

# DRAFT FOREST FIRE PREVENTION PILOT PROJECT EXEMPTION MONITORING PLAN

## INTRODUCTION

Beginning January 2015 the Board of Forestry and Fire Protection (BOF) enacted the Forest Fire Prevention Pilot Project (FFPPP) allowing for fuel reduction in conjunction with commercial timber harvesting operations.

This exemption has a sunset date of January 1, 2018. To consider the effectiveness and use of the exemption the Department is required to maintain records in order to evaluate the impact on fuel reduction and natural resources in areas where it has been used. (PRC § 4584(j)(11)). This monitoring plan will assist in developing the records necessary for the Department to complete the evaluation.

## OBJECTIVE

To evaluate if the harvesting of trees in compliance with PRC § 4584(j)(11), Forest Fire Prevention Pilot Project Exemption, eliminates the vertical continuity of vegetative fuels and the horizontal continuity of tree crowns, for the purpose of reducing the rate of fire spread, duration and intensity, fuel ignitability, or ignition of tree crowns. (14 CCR § 1038(j))

## MONITORING CONDITIONS

Post harvest conditions described under the FFPPP involve fuel reduction, stocking and wildlife habitat elements. A range of these conditions will be evaluated in order to provide a more detailed account of timber stand conditions post harvest. The following questions are based on specific sections of 14 CCR § 1038(j) and form the basis for monitoring efforts and evaluation:

- Will harvesting decrease fuel continuity and increase the quadratic mean diameter of the post harvest stand? (§ 1038(j)(2))
- What are the pre-harvest stand structure and postharvest stocking levels? (§ 1038(j)(5))
- In developing the tree selection criteria, has the RPF considered and retained habitat elements, where feasible, including, but not limited to, ground level cover necessary for the long-term management of local wildlife populations? (§ 1038(j)(6))
- Were only trees less than 24" (in) outside stump diameter, measured eight (8) inches above ground level removed? (§1038(j)(8))
- What is the post harvest canopy closure stand condition? (§ 1038(j)(9))
- Does the post treatment stand contain no more than 200 trees per acre over 3 inches in dbh, when consistent with 14 CCR 1038(j)(9)(A)-(E)? (§ 1038(j)(10)(A))
- Has vertical spacing been achieved by treating dead fuels, excluding dead branches on the retained trees for stocking, to a minimum clearance of 8'(ft) measured from the base of the live crown of the post harvest dominant and codominant trees to the top of the dead surface or ladder fuels, whichever is taller? (§ 1038(j)(10)(B))
- Has all logging slash created by the timber operations been treated to achieve a maximum post harvest depth of **18" inches** above the ground? (§ 1038(j)(10)(C))
- Was fuel treatment conducted under 14 CCR § 1038(j)(8),(9), (10) and (11) achieved on at least 80 percent of the treated area? (§ 1038(j)(12))

- What was the primary method used to treat fuels? (§ 1038(j)(11))

The FFPPP became effective January 1, 2015. Sacramento staff have established a monitoring team of TRFRF Foresters and Environmental Scientists to conduct the initial monitoring. The effort will be transitioned to the Units based on workload quantity and following the initial evaluation. It is important to establish a quick and effective method to be utilized by Unit personnel to capture PRE and POST forest stand conditions. The intent is to include this workload as necessary within the post operation inspection required by the FFPPP.

**NOTE:** There are two components to consider when establishing a monitoring program for the FFPPP: **1) Effectiveness Monitoring** – evaluation to determine if the exemption is being utilized and if so are forest stand conditions being modified to reduce the fire hazard and are wildlife habitat elements being considered and retained. **2) Compliance Monitoring**– evaluation if timber operations were conducted in a manner consistent with the Forest Practice Rules i.e. has the quadratic mean diameter been increased, have fuels been treated, and have stocking standards been meet.

### **MONITORING**

1. Take a picture of **PRE** stand conditions at the start of operations.
2. Pictures should capture:
  - **Crown canopy closure** (Horizontal continuity aspect)
  - **Tree stems per acre and understory** (brush / suppressed trees) (Vertical continuity aspect)
  - **Forest floor conditions** (understory component & and woody debris) (Fuel depth-forest floor)
  - **Conditions to collect for modeling fire behavior**  
Slope  
Aspect  
Air Photo
3. A photo point location picked should be identified by GPS coordinate so others can duplicate photo.
4. Photo should be identified – indicating cardinal direction photo taken and the component attempting to be captured. (i.e. crown, vertical, or forest floor)
5. Photo locations should be picked to capture the various stand conditions. These points are random and identified by the inspector upon visit. In some cases there may only be a need for one photo point depending on acreage, stand conditions or the inspector's time constraints. This will be up to the individual inspector to determine.
6. Photos of **POST** stand conditions should be taken from the same GPS location or close proximity and taken in the same general direction of the original picture attempting to capture the same field of view and stand component listed in first photos.

OTHER – Factors to consider when taking pictures:

- Use of scale - visual measurement indicators (i.e. yard stick) to capture fuel load depth.
- When selecting photo locations consider areas where extreme fire conditions exist. (i.e. significant fuel loads, canopy closure, etc.)
- If wildlife resources considered by the RPF where present utilize pictures to identify how they were protected.
- If possible capture an aerial view pre and post-harvest. Across canyons, roads above project area etc.
  - This will help identify if watercourse areas disrupt the benefits of the removal of these components by leaving an area for fire to wick through.

OTHER – data collection ideas:

7. Obtain tree diameters (DBH) on 1/50 acre plots (PRE) diameter information – evaluating quadratic mean diameter.
8. Develop a data set - to be collected for the evaluation of wildlife elements.

Wildlife Questions to ask:

1. Did the RPF query CNDDDB?
2. Did the RPF “consider” wildlife habitat elements for retention?
  - a. If “yes,” what was proposed?
    - i. (This should guide the what elements should be photo monitored)
  - b. If “no,” what habitat elements are present PRE-project? (Provide percentage or number of any element present)
    - i. Oaks
    - ii. Nest structures/screen trees
    - iii. Woodrat nests (prey base)
    - iv. Downed woody debris
    - v. Snags
    - vi. Ground cover for deer/elk browse
    - vii. Other\_\_\_\_\_
  - c. If “no,” what habitat elements are present POST-project? (Provide percentage or number of any element present)
    - i. Oaks
    - ii. Nest structures/screen trees
    - iii. Woodrat nests (prey base)
    - iv. Downed woody debris
    - v. Snags
    - vi. Ground cover for deer/elk browse
    - vii. Other\_\_\_\_\_