

RESEARCH PROBLEM STATEMENT #MA-502

I – Problem Title

Roadside fire reduction strategies

II – Research Problem Statement

In order to reduce roadside fire starts, protect adjoining properties and our roadside improvements, and improve safety, what are the best roadside tools, methods and practices for fire control/reduction?

III – Objective

Identify new or existing maintenance or roadside management practices in use by other agencies to limit fire starts and control roadside wildfires.

IV – Background

Every year Caltrans and local protection agencies expend a large amount of limited resources to fight fires that start within or enter the highway right of way. Fire on the highway roadside creates unsafe conditions for the traveling public, puts highway workers and other responders at risk and can have significant negative impact on the Department's infrastructure and improvements. In some cases the Department has been held liable for damage to adjoining properties from fires initiated within the right of way. Historical roadside fire management methods of chemical controls, shoulder blading and mowing contain inherent problems with water quality practices, scheduling, invasive plant species control and equipment availability.

V – Statement of Urgency and Benefits

With the scheduled reduction in chemical vegetation controls there is an immediate need for alternative roadside vegetation controls and fire management strategies. In some Districts due to frequent and reoccurring roadside fires, the local fire control districts have threatened to start charging the Department for their costs in responding or to not respond at all if the Department doesn't take immediate steps to improve the existing conditions.

VI –Related Research

California Roadsides "A New Perspective", California Dept. of Transportation, 1997

VII – Deployment Potential

Study results could be used to identify immediate and long-term strategies for developing a roadside fire management strategy in each District. Short term deployment may involve changes in maintenance activity scheduling, restructuring of resources or manpower or simple changes in standard operating practices. Long-term strategies may include new roadside design standards, restructuring the structure of Maintenance operations or the purchase of new equipment.