Supplemental material for

Simulation of present and future land subsidence in the Rafsanjan plain, Iran, due to groundwater overexploitation using numerical modeling and InSAR data analysis

M. Bockstiegel[a], J.C. Richard-Cerda[a], E. Muñoz-Vega[a], M.H. Haghighi[b], M. Motagh[b,c], R. Lalehzari[d], S. Schulz[a]

[a]Technische Universität Darmstadt, Institute of Applied Geosciences,

Schnittspahnstraße 9, 64287 Darmstadt, Germany

[b]Institute of Photogrammetry and GeoInformation, Leibniz University Hannover,

30167 Hannover, Germany

[c]Helmholtz Centre Potsdam, GFZ German Research Centre for Geosciences,

14473 Potsdam, Germany

[d]School of Civil Engineering, College of Engineering, University of Tehran, Tehran, Iran
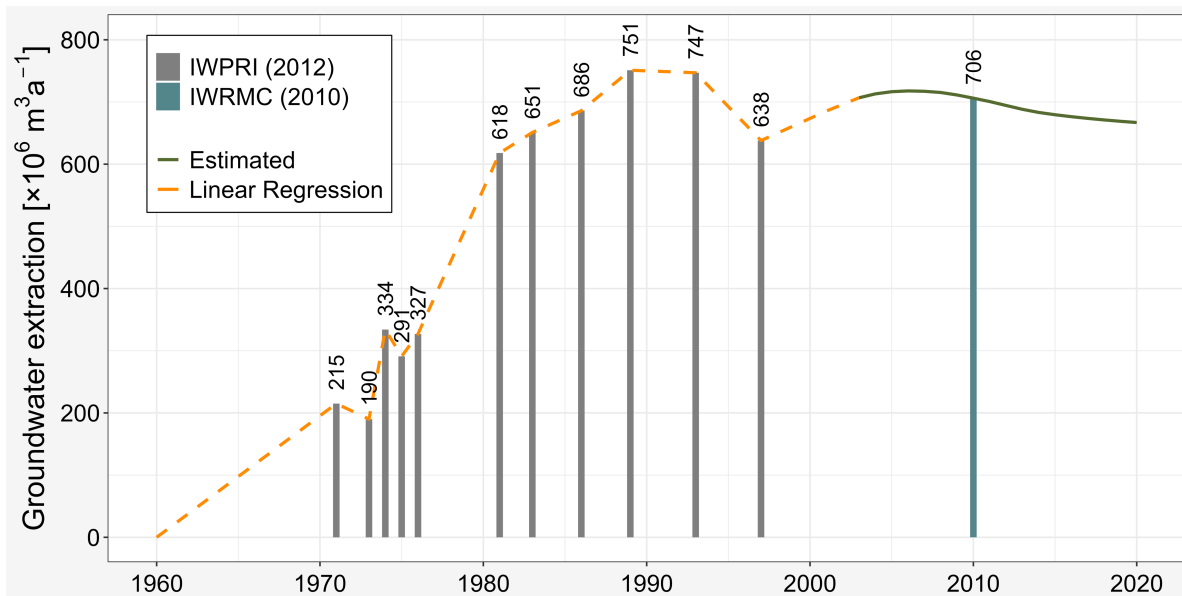
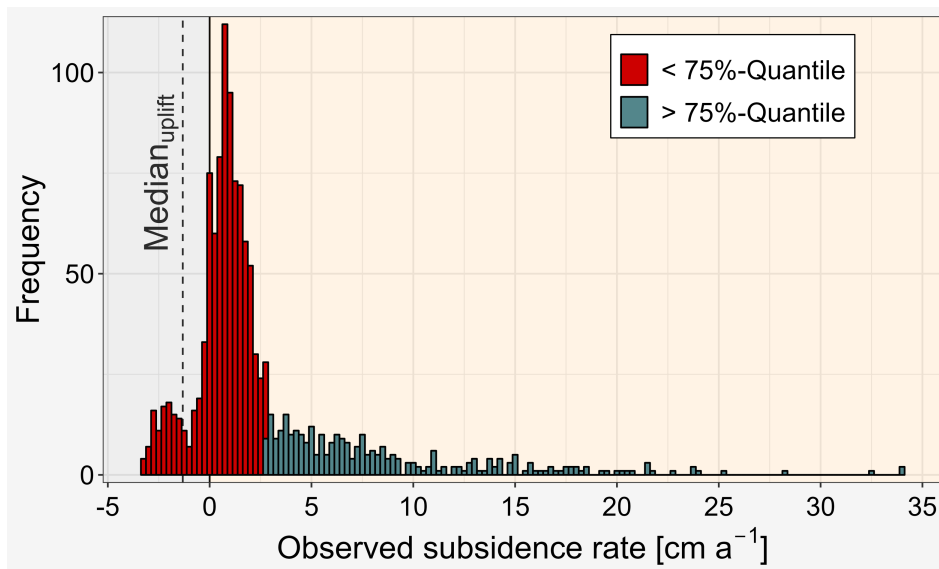**Fig. S1** Total groundwater extraction used for the entire modeling period

