Supplementary material
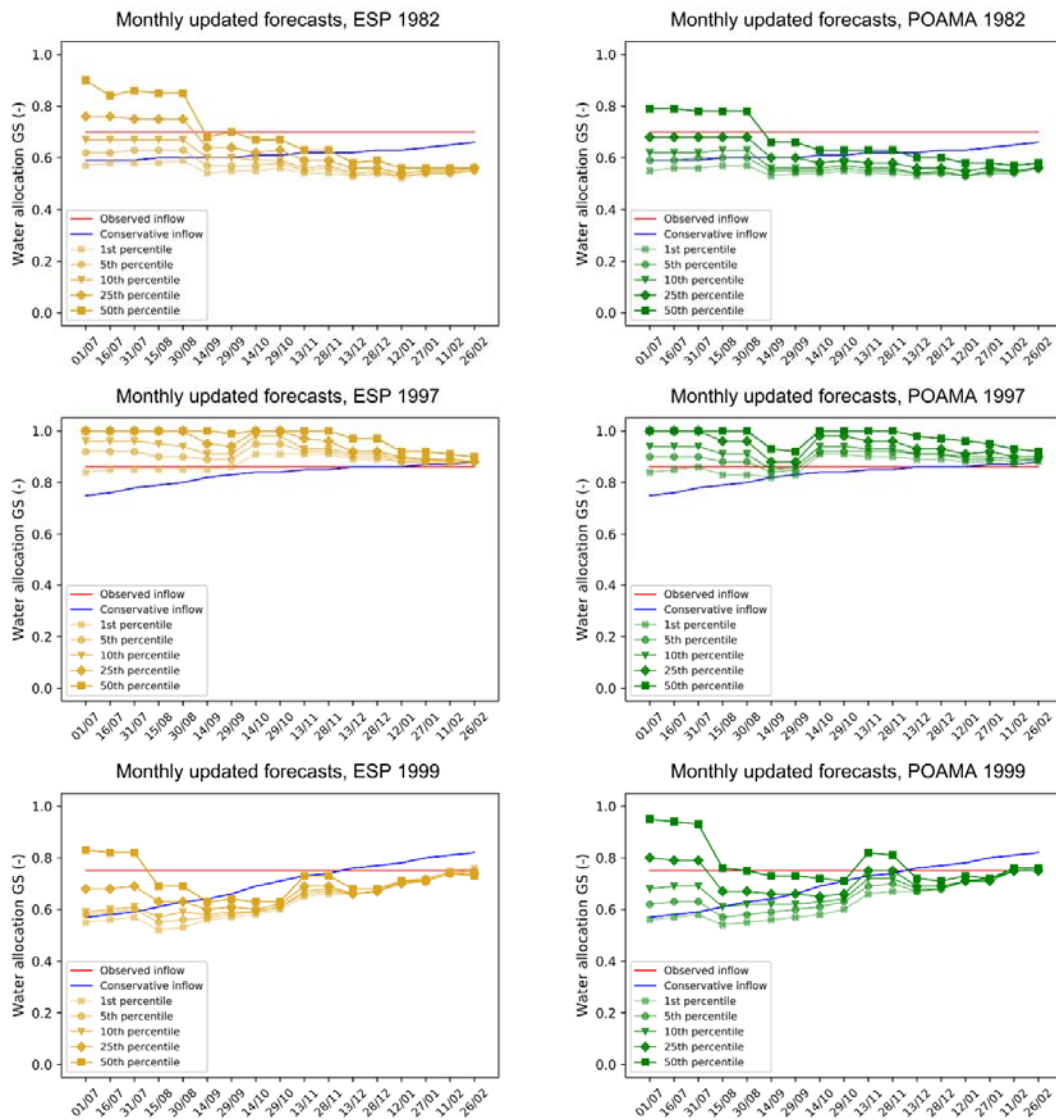
Figure S1. Water allocation GS for dry years (1982, 1997, 1999) using new inflow predictions every month (Monthly updated forecasts).
