February 24, 2009

### **Purpose:** To update users on the topics listed below:

- FTEs in Preparedness, Prevention and Fuels
- How to calculate acres when building fuels treatments
- Building the .Current Prevention Program
- Pump and Roll Production Rates in the Initial Response Simulator
- Ignitions in Non-burnable Fuel Models

#### FTEs in Preparedness (Initial Response and Prevention) and Fuels -

FPUs must enter the total number of FTEs supported by their initial response organization, prevention program, and fuels program. The FTEs represent all personnel funded in whole or part by preparedness or fuels dollars. The FTEs can be calculated by determining the total number of funded personnel days divided by 260. FTEs are calculated using only base-eight days, not overtime. Some examples follow:

Initial Response Engine Crew: Engine Boss = 180 days; Assistant Engine Boss = 130 days; 3 crew members at 90 days each = 270 days. FTE =  $(180 + 130 + 270) \div 260 = 580 \div 260 = 2.2$ 

Leadership FTEs: FMO = 260 days; AFMO = (funded  $\frac{1}{2}$  preparedness &  $\frac{1}{2}$  fuels) = 130 days. Total FTEs =  $(260 + 130) \div 260 = 1.5$ 

Fuels Program FTEs: Fuels leadership = 390 days; Fuels crew = 500 days; Non-fuels personnel used to implement fuels projects (timber crew, range crew, etc) = 120 days; Non-fuels personnel used to support fuels planning (resource specialists) = 90 days. FTE =  $(390 + 500 + 120 + 90) \div 260 = 4.2$ 

# How to calculate acres when building fuels treatments -

Every fuels treatment created by an FPU must include the total acres affected by the treatment. For the purposes of FPA, these acres are considered the "footprint" acres. Accordingly, if the treatment involves a single entry prescribed burn of 1,000 acres then the footprint acres would be 1,000. If the treatment entails multiple entries on the same 500 acres (thinning, piling, burning), the total footprint acres would be 500. You should not enter individual 500 acre treatments for thinning, piling, and burning.

### **Building the .Current Prevention Program -**

The .Current prevention program represents the historic prevention program for each FPU. FPUs should represent their historic program by entering the General Action Hours and Specific Actions Hours that best capture the prevention effort enacted by their FPU over the last 5 to 10 years. Remember that General Action Hours should not be used unless they are combined with Specific Action Hours.

FPUs benefit from prevention activities within their own FPU, as well as those performed by their neighboring FPUs. Therefore, FPUs with no historic prevention program within their own FPU may still enter General and Specific Action Hours to represent the benefit they receive from the prevention effort of their neighbors.

# Pump and Roll production rates in the Initial Response Simulator -

The Initial Response Simulator models the standard production rates for engines and (where applicable) the pump and roll production rates. The pump and roll production rates are used in the model when an ignition lands in an appropriate fuel model. The production rate table for engines is located on the FPA website at:

Implementation/Technical Information/Fire Line Production Rates. The table has tabs for standard hoselay production rates and pump and roll production rates. In order for the model to apply pump and roll production rates, FPUs must enter a value greater than zero in the Pump and Roll (%) field for each FWA. This field can be found on the FWA and Fire Attributes screen. A value of 40% tells the model to use pump and roll production rates on 40% of the appropriate fires in this FWA. FPUs should consider topography and engine access when setting the Pump and Roll (%).

There are three filters used by the model to determine whether or not to apply a pump and roll production rate on an ignition. The three filters are:

- Is the ignition in an appropriate fuel model
- Can engines reach the fire (non walk-in)
- Is the fire selected for pump and roll production based on the **Pump and Roll** (%) entered for the FWA where the ignition occurred

# Ignitions in Non-burnable Fuel Models -

The Fire Ignition Generator creates modeled ignitions for use in the Initial Response Simulator (IRS). A LANDFIRE derived fuel model is assigned to each ignition based on the latitude and longitude of the ignition. The assigned fuel model is used to generate fire behavior for the ignition. If an ignition is assigned a non-burnable fuel model then it is discarded and not used in IRS. This may result in the loss of a significant number of modeled ignitions in FPUs with large numbers of acres in non-burnable fuel models.

FPA is exploring different approaches for use in the second analysis year to avoid losing ignitions due to non-burnable fuel models.