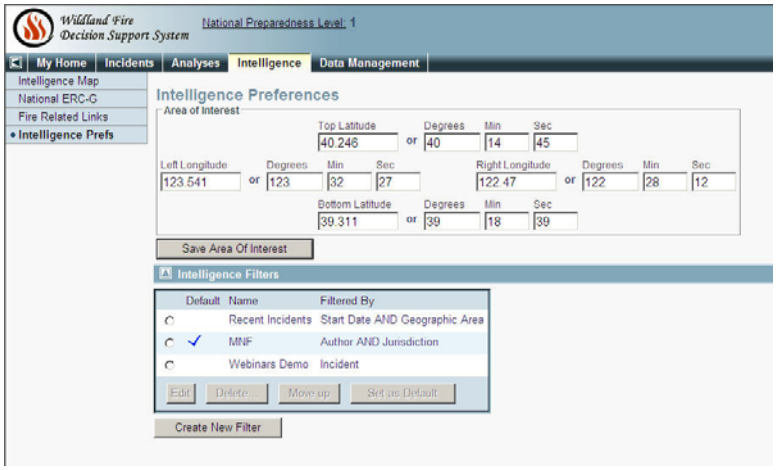



**Intelligence Tab** allows **Viewers** to view many of the same features as the **SITUATION Tab**. Other user roles can do more with the **Intelligence Tab.**

**Intelligence Related Links** allows Viewers to view Weather and Fire Related Links as well as Links to the Geographic Area Coordination Centers.



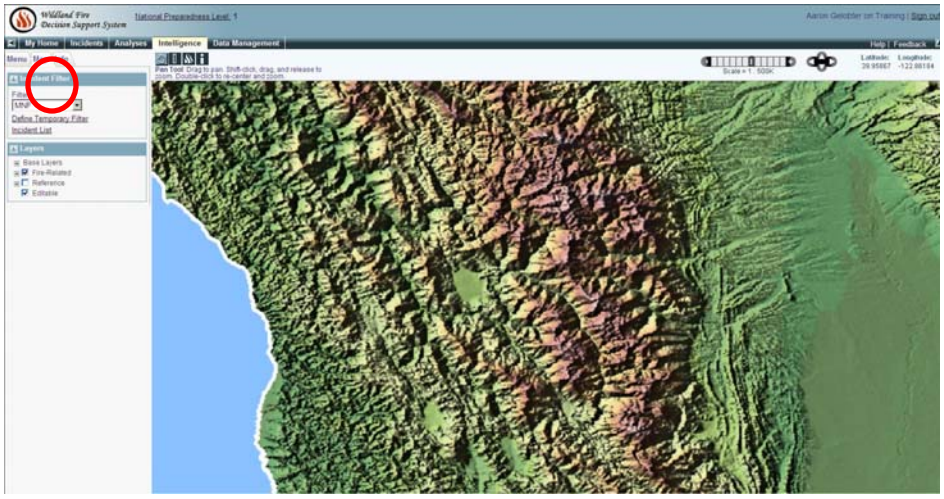

The **Intelligence Preferences** link allows **Viewers** and other users to modify the map view in their profiles. Some users may not want to open up to their entire geographic area. They may want to narrow their map view to their home unit. This page allows those changes.



## Map Tab

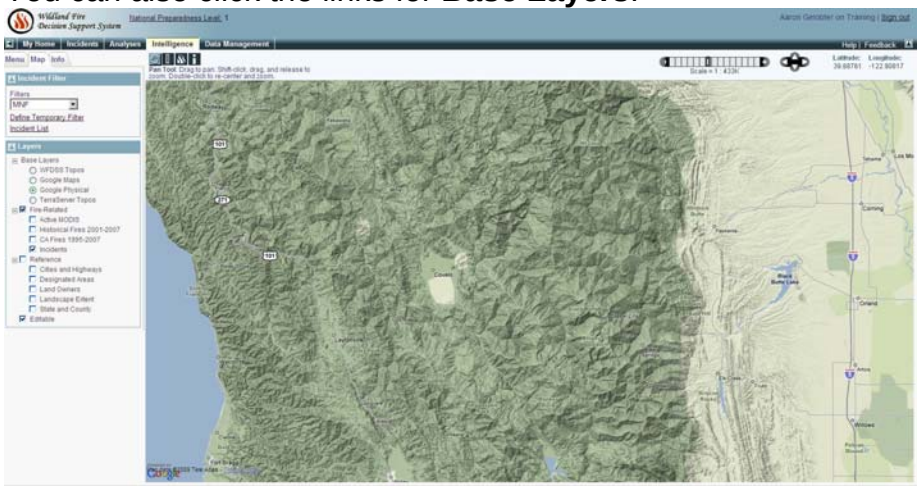
WFDSS is a primarily geospatial application, and most tasks can be performed using the map view.

Note: Depending on your Internet connection, the maps can take a minute or two to load the first time you access them each session. You should see the maps tiling as the page loads. If the maps don't load after 3 minutes, contact the WFDSS Help Desk (**fire_help@fs.fed.us**).

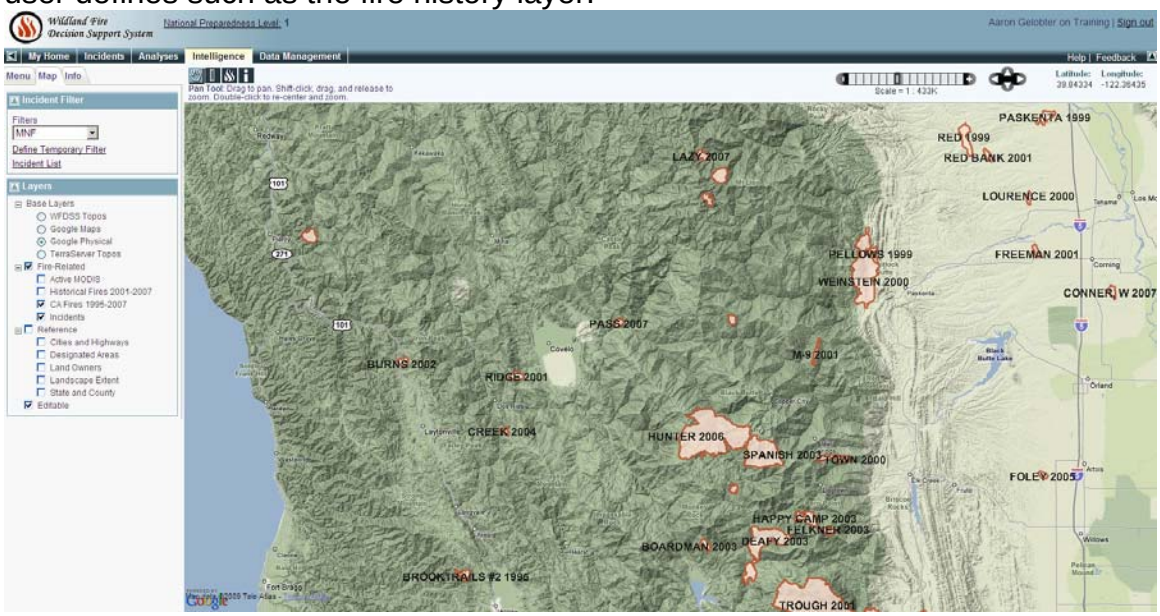


Click the. The map appears according to the preferences you defined and the **Map Tab** will be highlighted.

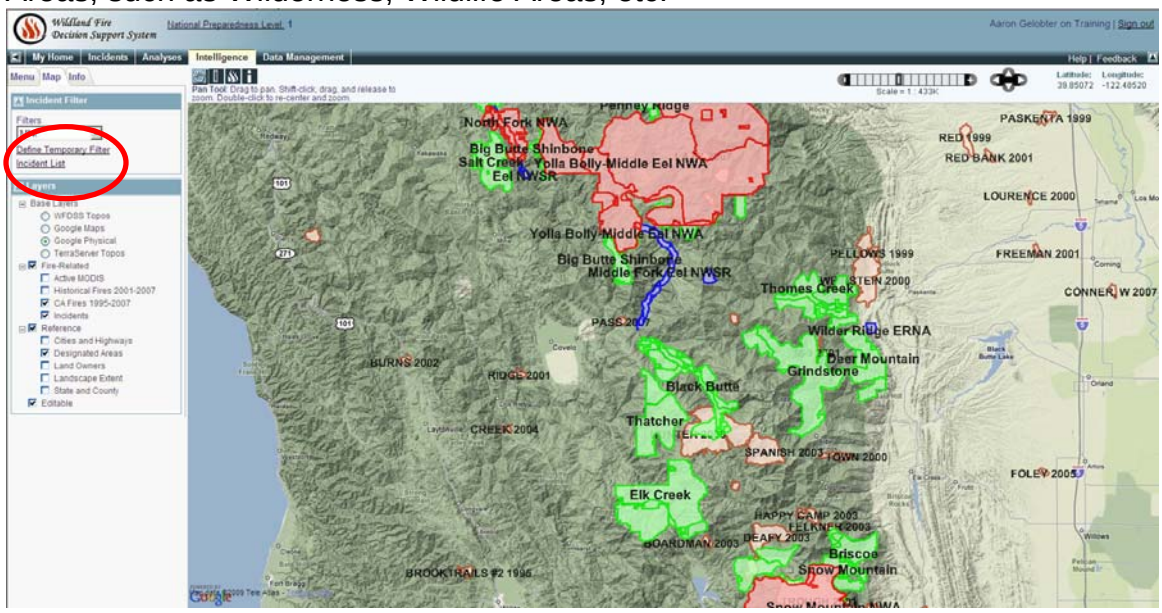
You can also click the links for **Base Layers**.



You can also click the links for **Fire-Related** information with various layers the user defines such as the fire history layer.




You can also click the links for **Designated Area** to view the Land and Resource Areas, such as Wilderness, Wildlife Areas, etc.

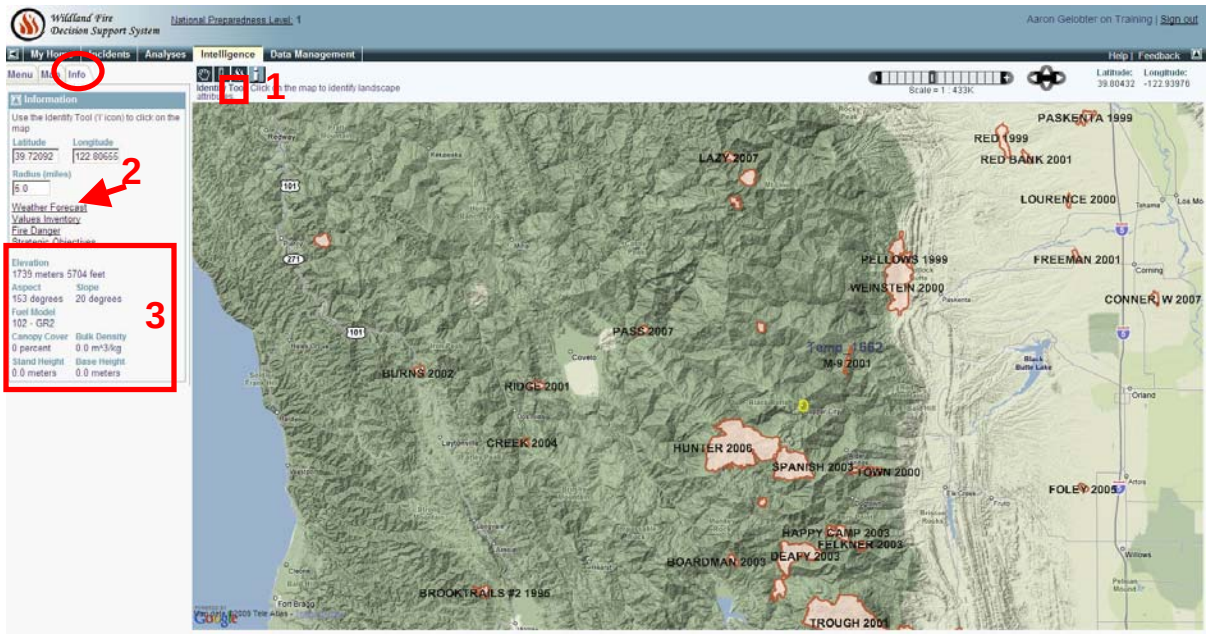


## Info Tab

Info Tab offers easy access to a variety of basic decision support information:

- Spatial information – T&E species, Fire History
- Weather Forecasts
- Values Inventory – based on tier1 RAVAR data in a radius
- Fire Danger – ERC-G
- Strategic Objectives that were pre-loaded into the system

1. Using the "i" button, users can click on the map.
2. Users can then choose to view the Weather Forecasts, Values Inventory, Fire Danger or Strategic Objectives.
3. Users can also view the underlying LANDFIRE data.




Users can now view:

- Weather Forecast based on spatial data for the fire weather zone in the area
- Values Inventory for the set radius – 0.1 miles radius produces information for a 20-acre area
- Fire Danger (ERC-G graph for closest weather station or if coordinates for a weather station are entered, the ERC graph for that station will appear
- LANDFIRE data at the temporary point created
- STRATEGIC OBJECTIVES will be available based on spatial data for fire management units. This feature will only be available when spatial fire management/land management unit data is available

Here are examples of this information:

Fire Weather Forecast - Windows Internet Explorer

http://wfdss.usgs.gov/training/jsp/intelligence/WeatherForecast.faces?tid=671&lat=39.65117&lon=-122.73703&rad=5.0

File Edit View Favorites Tools Help

Wildland Fire
Decision Support System

```
000
FNUS56 KSTO 301430
FWFSTO
FWFSTO

FIRE WEATHER PLANNING FORECAST FOR INTERIOR NORTHERN CALIFORNIA
NATIONAL WEATHER SERVICE SACRAMENTO
730 AM PDT THU APR 30 2009

NOTE:  THIS IS A RETRANSMISSION OF YESTERDAYS AFTERNOON FORECAST... IT IS NOT
AN UPDATE. THE FORECAST IS ISSUED ONCE DAILY BY 330 PM IN THE LOWSEASON.


.DISCUSSION...
AN UPPER LEVEL LOW REMAINS NEARLY STATIONARY OVER OREGON...SPREADING
CLOUDINESS OVER THE FAR NORTHERN SACRAMENTO VALLEY AND SURROUNDING
MOUNTAINS. LITTLE TO NO PRECIPITATION IS EXPECTED AS THE LOW SLOWLY
MOVES EASTWARD AND OUT OF THE AREA THURSDAY. A WEAK RIDGE OF HIGH
PRESSURE WILL MOVE OVER NORTHERN CALIFORNIA THURSDAY BRINGING
SLIGHTLY WARMER TEMPERATURES. THIS WILL BE SHORTLIVED HOWEVER AS
ANOTHER LOW PRESSURE SYSTEM MOVES TOWARDS THE AREA FRIDAY. THE
FRIDAY SYSTEM WILL HAVE A DECENT CHANCE OF BRINGING WETTING RAINS TO
THE ENTIRE FORECAST AREA.
```

Done Internet 100%

WFDSS Values Inventory - Windows Internet Explorer

http://wfdss.usgs.gov/training/jsp/assessment/AssetInventoryInfo.faces?tid=812&lat=39.65117&lon=122.73703&rad=5.0

File Edit View Favorites Tools Help

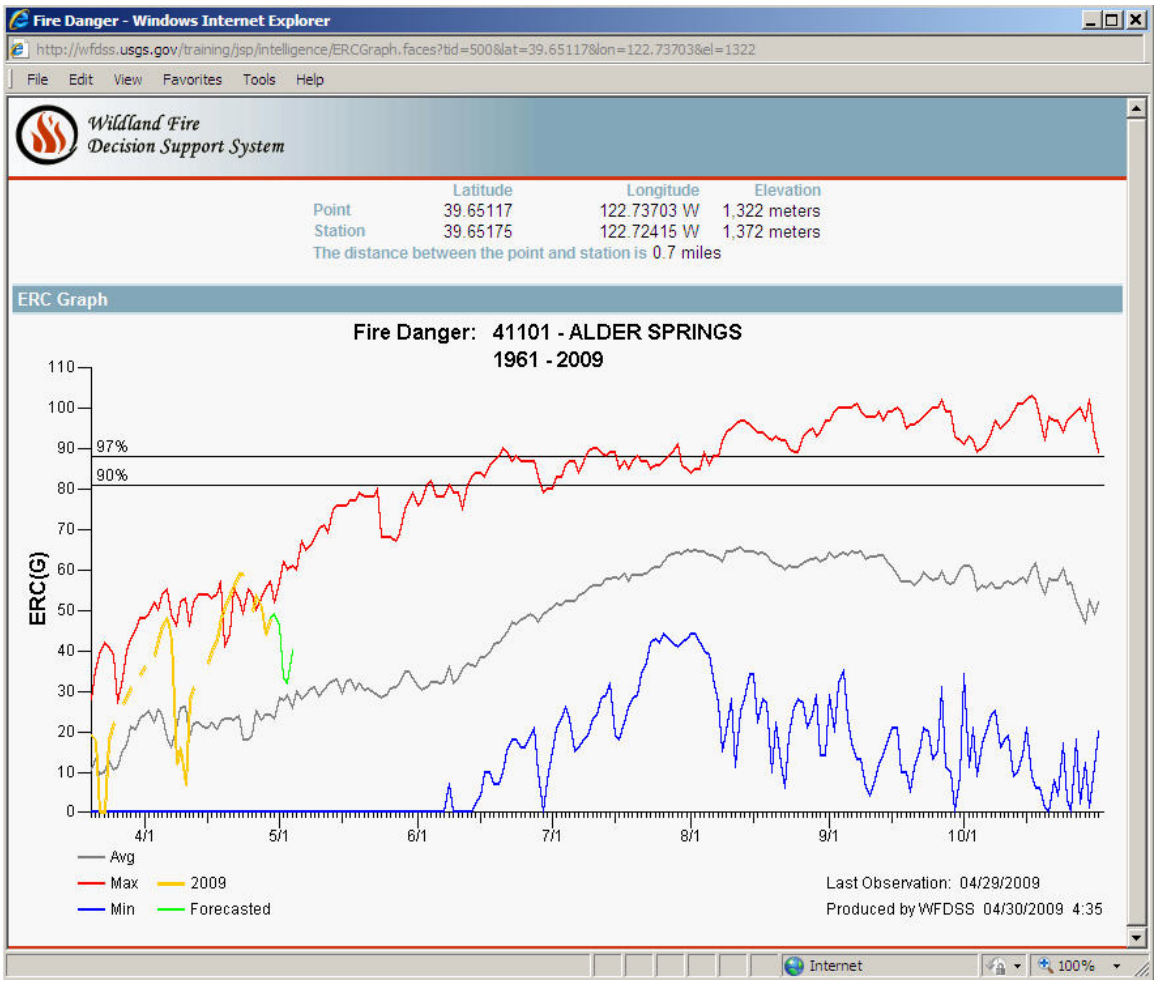
Wildland Fire
Decision Support System

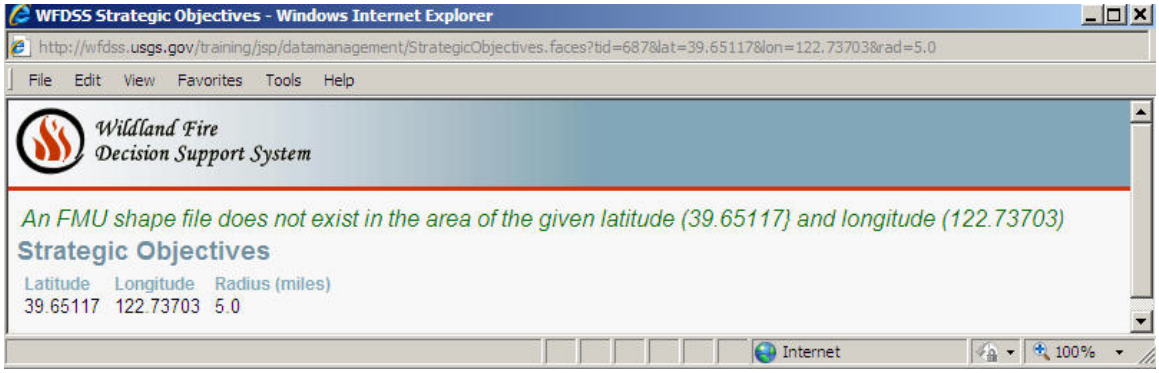
## Values Inventory Information

| Latitude | Longitude | Radius |
|---|---|---|
| 39.65117 | 122.73703 W | 5.0 miles |

| Asset | Value | Data Source | Currency | Coverage |
|---|---|---|---|---|
| Major Roads | 26.0 miles | Tele Atlas North America, Inc., ESRI | Nov 01, 2006 | National - CONUS |
| Census Housing Values | $0 | U.S. Census Bureau | Jan 01, 2000 | National coverage |
| Jurisdiction: USFS | 49,824 acres | Primarily BLM Land Status | Jan 01, 2007 | AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY |
| Jurisdiction: Private | 442 acres | Primarily BLM Land Status | Jan 01, 2007 | AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY |
| Communication Towers: | 5 | FCC | Mar 11, 2009 | National - CONUS |

Done Internet 100%


Fire Danger - Windows Internet Explorer
http://wfdss.usgs.gov/training/jsp/intelligence/ERCGraph.faces?tid=5008&lat=39.65117&lon=122.73703&el=1322
File Edit View Favorites Tools Help
Wildland Fire
Decision Support System
Latitude Longitude Elevation
Point 39.65117 122.73703 W 1,322 meters
Station 39.65175 122.72415 W 1,372 meters
The distance between the point and station is 0.7 miles
ERC Graph
Fire Danger: 41101 - ALDER SPRINGS
1961 - 2009
ERC(G)
97%
90%
4/1
5/1
6/1
7/1
8/1
9/1
10/1
Avg
Max
2009
Min
Forecasted
Last Observation: 04/29/2009
Produced by WFDSS 04/30/2009 4:35
Internet
100%


WFDSS Strategic Objectives - Windows Internet Explorer
http://wfdss.usgs.gov/training/jsp/datamanagement/StrategicObjectives.faces?tid=687&lat=39.65117&lon=122.73703&rad=5.0
File Edit View Favorites Tools Help
Wildland Fire
Decision Support System
An FMU shape file does not exist in the area of the given latitude (39.65117) and longitude (122.73703)
Strategic Objectives
Latitude Longitude Radius (miles)
39.65117 122.73703 5.0
Internet
100%

## B. Creating an Incident

Fires are known as incidents in WFDSS. Dispatchers, Authors, and Editors can create an incident in one of two ways:

- Using the Intelligence Page (preferred)
- Using the Incident Page

You must have the following information before entering the incident in WFDSS:

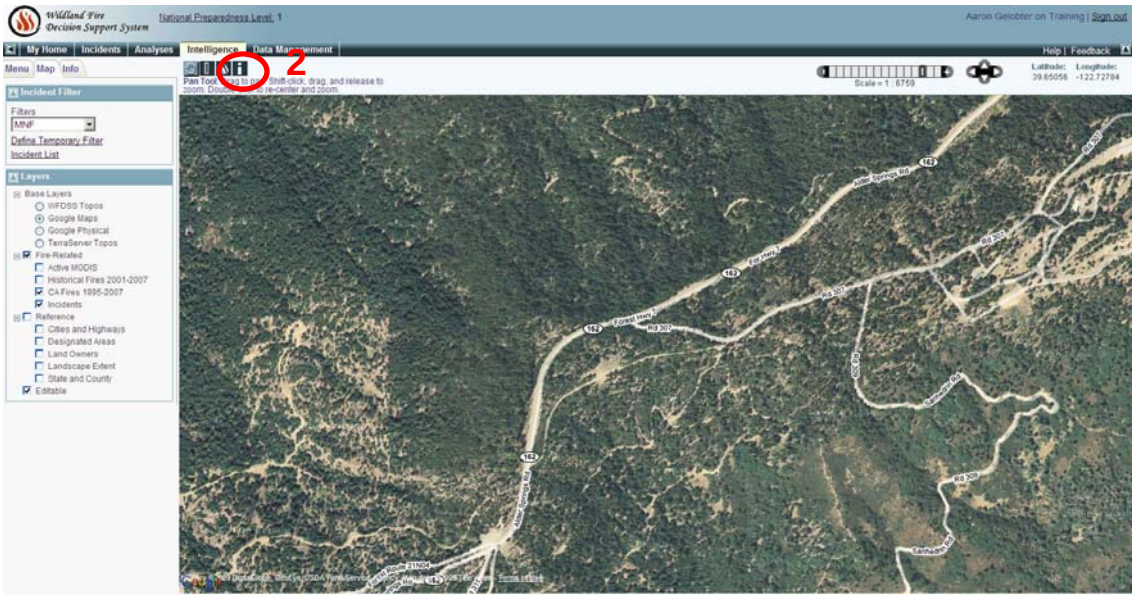
1. Location of incident (able to locate on a map or know the latitude and longitude)
2. Start date and time (populated)
3. Name of incident (Enter)
4. Fire Number (Enter with the NWCG Standard)
5. Fire Code (Enter)
6. Discovery Size (Enter)

To create an incident using the map view:

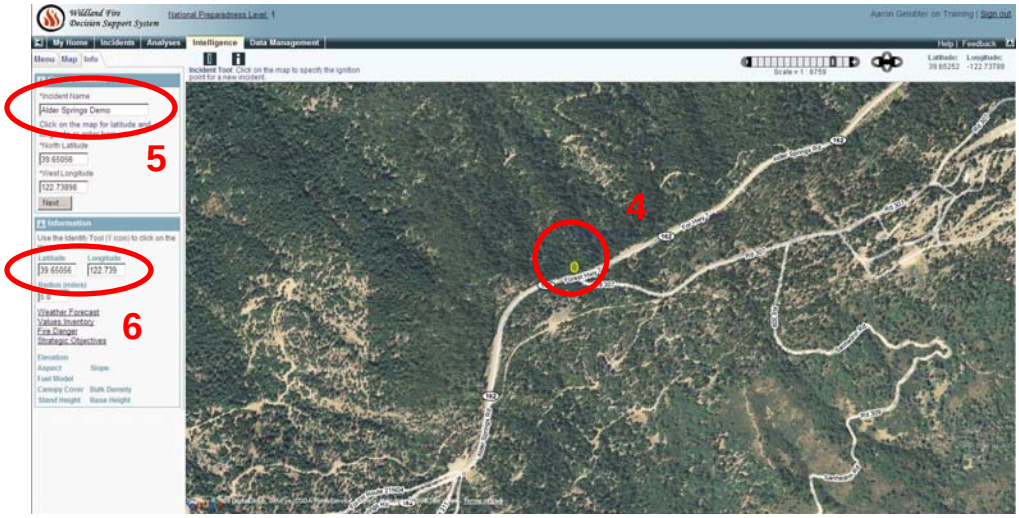
1. From the WFDSS Home page, select **Intelligence > Intelligence Map**. The map of your designated geographic area appears.

> Note: It might require several seconds for the maps to load the first time you go to the Map view. Refreshing and zooming can also take a few seconds, depending on how many layers you have turned on and what resolution you are working with.

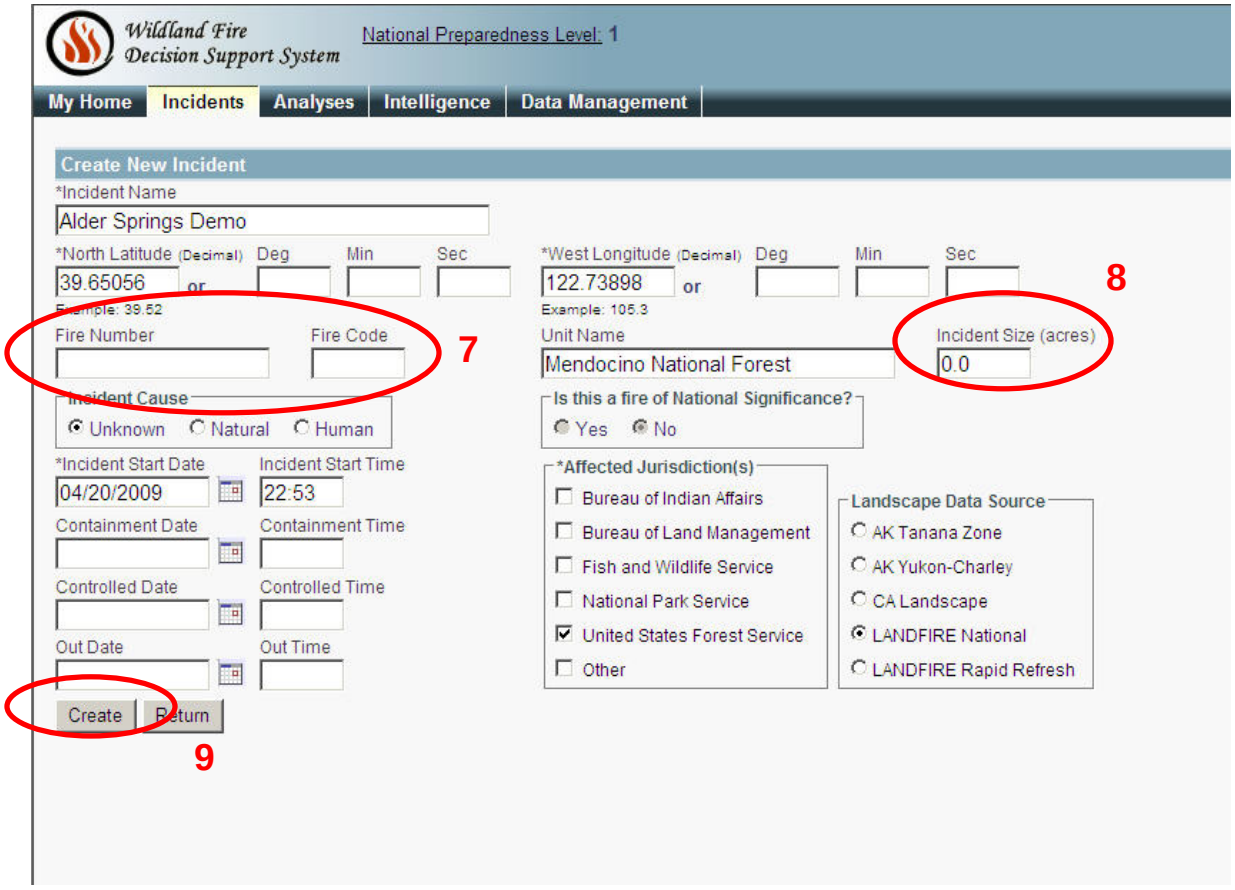
2. Click the Fire icon. The cursor changes to an arrow.
3. Place the arrow on the location of the fire, and then click.



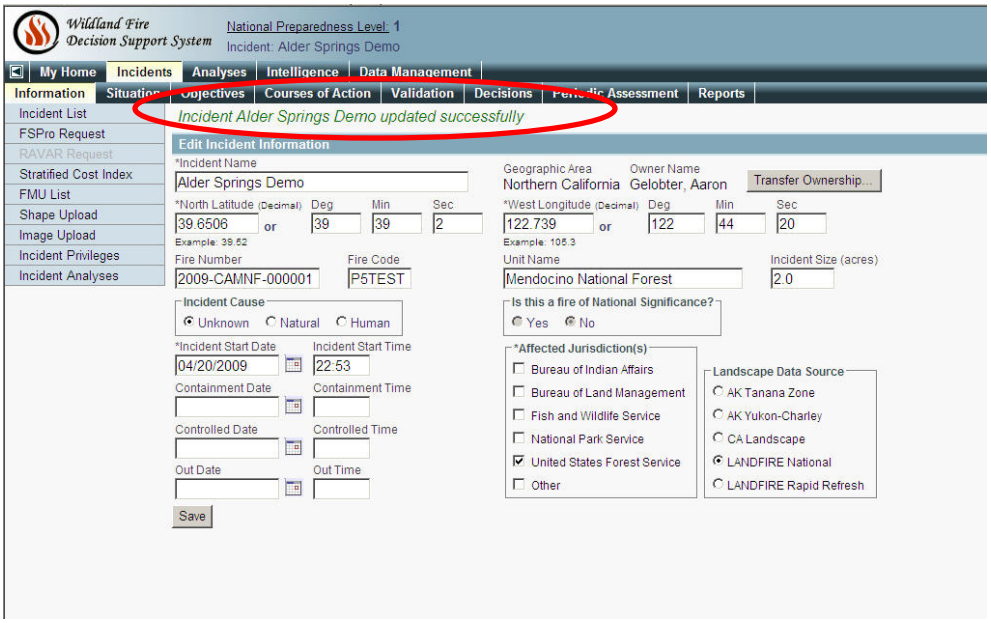
4. A small yellow circle appears on the map in the location of the fire, and the latitude and longitude are automatically entered in the appropriate fields in the Create Incident pane.
5. Click the Incident Name field and type the name of the incident.




6. Click **Next**. The Create New Incident page appears, with the Name, Latitude, Longitude, and Incident Start Date populated for you.

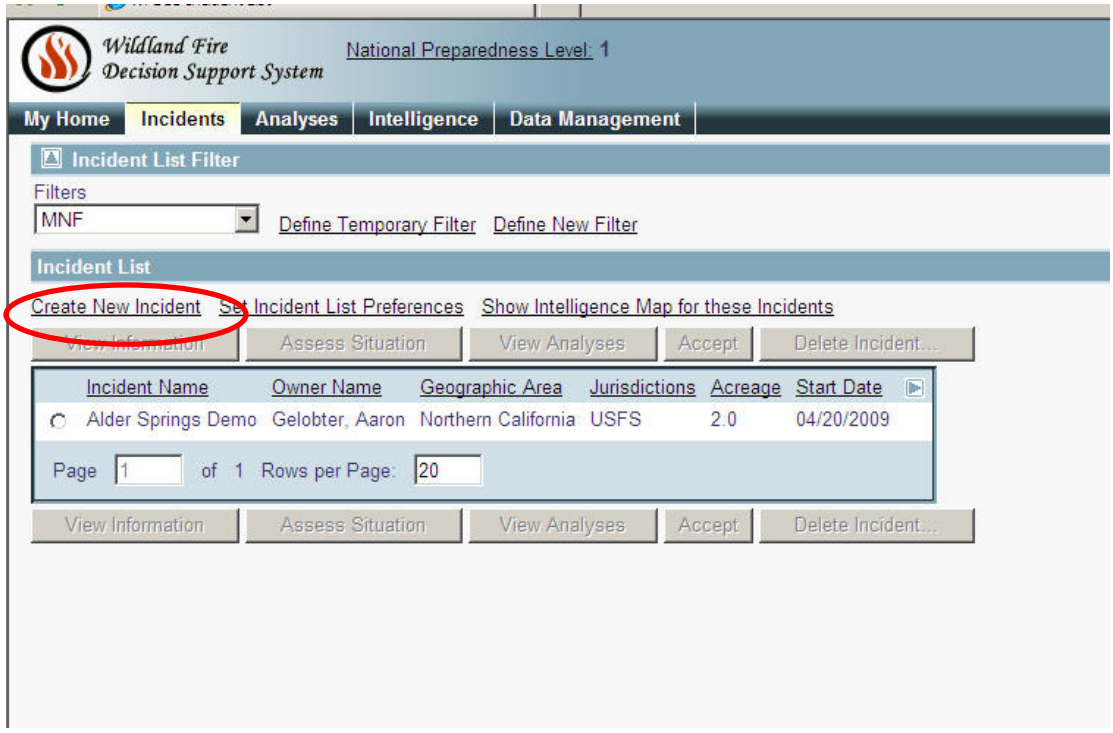


7. Enter Fire Number - NWCG Standard “year-state unit-number” (2009-CAMNF-000001) and Fire Code
8. Enter Incident Size (acres)
9. Click **Create**. The incident is saved to the database and added to the Incident List, and the Edit Incident Information appears.

