Supplementary Material to:

Catchment hydrologic response and transport are affected differently by precipitation intensity and antecedent wetness

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S1. New water fractions of different sampling intervals

The temporal dimension of the new water fraction is directly linked to the sampling interval, with the new water fraction quantifying the proportion of precipitation to become streamflow within one sampling interval. However, aggregation of data allows calculating new water fractions for longer periods. Here we quantify the hourly and 7-hourly new water fractions at Erlenbach and Upper Hafren, as obtained from the unaggregated samples, as well as the 21-hrly new water fractions from aggregated data.
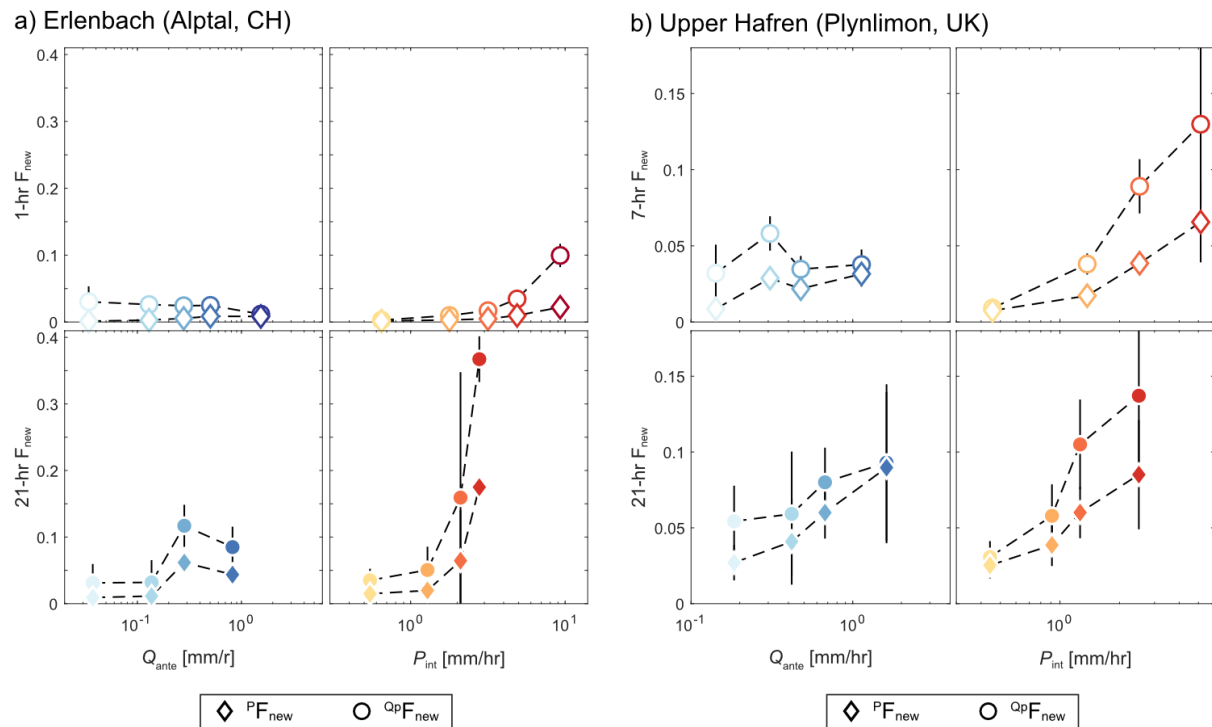
Figure S1: A comparison of 21-hr new water fractions to those of the shorter sampling intervals (1hr at Erlenbach, 7hrs at Upper Hafren). New water fractions of the longer intervals are generally higher, as they reflect contributions of recent precipitation over longer periods. However, the relationships with antecedent wetness (blue) and precipitation intensity (red) are similar for the different time intervals.