**Supplementary material of Asymmetric impact of groundwater use on groundwater droughts**
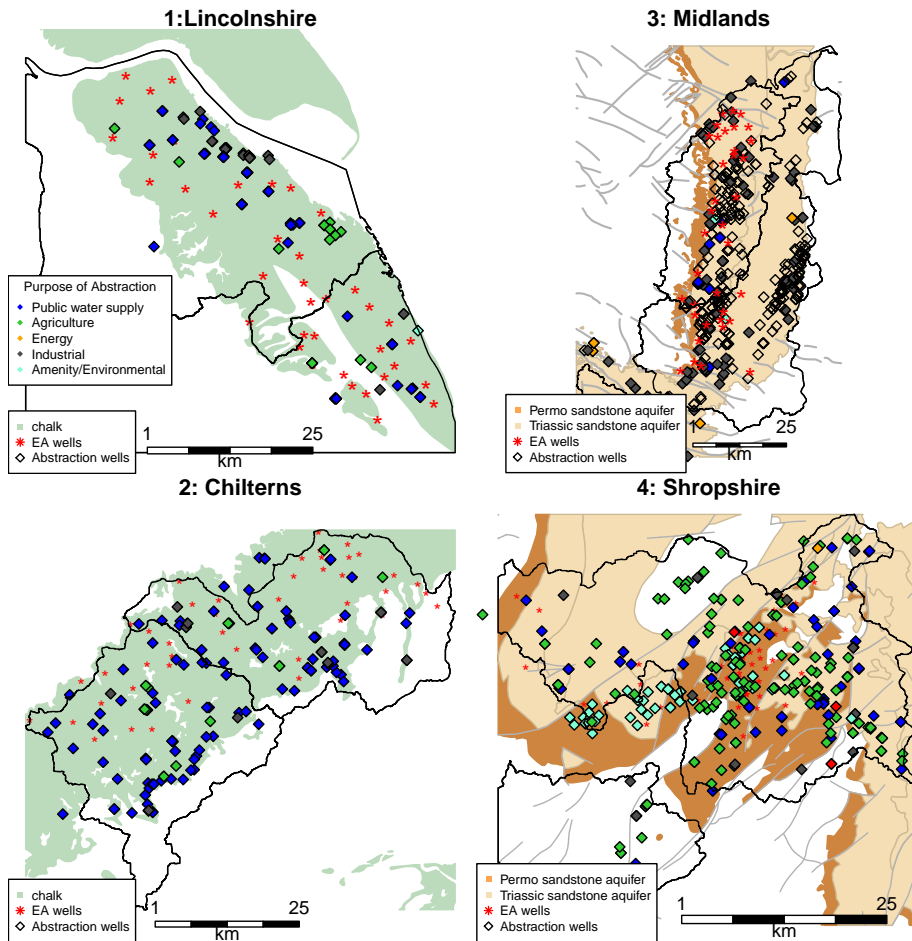
Doris E Wendt[1], Anne F Van Loon[1], John P Bloomfield[2], David M Hannah[1]
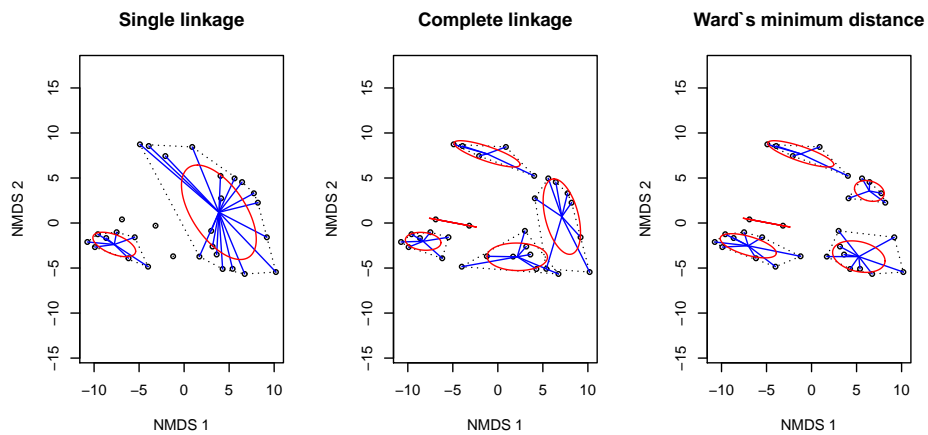
1: University of Birmingham, Birmingham, UK
2: British Geological Survey, Wallingford, UK

