

Wildland Fire Decision Support System Information

WFDSS Subsections

The decision support system is divided into 8 subsections within WFDSS. These sections are: Information, Situation, Objectives, Courses of Action, Validation, Decisions, Periodic Assessment, and Reports.

Information

Basic information for an incident is found in this section, which includes: Incident Name, Point of Origin, Unique Fire Identifier, Fire Code, Final Fire Perimeter / Incident Size, Discovery Date, Containment Date, Controlled Date, Out Date, Geographic Area, Responsible Unit at Point of Origin, Incident Cause and Responsible Agency. Updating this information is essential for ongoing incidents (especially acreages and dates) as this information is automatically populated into a WFDSS Decision Document. It is also important that the incident owner(s) are available when the incident is updated or transferred. Incident ownership may be associated with an individual or group, depending on fire complexity, jurisdictions involved, and other considerations.

Situation

The Situation section provides a map interface displaying a variety of incident and reference information. It reduces the need for paper maps by giving users a dynamic and intuitive interface in which information needed for decision support is timely and easily accessible from anywhere with an internet connection.

The Map tab has several spatial layers available:

- Base Layers- WFDSS Topos, Google Maps, Google Physical
- Incident - Planning Areas, Fire Perimeters, Management Action Points, Points of Interest, Incident Objectives;
- Analysis - Ignitions, Barriers, Landscape Masks, Basic Fire Behavior, Short Term Fire Behavior, Near Term Fire Behavior, FSPro (Values at Risk);
- Fire-Related – Active MODIS, Historical Fires, Incidents, RAWs Stations;
- Reference - Admin Boundaries, Counties, Designated Areas, FMU, Geographic Areas, Landscape Extent, Major Roads;
- Values - Building Clusters, Class 1 Airshed, Communication Towers, Critical Habitat, Electric Sub Stations, Mines, NAA Ozone, NAA Particulates, NPS Buildings, Oil/Gas Pipelines, Power Plants, Transmission Lines, USFS Buildings).

Within the Info tab on the Situation page, the user can access: Feature Information, Fire Danger (ERC charts), Smoke Dispersion, Strategic Objectives, Fire Weather Forecasts. Additionally users can access basic information about the underlying landscape file: Source, Elevation, Aspect, Slope, Fuel Model, Canopy Cover, Bulk Density, Stand Height, Base Height.

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1 In addition to viewing the above information, users can also create a Map
2 Capture (screen capture) of the map to be saved for later incorporation into the
3 decision document. Within this section is the ability to create new shape files,
4 view values and boundaries, and conduct basic and short term fire analyses.
5
6 Users can also calculate the Relative Risk as part of their situation assessment.
7 Relative risk is available in the left hand menu. It is a series of four graphs:
8 Hazards, Values, Probability and the summary graph – Relative Risk. As the
9 graphs are completed, there is a text box to document the thoughts/reasons for
10 the inputs. The information from the text box automatically populates in the
11 WFDSS Decision Document. At this time, the graphs themselves do not appear
12 in the decision document. These graphs can be visited pre-season to define some
13 local inputs.

14

15 **Objectives**

16 Strategic and Management Requirements are automatically loaded in to the
17 program based on those entered from your approved plans (Land & Resource
18 Management Plans, Fire Management Plans) and the location of the fire. Within
19 this section incident requirements and incident objectives are created which are
20 tiered from these overarching Strategic Objectives and Management
21 Requirements. A user can then control the active or deactivated status of these
22 incident objectives and incident requirements based on location of the fire and
23 activity to include them or exclude them from the next decision.

24

25 **Courses of Action**

26 Documentation for strategic direction and associated cost is completed in this
27 section. Again, the user can edit, include or exclude the strategic direction each
28 time a decision is made. Several methods for determining cost can be found
29 here; follow your agency direction and include a summary of how the cost was
30 constructed.

31

32 Cost can be developed using the Stratified Cost Index (SCI) located in the left
33 hand menu. The SCI is available for USFS and DOI. The correct model is
34 automatically chosen by the Unit ID in the Unique Fire Identifier. The model
35 requires input of the estimated final acreage of the incident. Users can input up
36 to four different acreages.