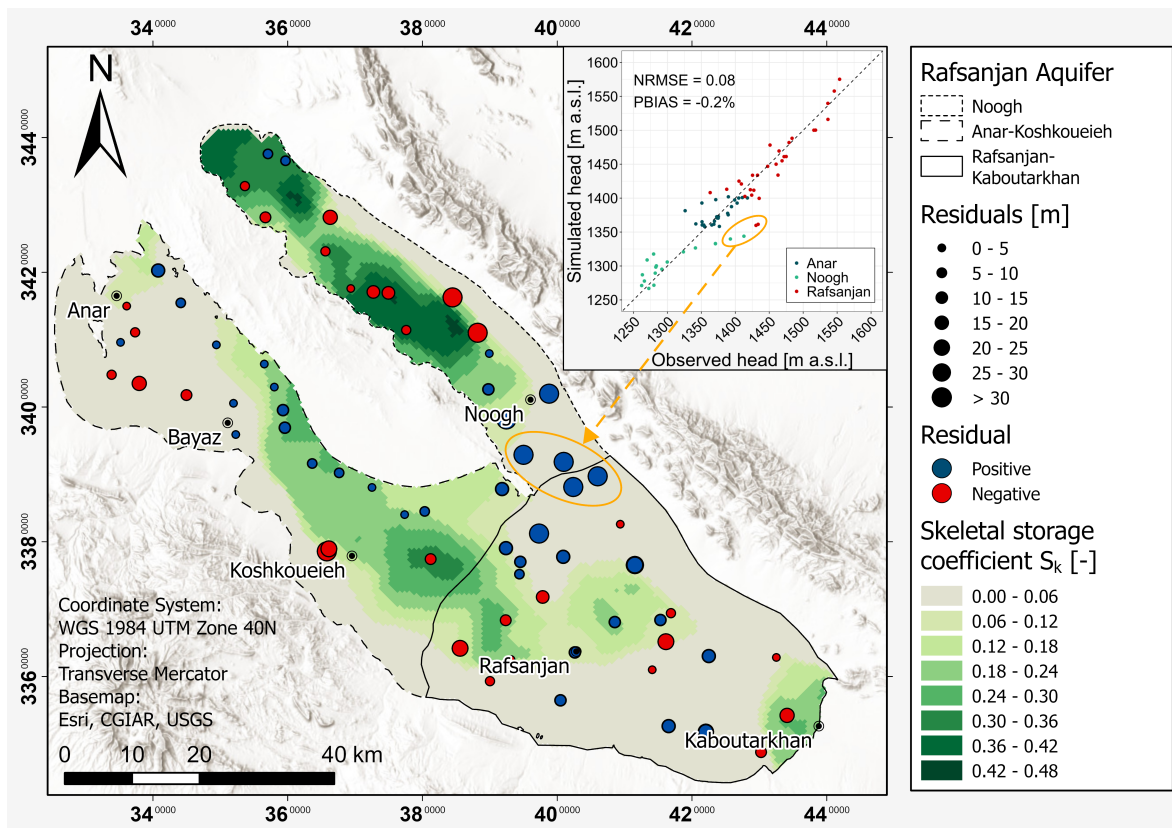**Fig. S2** Distribution of observed subsidence rates in randomly generated points

Fig. S3 Distribution of skeletal storage coefficients and comparison of head residuals of first observed heads in transient state