

Policy Request

Proponent: SAGE	Date: January 5, 2017
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Project Name/Issue: Literature Review and Synthesis Related to the Salvage of Fire Damaged Timber	
Request Description: <p>CMER has approved a request for a literature review and synthesis on the salvage of fired damaged timber. This is a request for funding of \$75,000 to use unspent funds within the Adaptive Management Program budget to conduct this project. The focus will be on literature evaluating timber salvage after fire damage and its effects in and near riparian areas, as well as studies that will help identify the best available science as it relates to various methods of timber salvage and the resulting regeneration of forested upland sites. This project will help CMER and SAGE identify research gaps in fire salvage harvest practices which will inform the development of future research projects.</p> <p>Timeline: January – June 2017</p>	
Funding Source: AMP \$75,000	Urgency: High
Purpose of the Project <p>A list of critical questions has been developed by SAGE members to be answered from the literature review and synthesis, addressing two overarching research topics. These include:</p> <ul style="list-style-type: none"> • How is riparian function restored after fire? <ol style="list-style-type: none"> 1. To what extent does leaving standing and dead trees within the RMZ contribute to riparian function? <ol style="list-style-type: none"> a. To what extent does down wood reduce erosion and sediment delivery to streams and wetlands? To what extent does the risk of sediment delivery change with stream and side slope gradients, different soil types, or with the intensity of the burn? b. To what extent do live standing trees and dead standing trees (snags/stumps) immediately adjacent to and over the stream bank contribute to bank stability? Are there any differences in the benefits provided by standing trees vs. stumps? c. To what extent does standing wood provide levels of shade that will mitigate the warming of streams or wetlands? Is buffer width critical and does this vary by stream size? d. To what extent are there differences between the rates of large woody delivery over time to streams for stands where the burned RMZ is left in place, compared with one that is harvested and then replanted or allowed to 	

reseed naturally after fire? Are there biogeographic areas that require or do not require replanting after salvage harvest?

- e. To what extent does excessive dead standing and/or down wood post fire interfere with the recovery of the upland forest stand and the riparian area?
- f. To what extent do standing dead trees and down trees help promote the establishment of new seedlings after fire (whether planted or naturally re-seeded)?

- How is ecological damage from logging reduced?

2. Are there significant differences between harvest methods in burned areas that potentially post a greater risk to aquatic resources?

a. To what extent does application of logging slash on skid trails lessen sediment delivery to streams?

b. Is there a difference in sediment delivery between salvage logging on snow covered versus non-snow covered land?

3. Does soil disturbance in burned areas increase erosion and delivery of sediment to streams?

a. Are there methods to lessen these impacts?

b. What effects does hydrophobic soil have on erosion and sediment delivery?