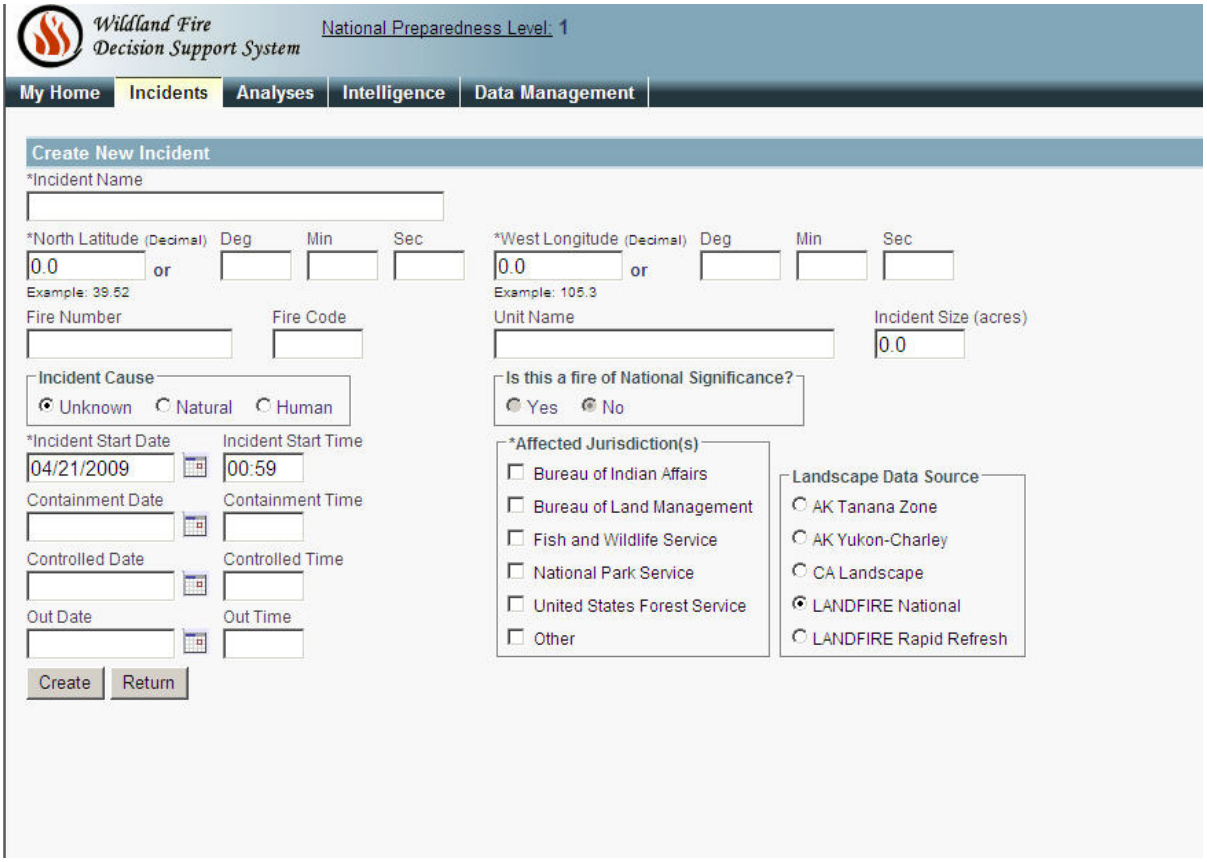



To create an incident using the data entry fields:

1. From the WFDSS Home page, select the **Incident** tab. The Incident List appears.



2. Click **Create New Incident.** The Create New Incident page appears.




3. In the Incident Name field, type the name of the incident.
4. Enter the Latitude and Longitude for the incident.
5. Choose the Affected Jurisdictions.
6. Enter any additional information that you have about the fire, such as Fire Number, Size, and so on.

## Editing an Incident

When you first create an incident, you might not have all the information that you need. Use this procedure to update information about an existing incident.

> Note: It is important to document the containment, controlled, and out dates for each incident. The system uses these dates to filter the incidents that appear on the map view for the geographic area.

To edit an incident:

1. From the WFDSS Home page, select the **Incident** tab. The Incident List appears.
2. Select the incident you want to edit, and then click **View Information**. The Edit Incident page appears.

3. Verify the existing information about the incident.
4. Enter any additional information that you have about the fire, such as Fire Number, Size, and so on.
5. Click **Save**. The incident is saved to the database.
6. From this page, you can also access analyses, the decision reporting process, and other tasks.

## Deleting an Incident

Dispatchers can delete incidents within their geographic area for up to 24 hours unless someone accepts incident ownership. National Editors can delete any incident until a decision has been published. No other roles have incident deletion privileges within WFDSS.

Remember, incidents are part of the official system of record for fire management, and should not be deleted without a good reason (e.g., duplicate entries for the same incident).

To delete an incident:

1. From the WFDSS Home page, select the **Incident** tab. The Incident List appears.
2. Select the incident you want to edit, and then click **Delete Incident**. A message appears asking if you are sure.
3. Click **Yes**.
4. The incident is removed from the incident list.

## Creating a Complex

Complexes are complex and you need to be thoughtful about creating complexes both in and outside of WFDSS. Use the following guidelines to help you determine whether or not an incident should be a complex:

When *not* to make a complex in WFDSS:

- The complex is really just a collection of incidents lumped together for logistical or management reasons, but each incident requires separate decisions. In WFDSS, keep the incidents separate so that you can track the decisions separately.
- Ignition times and locales are far enough apart that it is unlikely that the fires will burn together.
- The area and number of fires are so large that any decisions made on the complex would be too broad and so watered down that they violate the spirit and intent of the decision reporting process

When to make a complex in WFDSS:

- Two or more fires burn together and form a larger fire.
- Several fires are close enough in ignition time and locale that they could burn together and will follow the same decision process.

WFDSS plans to have the ability to group individual incidents into complexes in the future.

To create a complex:

1. Create an incident with the name of the complex.
2. Upload the shapes from each incident to the complex incident.
3. Add analyses, planning areas, and other information to the complex incident.
4. Verify and include the objectives for each incident composing the complex.
5. For each incident in the complex, document the decision to include it in the complex, including the name of the complex and cross-referencing the other incidents included.
6. Mark the junior incidents as out to close the incident.
7. In the complex incident, document the names of the junior incidents used to comprise the complex, and the justify the decision for including each incident in the complex.
8. Begin using the complex incident to document decisions for the complex

## Viewing Incident Details

Anyone with access to WFDSS can view incident details. However, your ability to modify a specific incident depends on your role in WFDSS, and your assignments related to a specific incident.

For example, if your WFDSS role is Viewer, but you are assigned as an Editor or a Reviewer for a specific incident, you can modify only the specific incident you are assigned to.

To view incident details:

1. From the Incidents List, select the incident you want to view.
2. Click **View Information**. The Edit Incident Information page appears.
3. Review the information on the page.
4. If you have edit permissions for this incident, you can edit the details. Otherwise, the fields are locked.

5. Click any one of 7 tabs to view the following information about the incident.
6. When you are finished, click **Incidents** to return to the Incident List page.

## C. Dispatcher Role

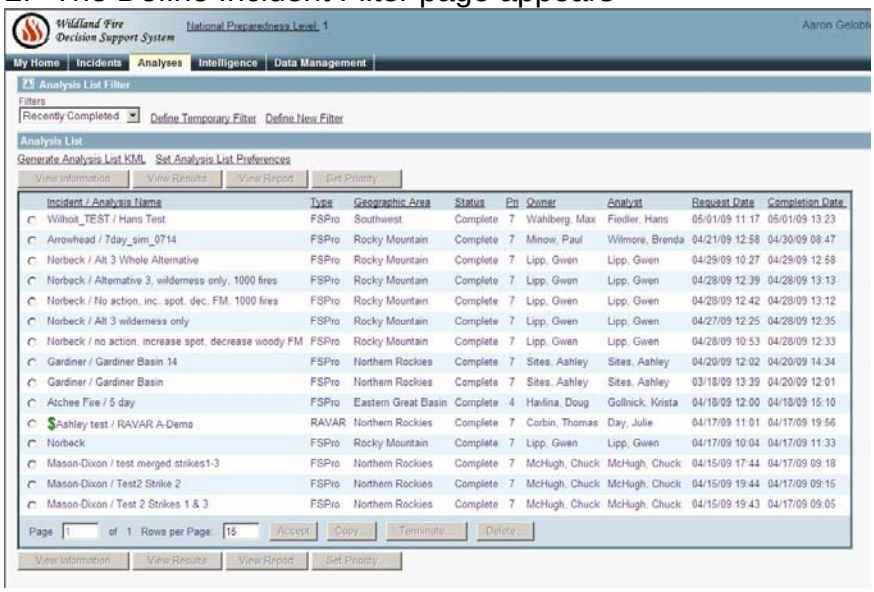
Dispatcher authority relative to the decision process is as follows:

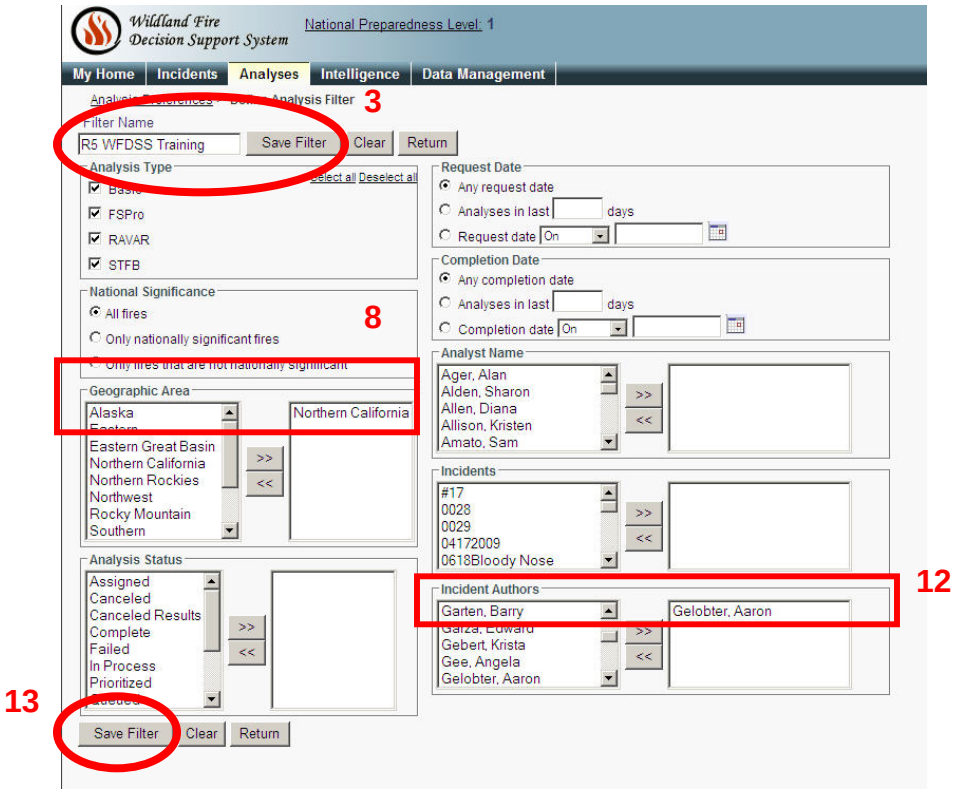
1. Can create incidents within their geographic area.
2. Can delete incidents within their geographic area provided that an incident author does not own the incident AND the incident was created within the last 24 hours.
3. Can validate or invalidate the default course of action as long as an Incident Author does not own the incident.
4. Can re-validate the default course of action after they have invalidated it provided an author has not accepted ownership.
5. Can update the majority of the information on the Incident Information page even after the incident is out, but not while an incident decision is being reviewed.
6. Can upload shape files.
7. Cannot upload images.
8. Cannot save or upload a planning area.
9. Cannot create an SCI.
10. Cannot modify the FMU list.
11. Cannot set the Estimated Cost, create/edit/delete incident objectives, create/edit/delete incident requirements, or create/edit/delete strategic directions.
12. Cannot define an incident to be of national significance.
13. Cannot create or delete an Incident Decision.
14. Cannot grant Incident Privileges.
15. Cannot transfer ownership of an incident.

# Section 7. Analyses

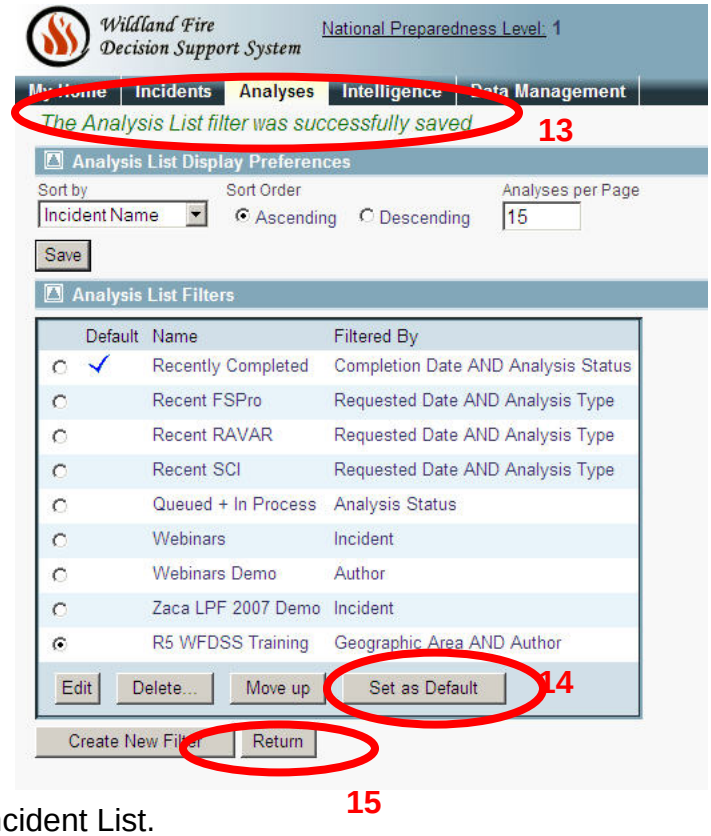
To define either a Temporary or new filters:

1. From the Analyses List, click Define either Temporary Filter or Define New Filter.
2. The Define Incident Filter page appears

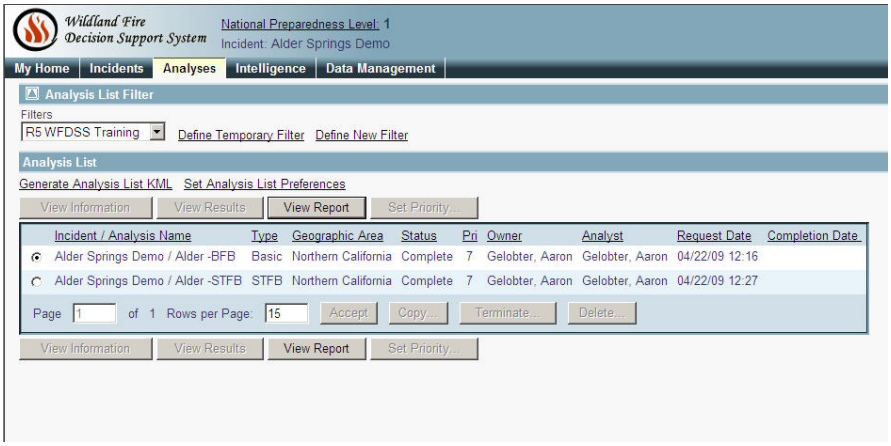


3. Enter a **Filter Name**.
4. Select the **Analyses Type** *(All selected for this example).*
5. Select the **Request Date** *(Any request date selected for this example).*
6. Select whether or not to include fires of **National Significance**. (Selected all fires for this example)
7. Select the **Completion Date** *(Any completion date selected for this example).*
8. Select the **Geographic Area(s)** you want to include, and click **>>** to include them in your criteria.
9. Select the **Analyst Name** *(None specified for this example).*
10. Select the **Incident** *(None specified for this example).*
11. Select the **Analyses Status** *(None specified for this example).*
12. Select the **Incident Author(s)**, and click **>>** to include them in your criteria.
13. Click **Save Filter**. The Incident List Display Preferences page appears.
14. Click on the Incident and then click on **Set as Default** to make this Incident List your Default.
15. Click **Return** to go back to the Incident List.




16. Your newly defined filter appears in the Filter drop-down list.



# Section 8. Incidents

## A. Incident Filters

In this section, you will find the following tasks:

- Defining Temporary Filters
- Defining Permanent Incident Filters
- Editing Filters

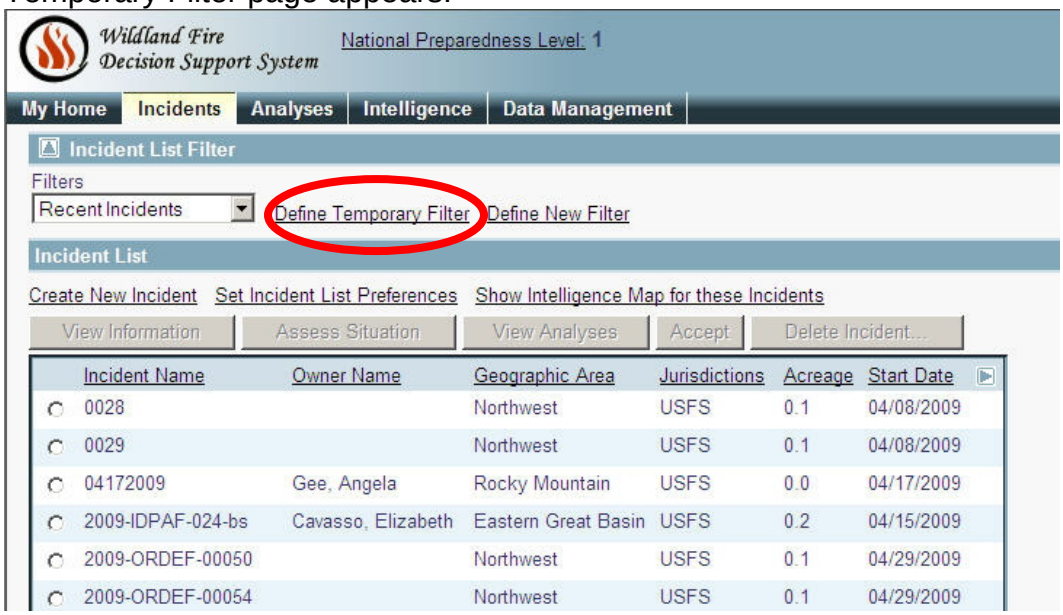
### Defining Temporary Incident Filters

Temporary Filters apply only to your current WFDSS session. They enable you to quickly search a long list to find the specific information you need.

For example, if you have been asked to review a decision for an incident, you can use the temporary filter to find the incident in your list.

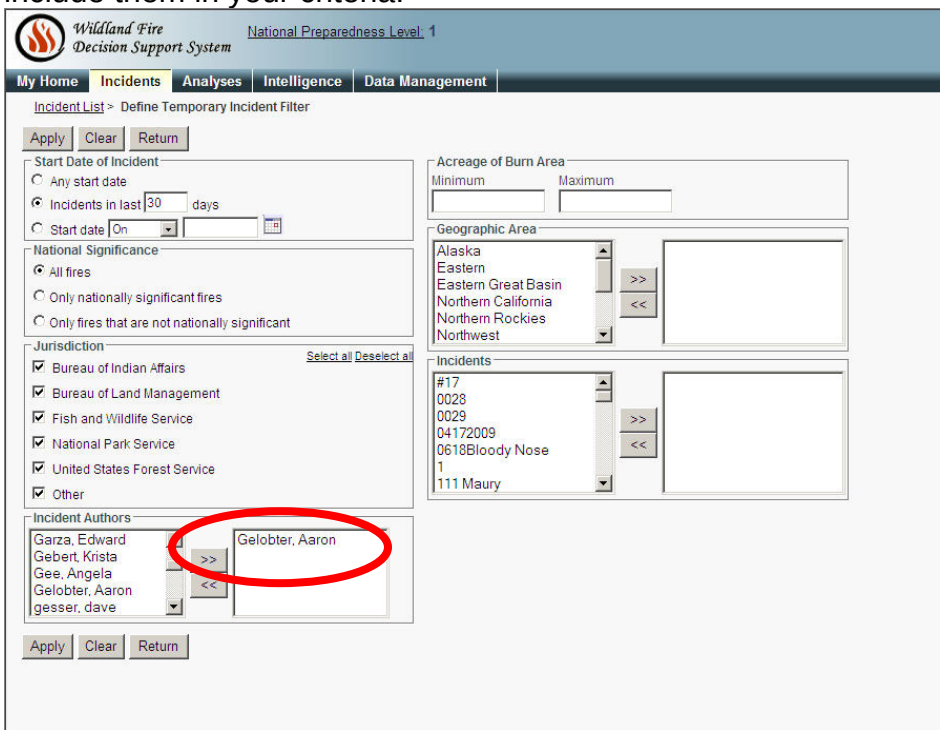
To define temporary filters:

1. From the Incident List, click Define Temporary Filter. The Define Temporary Filter page appears.

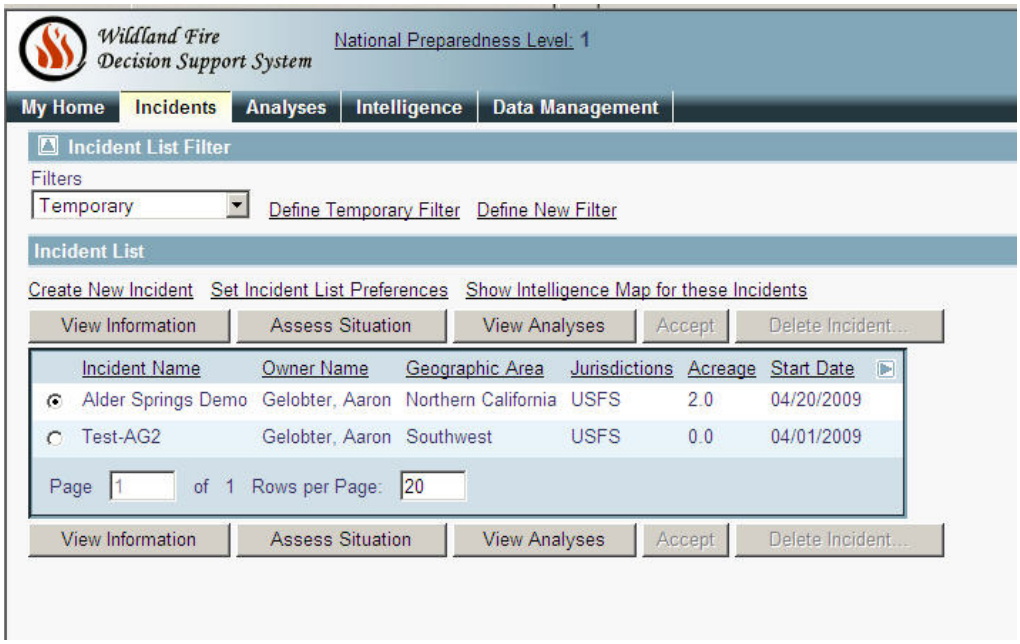



2. Select the date range restriction for the Start Date of the Incident.
3. Select whether or not to include fires of National Significance.
4. Select the Jurisdiction(s) for the incidents you want to view.
5. Select the Incident Owner(s), and click **>>** to include them in your criteria.
6. If you want to restrict the list to fires of a specific size, enter a minimum and maximum Acreage of Burn Area.

7. Select the Geographic Area(s) you want to include, and click **>>** to include them in your criteria.
8. If you want to view specific incidents **Author**, select them, and click **>>** to include them in your criteria.




9. Click **Apply**. The Incident List reappears showing only those incidents that met your criteria, sorted by most recent Start Date.
10. Then your Temporary Filter is created. Click on the Incident you want.

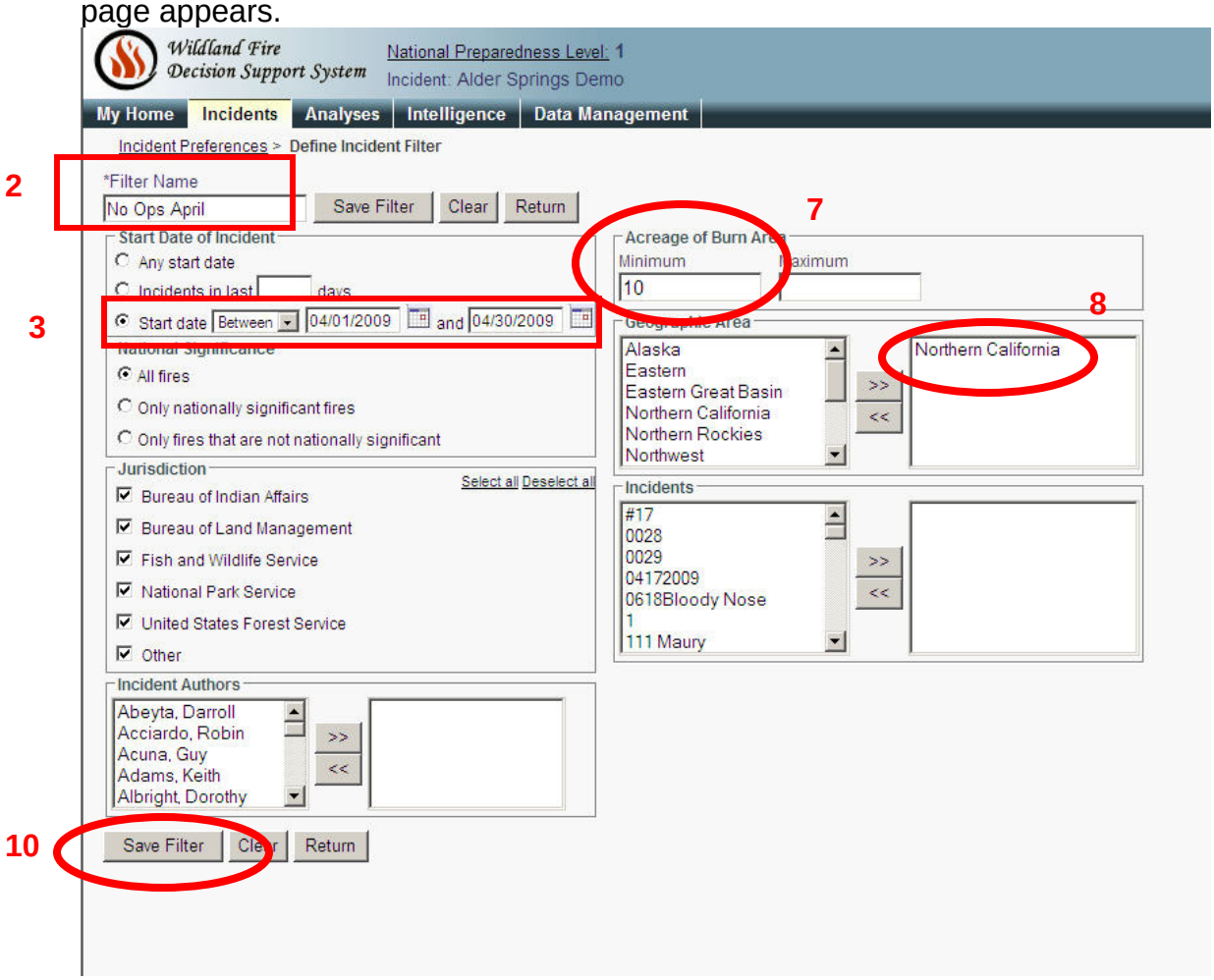


## Defining Permanent Incident Filters

Permanent filters allow you to save your preferences for reducing the incident list so that you can more easily search for the incidents that you need. For example, if you are a National Editor, you might only want to see fires of National Significance in your Incident List.

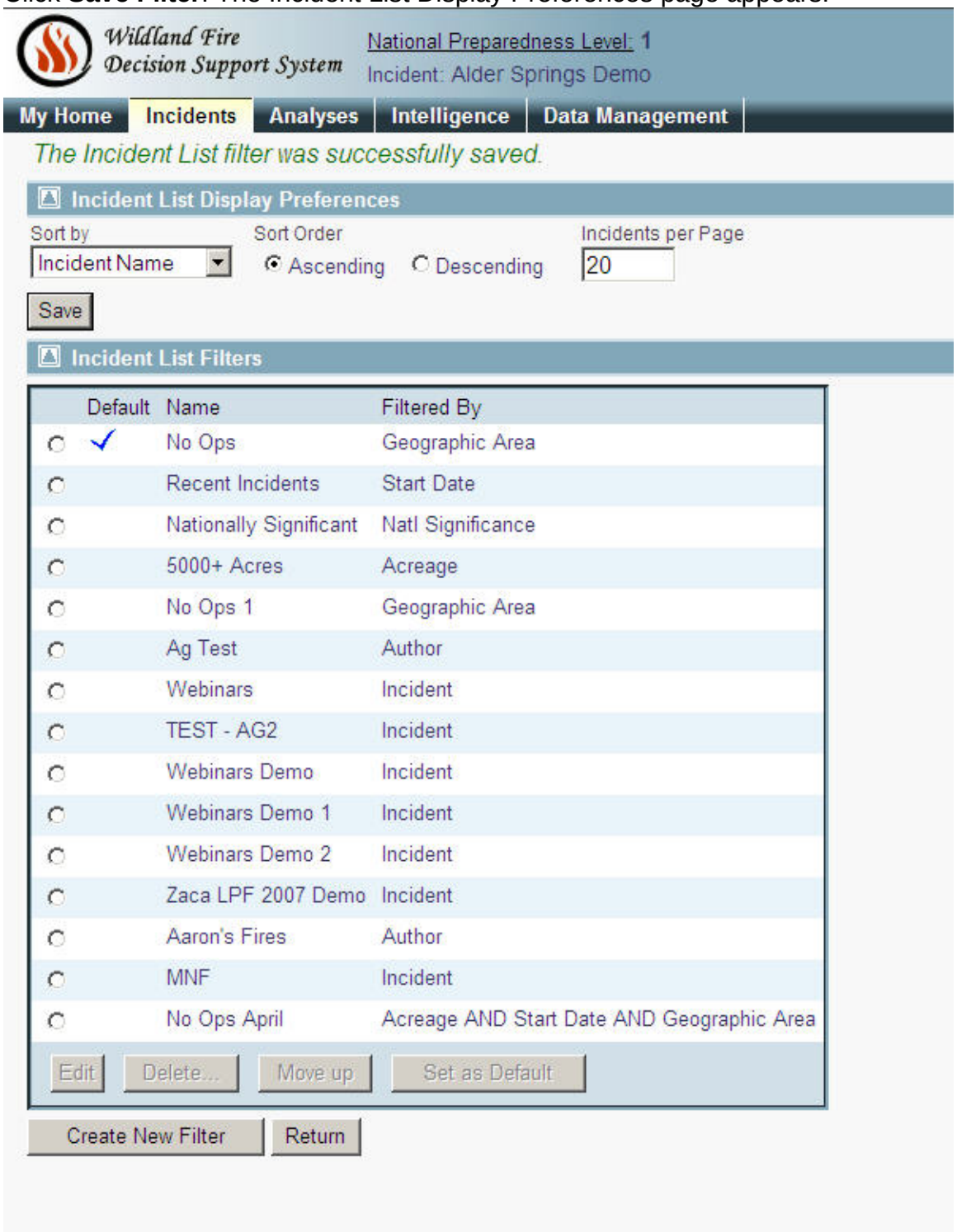
To define a permanent incident filter:

1. From the Incident List, click Define New Filter. The Define Incident Filter page appears.

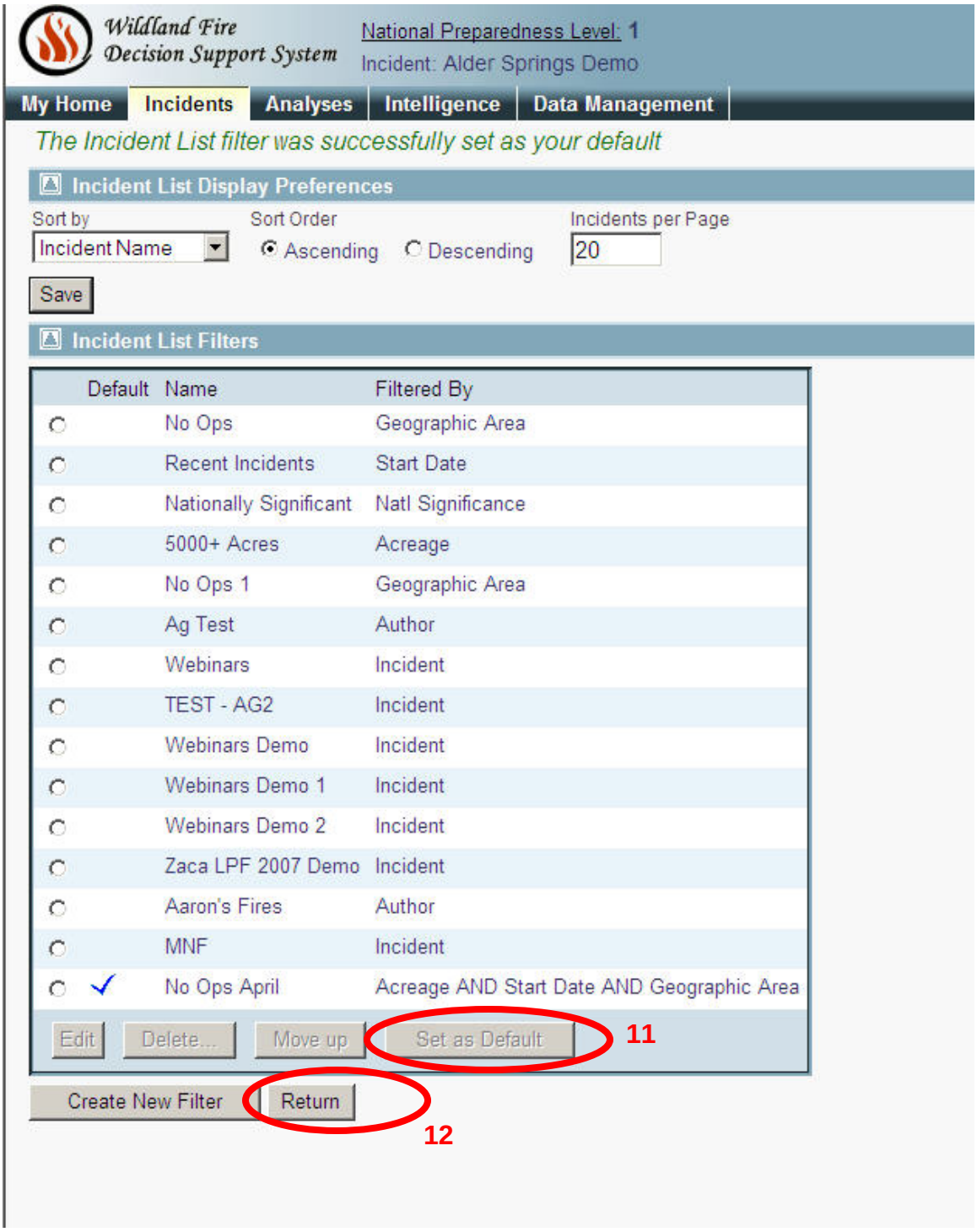



2. Enter a Filter Name.
3. Select the date range restriction for the Start Date of the Incident.
4. Select whether or not to include fires of National Significance.
5. Select the Jurisdiction(s) for the incidents you want to view.
6. Select the Incident Owner(s), and click **>>** to include them in your criteria.
7. If you want to restrict the list to fires of a specific size, enter a minimum and maximum Acreage of Burn Area.