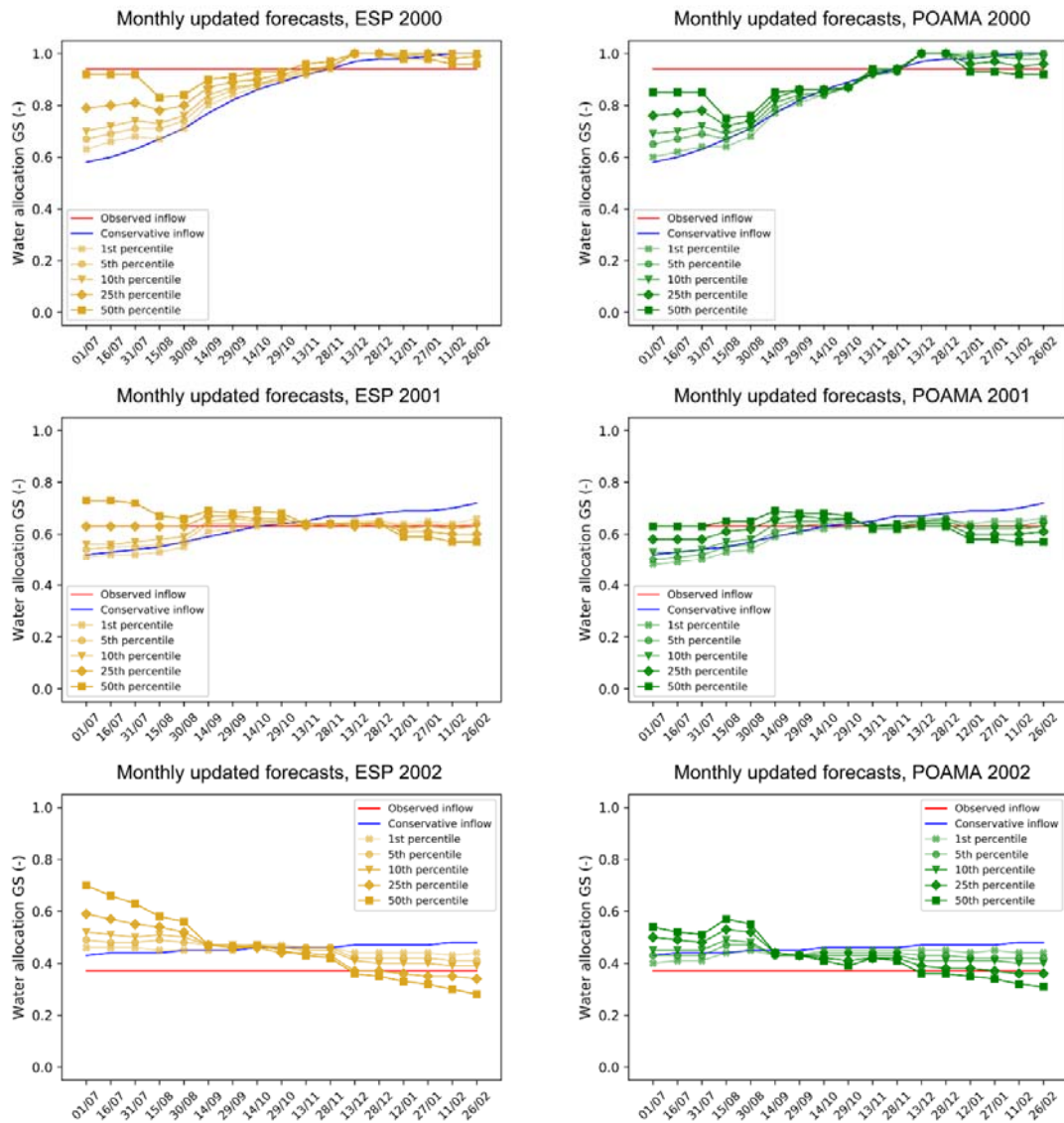
Figure S2. Water allocation GS for dry years (2000, 2001, 2002) using new inflow predictions every month (Monthly updated forecasts).
