

Supplementary Material.

Table S1. Efficiency and selected variables (ordered by decreasing significance) during the hydrological modelling process per gauging station (bold letters). NSE: Nash-Sutcliffe Efficiency; Pp: precipitation; Temp: temperature; D: daily; M: monthly; Q: quarterly; and n (1,2...n): times back.

Gaugin station Nash-Sutcliffe Efficiency selected variables

Tormes - Hoyos del Espino NSE=0.673

PpM1, PpD1, PpQ1, PpM9, PpM7, PpM4, PpQ2, TempM7, PpQ3, TempQ1, PpQ7, TempQ7, TempQ2

Tormes - El Barco de Ávila NSE=0.763

PpM1, PpD1, PpQ3, PpQ7, PpQ6, PpQ8, PpQ4, PpM7, TempQ7, TempM7, PpM11, PpQ2, TempQ2, TempQ4

Cega - Pajares de Pedraza NSE=0.780

PpM1, PpQ1, PpQ8, PpQ4, PpQ6, PpQ3, TempQ1, TempQ6

Cega - Lastras de Cuéllar NSE=0.930

PpQ7, PpQ1, PpD3, PpQ8, PpM8, PpQ2, TempQ8, PpM1, PpM4, PpM6, PpQ5, PpM2, PpD12, PpD15, TempM2, PpM11, PpD8, TempD15, TempD3, TempQ2

Pirón - Villovela de Pirón NSE=0.793

PpQ1, PpQ3, PpM6, PpQ5, PpM8, TempM8, PpM7, PpQ2, TempQ5, TempQ1

Lozoya – Rascafría NSE=0.842

PpM1, PpM4, PpQ4, PpQ5, PpQ6, PpM7, TempM1, PpM8, PpQ1, PpQ8, TempQ8

Tajo - Peralejos de las Truchas NSE=0.728

PpM1, TempM1, PpQ2, PpQ6, PpM9, PpM6, PpQ5, PpQ7

Gallo – Ventosa NSE=0.797

PpM1, TempM1, PpQ1, PpQ7, PpQ3, PpQ4, PpM12, PpQ5, PpM5, PpM11

Cabrillas – Taravilla NSE=0.791

PpM1, TempM1, PpQ7, PpQ5, PpM11, PpQ3, PpM4, TempQ3

Ebrón - Los Santos NSE=0.856

PpM1, PpQ5, TempM1, PpQ2, PpM9, PpM3, PpM8, TempQ2