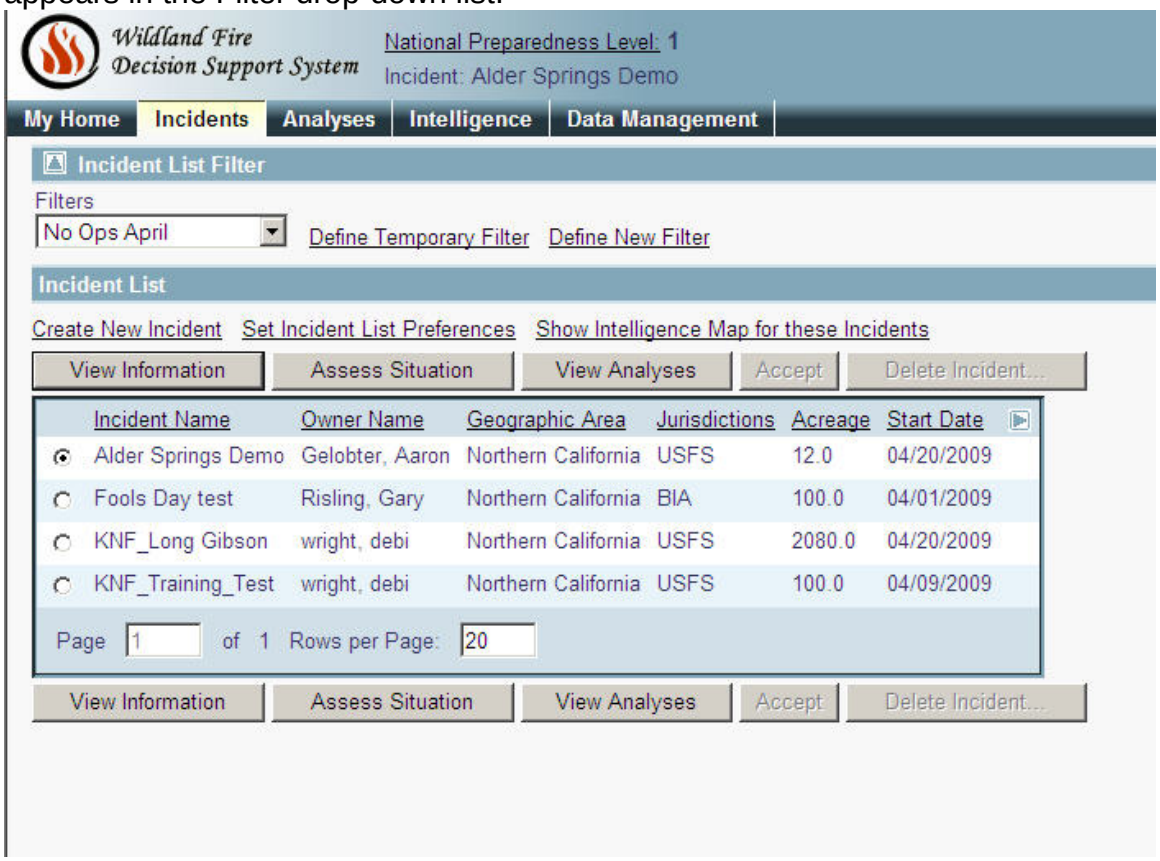
8. Select the Geographic Area(s) you want to include, and click **>>** to include them in your criteria.
9. If you want to view specific incidents, select them, and click **>>** to include them in your criteria.
10. Click **Save Filter**. The Incident List Display Preferences page appears.



11. Click on the Incident and then click on Set as Default to make this Incident List your Default.



12. Click **Return** to go back to the Incident List. Your newly defined filter appears in the Filter drop-down list.




13. If the Incident List is empty, no incidents met all of your criteria. Try another filter.

## Editing an Incident Filter

After you create an Incident Filter, you might find that you need to modify it

To edit an incident filter:

1. From the Incidents List page, click **Set Incident Preferences**. The Incident List Display Preferences page appears.
2. In the Incident List Filters, select the filter you want to edit. The Define Incident Filter page appears.
3. Modify the criteria you want to change.
4. Click **Save Filter**. Your changes are saved and the Incident List Display Preferences page reappears.
5. Click **Return**. The Incident List page appears.

## Deleting an Incident Filter

You can remove any incident filters you create.

To delete an incident filter:

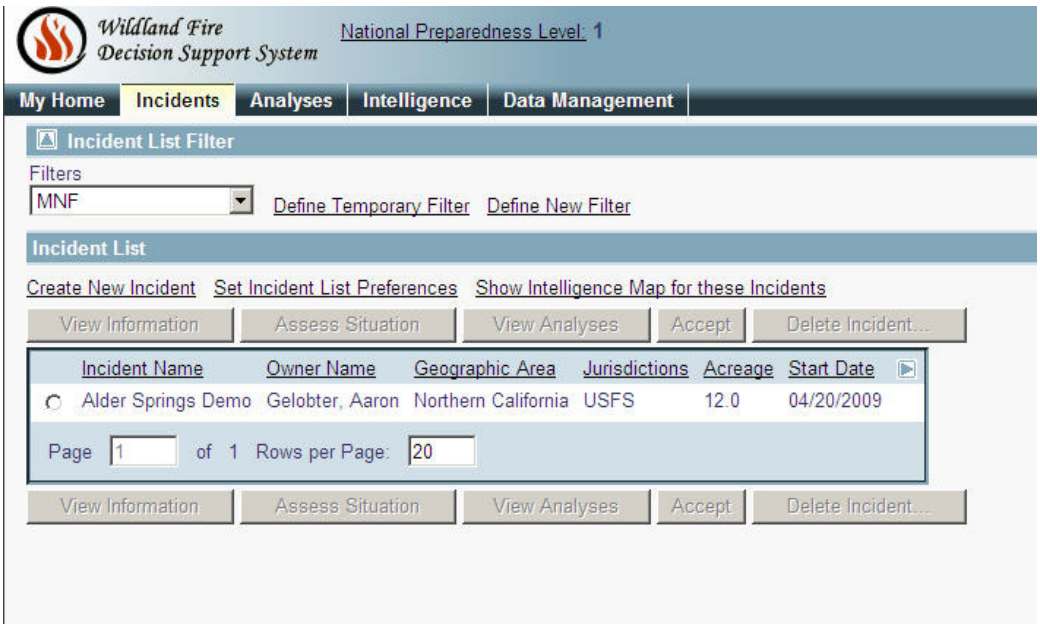
1. From the Incidents List page, click **Set Incident Preferences**. The Incident List Display Preferences page appears.
2. In the Incident List Filters, select the filter you want to delete. A message appears asking if you are sure you want to delete the filter.
3. Click **OK**. The filter is removed from the list.
4. Click **Return**. The Incident List page appears.

# B. Setting Incident Preferences

You can customize the Incident List defaults to display incidents the way you want to see them.

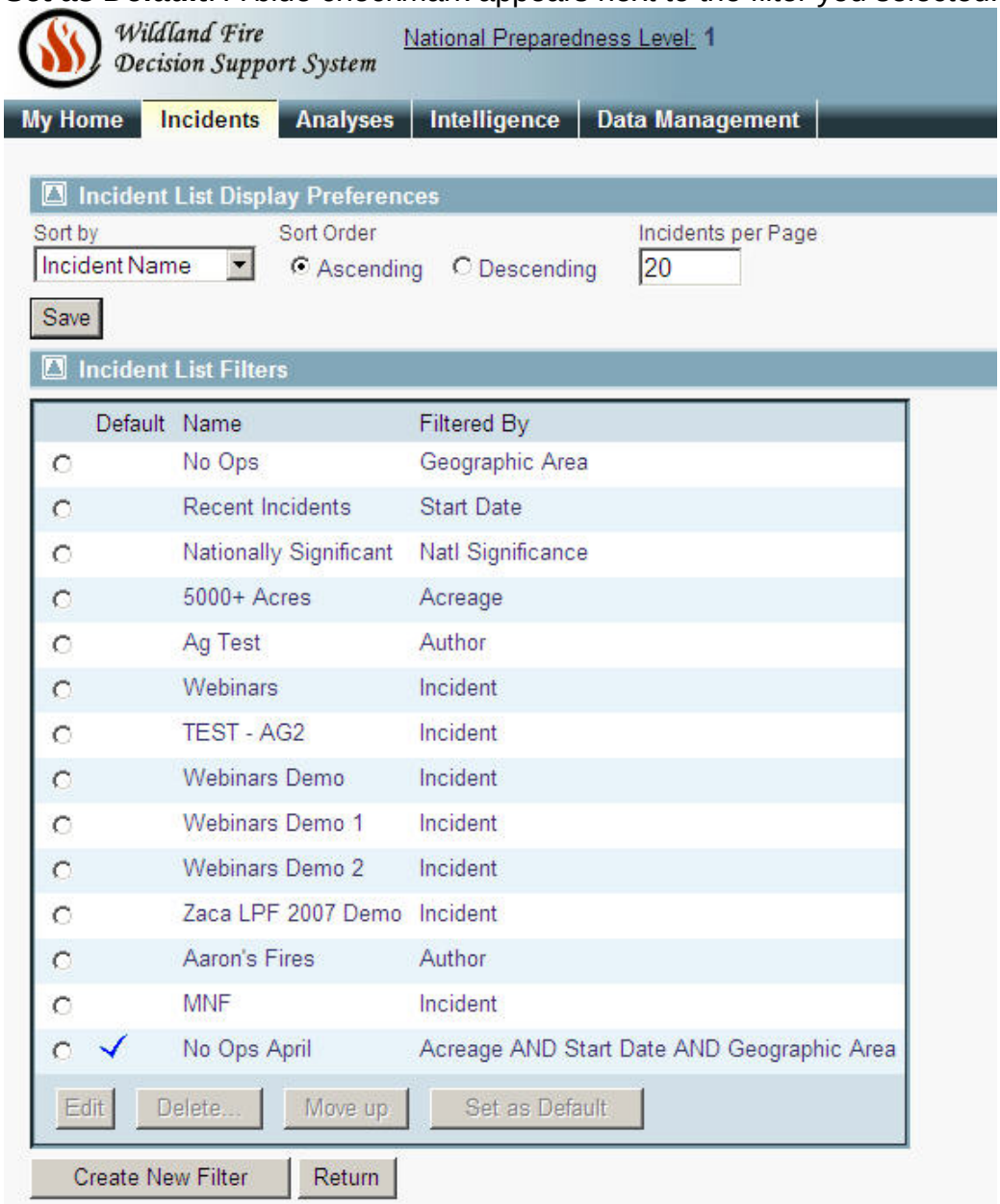
## To set Incident List Preferences

1. From the Incidents List page, click **Set Incident List Preferences**. The Incident List Display Preferences page appears.




2. Click the Sort By drop-down list to select how you want to sort incidents. Start Date is the default.
3. Click Ascending or Descending to set the Sort Order. Descending is the default.

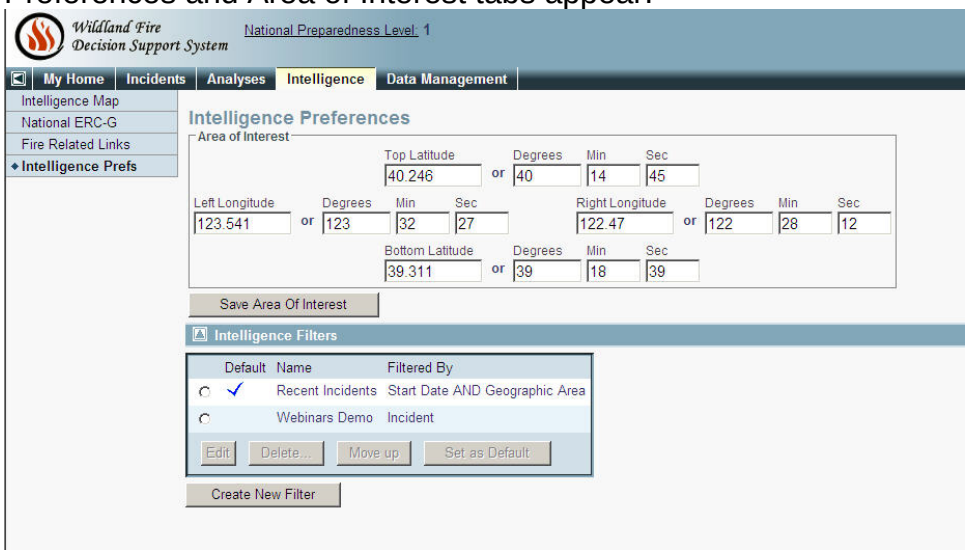
4. Enter the number of Incidents Per Page you want to view.
5. To change the default filter, click the filter you want to use, and then click **Set as Default**. A blue checkmark appears next to the filter you selected.



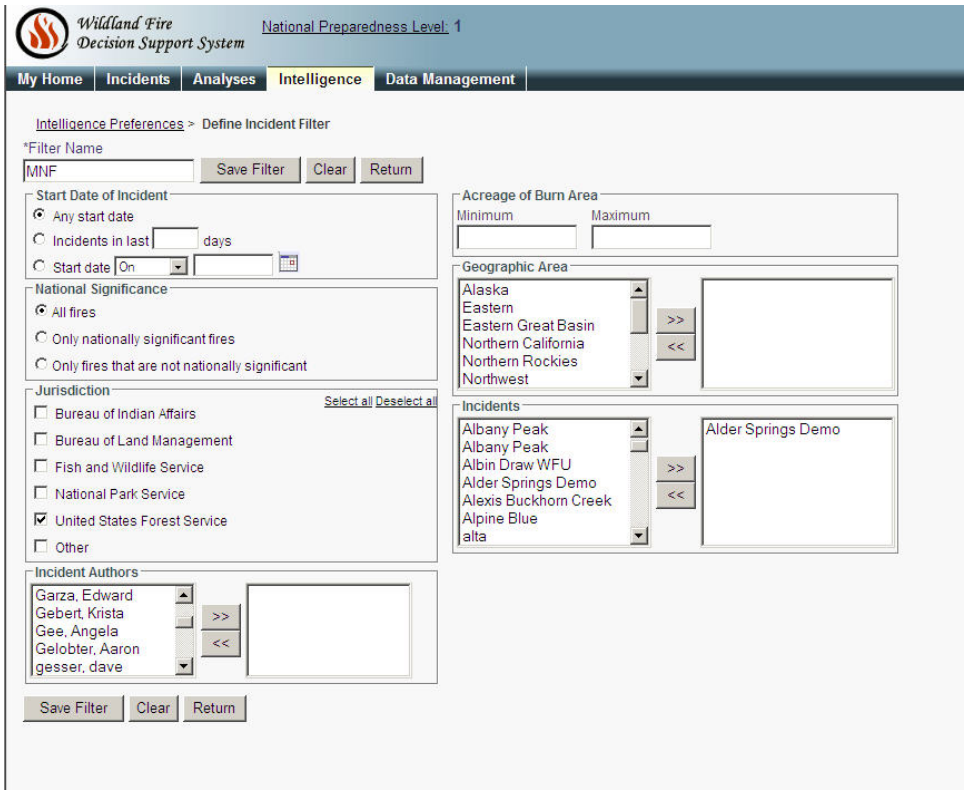

6. To create additional filters, click **Create New Filter**. The Define Incident Filter page appears.
7. To go back to the Incident List page, click **Return**. The Incident List page reappears, sorted by the last filter selected on that page

## To set Intelligence Preferences

1. From the Intelligence page, click **Intelligence Prefs**. The Intelligence Preferences and Area of Interest tabs appear.

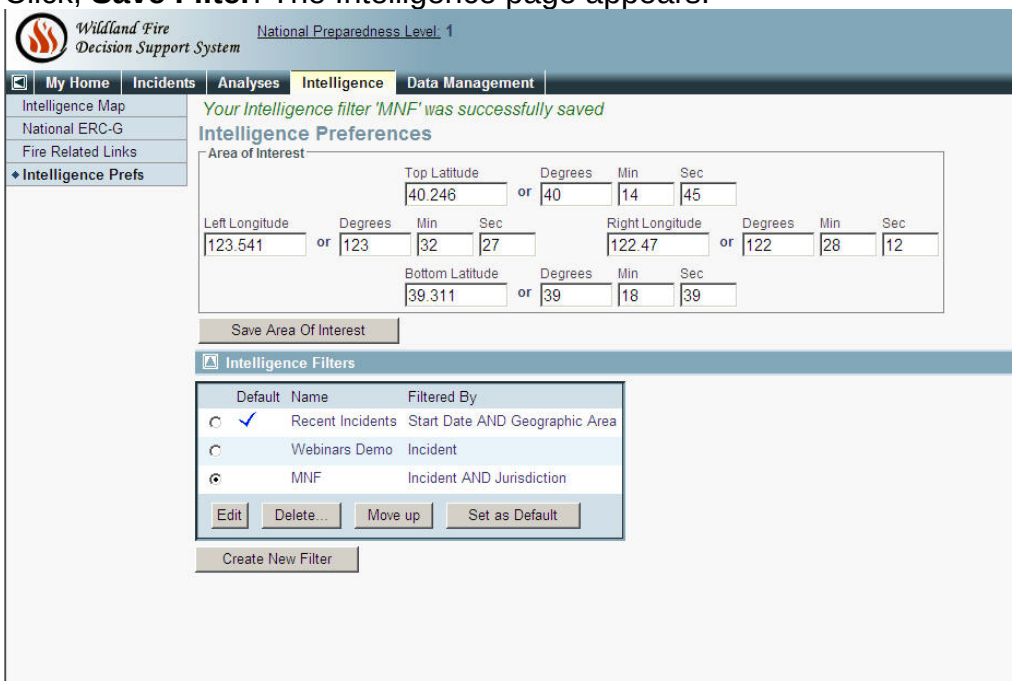



2. To change the Area of Interest, enter the Left and Right Longitudes and the Top and Bottom Latitudes. Click, **Save Area of Interest**.
3. To create a new Intelligence Filter, Click on **Create New Filter**.

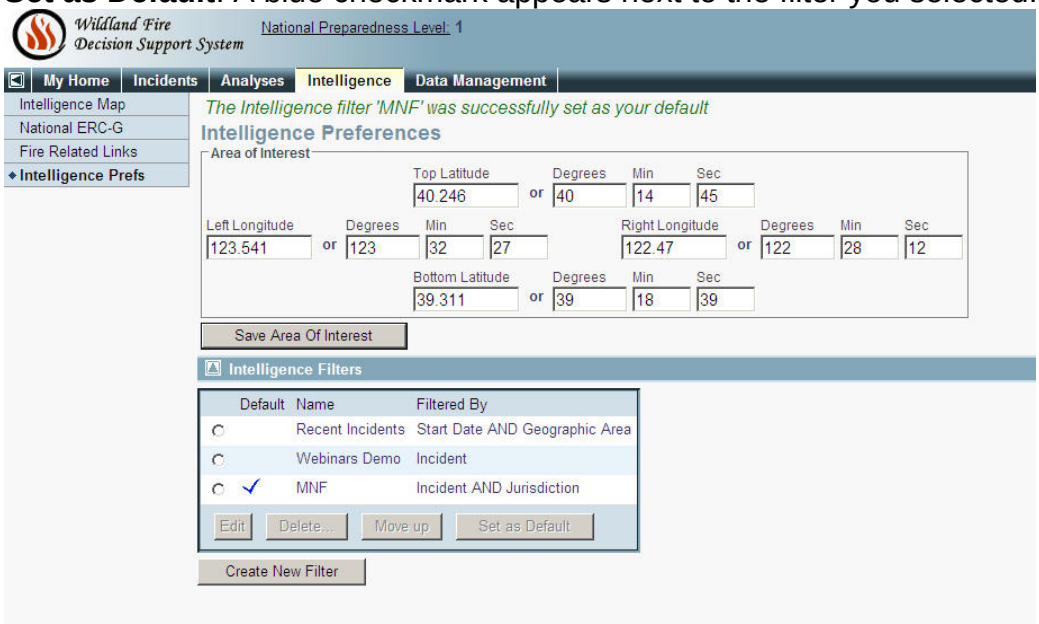



4. Enter the **Filter Name** and **Define the Incident Filter**. In this example: the filter is by Jurisdiction and Incident.

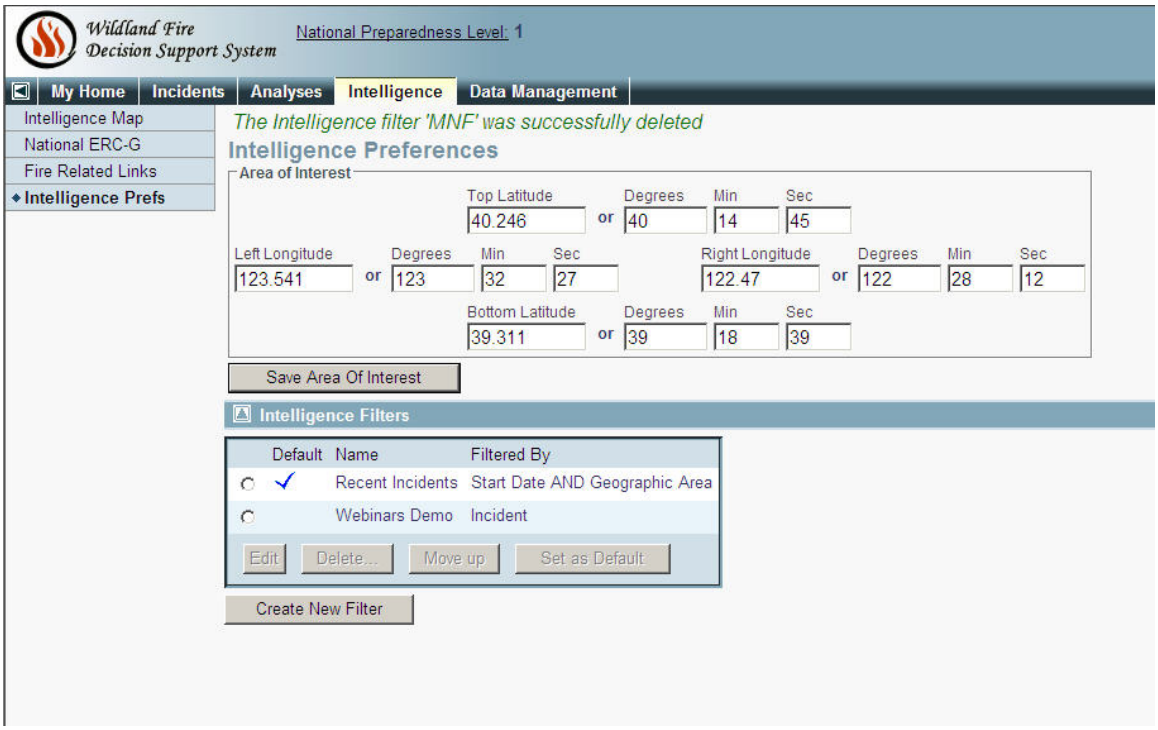
5. Click, **Save Filter**. The Intelligence page appears.




6. To change the default filter, click the filter you want to use, and then click **Set as Default**. A blue checkmark appears next to the filter you selected.




7. To delete a filter, click the Radio Button next to the filter you want to delete, and then click D**elete**.




## C. Incident-Level User Roles

In WFDSS, there are two levels of user roles, system-wide user roles (e.g., Author, Viewer) and incident-specific user roles.

The incident-specific user roles are assigned after an incident is created. When and whether you can assign incident-specific user roles depends on your system-level role:

- If an Author, GA Editor, or National Editor creates the incident, they can immediately assign team members to the incident roles.
- If a Dispatcher creates an incident, the incident must be assigned an Owner before other incident-specific roles can be assigned.

Groups can be assigned an incident-level role; however, for a group to be the Owner of an incident, at least one member of the group must be an Author, GA Editor, or National Editor.

### <u>Owner</u>

Incident owners are responsible for ensuring that the incident is accurately tracked and analyzed, and that decisions about the incident are properly recorded, reviewed, and approved.

Owners must meet the following criteria:

- Authority to create decisions about an incident in the GA where the incident occurs
- Author, GA Editor, or National Editor role

In addition, the following rules apply:

- Authors can transfer ownership on incidents that they created or currently own.
- GA Editors can assign/transfer ownership on any incident in their GA
- National Editors can assign/transfer ownership on any active incident.
- If a group is the Owner, the group must contain at least one member with Authoring or Editing privileges.

Owners have the following incident-level privileges:

- Editing any incident information
- Assigning incident editors, reviewers, and approvers to the incident
- Requesting analyses
- Uploading shapes and other files
- Creating decisions about the incident
- Requesting decision reviews
- Closing the incident

**Incident Editor**

Incident Editors are responsible for assisting the incident owner in keeping the incident information updated.

Decision Reviewers and Approvers also can be Incident Editors.
Incident Editors must meet the following criteria:

- Fire responsibilities in the GA where the incident occurs
- Any WFDSS user role

Incident Editors have the following capabilities within the incident:

- Editing any incident information
- Requesting analyses
- Uploading shapes and other files
- Performing periodic assessments
- Other incident-related tasks as requested by the owner

## Decision Reviewer

Decision Reviewers are responsible for examining the documentation related to an incident decision, and indicating whether they accept or reject the decision. If they reject a decision, they need to include comments as to why they rejected the decision.

Accepting the decision *does not* mean that the decision is approved. The Decision Approver (s) can only approve a decision.

Decision Reviewers must meet the following criteria:

- Authority and knowledge to adequately review an incident decision within the GA where the incident occurred
- Understanding of the decision process and budgetary requirements for an incident
- Any WFDSS user role

While a Decision Reviewer can also be an Incident Editor, he/she cannot also be a Decision Approver for that incident.

## Decision Approver

Decision Approvers are responsible for examining the documentation related to an incident decision, and indicating whether they approve or reject the decision. If they reject a decision, they need to include comments as to why they rejected the decision.

Approving the decision adds it to the system of record for the incident. Once the decision is approved, it can't be altered.

All designated Decision Approvers for an incident must approve the incident before it becomes part of the system of record (e.g., if the incident is multi-agency, the designated Decision Approver from each agency must sign off on the decision).

Decision Approvers must meet the following criteria:

- Authority and knowledge to approve an incident decision within the GA where the incident occurred
- Understanding of the decision process and budgetary requirements for an incident
- Financial authority to sign-off on an incident decision
- WFDSS user role of Author, GA Editor, or National Editor

While Decision Approvers can also be incident editors, they cannot also be decision reviewers for that incident.

# Section 9. Information

## A. Assigning and Transferring of Ownership

Owner is an **Incident-level Role** that can be applied to anyone with Author, GA Editor, or National Editor privileges. You can assign a group as an incident owner, but at least one member of that group must have authoring privileges. Authors, GA Editors, and National Editors are automatically assigned as the owners of incidents that they create, but can transfer ownership of the incidents.

However, when Dispatcher Role creates incidents, no owner is immediately assigned to the incident, until an Author or Editor accepts ownership.

Each role can assign owners as follows:

1. From the Incident List, select the unassigned incident you want to assign an owner to.
2. Click **Accept**. WFDSS updates the Owner Name with your name and gives the message, "Incident updated successfully".
3. Select the incident again.
4. Click **View Information**. The Edit Incident Information page appears.
5. Click **Transfer Ownership**. The Transfer Ownership page appears.
6. To quickly find the person you want to transfer ownership to, enter their last name in the User Name field and click Apply Filter.
7. From the User List, select the person you want to transfer ownership to.
8. Click **Transfer Ownership**. The Edit Incident Information page reappears with the name of the new incident owner displayed

**<u>Transferring Ownership of an Incident</u>**

Often as a fire continues, or the size of the fire requires a higher level of authority to manage it. In such cases, you might need to transfer the incident ownership in WFDSS.

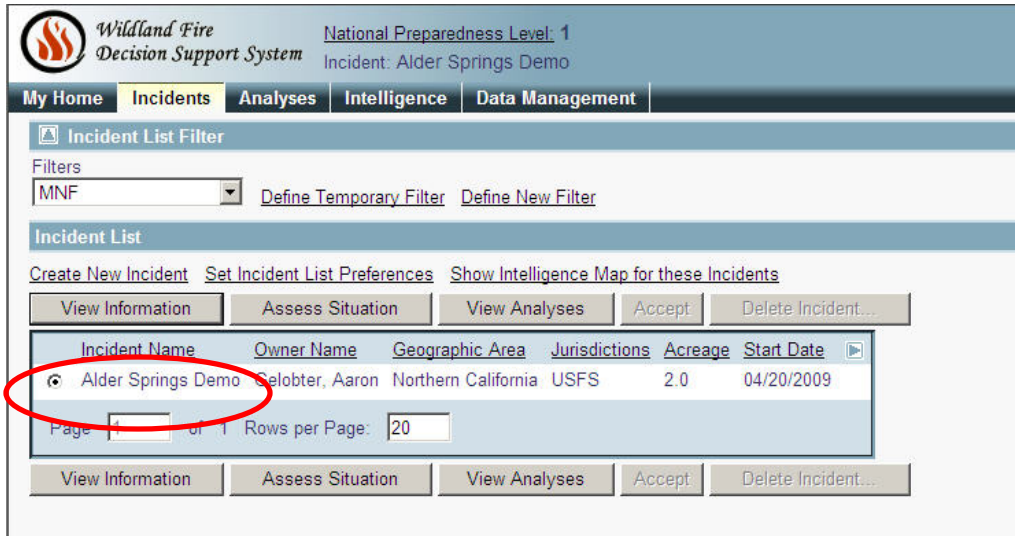
Before transferring ownership to another WFDSS user, verify the following:

- Availability of the person you are transferring ownership to (you don't want to transfer ownership to someone who's on leave or already assigned to other things)
- Authority of the person to make fire management decisions for this sized incident
- WFDSS role of Author or higher

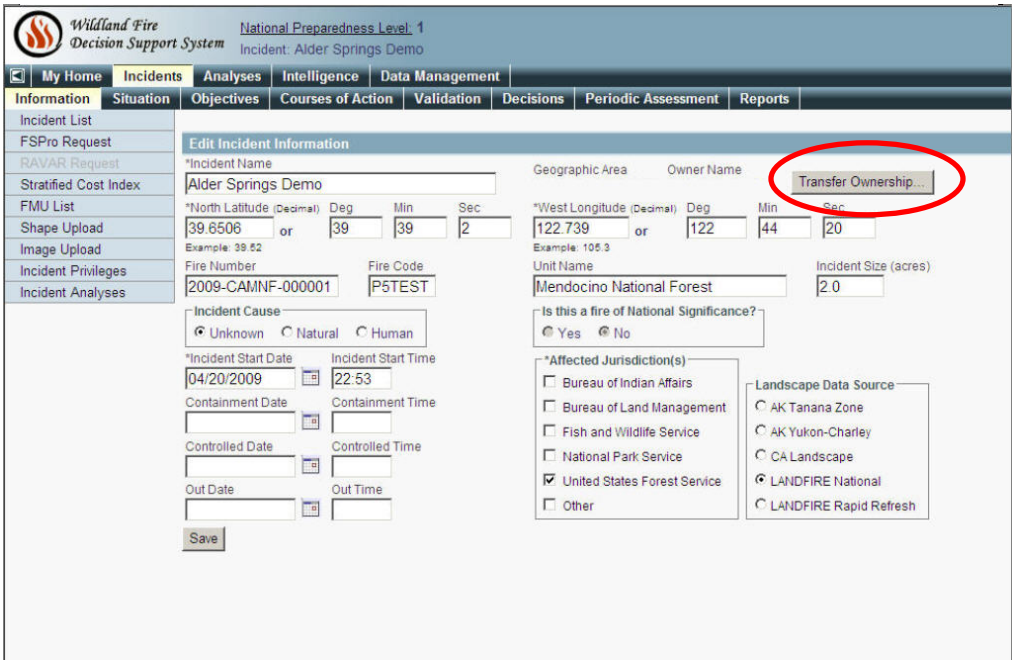
To transfer ownership of an incident:

From the Incident List, select the incident you want to transfer ownership to.

Click **View Information**. The Edit Incident Information page appears.

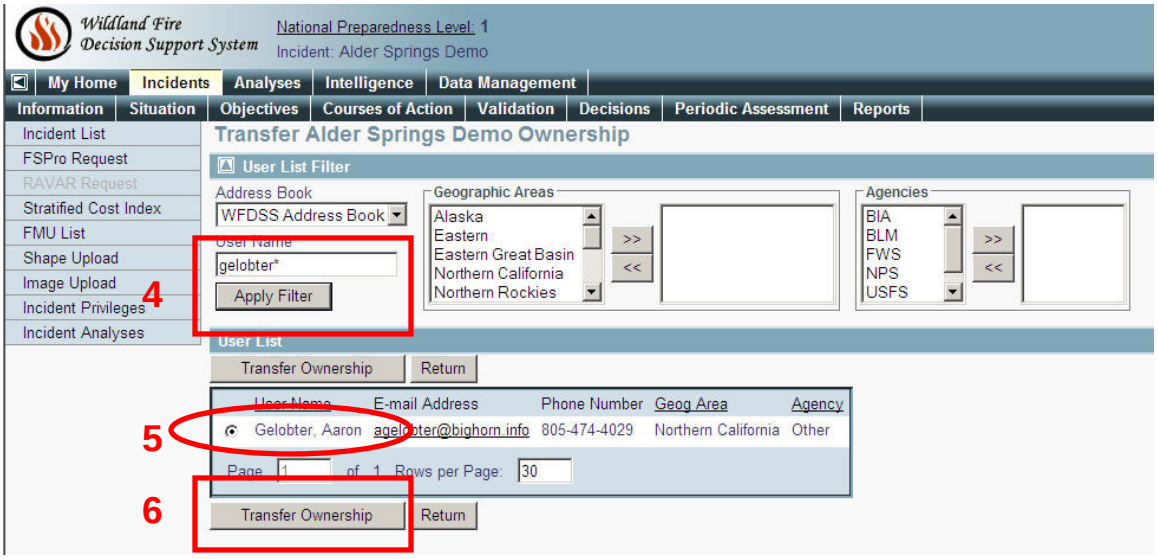



Click **Transfer Ownership**. The Transfer Ownership page appears. If you have Dispatcher Role no Owner Name will be displayed.

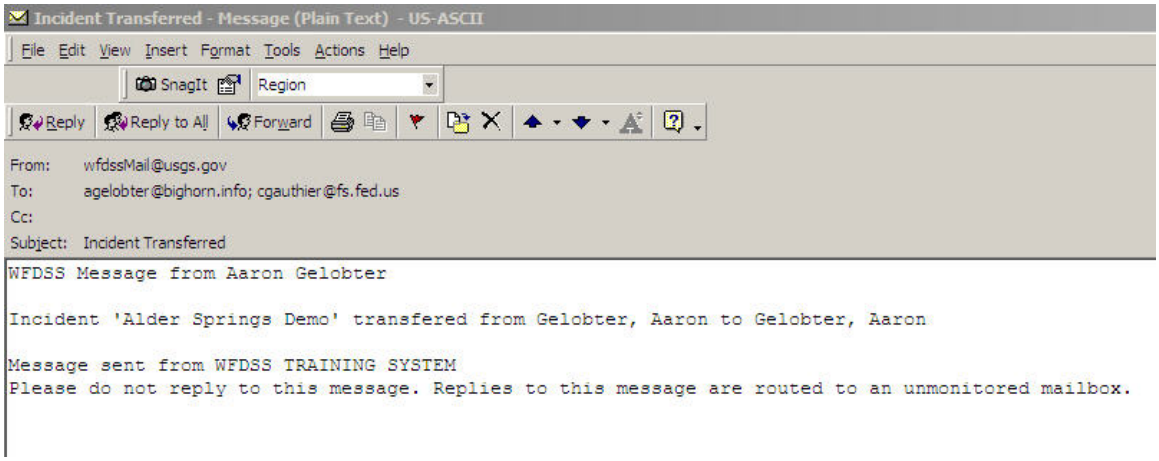



To quickly find the person you want to transfer ownership to, enter their last name in the User Name field and click Apply Filter.

