

# *Streamflow, Sediment and Organic Matter*

## **Forest harvest effects on organic matter dynamics in headwater streams at the Trask River Watershed, Oregon**

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As part of the Trask River Watershed Study, we examined trends in litter input, coarse and fine particulate terrestrial organic matter (OM) transport, and coarse particulate OM storage following harvest under three treatment intensities: clearcut with no buffer, clearcut with buffer, and clearcut with scattered tree retention. The amount of OM delivered to streams decreased only after clearcut with no buffer. Instream OM storage increased after harvest at buffered or scattered tree retention sites. There was no change in storage at clearcut sites. Transport of fine and coarse particulate OM did not significantly differ with any harvest treatment. The results demonstrate that intense forest management practices, such as clearcut, can alter litter delivery to streams but does not appear to affect organic matter storage or transport. The large amount of OM stored in these channels may make them relatively resilient to short-term disruptions in particulate OM delivery. Retention of even small numbers of trees along these streams are sufficient to maintain litter delivery rates after harvest.