5   **S1: Location and purpose of groundwater abstraction wells in the four water management units in the UK**



**Figure S1.** The location and purpose of groundwater abstraction wells in the four water management units. The coloured diamonds indicate locations of abstraction wells and the colours represent the purpose of a provided abstraction licence. Please note that some wells overlap.

**Figure S2.** Cluster composition of three clustering techniques (single linkage, complete linkage, and Ward's minimum) shown for the five Chalk clusters using the matrix non-metric multidimensional scaling plot (NMDS) of the vegan package (Dixon, 2003). The clusters in Ward's minimum technique show the least overlap and are therefore selected in further analysis.

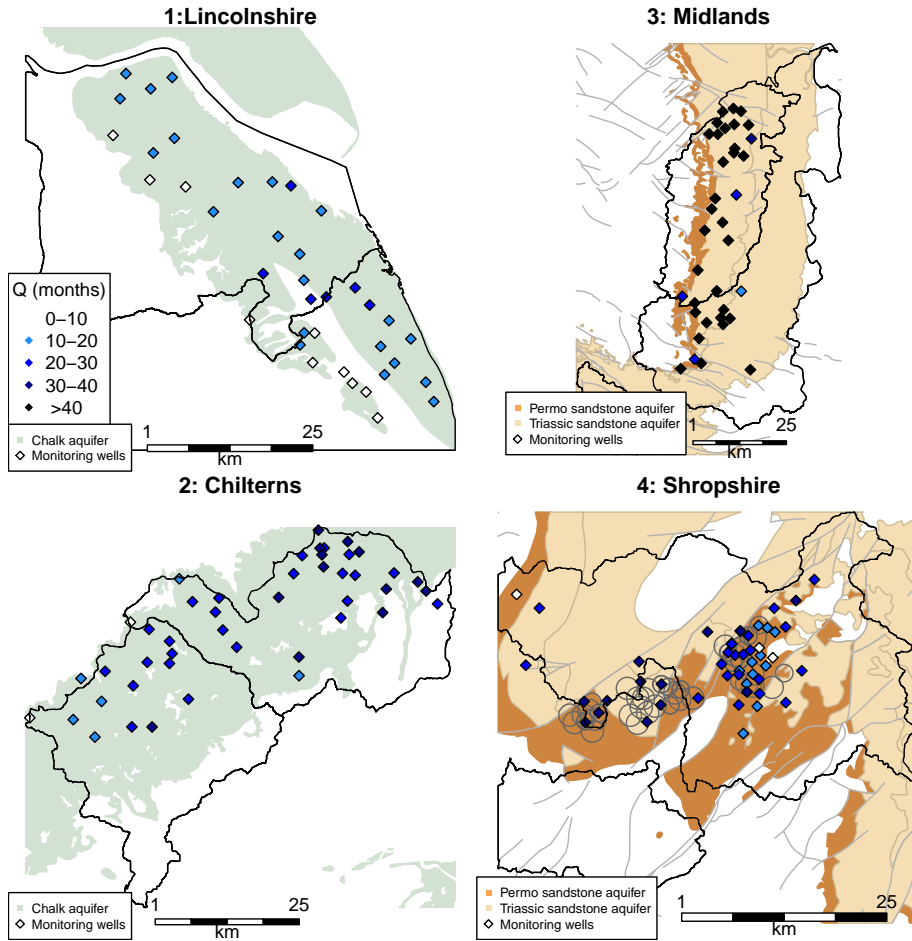# S3: Accumulation period of monitoring wells in the four water management units in the UK



**Figure S3.** Accumulation period (in months) for monitoring wells in the four water management units.

# References

Dixon, P.: VEGAN, a package of R functions for community ecology, Journal of Vegetation Science, 14, 927–930, doi:10.1111/j.1654-1103.2003.tb02228.x, 2003.