From the User List, select the person you want to transfer ownership to.




Click **Transfer Ownership**. The Edit Incident Information page reappears with the name of the new incident owner displayed.




## Assigning a Decision Team to an Incident

Only the Incident Owner can assign additional personnel to the Decision team for an incident. Depending on the size of the incident, the team might include at least one of the following:

- Incident Editor
- Decision Reviewer
- Decision Approver

Any user in the WFDSS can have one or more of these incident-specific roles, even if they typically have only Viewer or Dispatcher access.

To assign a decision team to an incident:

The incident owner is responsible for ensuring that decisions related to the incident get documented, reviewed, and approved.

1. From the Incident List, select the incident you want to assign a decision team to.
2. Click **View Information**. The Edit Incident Information page appears.
3. Choose **Information > Incident Privileges**. The Grant Incident Privileges page appears.
4. From the User List, mark the Editor checkbox for the people you want to have editing access for this incident.
5. Editors can make changes to any of the incident information, including the decision reports. However, only the incident owner can request a decision review.
6. Click **Save** before leaving each page.
7. From the User List, mark the Reviewer checkbox for the people you want to have review authority for this incident.
8. Reviewers should be people with specialized knowledge about the incident or those with line management responsibilities. Reviewers might change as an incident grows or changes, and as different decisions are needed.
9. Click **Save** before leaving each page.
10. From the User List, mark the Approver checkbox for the people you want to have approval authority for this incident.
11. Approvers should be people with line management or financial responsibilities for the incident. If a fire becomes a large fire or requires extended attack capabilities, the approval authority might need to change accordingly. Review your agency guidelines for signing off on fire management decisions.
12. Click **Save** before leaving each page.
13. When you are finished, click **Return** to go back to the Edit Incident Information page.

# Section 10. Situation

## A. Creating Planning Areas

Planning areas help you to establish a boundary for the area of interest around an incident.

Planning areas are required for the following tasks:

- Running an FSPro analysis
- Documenting a decision

The Planning Area is a shape defining the area of concern associated with a decision.

Planning Area shapes are created on the Situation Assessment map by drawing a polygon and saving it as a Planning Area.

There is only one current Planning Area at a given point in time.

When an incident decision is published, the current Planning Area is saved as the Planning Area associated with the decision. That is, in this case, creating a new Planning Area will NOT delete the previous Planning Area from the system.

The Planning Area is used to determine the set of FMU's and Fire Weather Zones affecting the incident.

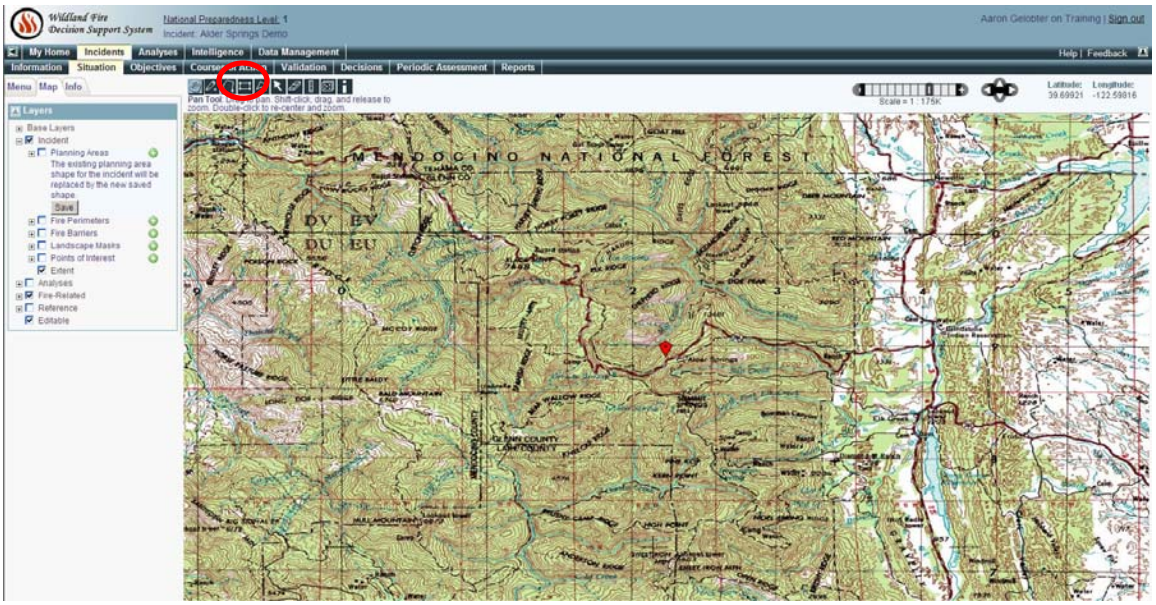
In order for the geo-spatial intersection to function, FMU shapes must exist within the WFDSS FMU shape layer. If the intersection succeeds, the area of the intersection will be included in the incident FMU list. In addition, the FMUs will be non-deletable – to remove a specific FMU from the list, a new Planning Area shape excluding the FMU would need to be saved. Note that we do not expect to have a national geo-spatial FMU layer, so FMUs can be manually added to the FMU list.

The Planning Area will eventually be used in conjunction with a 'Values Inventory', but this functionality is not available with this release.

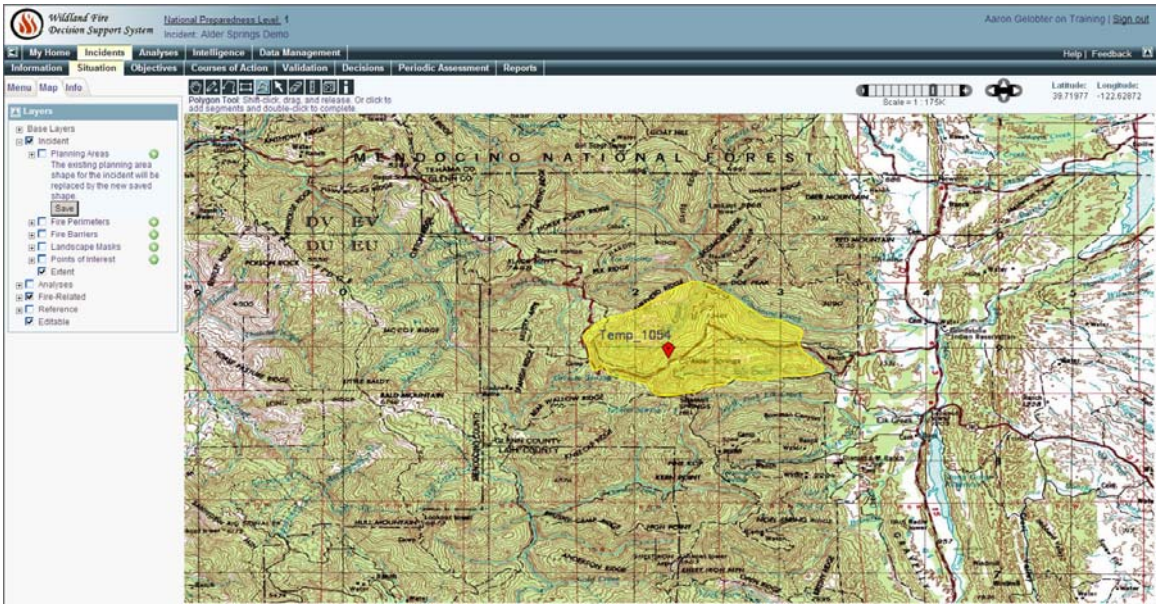
To create a planning area:

1. From the **Incident List**, select an incident.
2. Click **Assess Situation**. The map appears with the selected incident marked and centered on the map.
3. To select the map layers you want to view and to see the map legend, click the **Map** tab > mark the checkbox for the Incident map layer. (Clicking the + sign next to the layer name expands the tree view.)

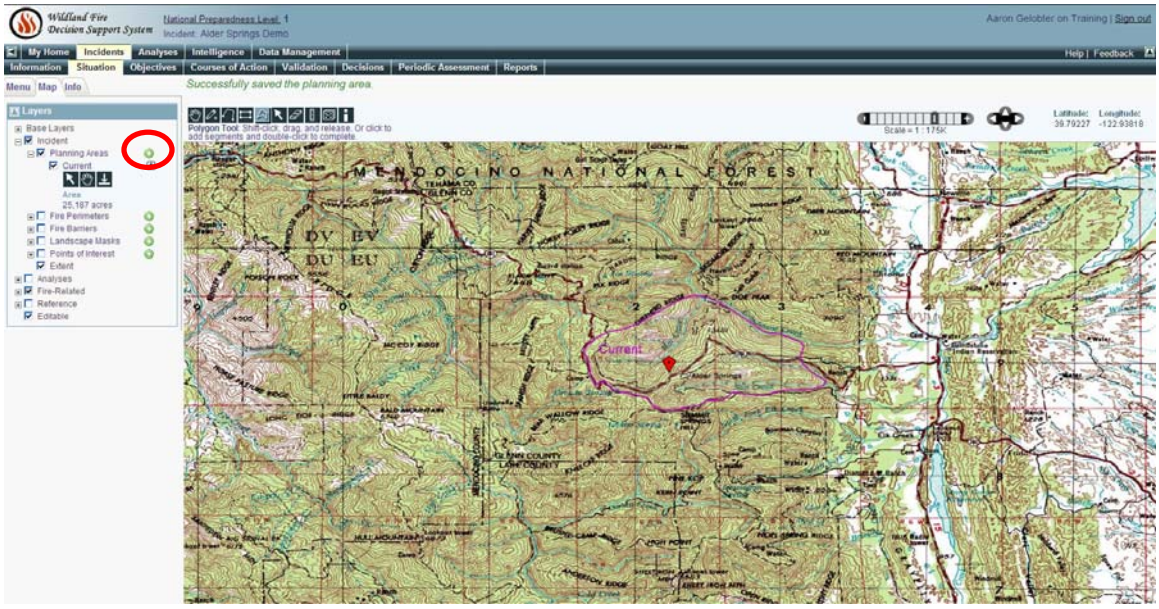
4. Select the Landscape Extent tool  or Draw Polygon Tool 




5. For Landscape Extent Tool:
    a. Place your cursor on the map where you want the extent, then click once.
    b. Drag the mouse diagonally to the end point, and then double-click to release the tool. The shape outline turns purple and has a temporary name.
6. For Draw Polygon Tool:
    a. Place the cursor on the map where you want to start the polygon. Click the icon, then shift-click on the map where you want to start the polygon.
    b. Drag the cursor to where you want each point for the edge of the polygon, clicking once to set the interim points. Double-click to set the end point. The polygon appears as a shaded yellow shape when selected and as a red polygon when not selected.




7. Mark the Planning Areas checkbox.
8. Click the green + symbol to the right of the layer to expand the view.




You can now publish a decision and request an FSPro analysis for this incident.

## B. Maps and Shapes

WFDSS is primarily a geospatial application. You can perform many of the tasks associated with managing and analyzing an incident using the map views.
This section contains the following tasks:

- Using the Map View
- Uploading Shapes

## Using the Map View

WFDSS is a primarily geospatial application, and most tasks can be performed using the map view.

> Note: Depending on your Internet connection, the maps can take a minute or two to load the first time you access them each session. You should see the maps tiling as the page loads. If the maps don't load after 3 minutes, contact the WFDSS Help Desk (fire_help@fs.fed.us).

To use the map view:

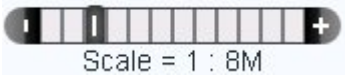
1. Navigate to the map view in one of the following ways:
    a. Click the **Intelligence** tab. The map appears showing existing incidents, according to the preferences you defined.
    b. **Incident List** > select an incident > click **Assess Situation**. The map appears with the selected incident marked.
    c. **Analysis List** > select an analysis > click **View Results**. For geospatial analyses, the map appears showing the analysis results (e.g., FSPro shows the fire spread probability on the landscape.
2. To upload shapes, click the **Menu** tab > **Shape Upload**
3. To select the map layers you want to view and to see the map legend, click the **Map** tab > mark/unmark the appropriate checkboxes for the map layers you want to view. (Clicking the + sign next to the layer name expands the tree view.)
4. To view details about the incident or analysis, click the **Info** tab. The incident/analysis details appear in the left pane. You can also view weather forecasts, values inventories, and other information related to the incident/analysis.
5. To save a map view, click the **Info** tab > scroll down to Map Image.

> Note: The Capture Image feature only works with the WFDSS Topos base layer.

    a. Name the image (e.g., Challis fire FSPro day 3).
    b. Enter a brief description of the image. If this image will be included in the decision report, include information that will assist you in documenting the decision. Be as specific as possible. This information will appear in the decision report with the image.
6. Click **Capture Image**. The image is saved to the Incident Decision and
7. Report area. It is not available to download.

## WFDSS Icon and Symbols

The following table explains the icons used in the WFDSS map view:

| WFDSS Icon/Symbol | Name | Explanation |
|---|---|---|
|  | Collapse Arrow | Appears in many of the blue heading bars in the application. Clicking the arrow changes it to a down arrow and hides the content below the heading. |
|  | Expand Arrow | Appears in many of the blue heading bars in the application. Clicking the arrow changes it to an up arrow and shows the content below the heading. |
|  | RAVAR Cost Symbol | Appears in the Analysis List when RAVAR analysis has been completed and associated with a particular FSPro analysis. |
|  | Fire of National Significance | Appears in the Incident list next to fires that are designated as nationally significant. |
|  | Map Scale | Appears on the Map View. Clicking the sections of the scale zooms the map view in and out. The legend below the scale indicates the scale the current view is set to. |
|  | Directional Arrows | Appears on the Map View. Clicking the arrows moves the map according to the arrow clicked. |
|  | Hand Icon | Appears on the Map View. Clicking the icon and then placing your cursor on the map, then clicking and holding the mouse button as you drag moves the map accordingly. (Same effect as clicking the directional arrows.) |
|  | Add Point Icon | Appears on the Map View. Clicking the icon and then clicking on the map inserts a yellow dot on the map. |
|  | Draw Line Icon | Appears on the Map View. Click the icon, then shift-click on the map where you want to start the line. Drag the cursor to where you want the next point and click once to continue drawing. Double-click to set the end point. The rectangle appears yellow when selected and red when not selected. |
|  | Draw Rectangle Icon | Appears on the Map View. Click the icon; place the cursor on the map where you want to start the rectangle. Shift-click and hold the mouse button as you drag the cursor diagonally to where you want the end point. Unclick the mouse button to set the end point. The rectangle appears as a shaded yellow box when selected and as a red rectangle when not selected. |
|  | Draw Polygon Icon | Appears on the Map View. Click the icon; place the cursor on the map where you want to start the polygon. Click the icon, then shift-click on the map where you want to start the polygon. Drag the cursor to where you want each point for the edge of the polygon, clicking once to set the interim points. Double-click to set the end point. The polygon appears as a shaded yellow shape when selected and as a red rectangle when not selected. |

| | | |
|---|---|---|
| | Arrow Icon | Appears on the Map View. Clicking the icon changes your cursor to an arrow. Click the shape or point on the map that you want to select. Clicking again deselects the shape. |
| | Eraser Icon | Appears on the Map View. Clicking the icon removes all of the selected shapes from the map. *There is no undo, so be sure that you have selected only those shapes you want to remove before clicking the icon.* |
| | Ruler Icon | Appears on the Map View. Clicking the icon changes your cursor to an arrow with a dot on the end. Click the map where you want to start measuring and drag your cursor to the end point. Double-clicking sets the end point. The measured distance appears in the left pane. |
| | Landscape Extent Icon | Appears on the Map View. Click the icon; place the cursor on the map where you want to start the landscape extent. Shift-click and hold the mouse button as you drag the cursor diagonally to where you want the end point. Unclick the mouse button to set the end point. The boundary of the extent appears as a green line. |
| | Fire Icon | Appears on the Map View. Clicking the icon changes your cursor to an arrow with a dot on the end. Click the map where the incident is located. The latitude and longitude appear in the left pane. If the incident is large, you can click and hold the mouse button while dragging the cursor across the map to create an incident shape. Double-clicking sets the end point and releases the cursor. |
| | Information Icon | Appears on the Map View. Clicking the icon changes your cursor to an arrow. Clicking the map view displays a yellow dot on the map, and the latitude/longitude for the dot appears in the left pane. |
| | New Incident Marker | Appears on the Map View. When you click the Fire Icon and then click the map, this yellow dot indicates where the incident is located. The latitude/longitude appear in the left pane of the map page. After an incident is created and saved, the marker changes to a red diamond. |
| | Existing Incident Marker | Appears on the Map View. Placing your cursor over the marker displays details about the incident. All incidents logged for a geographic area appear on your map view unless you filter them out. |

## Drawing Shapes on the Map

As an incident progresses, you might need to add information, such as fire perimeters and barriers to the incident map.

WFDSS provides a robust set of tools that allow you to draw shapes on the map

To draw shapes on the map:

1. From the **Incident List**, select an incident.
2. Click **Assess Situation**. The map appears with the selected incident marked and centered on the map.
3. To select the map layers you want to view and to see the map legend, click the **Map** tab > mark/unmark the appropriate checkboxes for the map layers you want to view. (Clicking the + sign next to the layer name expands the tree view.)
4. Select the map tool you want to use to create a shape on the map.
5. Place your cursor on the map where you want the shape, then click once.
6. Move the mouse to the end point, and then double-click to release the tool. The shape turns yellow and has a temporary name.
7. Save the shape under the appropriate Incident layer:
    a. To expand the layer, click the + symbol. The Planning Area, Fire Perimeters, Fire Barriers, Landscape Masks, and Points of Interest layers appear in the tree view.
    b. Mark the checkbox for the type of shape you want to add.
    c. Click the green + symbol to the right of the layer to expand the view.
    d. Enter a Name for the shape.
    e. Click **Save**. The temporary shape name changes to the one you entered and appears in the tree view with a checkbox next to it.
8. To remove a shape, do the following:
    a. Select the shape you want to remove.
9. Select the eraser tool. All the selected shapes disappear.

## Creating Planning Areas

Planning areas help you to establish a boundary for the area of interest around an incident.

Planning areas are required for the following tasks:

- Running an FSPro analysis
- Documenting a decision

To create a planning area:

9. From the **Incident List**, select an incident.
10. Click **Assess Situation**. The map appears with the selected incident marked and centered on the map.

11. To select the map layers you want to view and to see the map legend, click the **Map** tab > mark the checkbox for the Incident map layer. (Clicking the + sign next to the layer name expands the tree view.)
12. Select the Landscape Extent tool  .
13. Place your cursor on the map where you want the extent, then click once.
14. Drag the mouse diagonally to the end point, and then double-click to release the tool. The shape outline turns green and has a temporary name.
15. Mark the Planning Areas checkbox.
16. Click the green + symbol to the right of the layer to expand the view.
17. Enter a Name for the shape.
18. Click **Save**. The temporary shape name changes to the one you entered and appears in the tree view with a checkbox next to it.

You can now publish a decision and request an FSPro analysis for this incident.

## Uploading Shapes

When managing incidents, you might frequently need to upload shapes and other files that support the analysis and decision-making process.

You can upload the following shapes to WFDSS:

- **Fire perimeters:** Some fire modeling applications require the current fire perimeter in order to product accurate results.
- **Fire Barriers:** Barriers to fire spread are useful for decision-making and fire modeling. Barriers can be rivers, prescribed burns, old fires, or fuel treatments.
- **Landscape Mask:** Fire models use landscape masks to change fuels characteristics based on fuels treatments, old fires, or natural disasters.
- **Final Fire Perimeter:** Often, the final fire perimeter is hard to locate when the fire is over. Uploading a final fire shape before closing the incident helps to facilitate record-keeping and future landscape calibrations.

Before uploading a shape, verify the following:

- The incident you want to upload the shape for exists in WFDSS, and that you have editing privileges for the incident or analysis.
- The files associated with the shape are current, correct, and belong with the incident or analysis.
- The shape ZIP file contains files with the following file extensions:

  . PRJ

  . DBF

. SBN
. SBX
. SHP
. SHP.XML
. SHX

- The files contained within the ZIP file are at the same directory level. (You can't have a folder inside the ZIP file or the shapes won't upload correctly.)

You can upload shapes from either the Edit Incident Information page or from the Analysis List page. The shapes you upload will be associated with either the incident or the analysis you select.

To upload shapes for an incident:

1. From the Incident List, select the incident you want to upload a shape for.
2. Click **View Information**. The Edit Incident Information page appears.
3. From the left menu, choose **Shape Upload**. The Upload Shape Files page appears.
4. In the Shape Label field, type a descriptive name for the shape you are uploading.
5. Select the Shape Date. This is the effective date for the shape, and is beneficial for tracking the history related to the types of shapes uploaded.
6. Select the Shape Type.
7. Click **Browse** to navigate to where the shape ZIP file is stored. The Choose File window appears.
8. Select the shape ZIP file you want to upload and click **Open**. The path and filename for the ZIP file appear in the File to Upload field.
9. Click **Upload**. The shapes will be uploaded and associated with the incident.

Once the shapes finish uploading, you can view them on the map for the incident.

To upload shapes for an analysis:

1. From the Analysis List, select the analysis you want to upload a shape for. (This function is available only for Basic and Short-Term Fire Behavior, and FSPro runs.)
2. Click **View Information**. The Analyses page appears.
3. From the left menu, choose **Shape Upload**. The Upload Shape Files page appears.
4. In the Shape Label field, type a descriptive name for the shape you are uploading.

5. Select the Shape Date. This is the effective date for the shape, and is beneficial for tracking the history related to the types of shapes uploaded.
6. Select the Shape Type.
7. Click **Browse** to navigate to where the shape ZIP file is stored. The Choose File window appears.
8. Select the shape ZIP file you want to upload and click **Open**. The path and filename for the ZIP file appear in the File to Upload field.
9. Click **Upload**. The shapes will be uploaded and associated with the analysis.

Once the shapes finish uploading, you can view them on the map for the analysis.

## Uploading Images

Often, decision action reports (DARs) require images and other data that are not created in WFDSS.

You can upload the following types of images to WFDSS:

- Maps
- Photos
- Weather
- Miscellaneous

Images are tied to a specific incident, and are stored in the Images folder for the incident (Incident List > select Incident and click View Information > Decisions > select Decision > click View Information > click Edit Content > scroll down to see the Incident Content tree in the left pane).

To upload images:

1. From the Incident List, select the incident you want to upload an image for.
2. Click **View Information**. The Edit Incident Information page appears.
3. From the left menu, select **Image Upload**. The Upload Image File page appears.
4. Enter an Image Label and Image Description. This information will appear in the decision report with the image.
5. Select an Image Type.
6. Click **Browse** to navigate to the folder where the image is stored. The Choose File window appears.

7. Select the image you want to upload, then click **Open**. The full path and file name for the image you are uploading appears in the File to Upload field.
8. Click **Upload**. It might take a couple of minutes to upload the file.
9. The file you selected is uploaded, and stored in the Incident Content tree Images folder, sorted according to the image type you selected and under your name

## Viewing Shapes

After you've uploaded the shapes, you can view them on the landscape.

To view incident shapes:

1. From the Incident List page, select the incident you want to view shapes for.
2. Click **View Information**. The Edit Incident Information page appears.
3. Select the **Situation** tab. A map of the incident area appears, with a marker indicating the incident's latitude and longitude.

Note: Depending on your Internet connection, the maps can take a minute or two to load the first time you access them each session. You should see the maps tiling as the page loads. If the maps don't load after 3 minutes, contact the WFDSS Help Desk (fire_help@fs.fed.us).

4. In the left pane of the **Map** tab, verify that the incident layer is turned on.
    a. If the incident layer is not checked, click the + sign to expand the layer options.
    b. Select the shape you just uploaded (the description you entered when uploading the shape appears in the list).

The shape should appear on your map view. If it doesn't, that means that either the latitude/longitude are wrong in the shape or incident, or you uploaded the wrong shape.

Try zooming out until you see the shape description, and then use the hand (panning) tool to move the shape to the center of your screen before zooming in.

To view analysis shapes:

1. From the Analysis List page, select the analysis you want to view shapes for.
2. Click **View Information**. The appropriate analysis page appears.

3. Select **Analysis Map**. A map appears, showing the landscape extent of the analysis, an incident marker, and any previously uploaded shapes that relate to the incident.
4. In the left pane of the **Map** tab, verify that the incident layer is turned on.
    a. If the incident layer is not checked, click the + sign to expand the layer options.
    b. Select the shape you just uploaded (the description you entered when uploading the shape appears in the list).

The shape should appear on your map view. If it doesn't, that means that either the latitude/longitude are wrong in the shape or incident, or you uploaded the wrong shape.

Try zooming out until you see the shape description, and then use the hand (panning) tool to move the shape to the center of your screen before zooming in.

**Map Images**

Map images can be saved from any map within WFDSS other than the Intelligence Map.

Map images are associated with an incident.

Map images can only be saved if the base layer is the WFDSS Topos layer.

Images are created from the Map Image panel found under the Info tab.

An image name is required.
The image description is optional. If included, the image description will be displayed with the image when it is placed within an incident decision or report.

Map images are accessed from the incident content tree by expanding the Images folder and then the Map folder. The map images are organized by the last name of the user who created the map.

**Incident Shape Downloads**

A shape download tool (  ) was added to the incident shape tools for downloading an incident-specific shape.

Shapes downloaded from the layer switcher will be downloaded in WGS84 (decimal degrees).


## C. Basic and Short Term Fire Behavior

**Basic Fire Behavior (BFB)**

The automated version of Basic Fire Behavior (BFB) is a very simple way to get "snapshot in time" fire behavior outputs for every cell (30x30 meters) on the landscape.

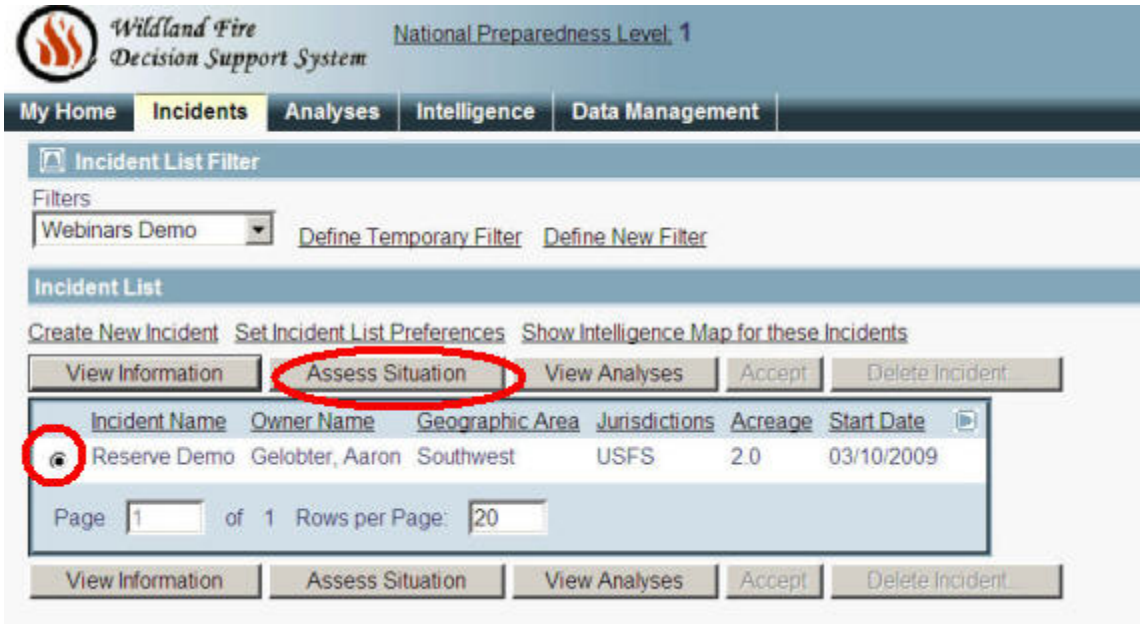
To run the analysis, you need only the following information:

- Defined analysis area
- Start date and time for the analysis

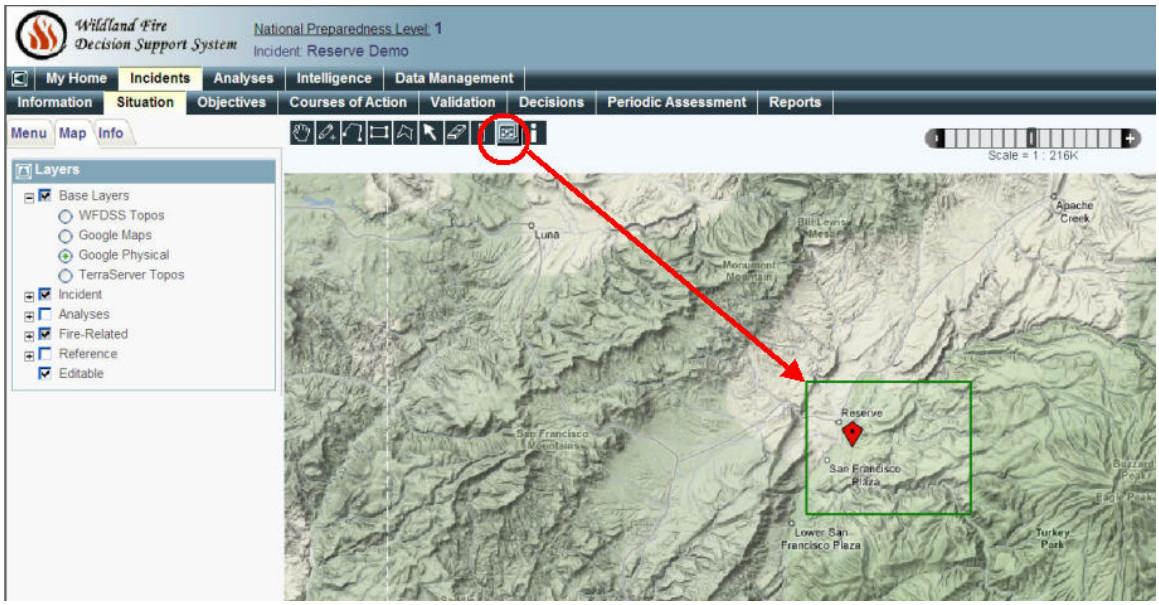
The model retrieves historic or forecasted weather and winds for that time. You can choose to accept the wind speed and direction provided or replaces those input values with ones you choose. Within a short time (usually within a minute or so), fire behavior results will be ready for viewing.

When running the Basic or Short Term analysis, the landscape extent cannot exceed 30 miles in either direction.

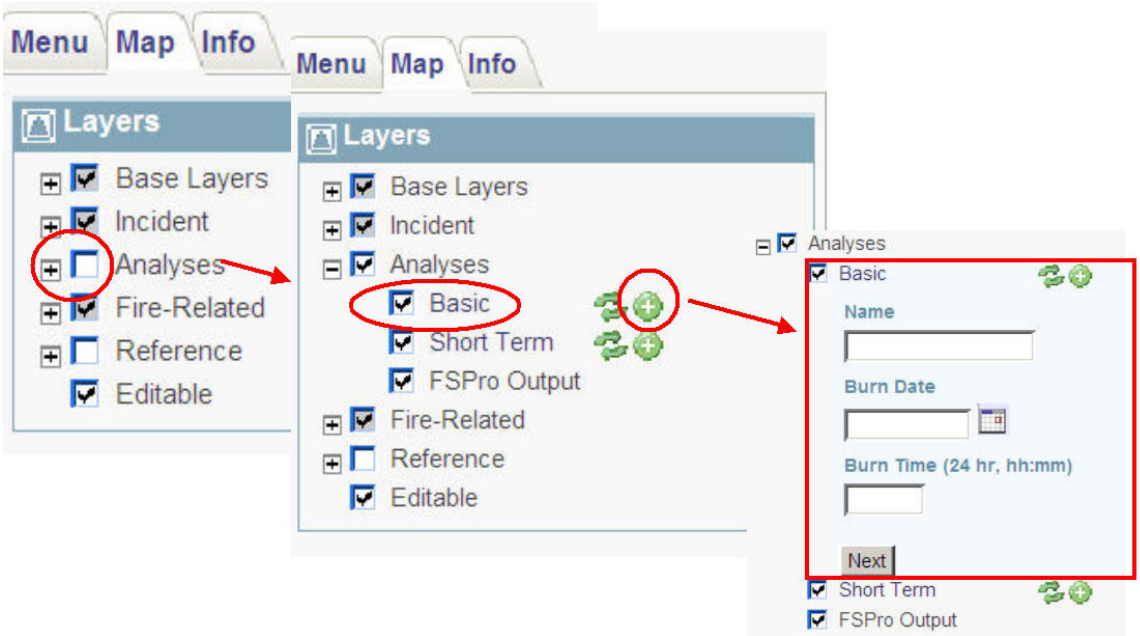
The resolution used for the Basic or Short Term analysis varies depending upon the size of the landscape file. The resolution is always a multiple of 30 meters and is set to 90 meters when the landscape size is 400 square miles.



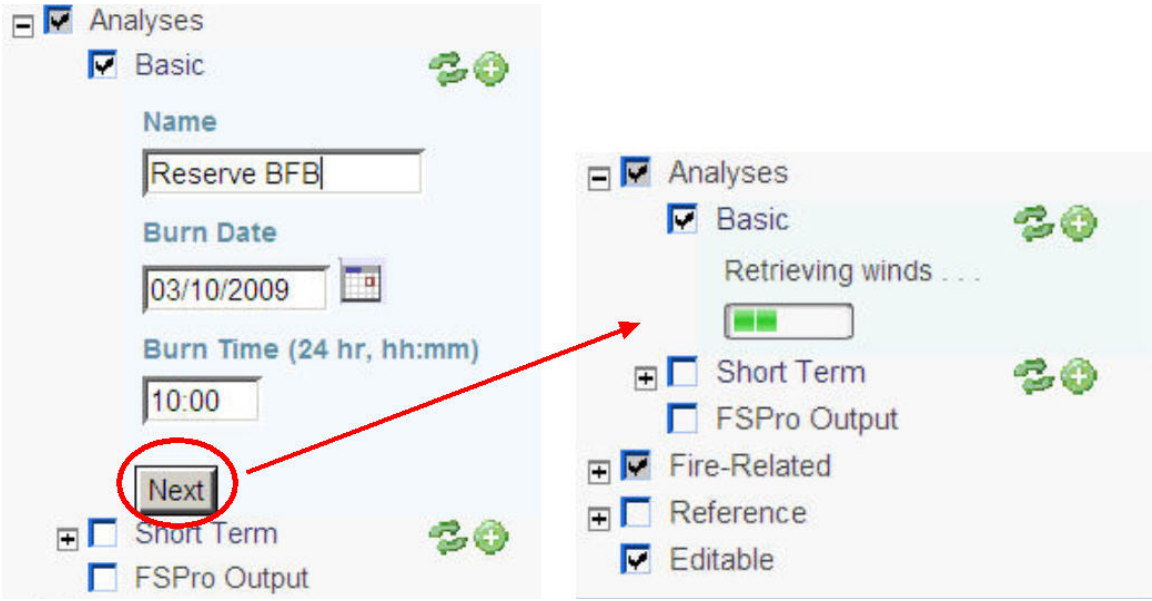

Login into the **WFDSS** and Click the **Incident** tab, this is the screen users will see. On this screen, you can sort the Incident List by any of the columns. To get to the Incident of interest, you toggle a radio button (the round circle on the left hand side of the incident list), and then click the **Assess Situation** button.