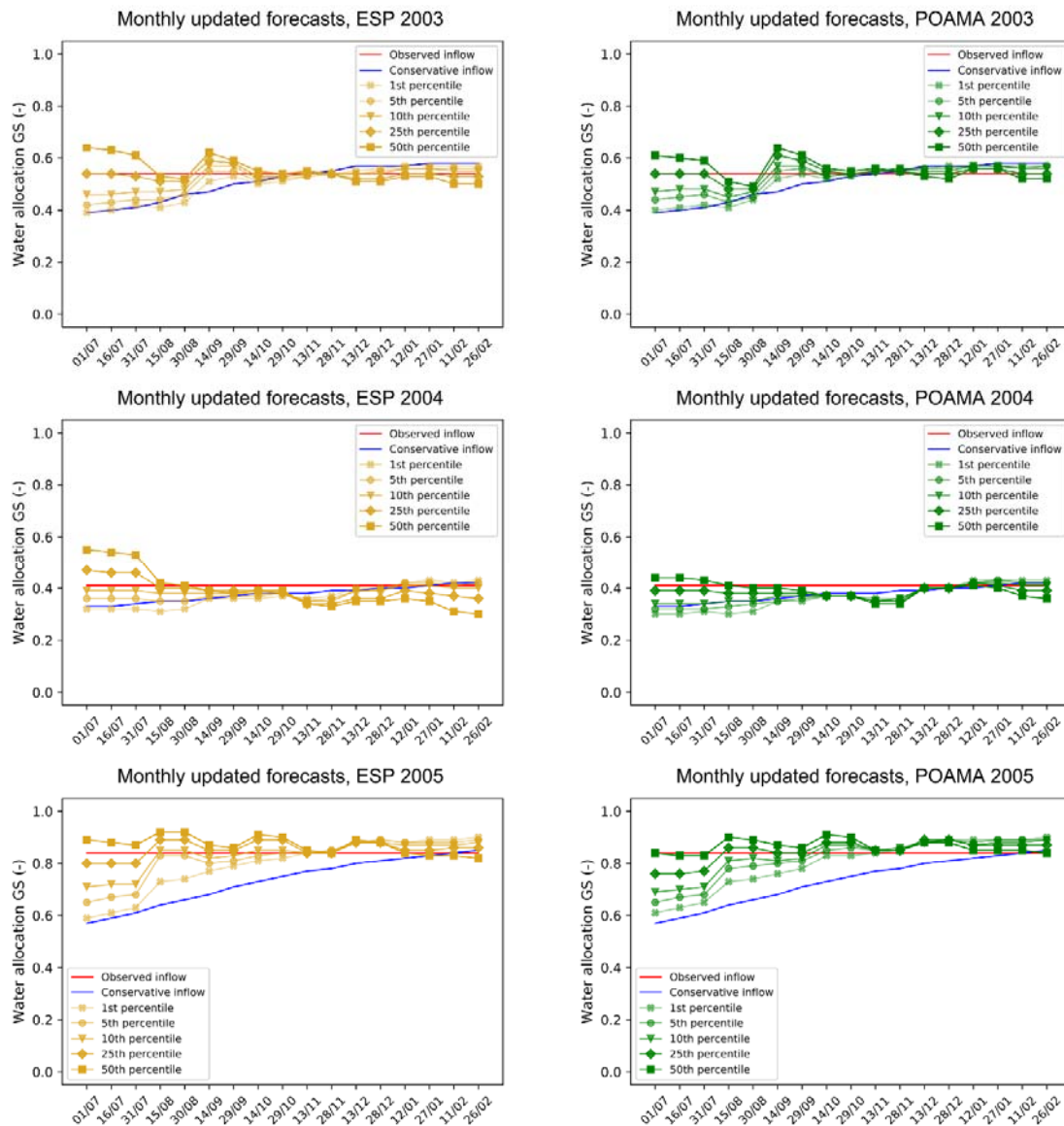
Figure S3. Water allocation GS for dry years (2003, 2004, 2005) using new inflow predictions every month (Monthly updated forecasts).
