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The effect of particle travel rate on the loss of organic matter for sheet and interrill erosion areas

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Soil particles of various sizes and density travel at different rates over the soil surface in rain-impacted flows. The different travel rates affect the composition of the sediment lost from sheet and interrill erosion areas and the composition of the material that remains on the soil surface. The effect of this on the loss of organic matter from areas eroding by rain-impacted flows will be illustrated through modelling of the transport mechanisms involved. The “winowing” of the lighter organic rich particles results in a time varying flush of organic matter that is not sustained in the long term.