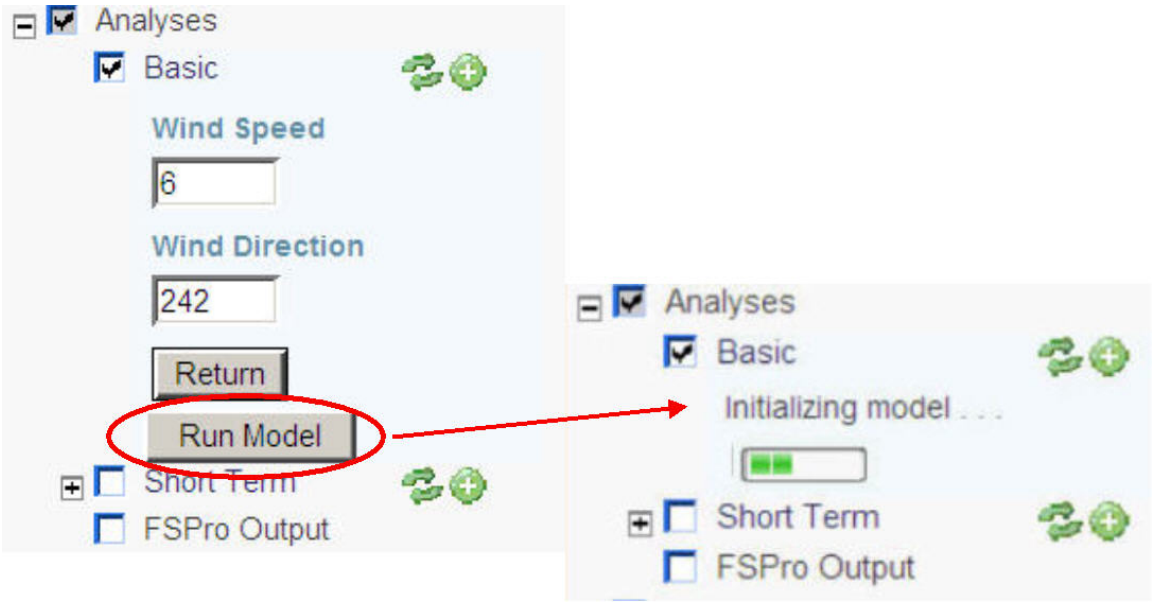

Click the **Situation** tab, than can now activate the **LCP Extent** button on the top toolbar. This will allow you to draw a green box on the map. Within this area, your fire behavior analyses will occur. The outputs to this area can be viewed on the **Analyses** Tab on the following slides.



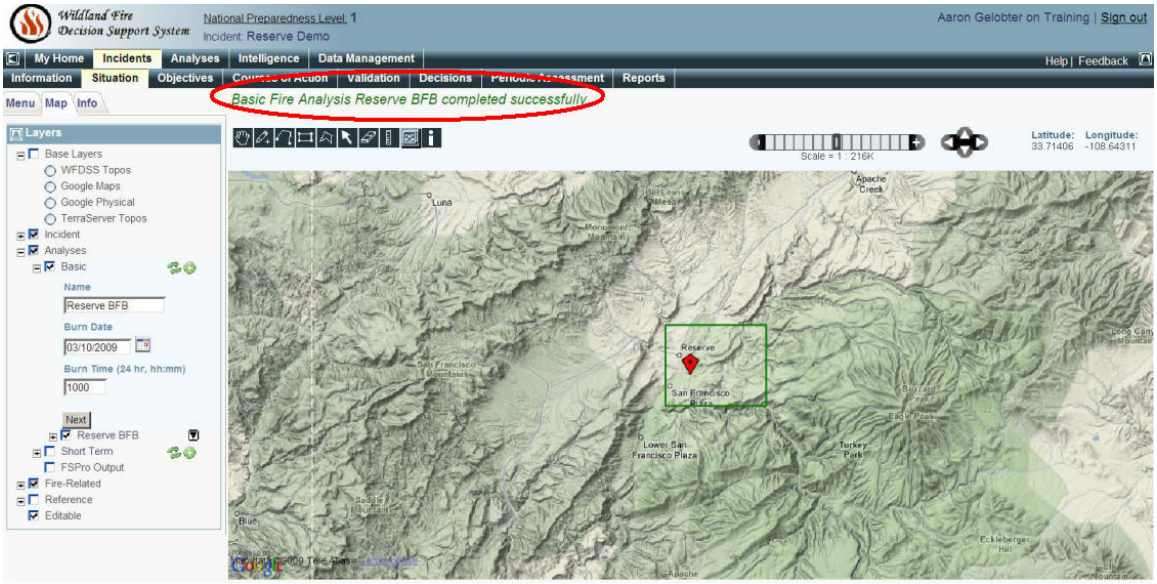

Click the **Plus** sign next to **Analyses** on the map tab, then the **Green Plus** sign to reach the input box. In the input, fill in the **Name** (name of the analysis); **Burn Date** (date of analysis, typically today's date) and **Burn Time** (time of day the burn will start), this enables the application to obtain forecast data for the date and time of concern. As we all know, fires burn differently at 1000 hrs than they do at 1400 hrs).



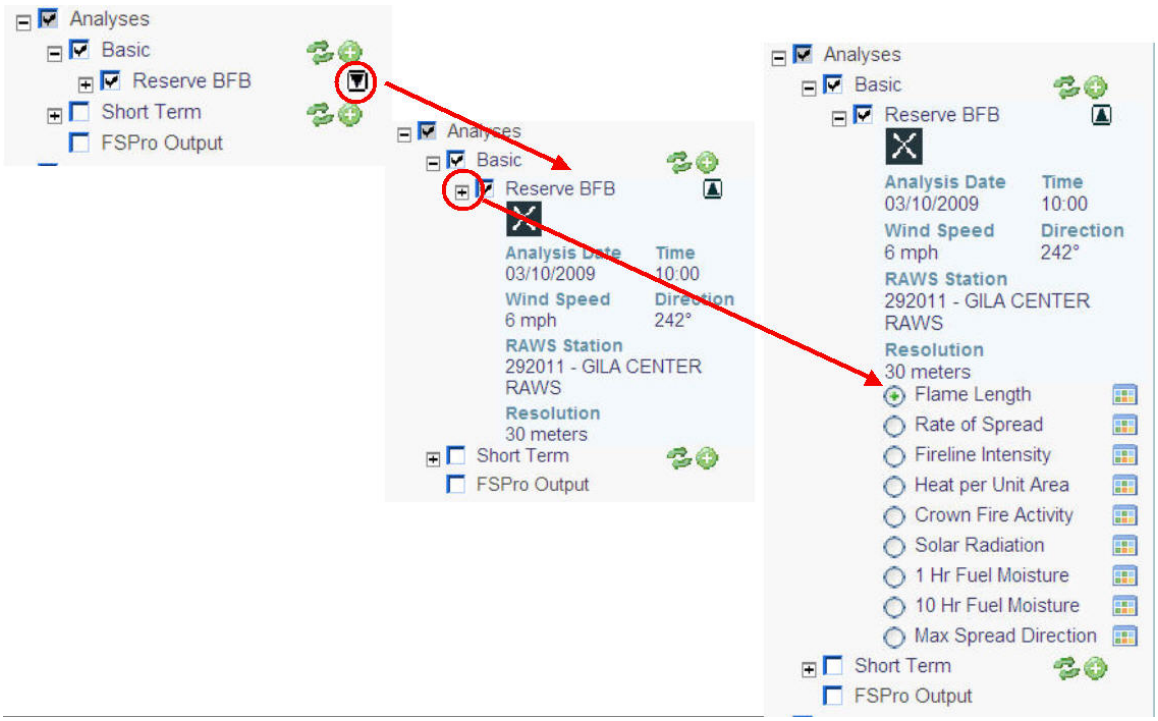

Click the **Next** Button This will start the retrieval of the winds.



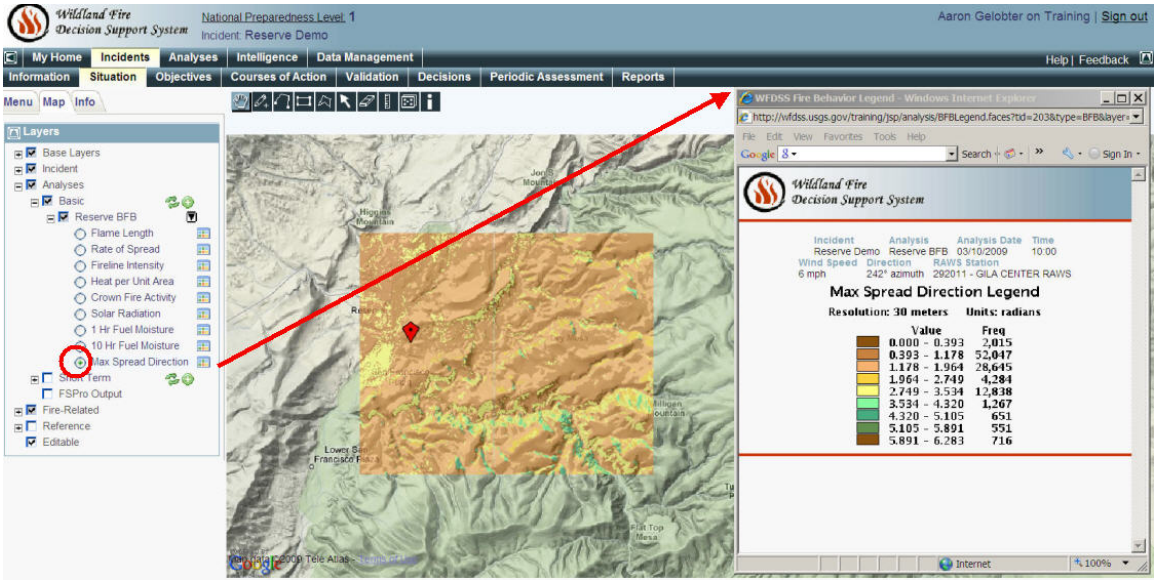

Click the **Run Model** Button this will initialize the Model.




Green message at top of screen shows success. If it is red, it didn't go through. Usually folks forget to draw the extent with the **LCP Extent** tool.



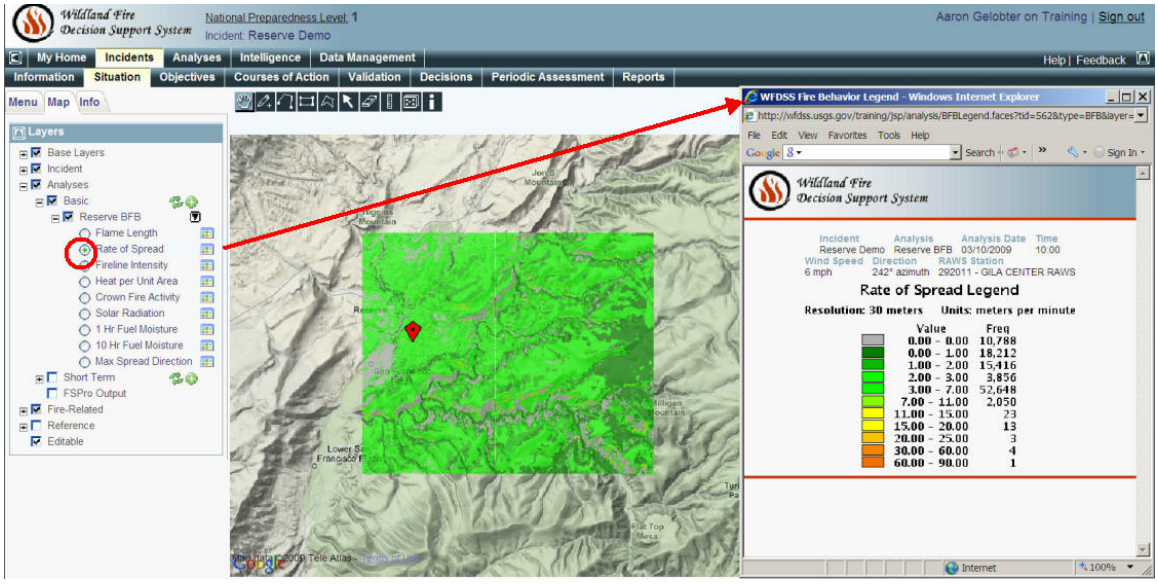

Click the **Down Arrow** button, then the **Plus** sign to reach the output.




You can also click the **Analysis Layer**, then the **Basic** (Fire Behavior) and activate the analysis "Reserve BFB" to view the various fire behavior outputs.

1. Click the **Radio** (in the red circle) to the left of the fire behavior outputs
2. Click the color pallet information button to view the legend.

The example on this slide is the **Max. Spread Direction** within the **LCP Extent** area that was selected earlier.




You can also click the **Analyses Layer**, then the **Basic** (Fire Behavior) and activate the analyses **"Reserve BFB"** to view the various fire behavior outputs.

1. Click the Radio button (in the red circle) to the left of the fire outputs.
2. Click the color pallet information button to view the legend.

The example on this slide is the "Rate of Spread" within the **LCP EXTENT** area that was selected earlier.

## Short-Term Fire Behavior (STFB)

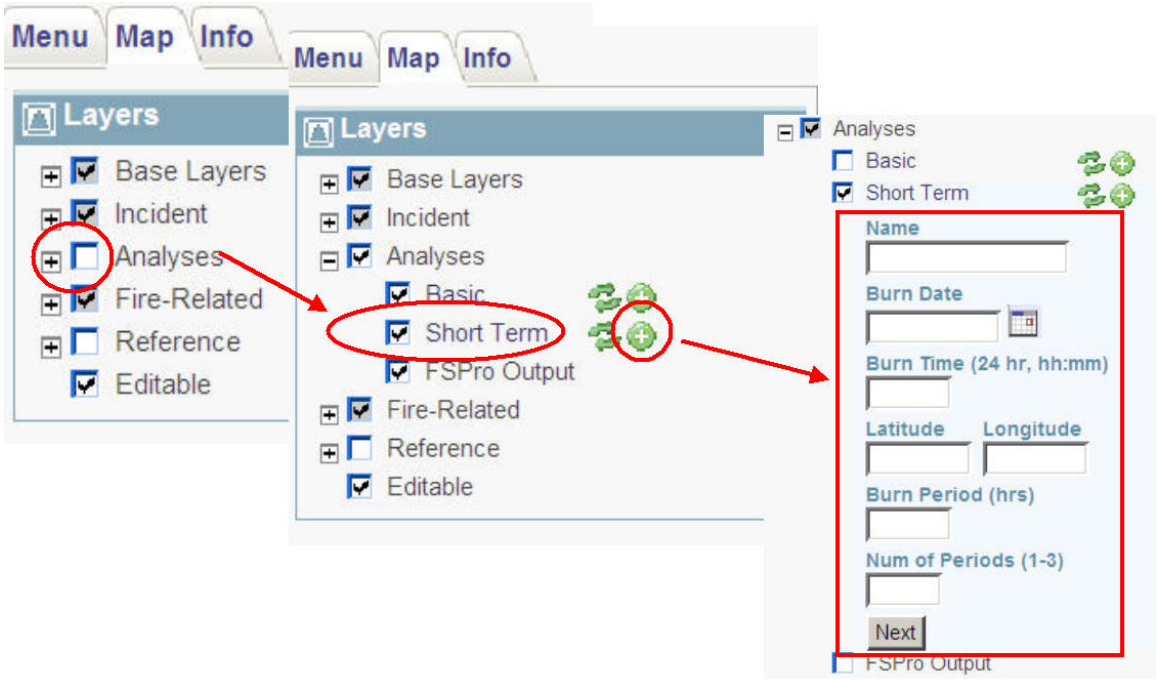
The automated version of Short-Term Fire Behavior (STFB) is a quick way to get an idea of potential fire spread from a point location using one set of wind and fuel moisture conditions for the user-defined burn period(s).

The current automated version of STFB requires only the following information:

- Name for the analysis
- Burn Date and Time
- Fire start location (click a point on the map or enter latitude/longitude information)
- Analysis extent
- Length of the burn period
- Number of burn periods for the analysis

The model retrieves forecasted weather and winds for the selected time, using National Digital Forecast Data (NDFD) for current simulations. For historic fires, the model can use historic weather.

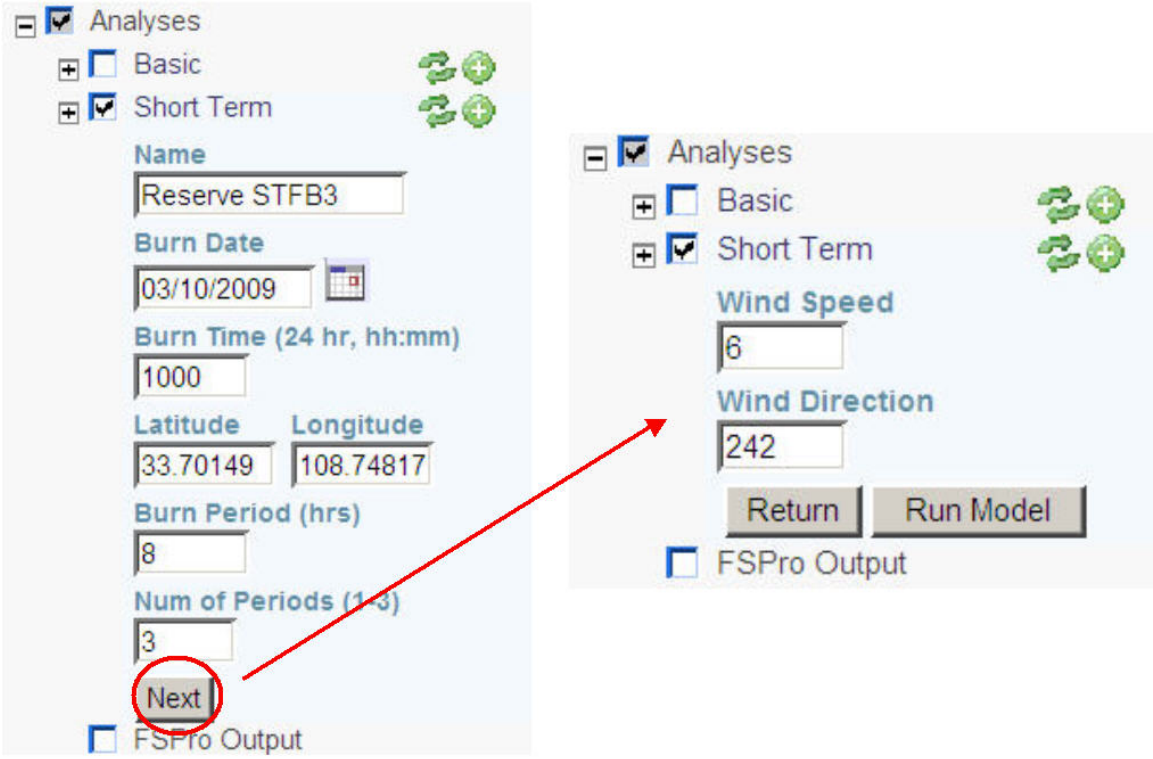
You can accept the wind speed and direction provided, or replace those values with ones you select. Within a short period of time (usually within a couple of minutes), STFB fire spread results are ready for viewing.




Click the “Plus” sign then the “Green Plus” sign next to **Short-Term** to reach the input box.

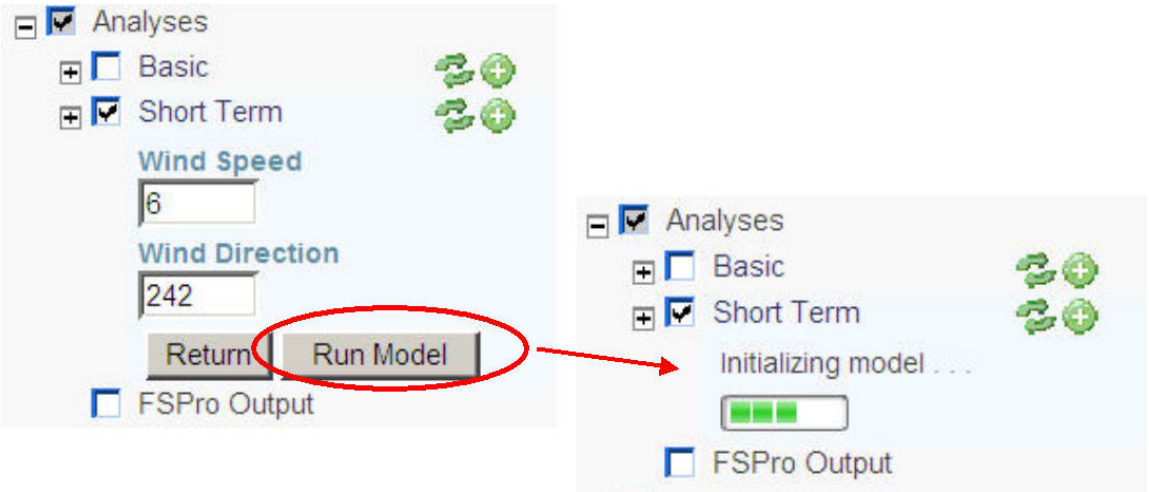
Fill in the **Name** (users need to name the analysis), **Burn Date** (date in which the burn is being modeled on, typically current date), **Burn Time** (the time of day active burning begins) and **LAT/LONG** (coordinates of the ignition point). This is the point where fire growth modeling will begin. **Burn Period** (expected number of hours per day that the fire will grow in significant size) and **Number Of Periods** (the number of days that will be simulated fire growth starting at the specified **Burn Time** and grown for the specified **Burn Period** per day).
Click the **Next** button to initialize the model.

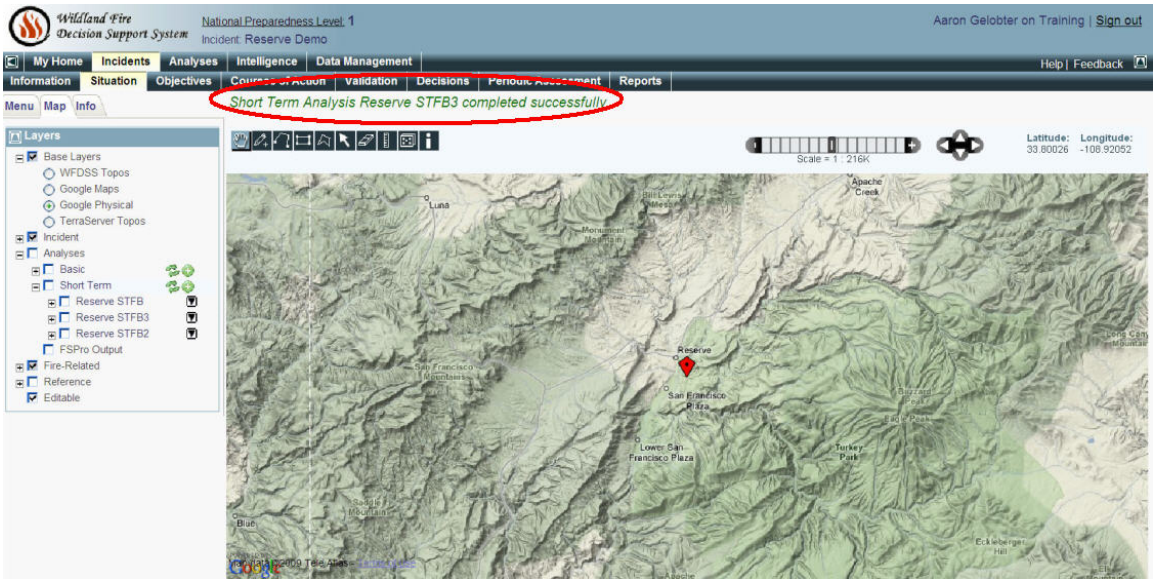
After filling in the input, click **Next** to start the wind retrieval process.



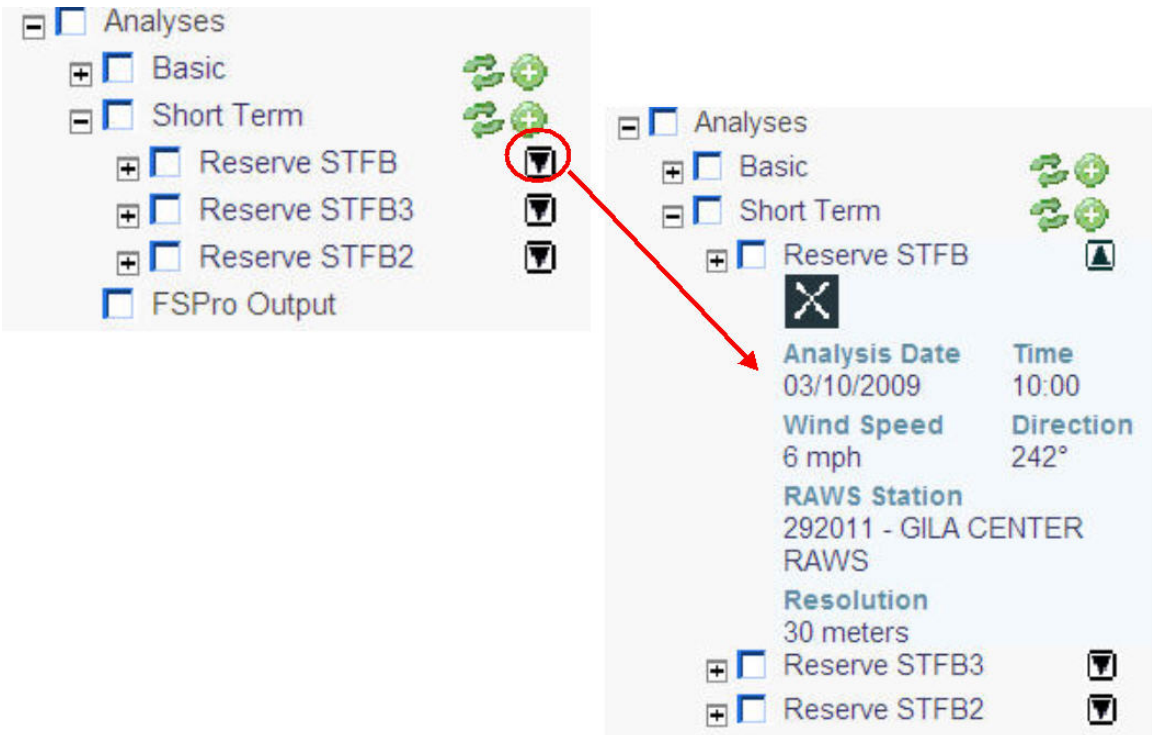

After filling in the input, click **Next** to start the wind retrieval process.

Click the **Run Model** button this will start the Model run.

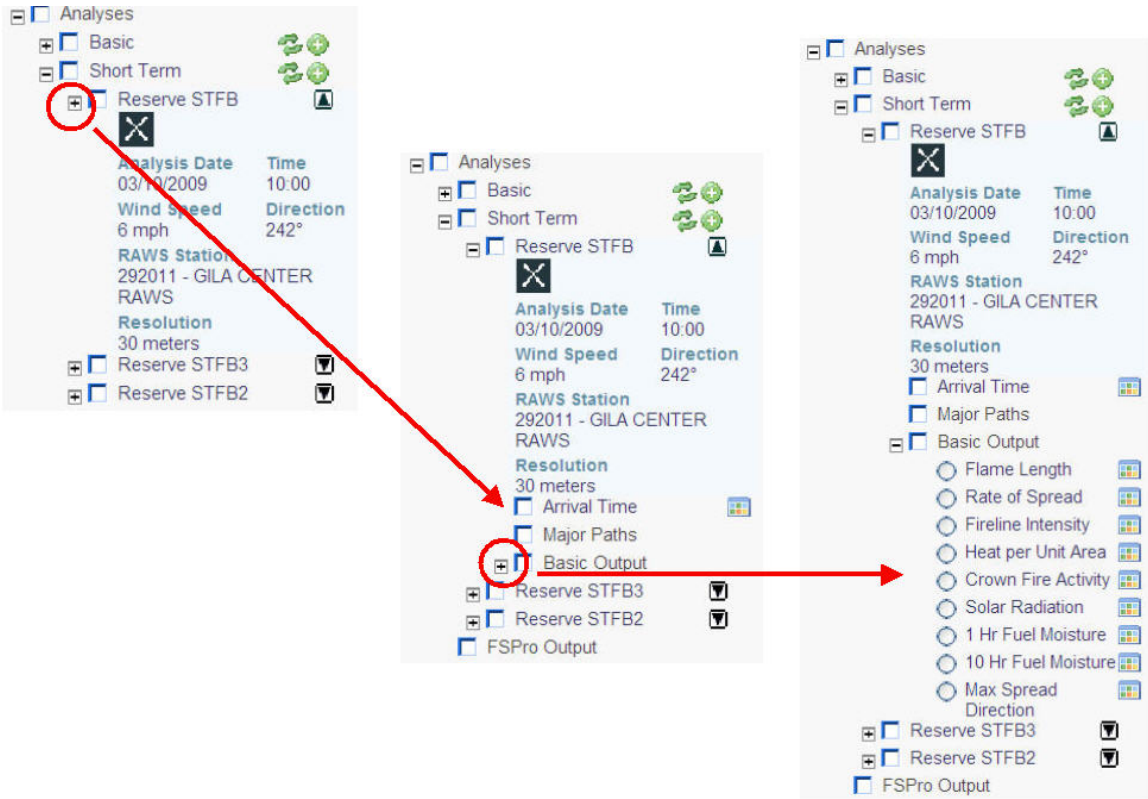




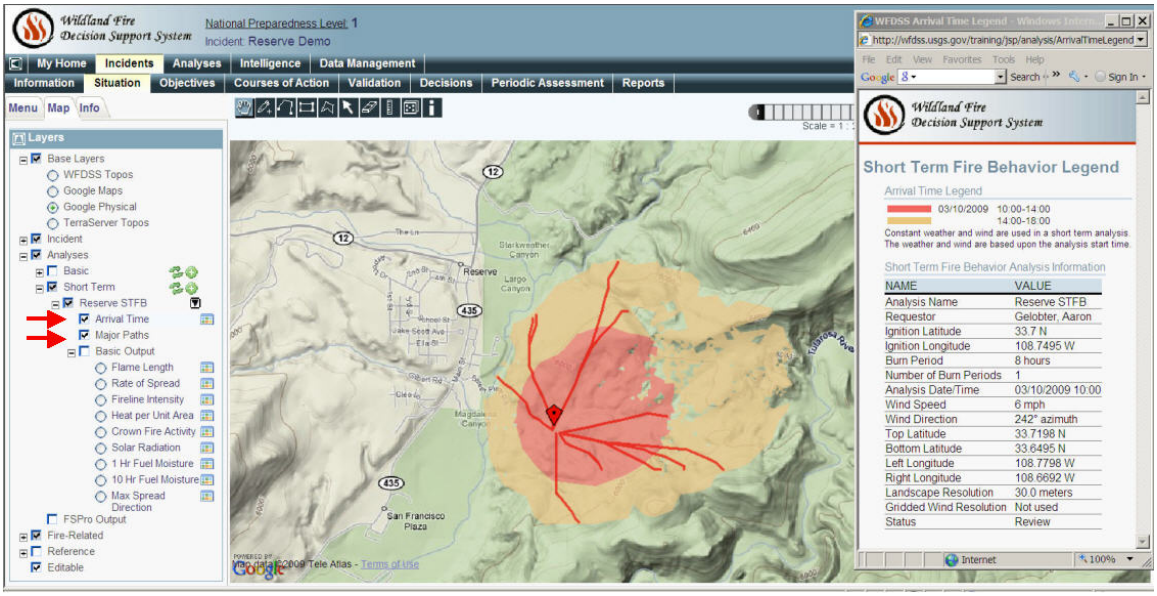

Green message at top of screen shows success. If it is red, it didn't go through. Usually folks forget to draw the extent with the **LCP Extent** tool.



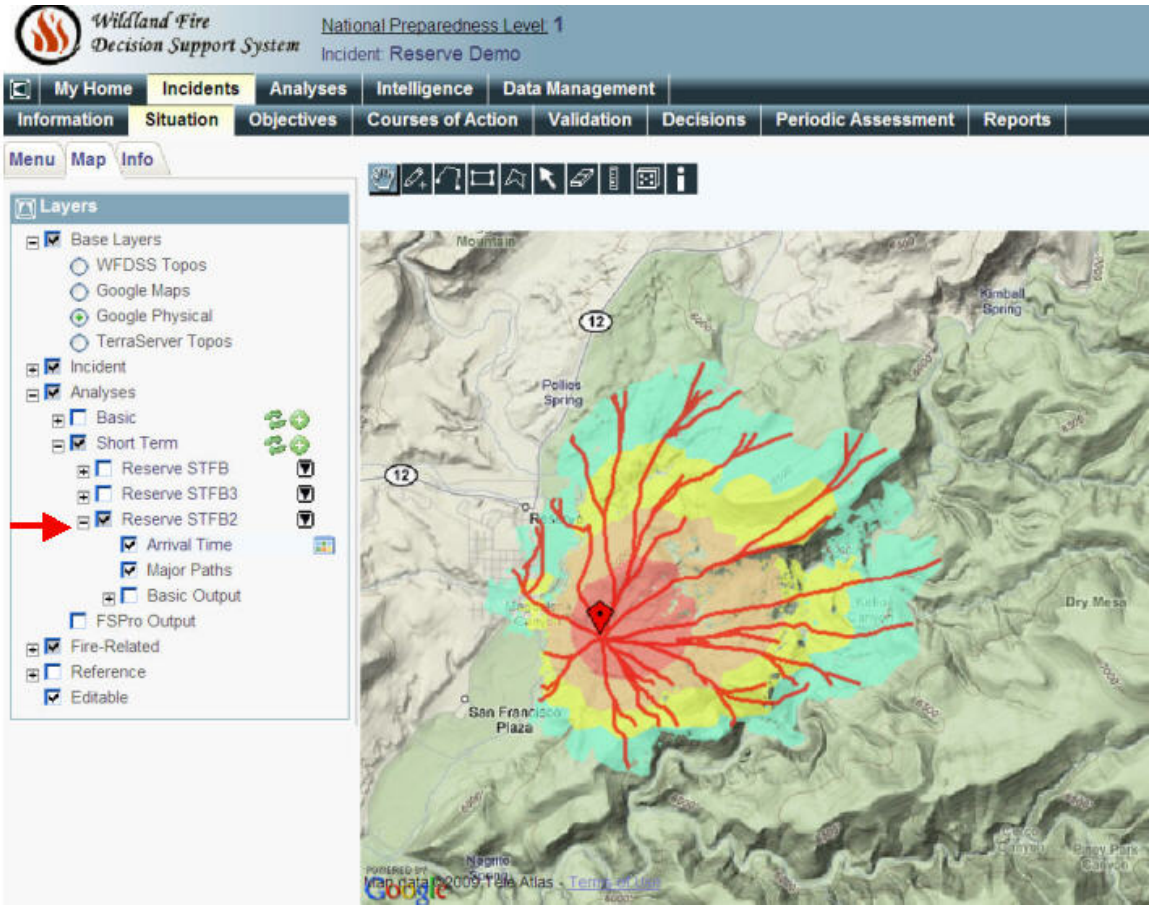

Click the **Down Arrow** button to view the analysis information.