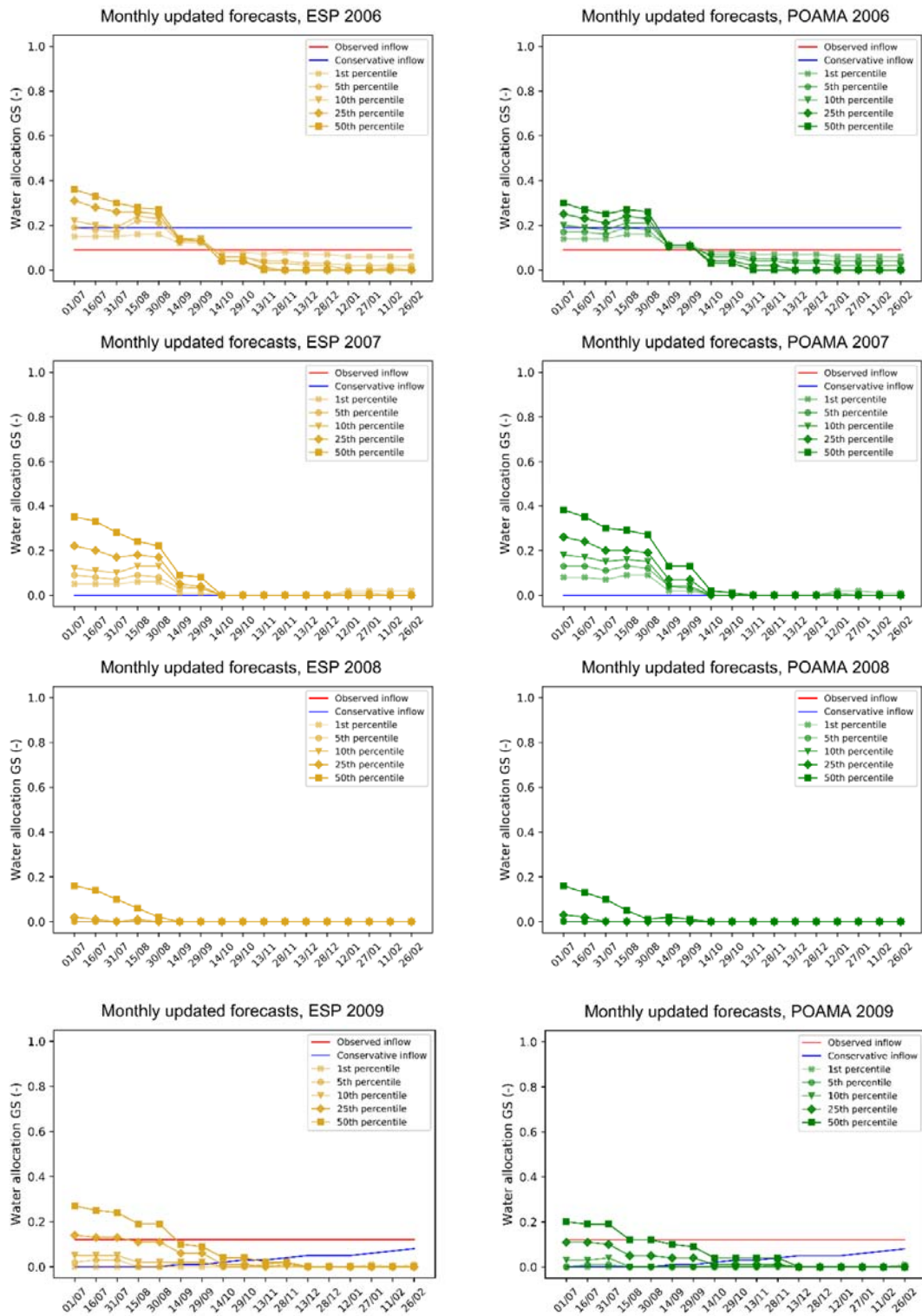
Figure S4. Water allocation GS for dry years (2006, 2007, 2008, 2009) using new inflow predictions every month (Monthly updated forecasts).
