Project Number: EMC-2015-004
Project Name: Road Rules - Effectiveness of reducing hydrologic disconnection and road surface erosion

Background and Justification: This project proposes to monitor changes in key indicators of forest road performance that result from the implementation of the "Road Rules, 2013 Rule Package" (Road Rules). The proposed monitoring approach is part of a broader strategy to evaluate ecological performance in non-federal forestlands regulated by the California Forest Practice Act and Rules. Roads can alter hydrologic and geomorphic process in ways that can adversely impact aquatic ecosystems. As such, a process-based evaluation of the effectiveness of the Road Rules is vital to assessing the overall performance of the California Forest Practice Rules.

Objective(s) and Scope: The objectives of this project are framed as general monitoring questions, and the scope of this monitoring applies to all Forest Practice Districts. The rationale for these monitoring questions are explained in the concept proposal titled "Road Condition Monitoring – Concept Proposal." The primary question is whether the road attributes that affect surficial sediment production (i.e., surface erosion) and delivery improved after implementation of the Road Rules? To answer this general question, several specific questions are posed such as:

1. Has the length/area of roads draining to watercourses decreased after the implementation of the Road Rules?
2. Have the road attributes affecting surface erosion for connected road segments improved since the implementation of the Road Rules?

FPRs and regulations: 14 CCR § 923.1(943.1, 963.1)

EMC Critical Question or Priority: See Section 2.3, Theme 3. Specifically, are the FPRs and associated regulations effective in:
(a) reducing or minimizing management-related generation of sediment and delivery to watercourse channels.
(b) reducing generation and sediment delivery to watercourse channels when timber operations implement the Road Rules 2013 measures.

Collaborators: CAL FIRE, NCRWQCB, CGS

Existing or Needed Funding: In kind staff contribution or hire contractor to perform inventory work.

Timeline and Fiscal year (s): Estimated minimum of 3 years.

Principal Investigator or Contact: D. Coe, CAL FIRE and Bill Condon, DFW

Submitted by D. Coe, 9/15/15