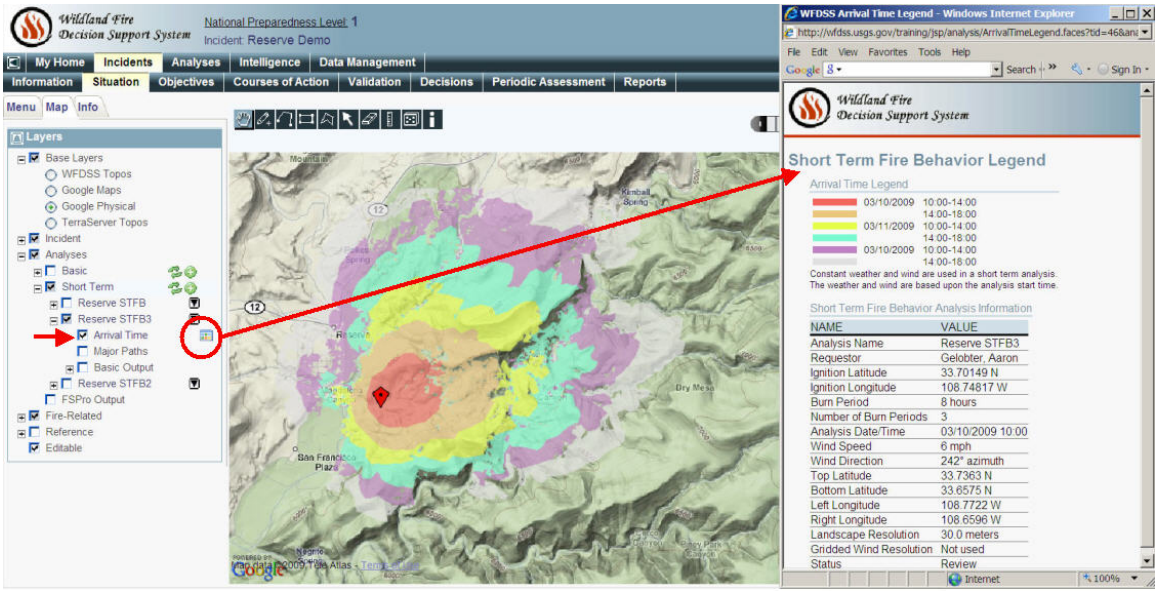

Click the “Plus” sign to reach the **Arrival Time, Major Paths** and **Basic Outputs**. Click the **Basic Output Plus** sign to reach the fire behavior elements.



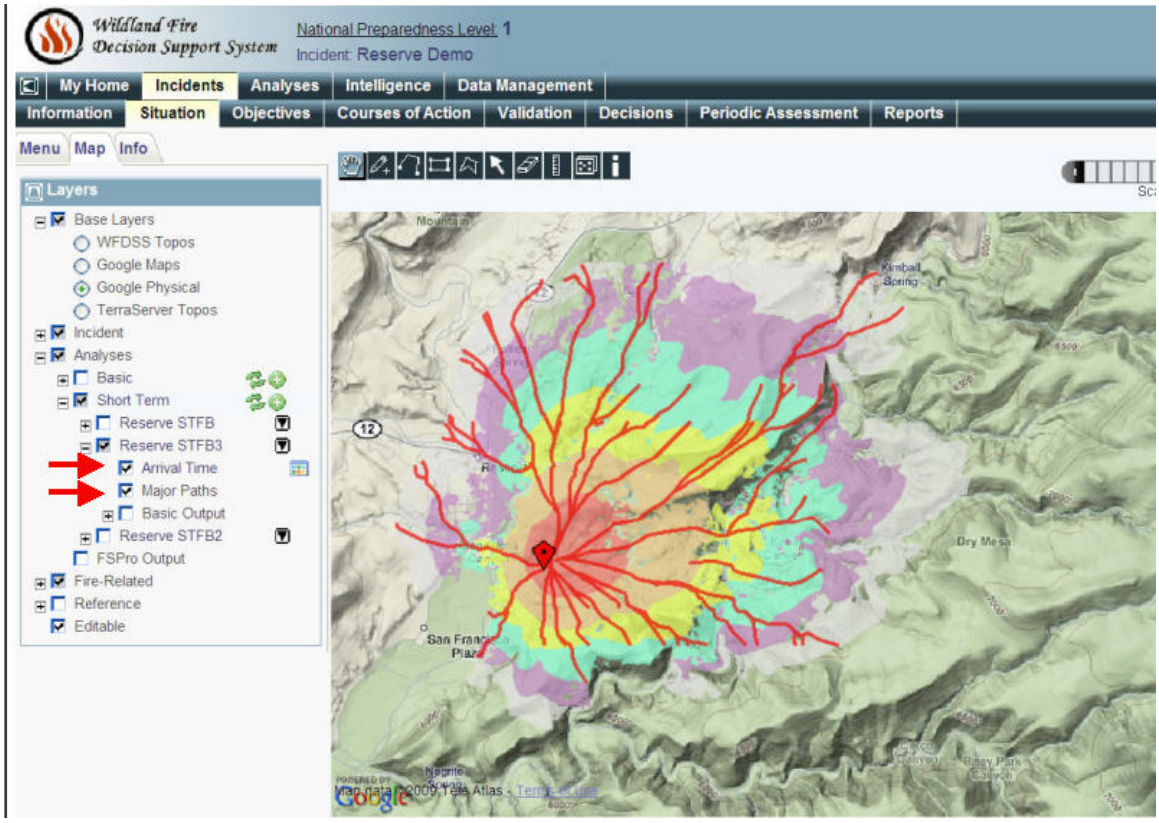

This is example of the Short-Term Fire Behavior – **Arrival Time and Major Path**. Click the color pallet information button to view the legend for the **Arrival Time.**



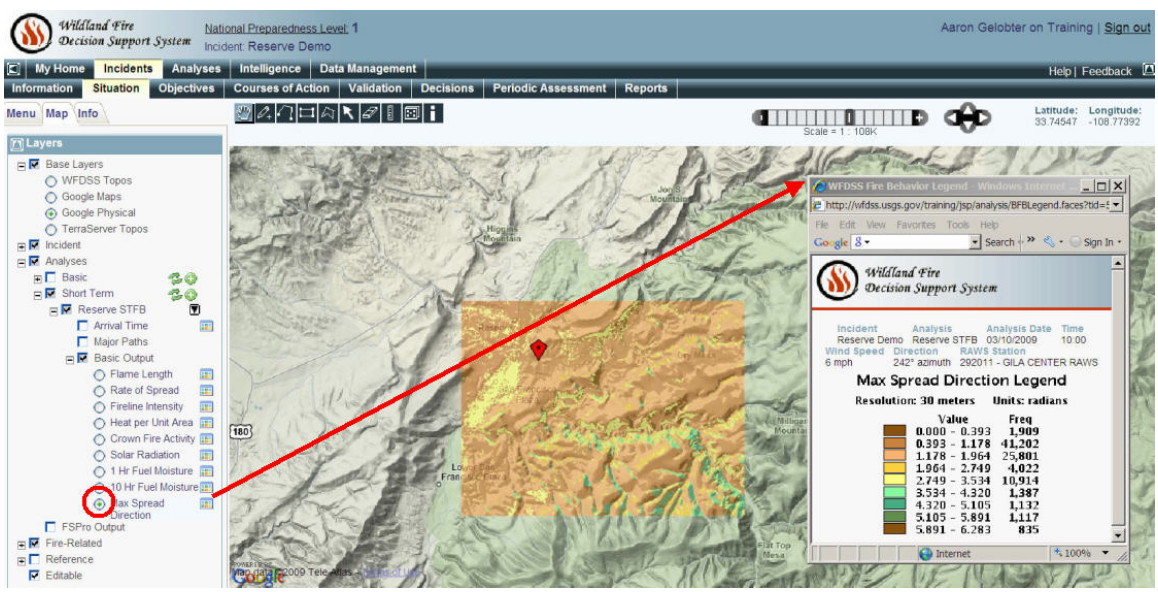

This is example of the Short-Term Fire Behavior – **Arrival Time** and **Major Path** with a 2 Period Run.




This is example of the Short-Term Fire Behavior – **Arrival Time** with a 3 Period Run and STFB Legend.



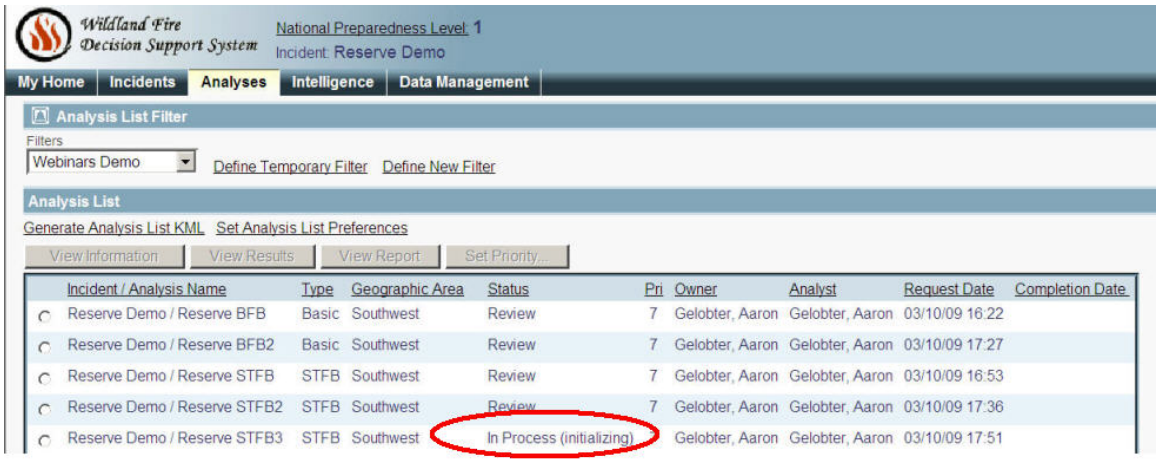

This is example of the Short-Term Fire Behavior – **Arrival Time** and **Major Path** with a 3 Period Run and STFB Legend.



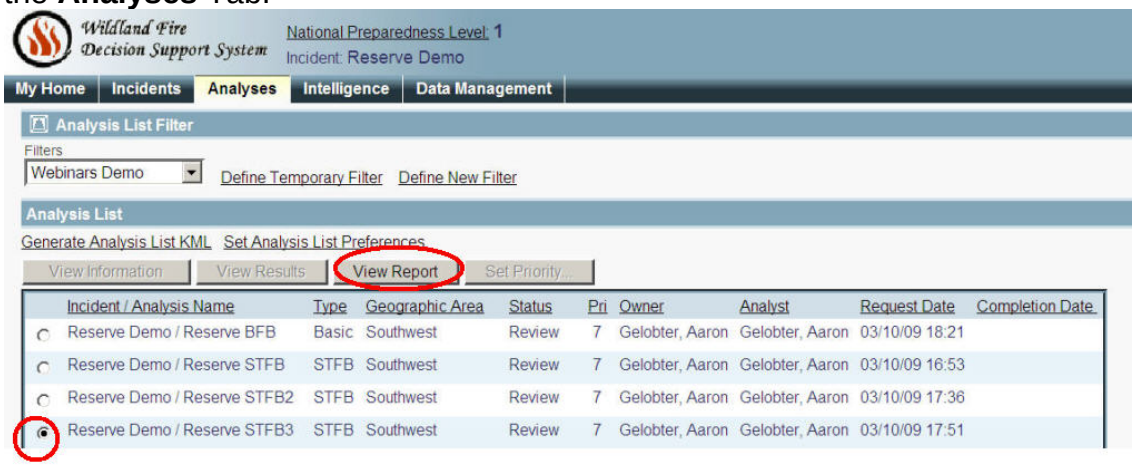

Click the STFB and activate the analyses **"Reserve STFB"** to view the various fire behavior outputs

1. Click the **Radio** button (in the red circle) to the left of the fire outputs.
2. Click the color pallet information button to view the legend.

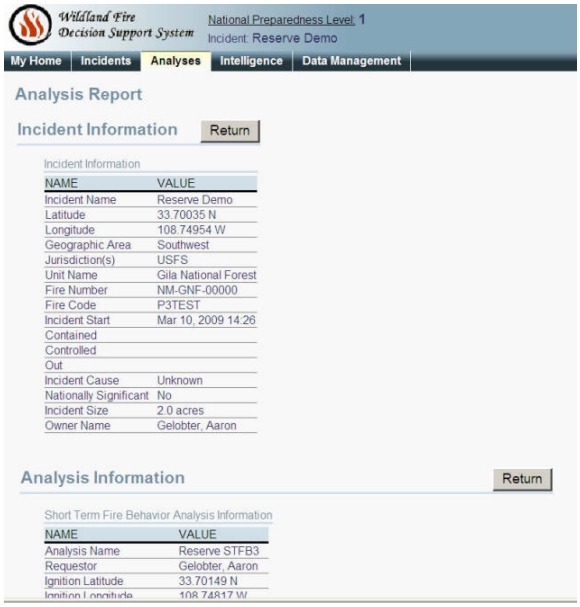
The example on this slide is the **Max. Spread Direction** within the LCP Extend area that was selected earlier.

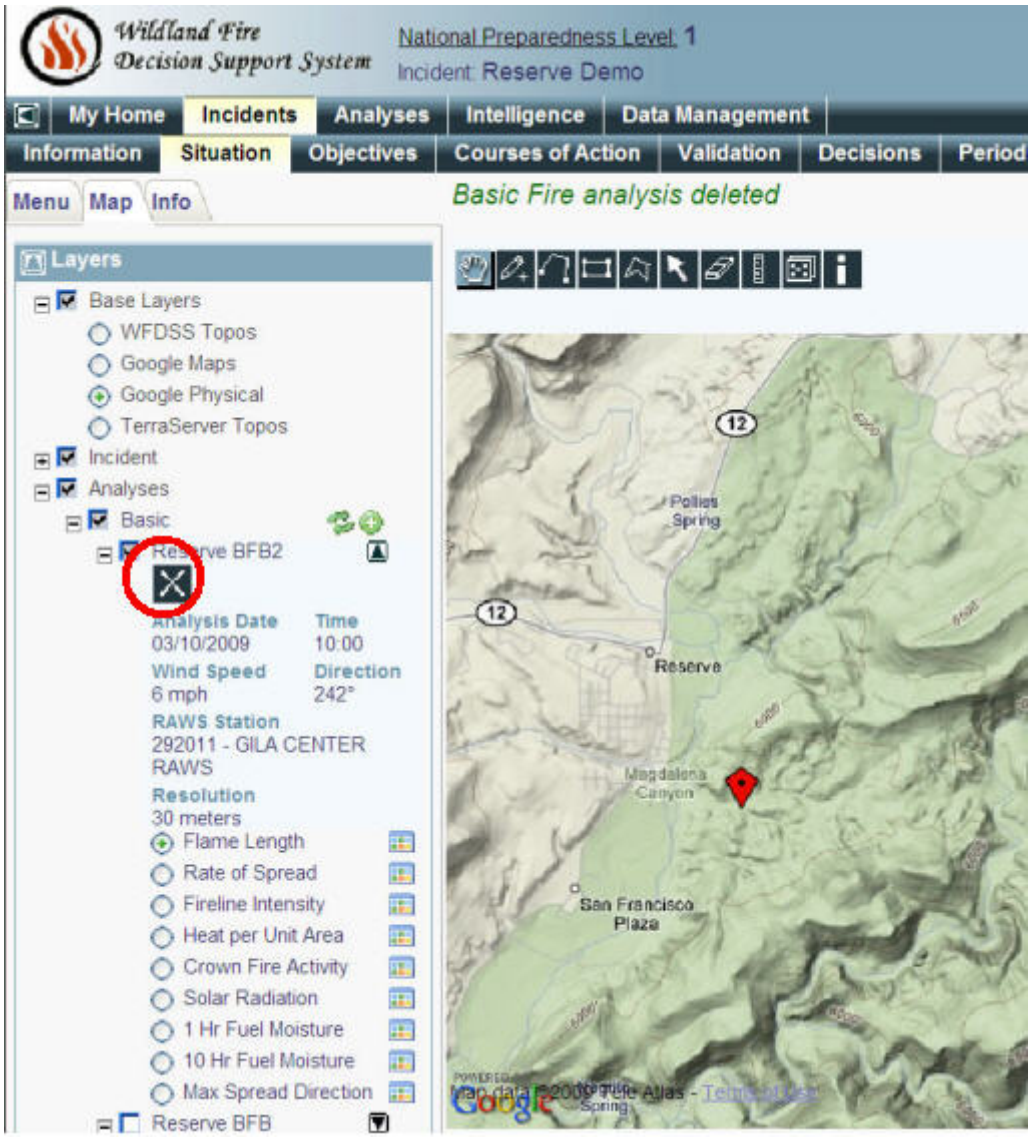



Viewing the report. The STFB and Basic analyses progress can be viewed from the **Analyses** Tab.




To review an **Analyses** Report, you toggle a **Radio** button (the round circle on the left hand side of the incident list); they need to click the **View Report** button.






Viewing the report shows the basic assumptions and inputs of the model. Click the **"X"** button to delete an analysis.

## D. Requesting an FSPro and RAVAR

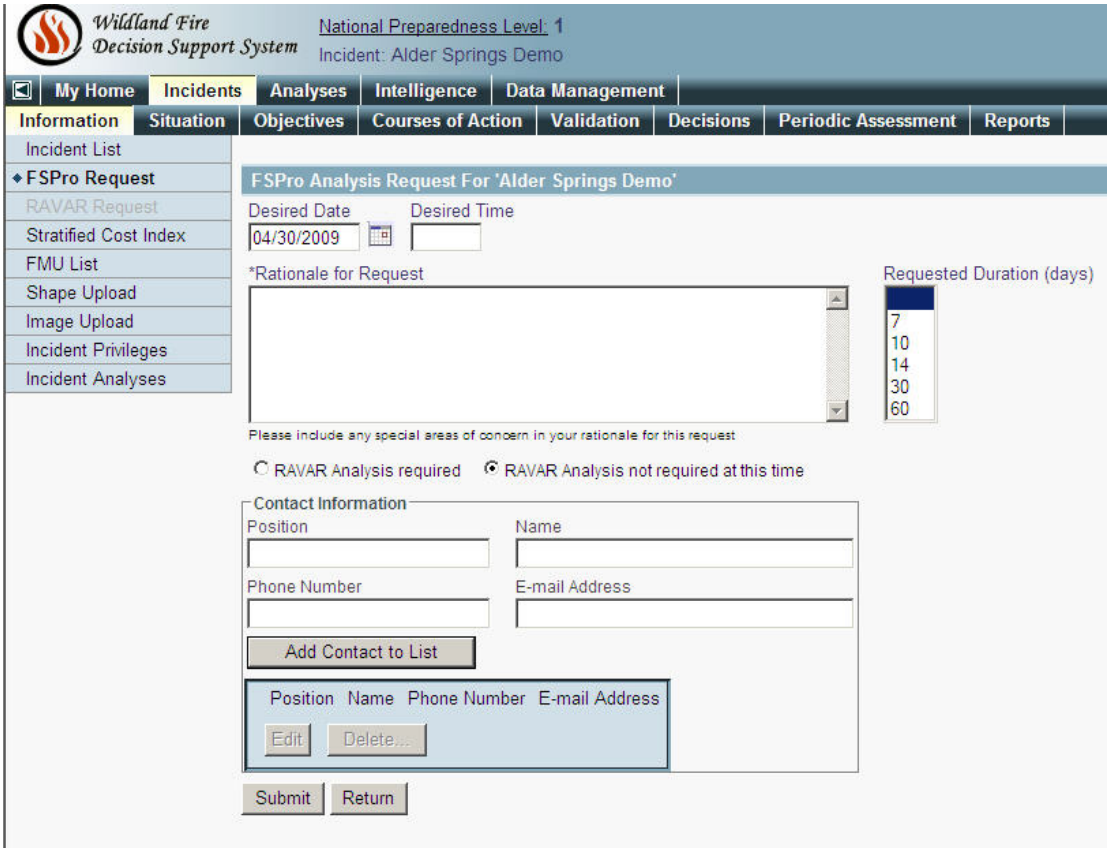
Geographic Area Editors, National Editors, and RAVAR Analysts can only request RAVAR Analysis.

Planning areas are required for running an FSPro analysis

To request FSPro:

1. From the **Incident Page**, select an incident.

2. Click **Information**. The menu will appear on the left side of the screen (this menu is available from each page)
3. To select the FSPro Request enter the following:
    - Desired Time
    - Rationale for Request
    - Requested Duration (days)
    - RAVAR (either required or not required at this time)
    - Your Position (Work)
    - Name
    - Phone Number
    - E-mail Address



# Section 11. Objectives

## A. Terminology – Objectives and Requirements

Management is the process of anticipating the future, setting objectives, implementing an action, achieving an output, and performing an evaluation comparing the output to the objective. Management is not possible without setting objectives. Objectives are not developed in WFDSS but are taken from guiding documents including Land and Resource Management and Fire Management Plans. Management Requirements are also stated in WFDSS and represent area specific requirements to frame fire management actions in a given area. These are derived from the same guidance documents and local Agency Administrator direction. Objectives utilized in WFDSS will include:

**Strategic Objectives**

These are broad statements, specified in land and resource management and fire management plans that identify changes in water, soil, air, or vegetation from the present to proposed conditions but can also describe an existing resource condition that should be maintained. Objectives deal with large areas over long time periods and project intended outcomes of management activities that contribute to the maintenance or achievement of desired conditions.

**Management Requirements**

Management Requirements are derived from land and resource management plan and fire management plan standards and guidelines information. They represent the recommended technical and scientific specifications for management activities and/or potential actions to help achieve objectives across broad areas in general terms. They provide the foundation, framework, and limitations/challenges for potential management activities. Management Requirements are not commitments or final implementation decisions.

**Incident Objectives**

Incident Objectives are objectives specific to the particular incident. They are precise statements that reflect tactical accomplishment milestones to be accomplished on the incident. Incident Objectives deal with small, site-specific areas and may be limited to short time periods, such as a single operational period (< 24 hours), but can be extended for multiple operational periods. Incident Objectives can serve as a means for tracking incident accomplishments and workload demand thresholds.

**Incident Requirements**

Incident Requirements are developed by the local unit to provide management organizations direction in incident management. They are recommended technical and scientific specifications for management activities and/or potential actions to help achieve objectives for a site-specific area and defined time period. They provide the foundation, framework, and limitations/challenges for potential management activities

## B. Creating Incident Objectives And Requirements

The local Agency Administrator has the responsibility to determine the Incident Objectives. Incident Objectives are statements of intent related to the overall incident.

Essentially, the Incident Objectives answer the question of "what" we want to accomplish. For some most incidents, the time to achieve the Incident Objectives is critical. In others, time, while always important, may not be an overriding issue. All Incident Objectives must be measurable. The time frame may be "this operational period" or "for the duration of the incident."

Incident Objectives should have the following S.M.A.R.T. characteristic:

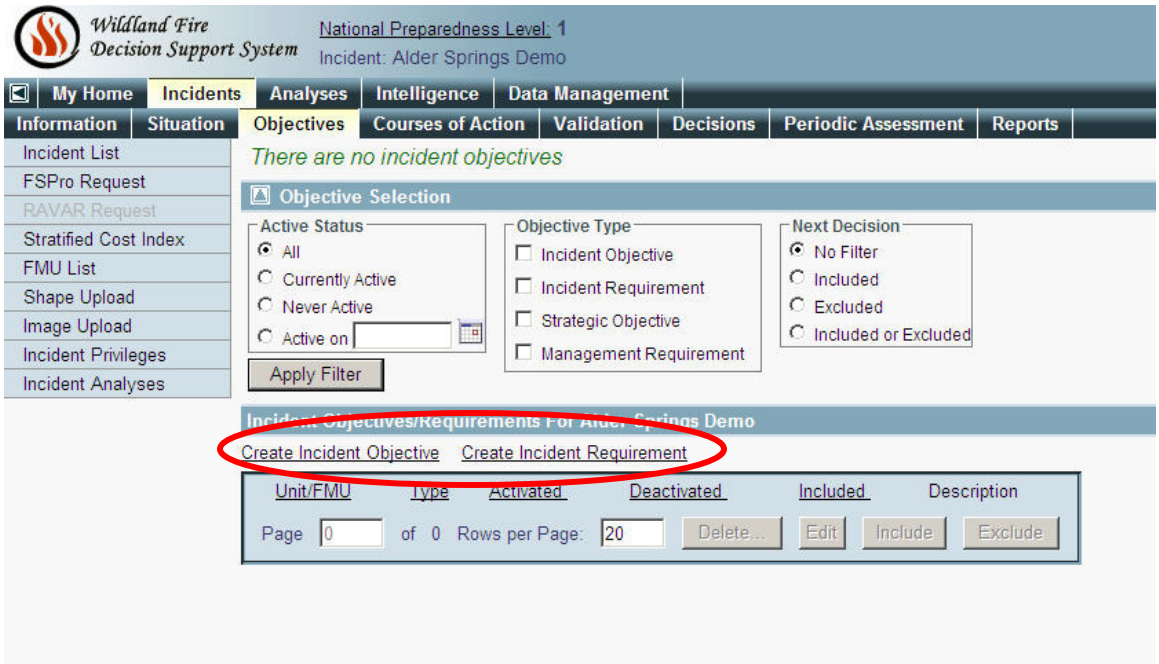
**Specific** – The must be precise and unambiguous in describing the objective.

**Measurable** – The design and statement of objectives should make it possible to conduct a final; accounting as to whether objectives were achieved.

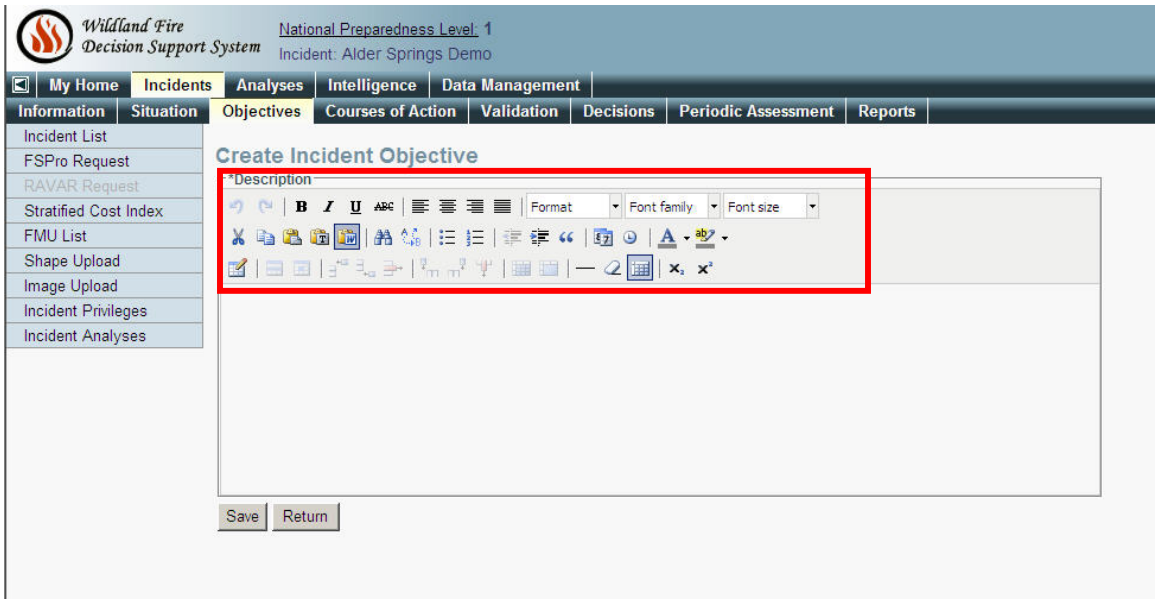
**Action Oriented** – The objective must start with as action-verb that describes the expected accomplishment.

**Realistic** – The must be achievable with the resources that the agency (and assisting agencies) can allocate to the incident, even though it may take several Operational Periods to accomplish them.

**Time Sensitive** – When should the objective be accomplished?



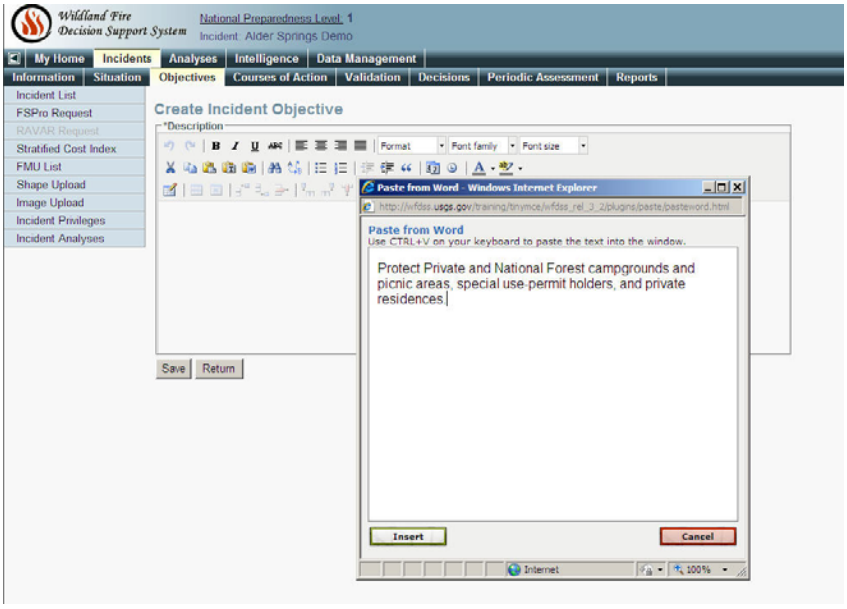

Creating Incident Objective(s) & Management Requirement(s) by clicking on the **Create Incident Objective** or **Create Incident Requirement**

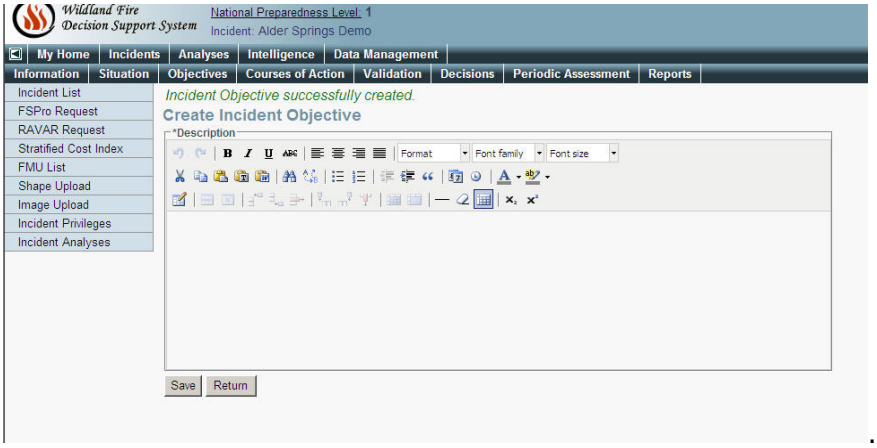


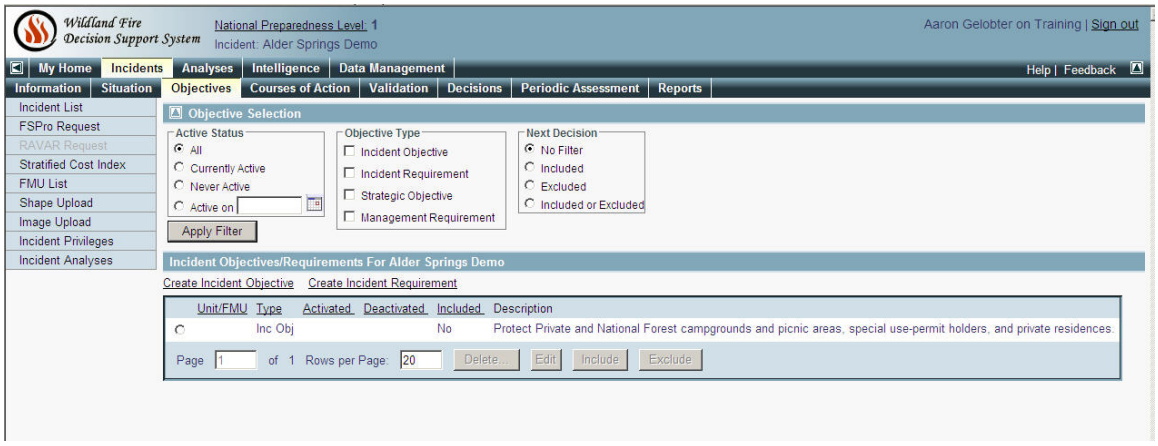

Use the Editor tool to enter the Incident Objectives or Requirement.

Use the Editor tool such as the **Paste from Word** tool.

Then click the Save button



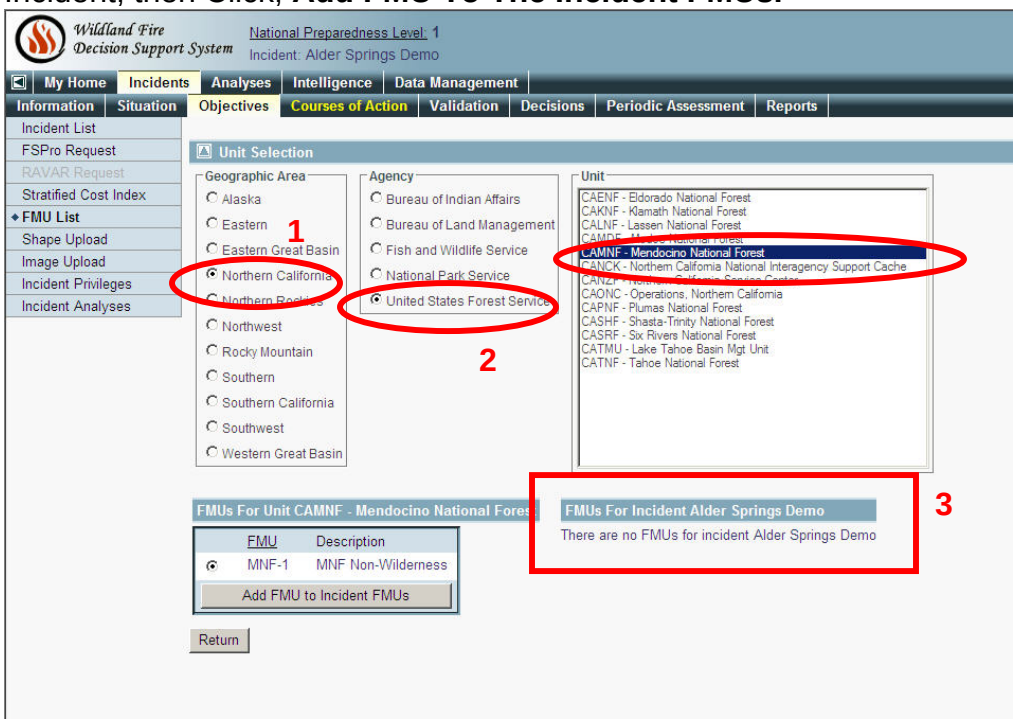
## C. Associate an FMU to an Incident

To set Incident Privileges:

1. From the Incidents page, click **FMU List**. The FMU List appears.

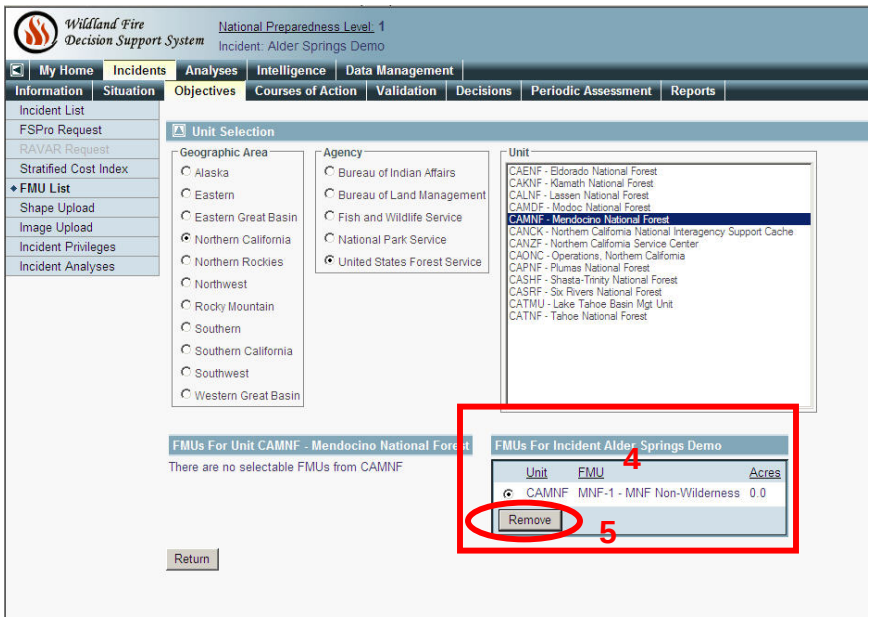
2. Select the **Radio Button** for the **Geographic Area, Agency** and Click on **Unit.** You will notice no FMU is associated with the Incident.

