

Supplementary Information for Kirchner, Feng, and Neal, "Fractal stream chemistry and its implications for contaminant transport in catchments"

Power spectra for five sampling sites at Plynlimon, Wales. Water flux spectra (**a**) and Hafren chloride concentration spectra (**b**) are reproduced from figure 2 of the published paper. Panels **c-f** show chloride concentration spectra for four other samping sites at Plynlimon. Rainfall chloride spectra (dotted lines) are the same in each panel. Daily chloride concentrations are available only for Hafren (**b**) and Tanllwyth (**c**); weekly stream concentrations (solid gray lines) are available, for varying timespans, at every site. Upper Hore (**e**) is a sampling point halfway up the Hore catchment (**d**); below this point most of the Hore catchment was clearfelled during the first half of the period of record. South2 Hore (**f**) is a small hillslope tributary in the clearfelled zone. Its unusually high spectral power at long wavelengths is caused by non-stationarity in its time series, which may be associated with clearfelling during the second year of its 10-year sampling record.