

PREDICTIVE SERVICES UNIT – WEATHER FORECASTING

7853

(July 2015)

The Predictive Services Unit (PSU) is an interagency office that is staffed with Meteorologists from the US Forest Service and Bureau of Land Management. PSUs are located at the Northern Region (Redding) and Southern Region (Riverside) Operational Coordination Centers (North Ops and South Ops)/Geographical Area Coordination Centers (GACC). CAL FIRE assists the federal agencies in the funding for these PSU meteorologist positions. The PSU meteorologists work in close coordination with the National Weather Service, Weather Forecast Office (WFO) meteorologists and supporting fire agencies. The primary function of the PSU meteorologists is to provide fire managers with fire business decision support through region wide weather and fire potential forecasts. Support products delivered by the PSU include:

- 7-Day Significant Fire Potential Outlook, a mid to longer range fire weather and climate forecast
- Prescribed Fire Weather Spot Forecast for burns in which smoke management is a concern
- Fire weather training to wildland firefighters
- Fire weather forecasting for operational conference calls
- WFO meteorologist advisement and coordination
- Incident Meteorologist (IMET) assignments on CAL FIRE incidents

SMOKE MANAGEMENT

7853.1

(July 2015)

Planning a fire use project that has the potential to impact areas sensitive to smoke requires assessment of air shed and meteorological conditions that influence both the movement and concentration of smoke. The expected effects of wind speed and direction, air stability, and nighttime inversions should be specifically outlined. Specific regional issues should be addressed, such as mountainous terrain, fog, or sea breeze effects. This information normally will be developed by fire managers using their personal experience and knowledge of fire behavior, smoke transport and dispersion in the area, along with more formal emissions prediction and dispersion modeling.

SMOKE MANAGEMENT CONFERENCE CALL

7853.1.1

(July 2015)

The Predictive Services Unit (PSU) works closely with Incident Meteorologists (IMET), Prescribed Fire Incident Commanders (ICs), Unit VMP Coordinators, the California Air Resources Board (CARB), local air districts, and Air Pollution Control officers where issues of smoke dispersion are a concern. The PSUs sponsor daily conference calls at 1300 hrs to discuss upcoming and ongoing smoke concerns of prescribed fires.

PRESCRIBED FIRE – SPOT FORECASTS

7853.2

(July 2015)

[\(See HB 7030.2 – VMP Operations - Planning Checklist and HB 7030.3 – VMP Operations - Weather\)](#)

The Predictive Services Unit provides CAL FIRE and other governmental land management agencies with prescribed fire weather spot forecasts as requested. Most CAL FIRE prescribed fires require a prescribed fire weather spot forecast prior to burning operations. Refer to [Policy 7851.1 Fire Weather Spot Forecasts](#) and [7800p502 – Fire Weather Spot Forecast Request](#) for requesting a fire weather spot forecast.

LONG TERM FORECASTING

7853.3

(July 2015)

The Predictive Services Units from each California Geographical Area Coordination Center provide two longer term forecast assessments; the Monthly Fire Weather/Fire Danger Outlook and the Seasonal Fire Weather/Fire Danger Outlook. These outlooks are made with the most recent weather, climate, and fuels data available. They are general reports intended to provide fire management personnel with an area-wide large fire danger and large fire potential assessment. CAL FIRE Regional Fire Environment Coordinators shall provide fuel assessment input to these reports using the most recent available fuel data and conditions. <http://gacc.nifc.gov/oncc/predictive/outlooks/index.htm> and/or <http://gacc.nifc.gov/oscc/predictive/outlooks/index.htm>

ONLINE WEATHER PRODUCT USE

7853.4

(July 2015)

Fire weather forecasting tools should be confined to recognized fire potential/assessment sites. From the Geographic Area Coordination Center homepage users have access to accepted weather output services. <http://www.nifc.gov/nicc/index.htm>

Weather outlooks from online services such as Weather Underground, Accu-weather and The Weather Channel should be referenced for general area broad based inquires and not applied to incident decision making tactics.

USE OF PREDICTIVE SERVICE METEOROLOGISTS AS INCIDENT METEOROLOGISTS (IMET)

7853.5

(July 2015)

[\(See 8100p386 Resource Ordering - Incident Meteorologist \(IMET\)\)](#)

CAL FIRE has the authorization to use the local Geographic Area Coordination Center Predictive Service Unit (PSU) Meteorologists for Incident Meteorologist (IMET) assignments on CAL FIRE incidents. CAL FIRE has no obligation to use one IMET providing agency (WFO or PSU) over another. Factors such as IMET availability and proximity to the incident may be considered.

[\(see Next Section\)](#)

[\(see Handbook Table of Contents\)](#)

[\(see Forms and Form Samples\)](#)