3. Select the **Radio Button** of the **FMU** you want to **Associate** with the Incident, then Click, **Add FMU To The Incident FMUs.**




4. FMU: MNF1 is now Associated with the Incident. You will notice that No Acres are associated with the added FMU, this is because it was outside the Planning Area.

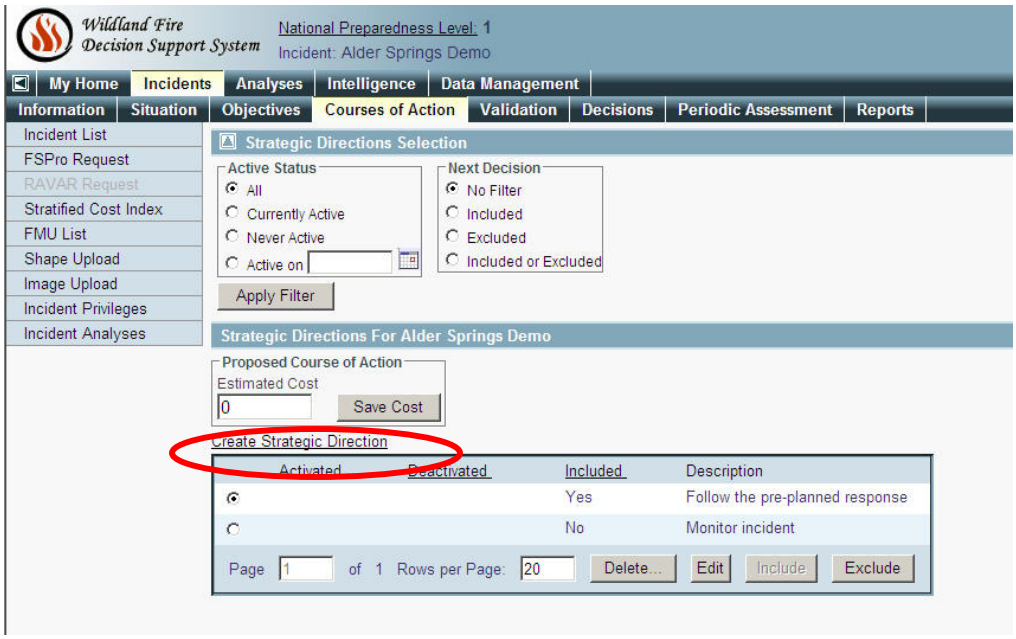
5. Select the **Radio Button** of the FMU you want to **Remove** from the Incident, then Click, **Remove.**



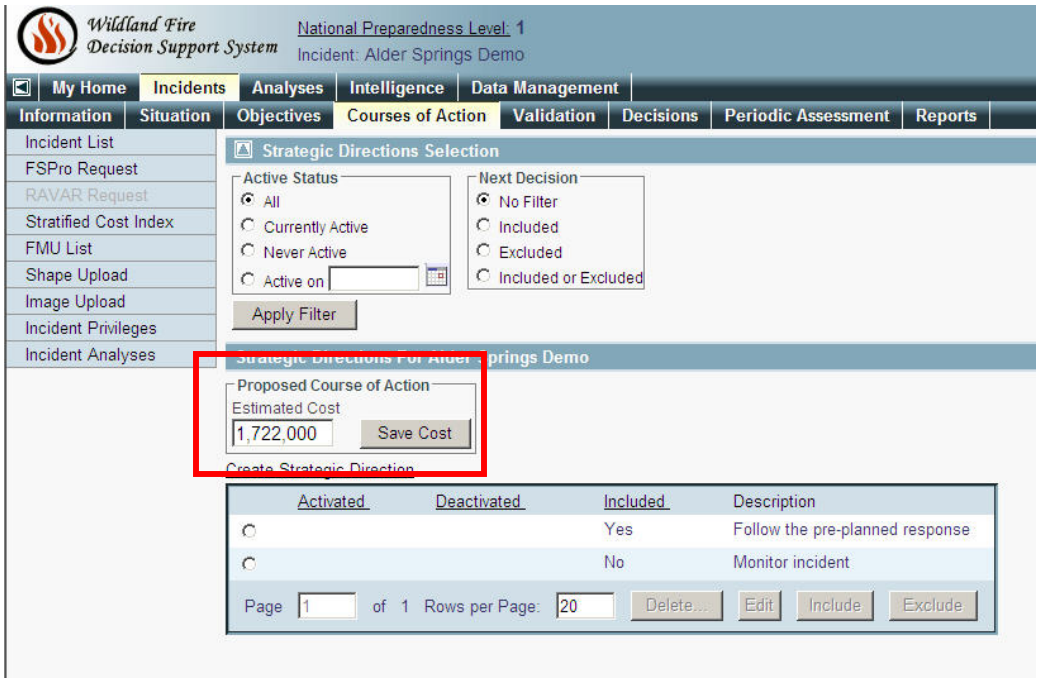

6. To go back to the previous page, click **Return**.

# Section 12. Courses of Action

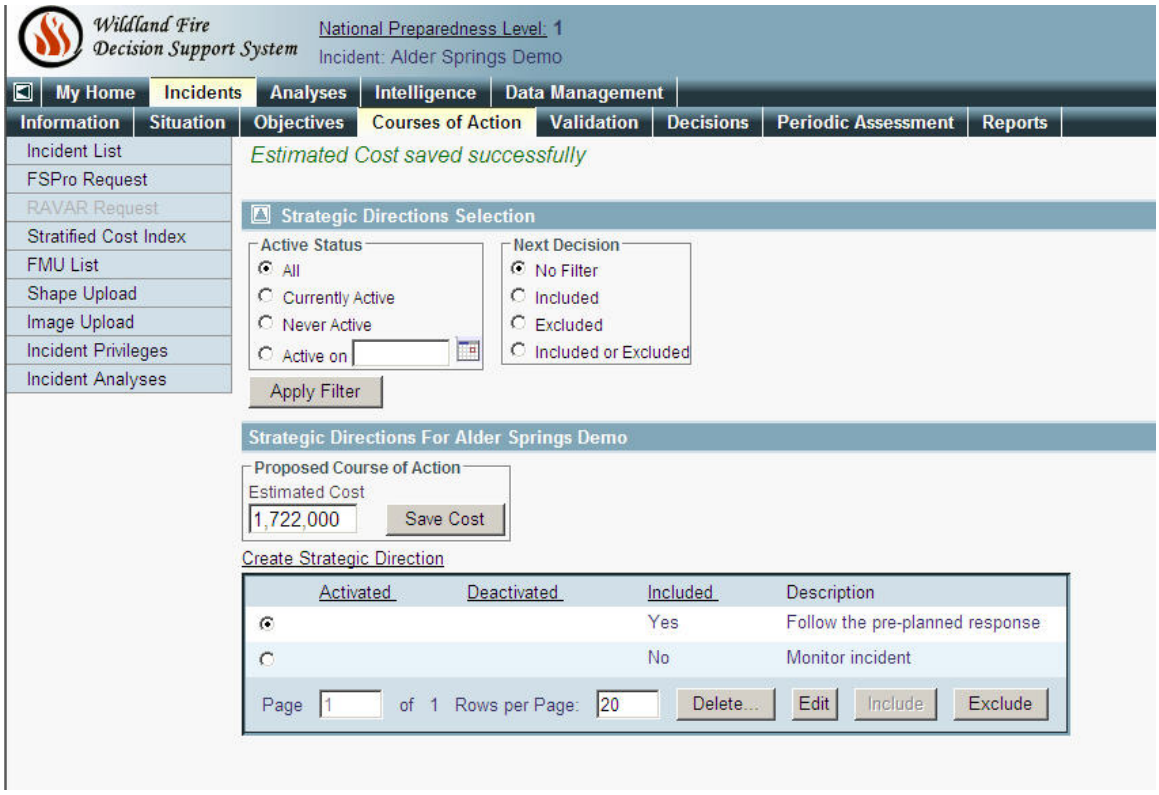
## A. Creating Courses of Action




Creating Strategic Direction by clicking on the **Create Strategic Direction**. Then follow the same process as in creating Incident Objectives and Requirements.




Enter the Estimated Cost and Click – Save Cost.




## B. Stratified Cost Index

Predicting costs for an incident can be daunting, especially if multiple agencies are involved.

Stratified Cost Index (SCI) is a cost model developed by the Forest Service to assist in predicting wildland fire costs. There is an Eastern version of the model and a Western version of the model, which take into consideration the differences required to manage incidents in these regions (e.g., the relative importance of distances to towns and wilderness boundaries).

SCI helps you to estimate costs per acre for an incident using the following variables, most of which are calculated geospatially and auto-filled based on the incident information provided:

- Location
- Fuel Model
- ERC station
- Values at Risk
- Topographical details
- Fire Intensity Level (Basic Fire Behavior is automatically run for the 75th percentile of burnable pixels within a 750-meter radius of the ignition point)

The following rules apply:

- Incident Owners and Editors, GA Editors, and National Editors can create an SCI for an incident.
- Only the person who created the SCI can edit it, or accept the results.
- Only the Incident Owner can delete an SCI.
- The SCI results appear in the incident decision tree only after the SCI run is accepted.
- Once the decision is published, you can't delete the accepted SCI runs.

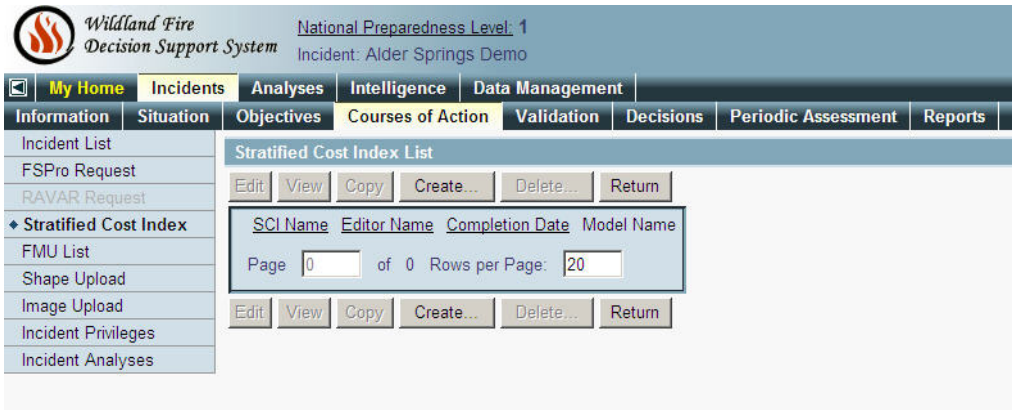
## Creating a Stratified Cost Index (SCI)

Anyone with editing privileges for the incident can create an SCI. Only the person who created the SCI can edit it or accept the calculations.

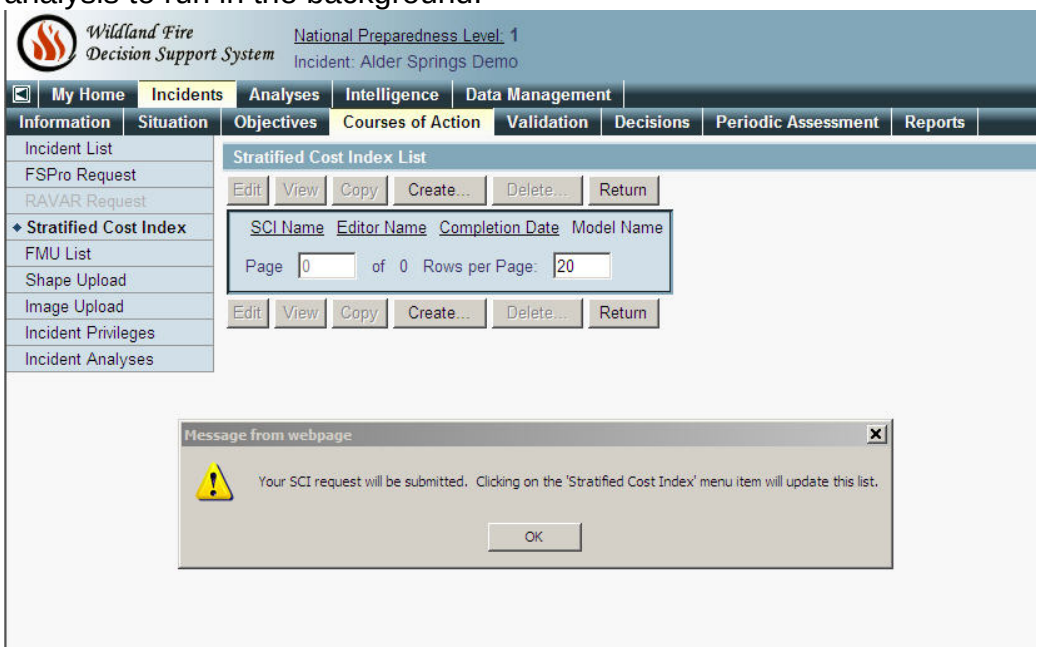
Note: Because SCI runs a Basic Fire Behavior analysis when you request it, it may take several minutes for the SCI run to appear in your list. Only click **Create** once. From the left menu, select **Stratified Cost Index** to refresh your view.

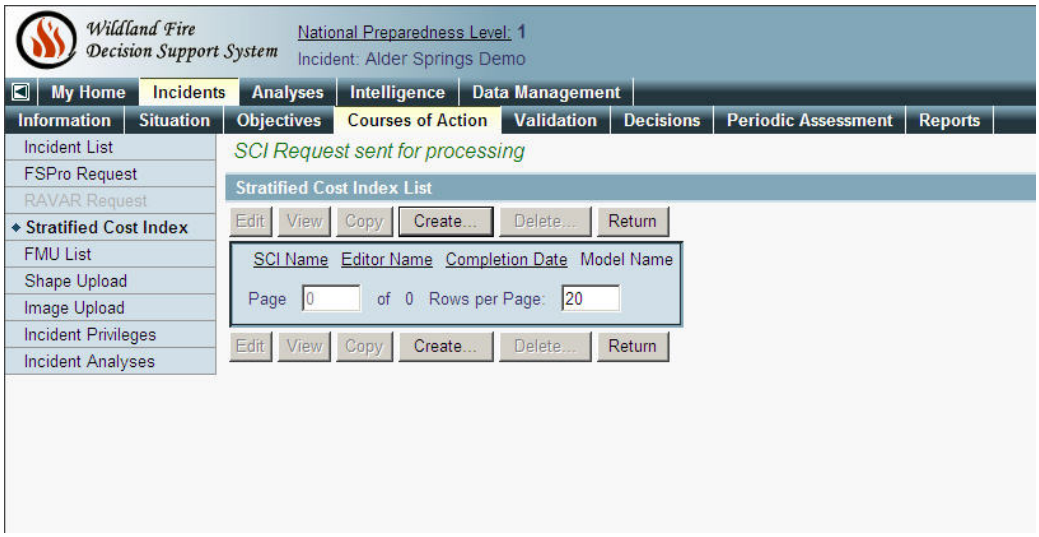
To create an SCI:

1. From the Incident List, select the incident you want to create an SCI for.
2. Click **View Information**. The Edit Incident Information page appears.
3. From the left menu, select **Stratified Cost Index**. The Stratified Cost Index List appears. If no one has created an SCI for the incident, the list will be empty.
4. Click **Create**. A message appears telling you that your request has been submitted.

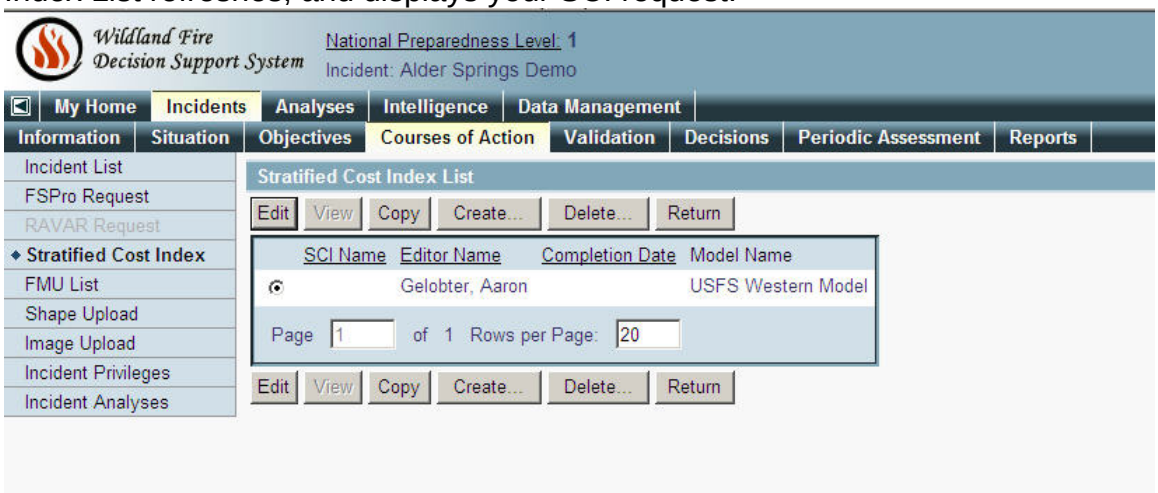


5. Click **OK**, and then wait about 5 minutes to allow the Basic Fire Behavior analysis to run in the background.



6. From the left menu, select **Stratified Cost Index**. The Stratified Cost Index List refreshes, and displays your SCI request.




## Editing and Accepting an SCI

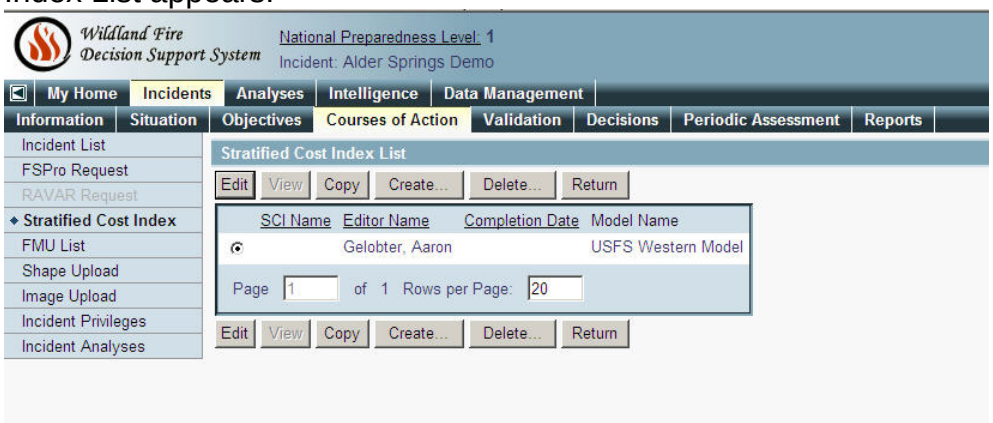
After you have created a stratified cost index (SCI) for an incident, you can edit the parameters, calculate the SCI, and accept the results.

Only the person who created the SCI calculation can edit or accept that calculation. However, anyone with editing privileges for an incident can run an SCI for that incident.

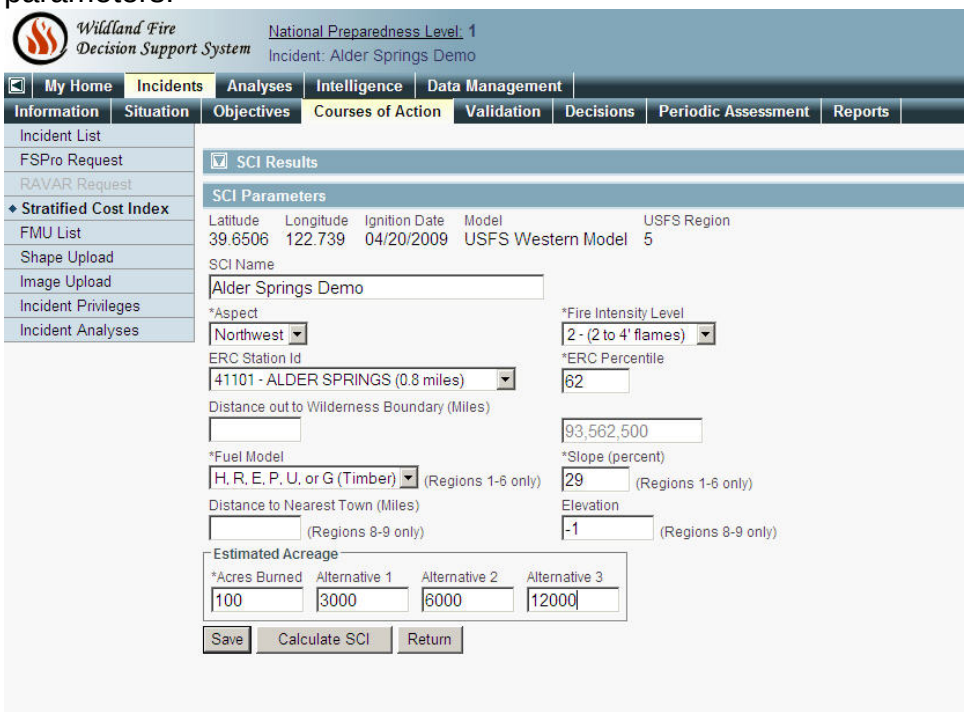
In addition, Viewers can only see an SCI calculation after it is accepted.

To edit and accept an SCI:

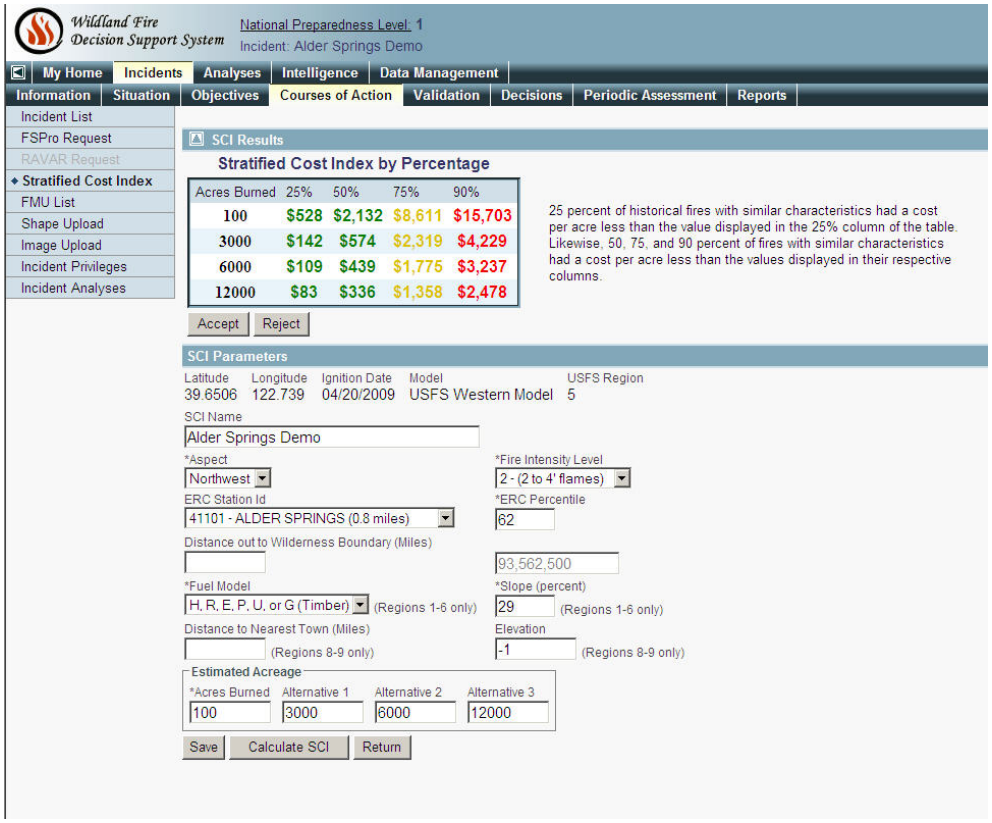
1. From the Incident List, select the incident you want to edit the SCI for.
2. Click **View Information**. The Edit Incident Information window appears.
3. From the left menu, select **Stratified Cost Index**. The Stratified Cost Index List appears.



4. Select the SCI you want to edit, then click **Edit**. The Stratified Cost Index page appears, showing the auto-filled parameters.



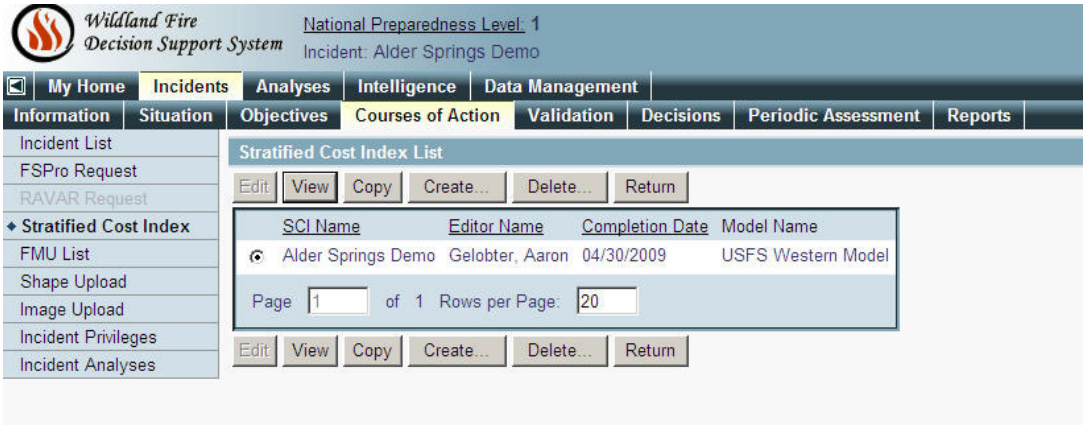

5. Enter an SCI Name.
6. This name will appear in the incident decision tree, so be as specific and descriptive as possible (e.g., 3/30/2009 1000-5000 acres)
7. Change any other parameters for the incident.
8. Enter Estimated Acreage for each alternative cost, starting with the actual burned acres.
9. Click **Save**.
10. To see the SCI based on the alternatives you entered, click **Calculate SCI**. The SCI appears in the SCI Results section above the parameter fields.




11. If you agree with the SCI results, click **Accept**.

Note: Once you accept the SCI index, the parameters for this SCI calculation are no longer editable.

12. To return to the Stratified Cost Index page, click **Return**.




## Copying an SCI

As an incident progresses, you might want to create a new SCI based on a previous calculation, e.g., using the same parameters, but changing the acres burned.

Or, if someone else created the SCI, perhaps you want to base your calculation from theirs. You must have editing privileges for the incident to copy an SCI.

To copy an SCI:

1. From the Incident List, select the incident you want to edit the SCI for.
2. Click **View Information**. The Edit Incident Information window appears.
3. From the left menu, select **Stratified Cost Index**. The Stratified Cost Index List appears.
4. Select the SCI you want to copy, and then click **Copy**. The copied SCI appears at the bottom of the Stratified Cost Index List.

From here, you can edit the newly copied SCI. It is a good idea to rename your newly copied SCI, to distinguish it from the original.

## Viewing SCI Details

If you have incident editing privileges, you can view any SCI created for the incident, but can change only those you created.

If you have Viewer privileges, you can only review SCI results after the person who created the SCI has accepted those results.

To view SCI details:

1. Choose **Incident List** > select the incident > click **View Information** > select **Stratified Cost Index**. The Stratified Cost Index List page appears.
2. Select the SCI you want to view.
3. Click **View**. The Stratified Cost Index Parameters page appears.
4. Review the SCI Results and Parameters.
5. To return to the Stratified Cost Index page, click **Return**.

## Deleting an SCI

An SCI can be deleted only in the following circumstances:

- Only the Incident Owner can delete an SCI.
- The SCI cannot be part of an approved decision.

To delete an SCI:

1. Choose **Incident List** > select the incident > click **View Information** > select **Stratified Cost Index**. The Stratified Cost Index List page appears.
2. Select the SCI you want to delete.
3. Click **Delete**. A message appears asking if you are sure that you want to delete the selected SCI.
4. Click **OK**. The selected SCI disappears from the list.

## Section 13. Validation

The validation page allows users to validate the pre-planned response or a course of action being proposed in a new incident decision. An expandable / collapsible incident history list section is displayed at the top of the page.

There are several scenarios associated with validating a course of action.

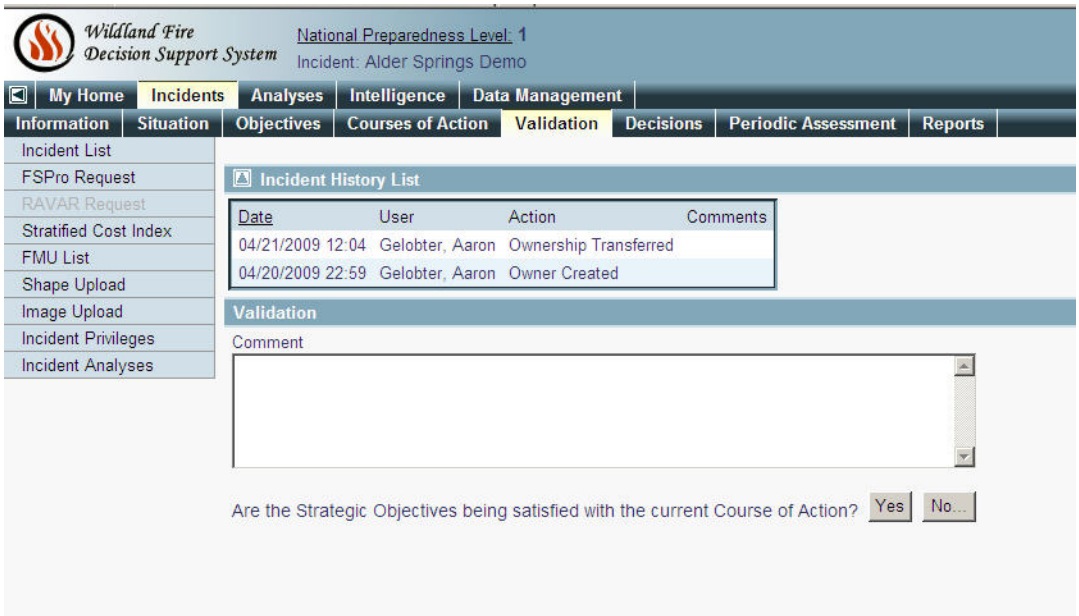
**Scenario I:** Dispatcher Created Incident without an Owner

The validation section consists of a comment field and the following question: ***Is the pre-planned initial attack being successful?***

1. If the dispatcher answers "Yes" to the question, an incident owner is not required but an author is not precluded from accepting the incident.
2. If the dispatcher answers No to the question, an Incident Owner is required for this incident (a phone call is highly recommended). A dispatcher may reverse their No answer if conditions change provided that an author has not yet accepted incident ownership.

**Scenario II:** Owner Accepts a Dispatcher Created Incident or the Owner Creates an Incident

The validation section consists of a comment field and the following question (note that the current course of action is the pre-planned response within this scenario): ***Are the Strategic Objectives being satisfied with the current Course of Action?***

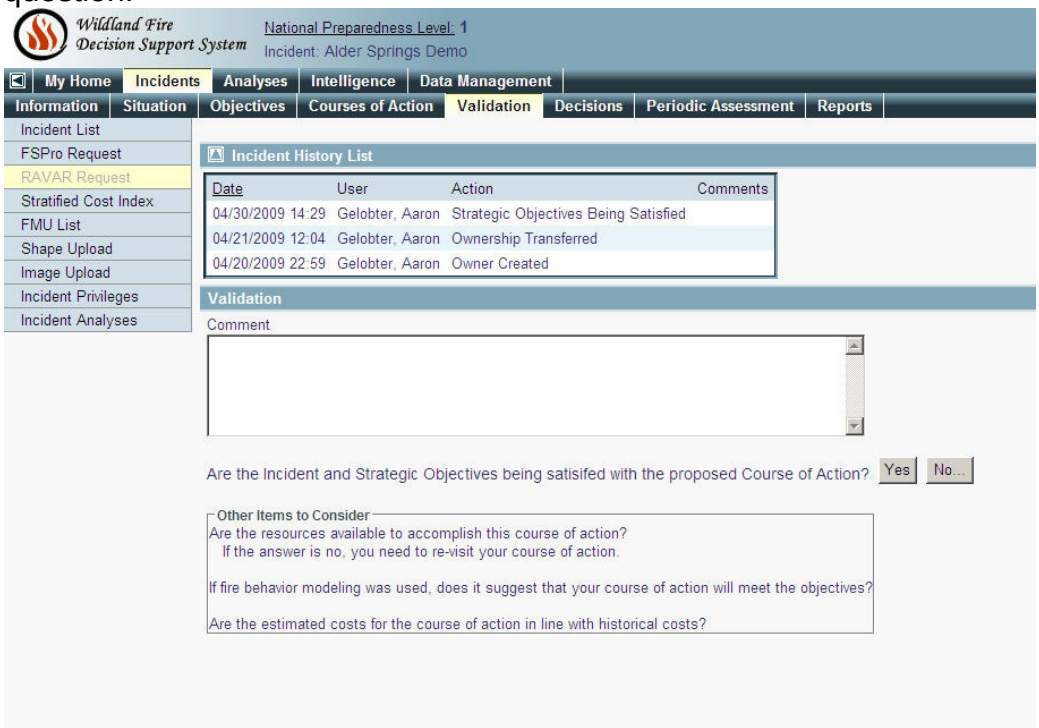


1. If an incident owner or editor answers No to the question, an incident decision needs to be made. An incident owner / editor cannot reverse their No answer. That is, once someone answers No, the incident moves from Scenario II into Scenario III.
2. Owner can choose to monitor the incident without publishing a decision provided that option is specified in the Strategic Objectives. If they choose to simply monitor the incident, they must include the “Monitor incident” strategic direction in the ‘preplanned’ Course of Action.