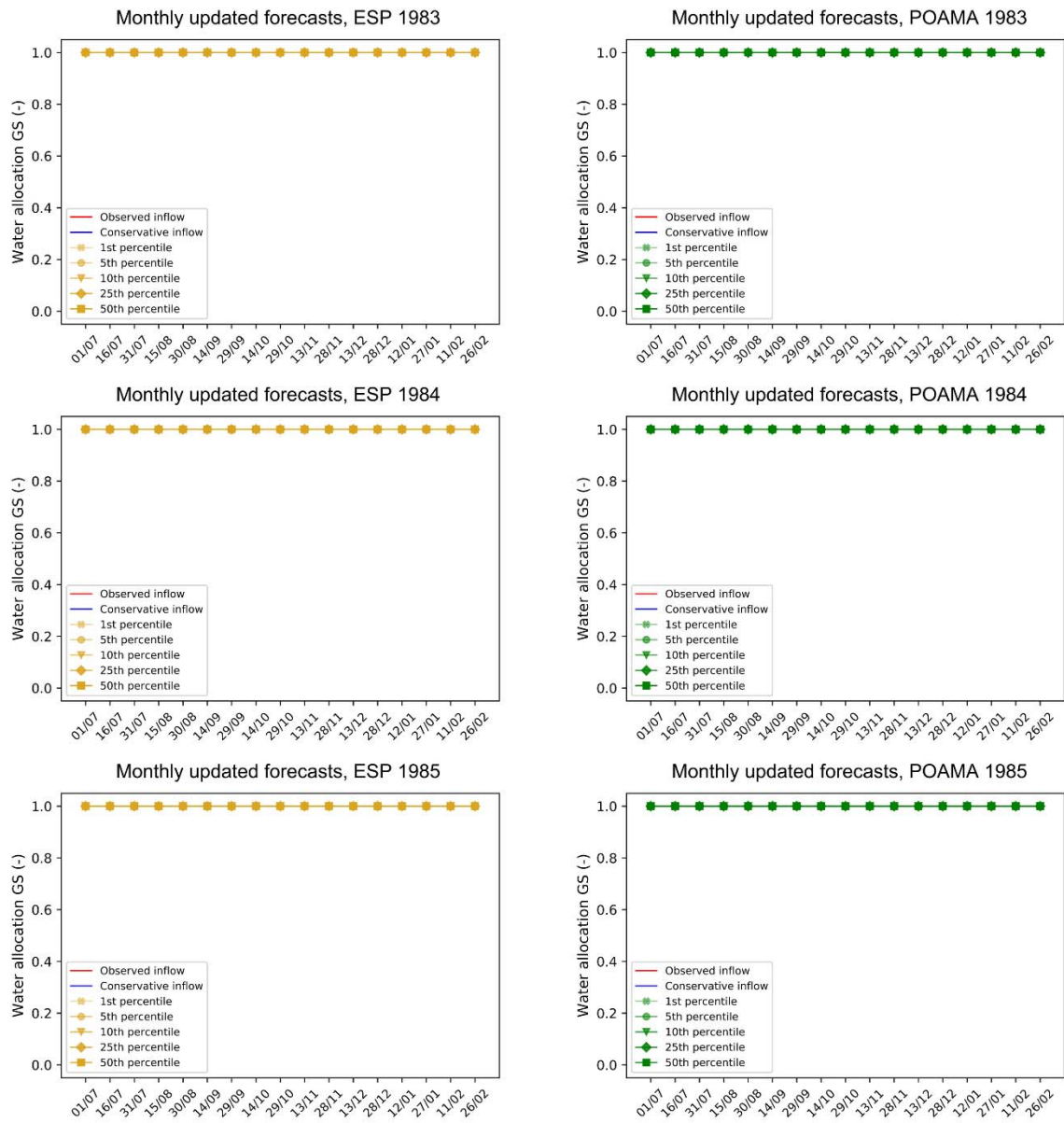
Figure S5. Water allocation GS for wet years (1983, 1984, 1985) using new inflow predictions every month (Monthly updated forecasts).
