

COURSE: Prescribed Fire Planning and Implementation

TOPIC: Pre-Burn Planning and Preparation (Unit 3)

SUGGESTED TIME: 3 hours

TRAINING AIDS NEEDED: Projector for showing powerpoint presentations, flip chart and pens, overhead projector (optional), clear transparencies for drawing sketch map for Diablo exercise

**INSTRUCTOR NOTES:**

There is more information provided within this unit to present in 3 hours. The complexity analysis discussion takes approximately one hour. The rest of the required elements can be covered in two hours. For the last two hours, it is advised that you tailor this section based on the experience level of the students in your class. You may ask them questions to determine their knowledge level of this subject matter. The instructor needs to gauge their audience and determine what you will and will not present based on the experience level of the class.

Topics which must be included are: complexity analysis, safety, organization, and the discussion on a unit map. The discussion on holding can be covered in some detail, but coordinate with the instructor who is doing the unit on Contingency Planning to eliminate overlaps. The Contingency Planning unit has the information on using BEHAVE PLUS to calculate spotting distance, probability of ignition and using the CONTAIN module.

The section on *contingency planning* has been revised after the Cerro Grande Fire in Los Alamos, NM in the summer of 2000. Since the PMS 310-1 January 2000 Wildland and Prescribed Fire Qualifications System Guide had changed some prescribed fire positions, the new positions are reflected in this unit.

When discussing the *complexity analysis*, be sure to let students know about Fish and Wildlife Service direction in this area. Explain that the complexity analysis is subjective, and this is where their professional expertise and experience in the fuel type comes in handy. Students (and instructors) continue to struggle to achieve a comfort level with the complexity analysis.

The Regional Fire Management Coordinators discussed the use of complexity analysis planning tools, and decided that since the Fish and Wildlife Service requires the complexity analysis associated with FIREBASE to be done for programmatic planning purposes, and it should also be used in addition to the NWCG complexity analysis to evaluate individual prescribed fire operations.

Also regarding the complexity analysis Diablo exercise, it is a good idea to work on this as a group. Drawing an overhead sketch map of the unit and go over the situation together really helps the students to understand this exercise. A sample of a quick-and-dirty sketch map is attached. This one was drawn free hand on an overhead projector transparency by the instructor, and as the instructor drew, the exercise became clearer to the students. Use your own artistic talent to make a better one.

Also, the instructor needs to stress that the student will need to work through a complexity analysis a few times throughout the process. Generally two years in advance of the actual burn day, the Fire Management Officer will do a preliminary complexity analysis as part of the FIREBASE planning process. This is used in order to request funding for a given project. Then during the period of time when the prescribed burn plan is being written, another complexity analysis should be done, which becomes part of the prescribed burn package. This is done to ensure that the refuge has a qualified burn boss that can execute the plan, and to ensure that cumulative effects on the land have been assessed. Other questions include the following: Are you planning a burn in drought conditions? Is the weather this month dryer or wetter than normal? Is this the best possible time to be executing this burn? Does burning in dryer conditions increase the complexity of the burn? Would there be a better time when conditions may be more favorable? Will the burn have a negative effect on migratory birds? Is it nesting season? Do you need any mitigation measures to lower the complexity of this burn?

Prior to igniting the unit, the burn boss needs to reaffirm that the situation has not changed from what was planned. Another consideration is to do a complexity analysis for the inside of the unit as well as what the conditions would be outside the unit.

The NWCG complexity analysis (attached as a Handout) is the DOI standard and will be used IN ADDITION to the FIREBASE complexity analysis. To summarize the complexity analysis topic, evidence must be shown that an analysis of the unit's complexity was completed prior to burning the unit.