37

38 It may be helpful to develop Management Action Points (MAPs) at this time
39 which can be done from the left hand menu. MAPs require a Condition when to
40 implement and an Action to implement. They can be defined using the left hand
41 menu and be linked to geospatial MAPs drawn in the situation tab.

42

43 **Validation**

44 Decisions are validated and documented in this section, prior to publication. It
45 is important to document your justification in the comment section as
46 completely as possible for answering the question - "Will the Incident and

1 Strategic Objectives be satisfied with the proposed Course of Action?" WFDSS
2 users should consider the following when writing this justification:

- 3 • Are there adequate resources to achieve your COA?
- 4 • Has the cost been developed to achieve the COA?
- 5 • Does the current fire behavior and weather assessment support the COA?
- 6 • Have you completed the Relative Risk Assessment and assessed the value
7 inventory?
- 8 • Have you checked your Relative Risk Advice considerations?

9
10 This information will be viewable throughout the decision process and will be
11 automatically populated in the WFDSS Decision Document.

12

13 **Decisions**

14 Within this section is the ability to create, view, edit, and download published
15 decisions. It is important in this area that owners, editors, and reviewers become
16 familiar with their role and understand what they can and can't do with the
17 incident information. Additionally knowing and understanding how and where
18 to save information as agreed upon by the incident owner are essential. From
19 this tab an owner of the incident starts the review and approval process.

20 Incident decisions can be edited by incident owners or by those users who have
21 been granted access through incident privileges: Edit, Review, Approve. Users
22 will access the decision editor by checking the radio button next to the pending
23 decision, then clicking EDIT. Once editing is completed, users will click the
24 Check-In button to allow access by others.

25

26 The WFDSS Decision Document is outlined into several sections: Assessment
27 (Information, Weather, and Other content), Objectives (includes all FMUs,
28 Strategic Objectives and Management Requirements included in the planning
29 area as well as all included Incident Objectives and Incident Requirements),
30 Course of Action (includes MAPs), Validation (Includes the Relative Risk text)
31 and Rationale. Multiple editors can be working on different sections of the
32 WFDSS Decision Document with a little coordination and using the edit /
33 check-in process. Additional information that supports the decision should be
34 added to each of these sections.

35

36 The users who are editing the decision document should include Maps captured
37 or uploaded images that support the decision or help tell the story of the incident
38 and the decision. These images can be added to any section of the document as
39 needed. Additionally, the editors should also include all support information:
40 cost development summary, relative risk, social/political concerns, fire behavior
41 models, values at risk, long term assessment information.

42

43 The WFDSS Decision Document replaces the WFSA, WFIP and Long Term
44 Implementation Plans. Information from the planning documents of the past,
45 that supports the decision, now must be included in the decision document. It is
46 typically added in the Assessment portion of the decision document. This

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1 information should also be summarized and referenced in the Rationale portion
2 of the decision document.

3
4 Once a decision document has all the sections completed, it can be submitted for
5 the Review and Approve process. If a decision has not been published it can also
6 be deleted, however once a decision has been published it is part of that incident
7 record and cannot be removed.

8
9 The Incident Objectives, Incident Requirements, Course of Action and Planning
10 Area cannot be viewed by users who do not have incident ownership or
11 privileges until a decision is published. A new decision must be made if
12 updated information or findings are to be documented.

13 14 **Periodic Assessment**

15 This is the section where the approver will complete the periodic assessment and
16 view the previous actions and comments. The periodic assessment must be
17 completed based on the timeframe specified. Depending upon the complexity
18 and activity on the incident, the timeframe can be set 1-14 days while publishing
19 the decision or during the periodic assessment process. It is beneficial to
20 document clear, concise information about the incident when completing the
21 periodic assessment. This periodic assessment information will be part of the
22 project record and a way for someone to gather situational awareness of the
23 incident. It should be useful information not only during the incident but for
24 years to come when reviewing incidents. This comment section is especially
25 pertinent because it outlines the thought process and reasons for either
26 continuing a current decision or requiring a new one.

27 28 **Reports**

29 This section allows you to create custom reports from documentation and
30 information within your incident that you can view, edit, publish or download
31 but is NOT where you look for a report on a published decision. (Reports on
32 published decisions can be found in the Decisions tab by using the download
33 button.) When creating a report the user can decide on a custom or a
34 Management Action Point report. Both reports give the user the ability to select
35 pertinent information from the incident for the report they are constructing.