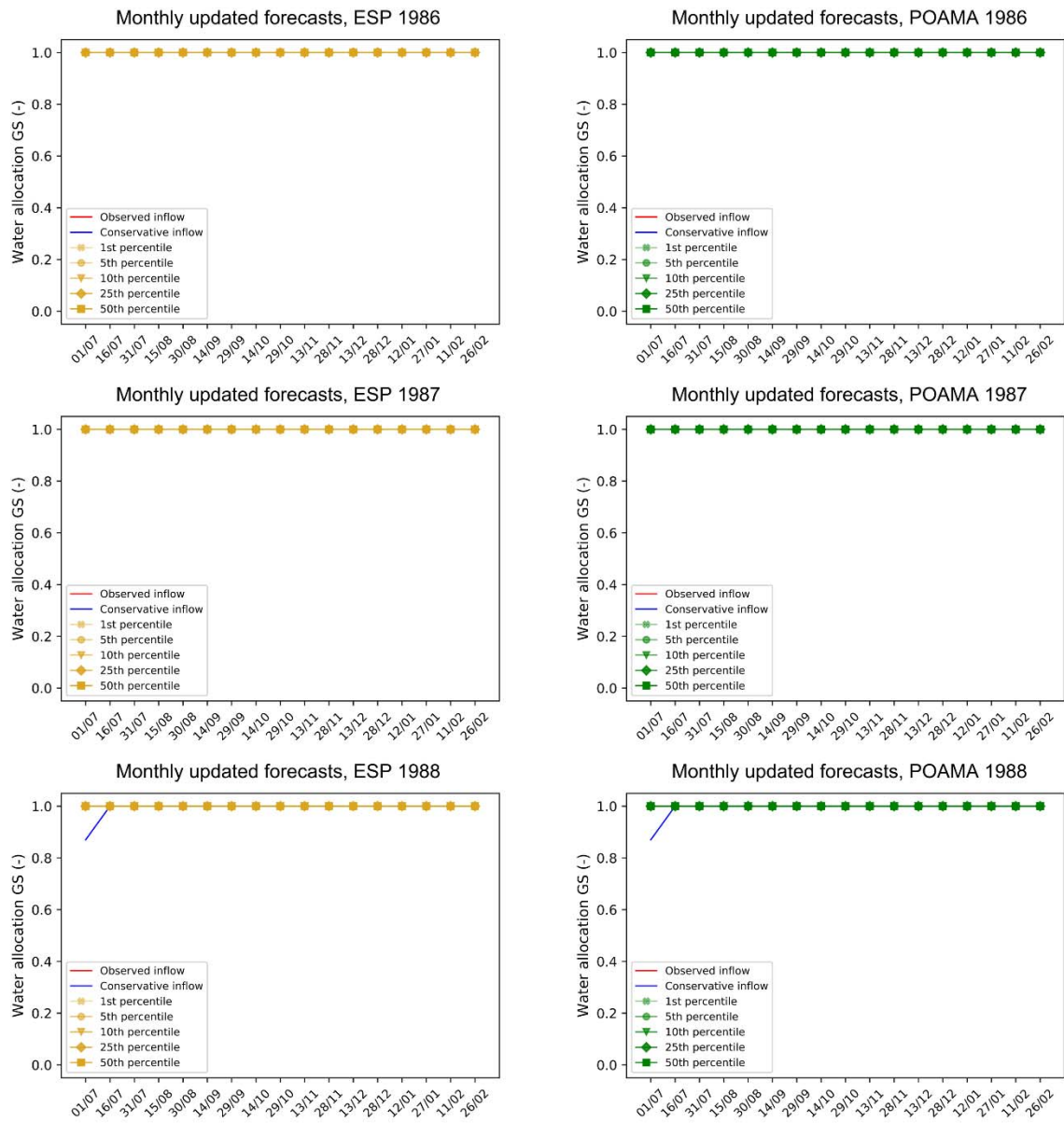
Figure S6. Water allocation GS for wet years (1986, 1987, 1988) using new inflow predictions every month (Monthly updated forecasts).