**Scenario III:** Owner is in the Process of Publishing a Decision

The validation section consists of a comment field and the following question: ***Are the Incident and Strategic Objectives being satisfied with the proposed Course of Action?***

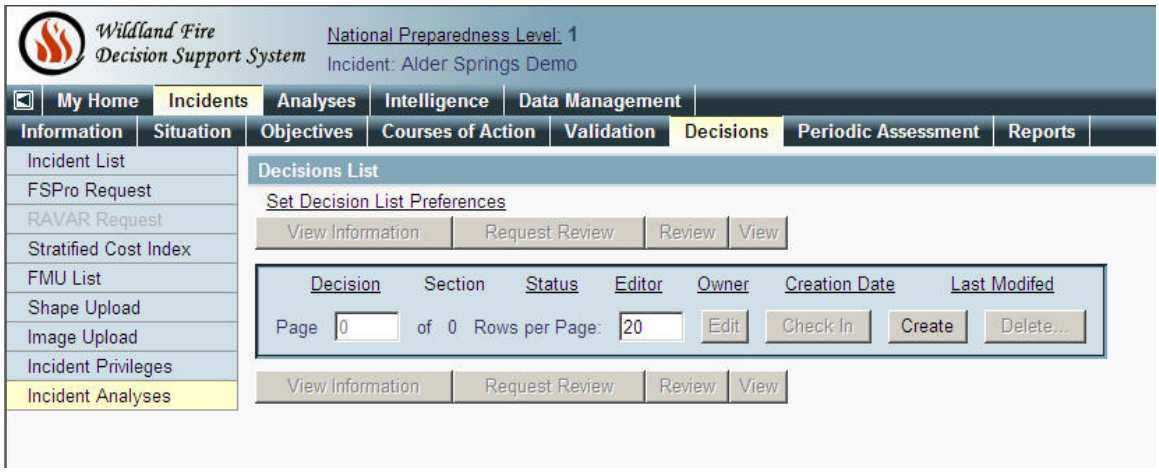
1. An incident decision cannot be published unless the last response to the question is yes.
2. The page also includes several items to consider when answering the question.



# Section 14. Decision

## A. Decision List Page

Incident Owners can create an incident decision from the **Decision List** page. The name of a non-published decision is 'Pending Decision'. It appears at the top of the list.




The name of a published decision is the date and time of when the decision was published (i.e., when it received its final approval).

Vertical expand / collapse icons can be used to optionally display the sub-reports of the decision document.

An incident owner or editor can choose to edit the decision as a whole or an individual sub-report provided that someone else is not already editing it.

Only incident owners and editors can view the content of a decision while it is being edited.

Incident reviewers and approvers can view the content of a decision once it is ready for review.

All WFDSS users can view the content of a decision once it is published.

**<u>Decision Information</u>**

List page by clicking on the 'View Information' button.
If the decision information is being viewed, users can view

1. General decision information,
2. The current set of reviewers and approvers,
3. Requirements that must be completed before the incident decision can be reviewed, and

4. The decision history list.

If the information for a decision sub-report is being viewed, users can view

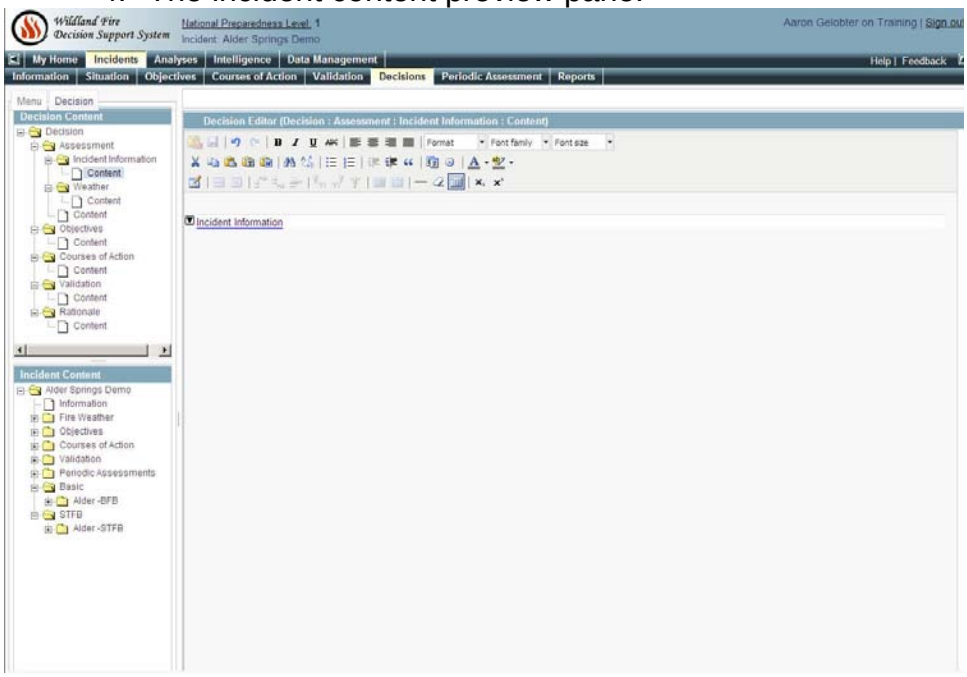
1. General decision information, and
2. The sub-report history list.

## Editing a Decision

Only incident owners and editors can edit a decision or a decision sub-report.

The Decision editing page contains four sections

1. The decision content tree,
2. The incident content tree,
3. The editing pane, and
4. The incident content preview pane.




The decision content tree allows the editor to navigate within the pages they are currently editing. It will be possible to add content structure (additional pages) to a section in future releases.

The incident content tree allows users to select content from the incident to view or to paste into the page they are editing.

The editing pane is a ‘rich text editor’ control, which allows users to edit the page content.

The incident content preview pane allows users to view the incident content that is currently selected in the incident content tree.

Either the edit pane or the incident content preview pane is expanded at a given point in time. To switch between the panes, click anywhere on the section bar of the pane that is currently collapsed.

There a number of tools within the editing pane – four of the tools deserve special mention:

1.  - The Save tool is mentioned to remind editors to use it frequently. It is only active when an editor has modified content on the page. Editing changes will be lost if an editor leaves the page and does not first save the page content.

2.  - Use the 'WFDSS Content' tool to insert the currently selected incident content on to your page. You can preview the currently selected content first by expanding the preview pane. Remember to position your cursor on the page prior to inserting the WFDSS content.

3.  - Use the 'Plain Text' tool if you want to remove formatting from content you copied to the clipboard from an external source. This tool strips out all of the formatting and allows you to preview the text prior to insertion.

4.  - Use the 'Word' tool if you want to strip out some of the formatting from content you copied to the clipboard from a Microsoft Word document. Word content typically contains a large amount of styling information that is better left out. Note that not all of the formatting information will be removed. The 'stripped down' content is displayed in a preview pane prior to allow you to preview it prior to insertion on to the page. ***Use of this tool is highly recommended.***

## B. Required Components of an Incident Decision

Basic information entered on the Incident Information page – this information is automatically included in the decision. This includes specifying an incident size greater than 0.0 acres. The Fire Code (financial code), unit name, containment, controlled, & out dates are NOT required.

A Planning Area – the planning area is created on the Situation Assessment map. The Planning Area is discussed in more detail in the Intelligence Perspective section of the release notes.

Fire Weather Zone Forecast(s) – the fire weather zone forecasts are automatically included in the decision.

The Incident FMU List – the FMU list is automatically included in the decision, but an incident author / owner must make sure that the FMU list contains at least one FMU.

The Strategic Objectives and Management Requirements for the FMUs in the Incident FMU List – the Strategic Objectives and Management Requirements are automatically included in the decision.

The list of Incident Objectives and Requirements – these lists are automatically included in the decision and may be empty.

The Course of Action (list of Strategic Directions) – the Course of Action is automatically included in the decision, but at least one Strategic Direction must be included in the Course of Action.

An incident owner / editor must answer Yes to the Validation question:
*Are the Incident and Strategic Objectives being satisfied with the proposed Course of Action?*

An Estimated Cost – the cost is entered on the Course of Action page. The estimated cost will be included on the Decision Summary page.

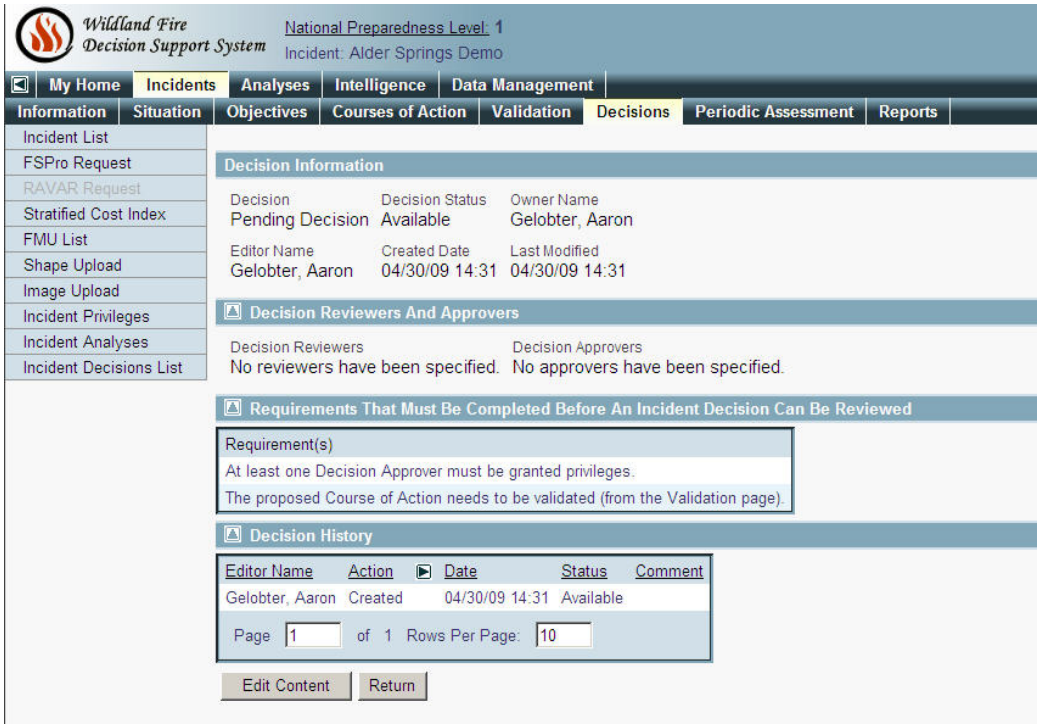
Approval Signature(s) – every specified approver must approve the decision. The approval signature(s) will be included on the Decision Summary page (not part of this release).

Decision Rationale – the system does not enforce this requirement, but owners / editors should always include a rationale in their decisions.

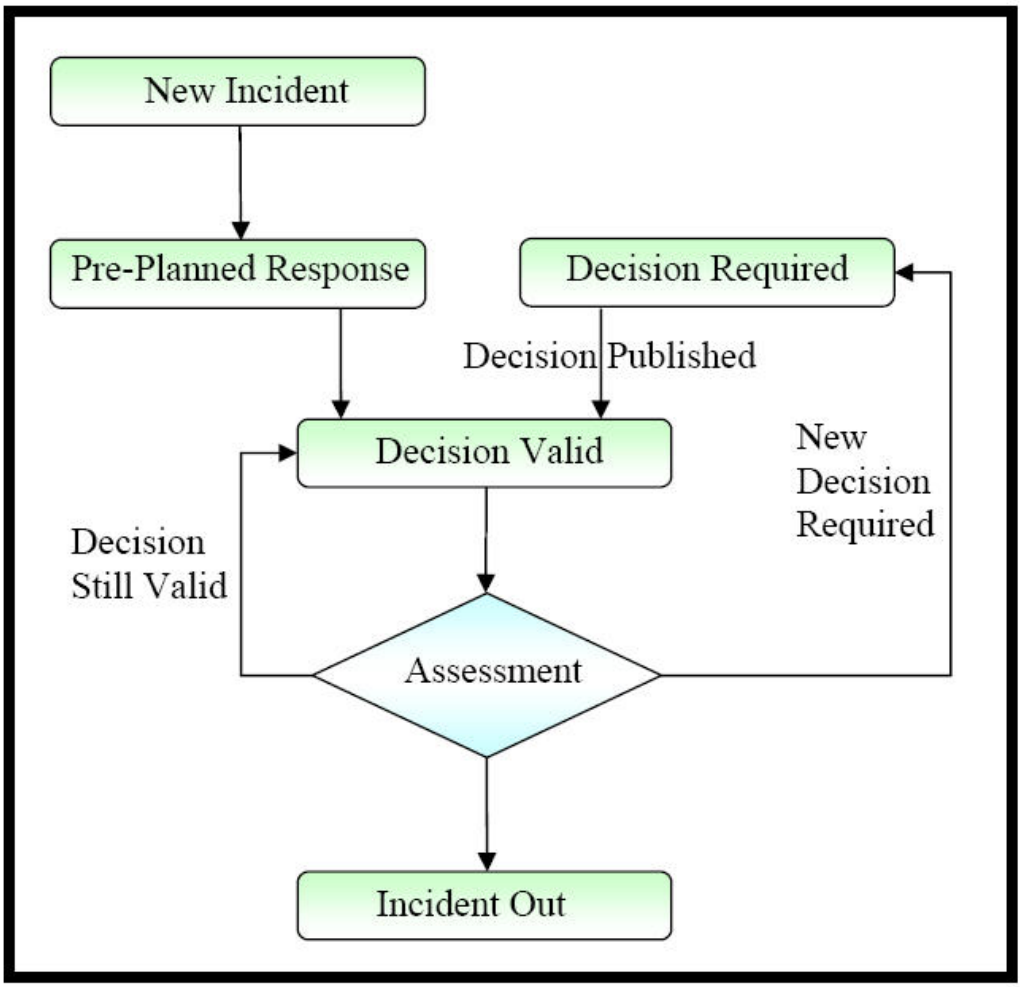
**Requirements That Must Be Completed Before An Incident Decision Can Be Reviewed**

| Requirement(s) |
|---|
| An incident Fire Number is required. |
| An incident size greater than 0 acres is required. |
| A Planning Area shape file is required. |
| At least one Decision Approver must be granted privileges. |
| At least one FMU must exist in the list of FMUs for the incident. |
| An Estimated Cost is required for the incident. (Courses of Action page) |
| The proposed Course of Action needs to be validated (from the Validation page). |

A list of the remaining decision requirements is displayed on the decision information page. This information is also displayed when an owner requests a review prior to completing all of the requirements.

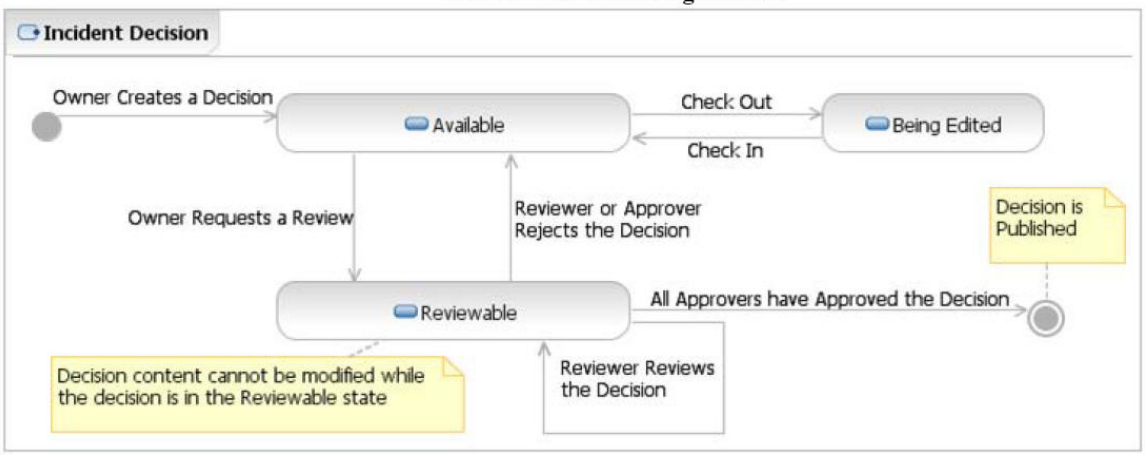

Wildland Fire Decision Support System
National Preparedness Level: 1
Incident: Alder Springs Demo
My Home
Incidents
Analyses
Intelligence
Data Management
Information
Situation
Objectives
Courses of Action
Validation
Decisions
Periodic Assessment
Reports
Incident List
FSPro Request
RAVAR Request
Stratified Cost Index
FMU List
Shape Upload
Image Upload
Incident Privileges
Incident Analyses
Incident Decisions List
Decision Information
Decision
Pending Decision
Decision Status
Available
Owner Name
Gelobter, Aaron
Editor Name
Gelobter, Aaron
Created Date
04/30/09 14:31
Last Modified
04/30/09 14:31
Decision Reviewers And Approvers
Decision Reviewers
No reviewers have been specified.
Decision Approvers
No approvers have been specified.
Requirements That Must Be Completed Before An Incident Decision Can Be Reviewed
Requirement(s)
At least one Decision Approver must be granted privileges.
The proposed Course of Action needs to be validated (from the Validation page).
Decision History
Editor Name
Action
Date
Status
Comment
Gelobter, Aaron
Created
04/30/09 14:31
Available
Page 1 of 1 Rows Per Page: 10
Edit Content
Return

**The Decision Process Workflow**




The diagram depicts the decision process workflow. In the most common scenario, a decision document is never published. That is, when a dispatcher creates an incident, initial attack is the pre-planned response, and the fire is successfully extinguished, an incident decision is not created. Note that in this instance, an incident author is also not required to accept incident ownership.

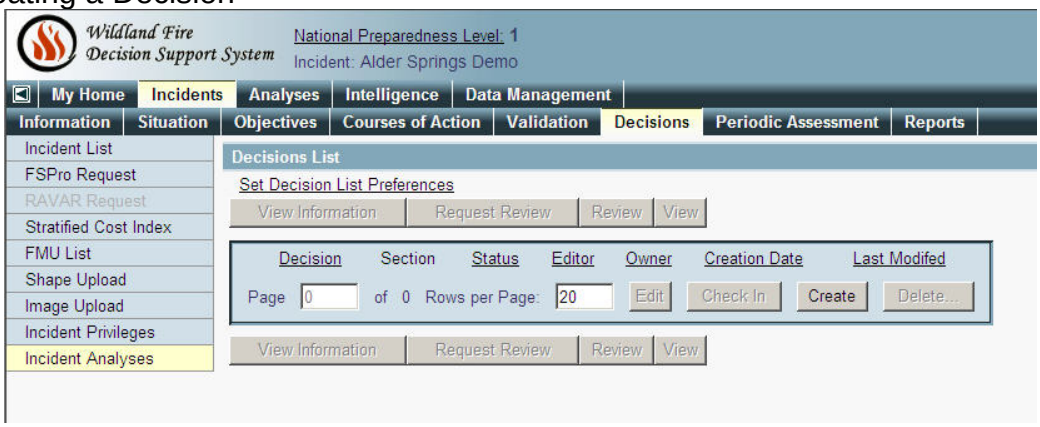
**The Decision Authoring Process**




The state diagram depicts the decision authoring process from decision creation to the time when the decision is published. There are a number of business rules associated with the decision authoring process. They are outlined below:

## C. Decision Business Process Rules

1. Creating a Decision



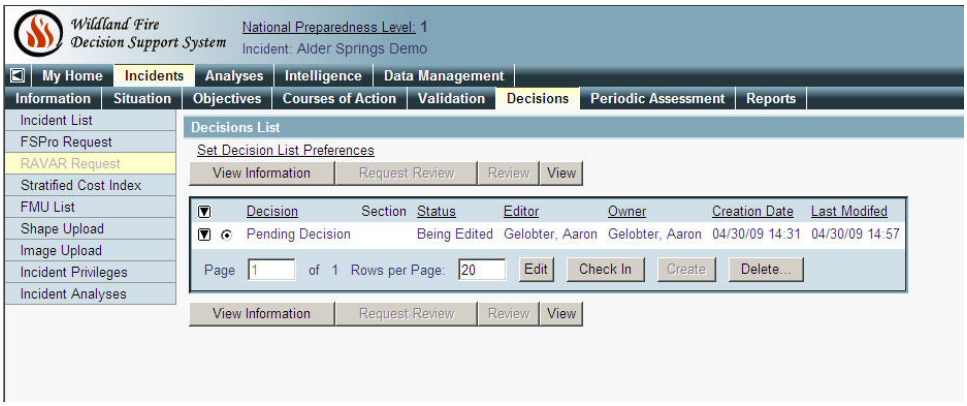

   a. Only one Incident Decision is active at a given point in time. That is, a new decision always supersedes the previous decision.
   b. Only the Incident Owner can create an incident decision.
      i. An incident owner can transfer ownership of their incident.
      ii. Geographic Area Editors can transfer ownership of an incident within their geographic area.
      iii. National Editors can transfer ownership of any incident.
      iv. Ownership can be transferred to any user with incident authoring privileges.
      v. Ownership can be transferred to a group, but a group member must have incident authoring privileges to be an owner of the incident.
      vi. If a group owns an incident and an author is added to the group, the author that was added is an owner of the

incident. Similarly, if an author is removed from the group, the removed author is no longer an owner of the incident.

c. Only one non-published Incident Decision can exist at a given point in time.

2. Checking Out an Incident Decision
   a. An Incident Decision is broken down into multiple sub-reports:
      i. Assessment
      ii. Objectives
      iii. Course of Action
      iv. Validation
      v. Rationale
   b. One person at a given point can only edit a given sub-report in time. As such, it is implicitly checked out by the person when they choose to edit an 'Available' sub-report.
   c. Any user with incident editing privileges is allowed to check out an 'Available' sub-report.
   d. Any user with incident editing privileges is allowed to check out the entire decision. If the entire decision is checked out, no one else can edit the decision.

3. Checking In an Incident Decision
   a. The decision / sub-report can be checked in by the person who checked it out.
   b. The decision / sub-report can be checked in by an incident owner. Any changes that have not been saved by an editor will be lost when an incident owner checks in a decision / sub-report being edited by a different user.




4. Requesting a Review
   a. All the decision sub-reports must be checked in before a review can be requested.
   b. Only an incident owner can request a review.

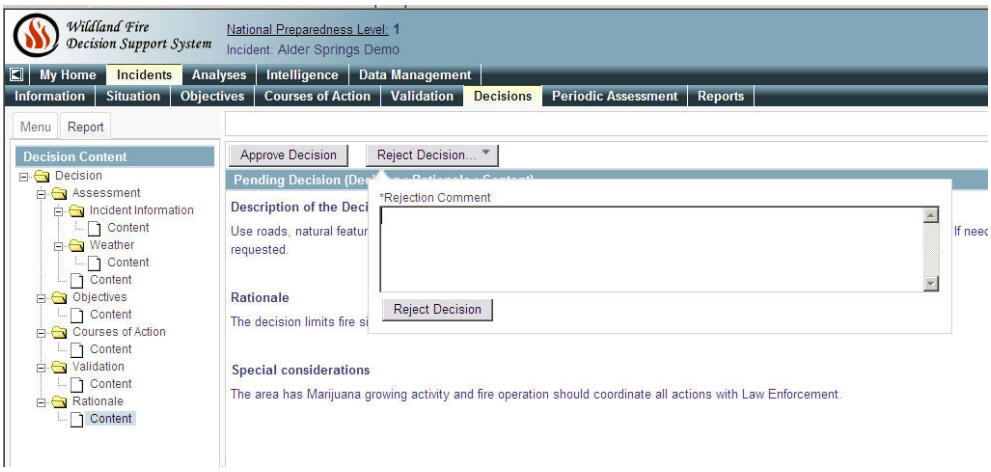
c. Once a decision review is requested, the content of the decision is locked down (cannot be edited or deleted). This includes (but is not limited to)
    i. Incident objectives and incident requirements
    ii. Strategic Directions within the Course of Action
    iii. Various incident information parameters (incident cause, national significance, etc.)
    iv. Planning area
    v. Incident FMU list
d. The Incident Objectives, Incident Requirements, and Strategic Directions (Course of Action) included with the decision are those that are marked for inclusion at the time the review is requested.
e. All of the Incident Content links included within an Incident Decision are ‘exploded’ at the time the decision becomes reviewable. ‘Exploding’ the content means that the link to the content is replaced with actual content. This includes links to external content such as the Fire Weather Zone forecasts associated with the current planning area. Two important consequences of exploded content are:
    i. The Incident Decision content is immutable when the decision is reviewable. That is, the published Decision content will be identical to the reviewed decision content with two exceptions:
        1. Activation dates for incident objectives, incident requirements, and strategic directions will not be set until the decision is published.
        2. The decision summary page (containing information such as when the decision was published, the incident owner, reviewers, and approvers) is not added to the decision until it is published. Note that the decision summary page will be added in the next release of the software.
    ii. Incident Decision content is not affected by changes made within the incident after the Decision is published.
f. A backup of the ‘non-exploded’ decision is created in case the Incident Decision is rejected and the Incident Content links need to be restored.

5. Reviewing a Decision
    a. The Incident Owner is responsible for defining the set of decision reviewers. This set may be empty. This set can be modified during the review process.
    b. Only users granted Reviewer privileges might review a decision.
    c. Reviewers are not allowed to edit any portion of the incident decision while reviewing the decision.
    d. A Reviewer has three options:

i. They may choose to take no action at all.
ii. If they ‘accept’ the decision, the decision remains in the Reviewable state.
iii. If they ‘reject’ the decision, the decision is returned to the Available state.

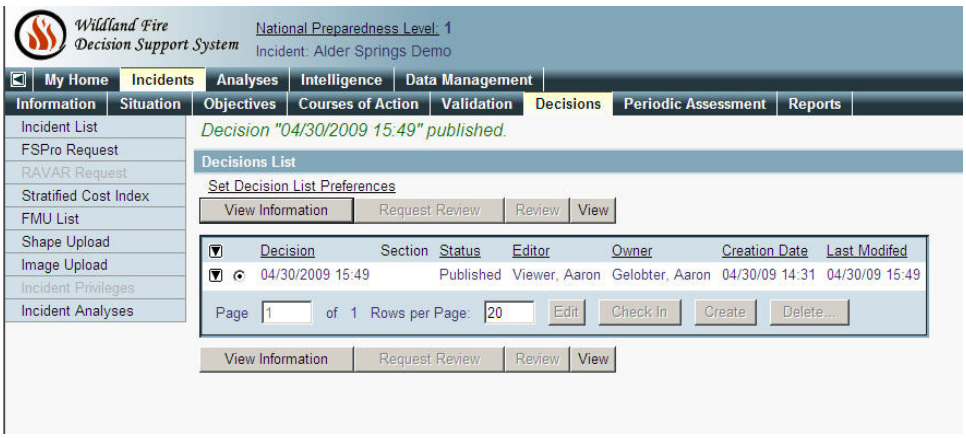
e. When a Reviewer accepts or rejects the decision, an ‘electronic signature’ (user id and timestamp) of the action is maintained within WFDSS.
f. A comment is NOT associated with accepting a decision.
g. A comment is required if a Reviewer rejects a decision.

6. Approving a Decision
   a. The Incident Owner is responsible for defining the set of decision approvers. This set must contain at least one member. This set can be modified during the review process.
   b. Only users granted Approver privileges might approve a decision.
   c. Approvers are not allowed to edit any portion of the incident decision.
   d. An Approver has two options:
      i. If they ‘approve’ the decision, the decision remains in the Reviewable state unless all the Approvers have approved the decision, in which case the decision is published.
   e. If they ‘reject’ the decision, the decision is returned to the Available state.




   f. When published, the Incident Decision is finalized. That is, a reviewer or an approver can no longer reject the Decision.
   g. When a decision is published, the activation date of incident objectives, incident requirements, and strategic directions are set (if they were not included in a previous decision).

h. When a decision is published, the decision summary page is added to the end of the decision.

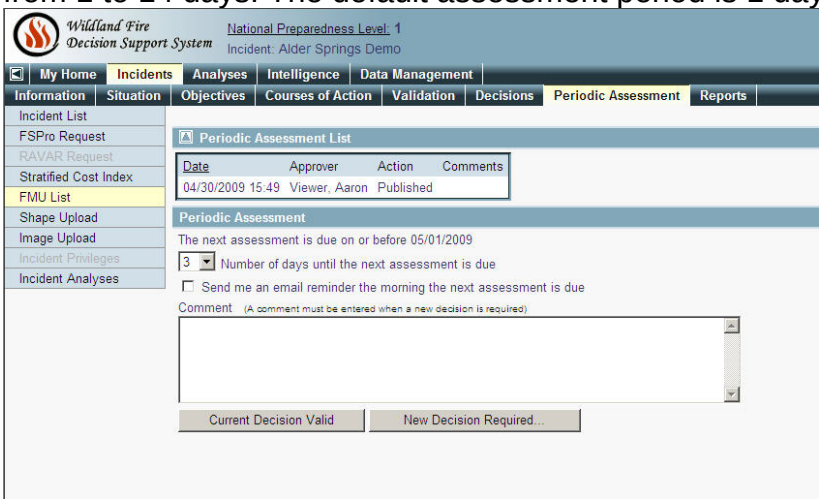



i. Once an Incident Decision has been published, the Incident and the Decision cannot be deleted from the system.

# Section 15. Periodic Assessment

There are essentially four Periodic Assessment states:

1. **No Decision Exists** – When no decision exists, there is nothing to assess.
2. **Decision Valid** – The current decision is valid and a periodic assessment is not overdue. In this state, incident approvers are allowed to assess the incident and decide that the "current decision is still valid" or a "new decision is required".
3. **Assessment Overdue** – This state is essentially the same as the previous state. However, when an assessment is overdue, the last person who approved the decision or assessed the current decision will receive an email notification that an assessment is overdue. In addition, all geographic area editors for the geographic area containing the incident will receive an email notification provided that their agency affiliation has incident jurisdiction.
4. **New Decision Required** – When a new decision is required, a Periodic Assessment is not required until after the new decision is published.
    - Only incident approvers can perform a periodic assessment.
    - The person performing an assessment has two options – they can decide that the course of action is or is not satisfying the objectives.
    - Once a decision is published, periodic assessments are required until the incident is declared out. The assessment period can be from 1 to 14 days. The default assessment period is 1 day.




    - Each time an assessment is performed, the assessor can reset the assessment period.

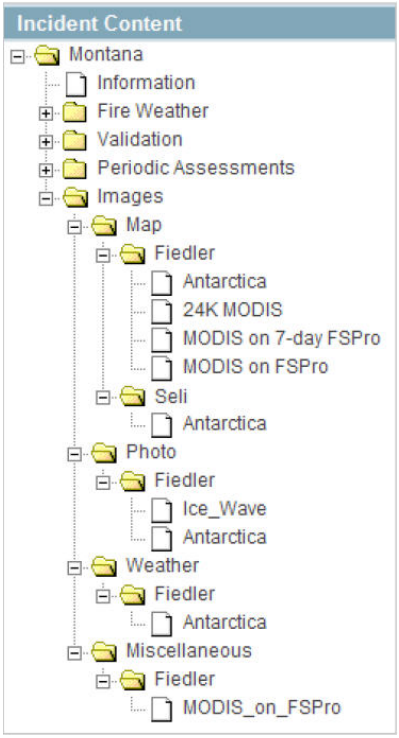
Each time an assessment is performed, the assessor can choose to receive an email reminder the morning that the next assessment is due. Each time an assessment is performed, the assessor can include a comment with the assessment. However, the assessor

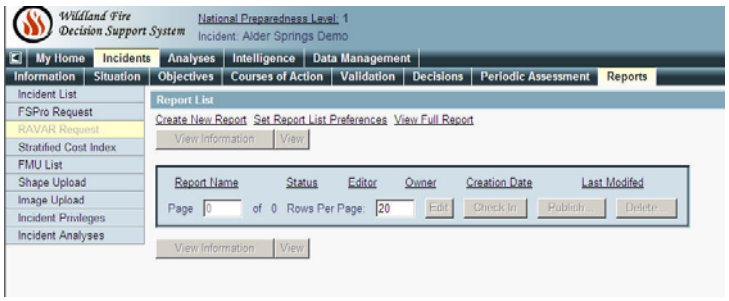
# Section 16. Reports

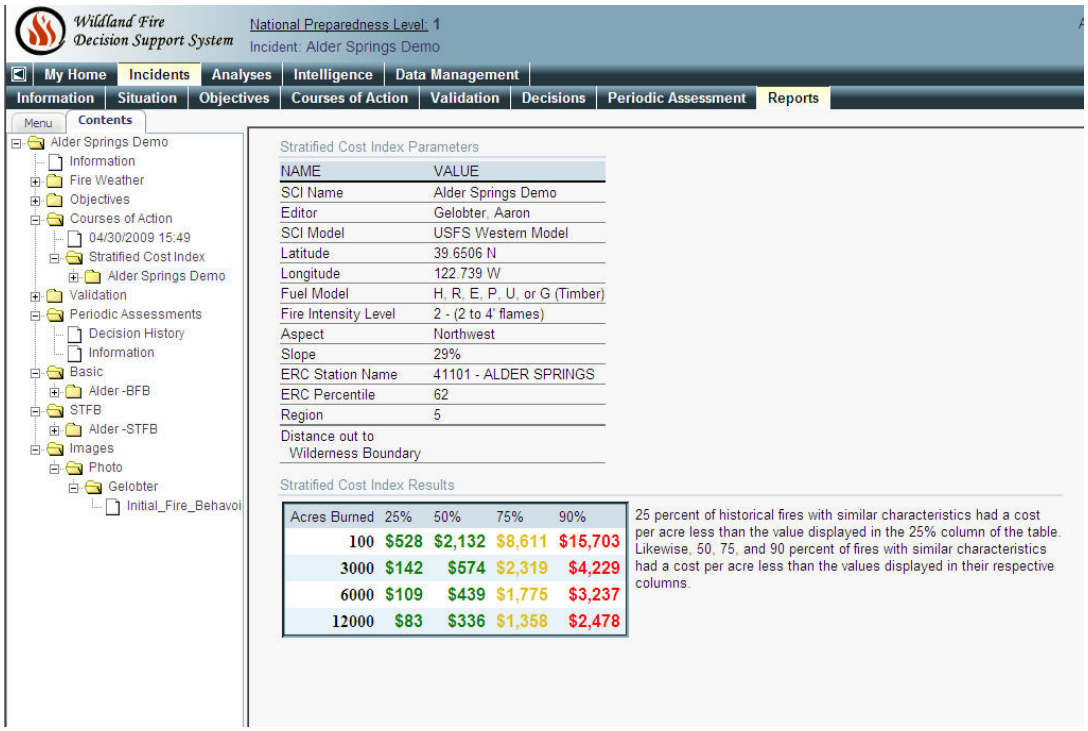
The incident content tree is an expandable / collapsible tree used to navigate within the content associated with a specific incident.

The tree is displayed in the left-hand column of the page when:

1. An incident decision is being edited.
2. A report is being edited.
3. The 'Full (Incident) Report' is being viewed



## Section 17. Glossary of Terms