This repository contains hydrologic data (discharge and erosion) collected in small, paired experimental watersheds in the Southern Grasslands or Pampa biome in subtropical Brazil. Three watersheds have been monitored since 2011, two predominantly covered with eucalyptus and one with livestock-grazing grassland. Besides being used to understand water balance and erosion under the distinct watershed uses, the data are also required by State environmental agency to fulfill the requirements for the Environmental Zoning of the Forestry Activity and will, therefore, be collected as long the commercial forest stands persists in the State. All files with sensor output data contain quality-controlled results, where periods of sensor malfunction have been removed. The data include precipitation, stream depth, and stream turbidity for each watershed, automatically recorded in 10-min intervals. Rainfall is measured with an automatic tipping-bucket rain gage; stream depth is determined with a pressure transducer at stream gauges and a rating curve is used to calculated the stream discharge; and turbidity is measured with a turbidimeter.  Additional information might be added in the future if requested by potential users.

Recent publications:

Ferreto, D.O.C., Reichert, J.M., Lopes Cavalcante, R.B., Srinivasan, R. 2020. Water budget fluxes in catchments under grassland and Eucalyptus plantations of different ages. Can. J. For. Res. 2020, e-First. https://doi.org/ cjfr-2020-0156.

Reichert, J.M., Rodrigues, M.F., Peláez, J.J.Z., Lanza, R., Minella, J.P.G. Arnold, J.G., and Cavalcante, R.B.L. 2017. Water balance in paired watersheds with Eucalyptus and degraded grassland in Pampa biome. Agric. For. Meteorol. 237, 282-295. [doi: 10.1016/j.agrformet.2017.02.014](https://doi.org/10.1016/j.agrformet.2017.02.014)

Rodrigues, M.F., [Reichert](https://link.springer.com/article/10.1007/s11368-014-0885-5#auth-2), J.M., [Burrow](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Burrow%2C+Robert+A), R.A., [Flores](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Flores%2C+Erico+Marlon+Moraes), E.M.M., Minella, J.P.G., [Rodrigues](https://link.springer.com/article/10.1007/s11368-014-0885-5#auth-7), L.A., [Oliveira](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Oliveira%2C+Jussiane+Souza+Silva), J.S.S., [Cavalcante, R.B.L.](https://www.sciencedirect.com/science/article/pii/S0168192317300473#!), 2018. Coarse and fine sediment sources in nested watersheds with eucalyptus forest. Land Degrad. Dev. 29, 2237–2253. https://doi.org/10.1002/ldr.2977

Valente, M.L., Reichert, J.M., Legout, C., Tiecher, T., Cavalcante, R.B.L., Evrard, O., 2020. Quantification of sediment source contributions in two paired catchments of the Brazilian Pampa using conventional and alternative fingerprinting approaches. Hydrol. Proces. <https://doi.org/10.1002/hyp.13768>