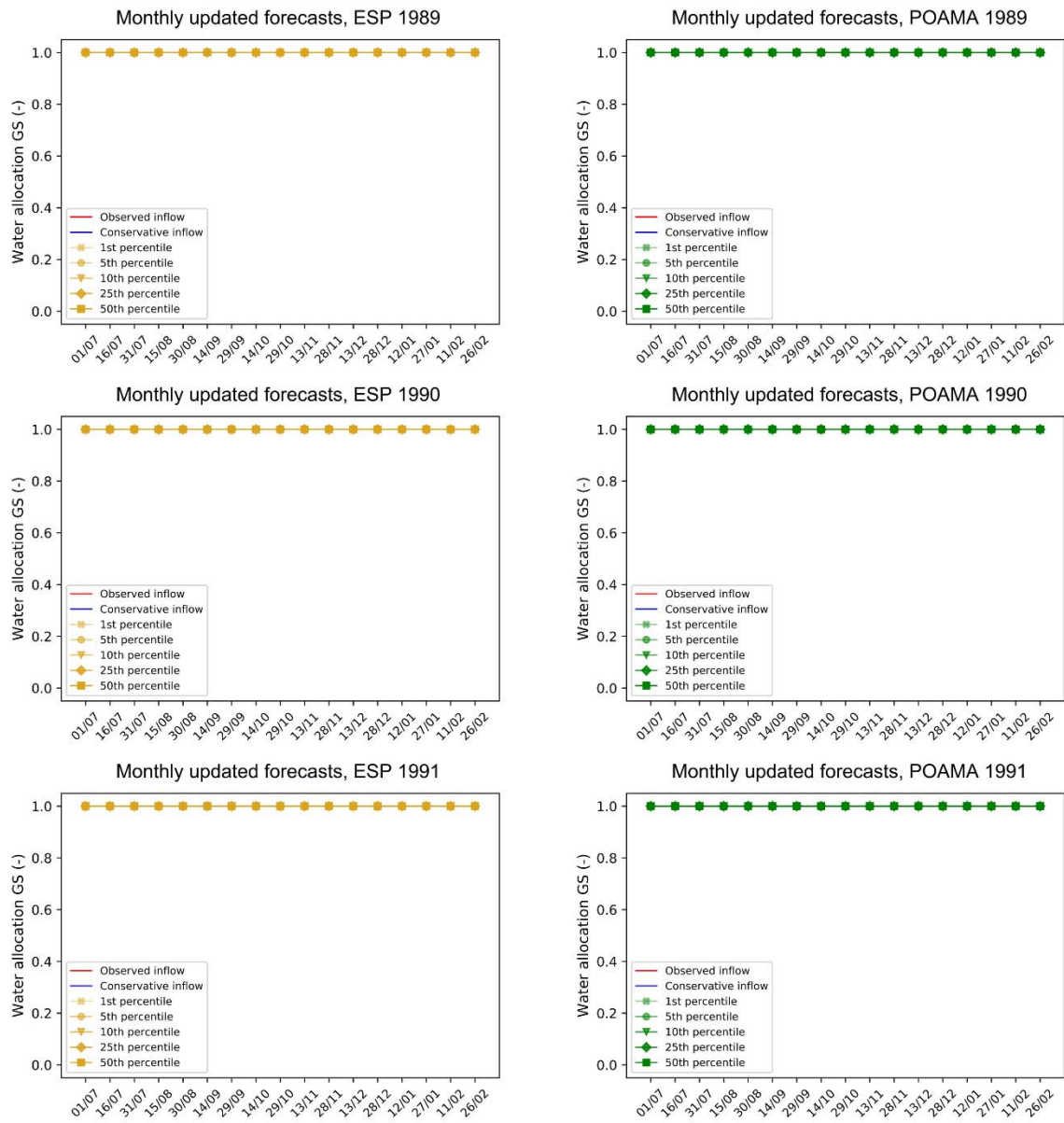
Figure S7. Water allocation GS for wet years (1989, 1990, 1991) using new inflow predictions every month (Monthly updated forecasts).
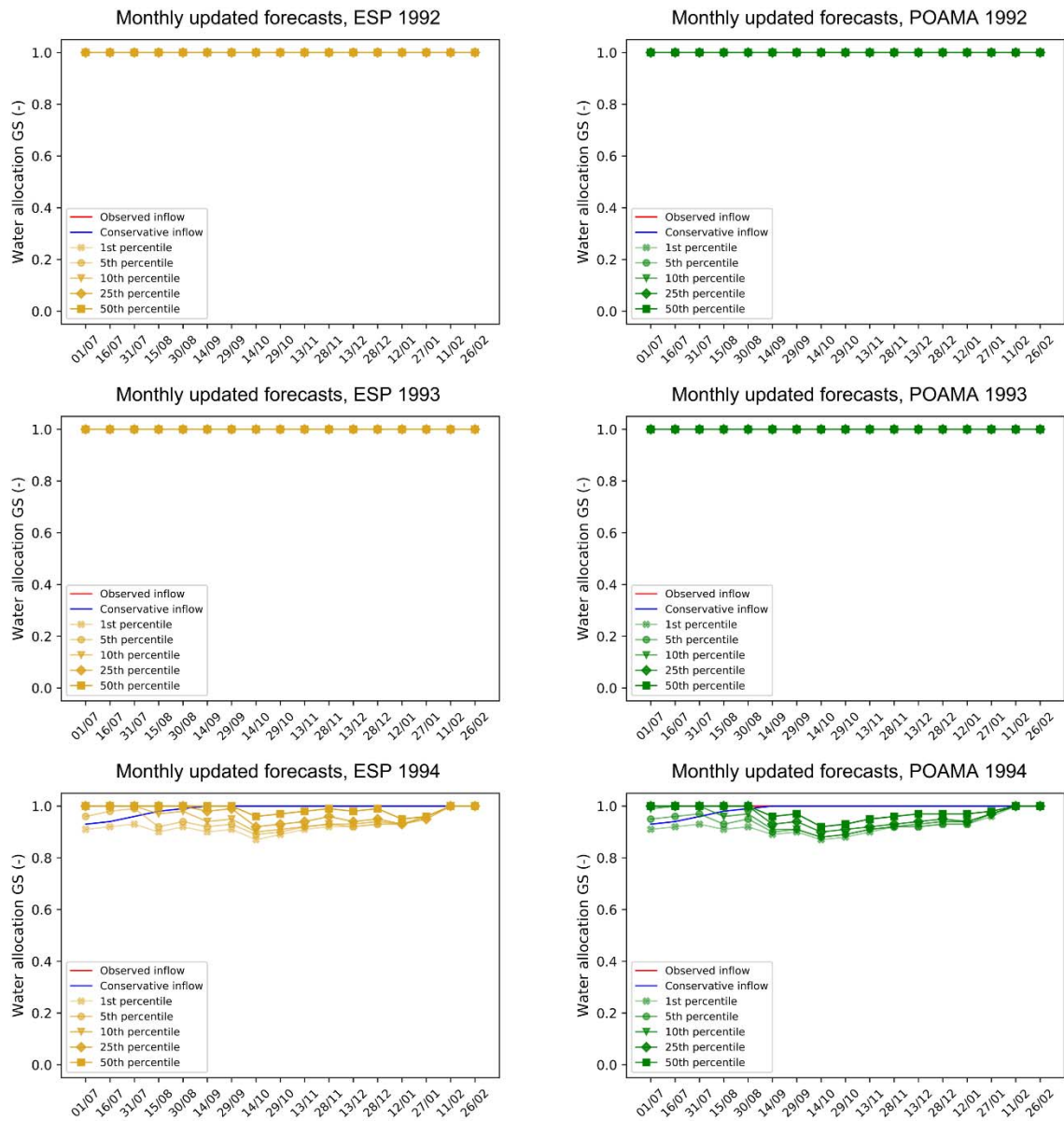
Figure S8. Water allocation GS for wet years (1992, 1993, 1994) using new inflow predictions every month (Monthly updated forecasts).
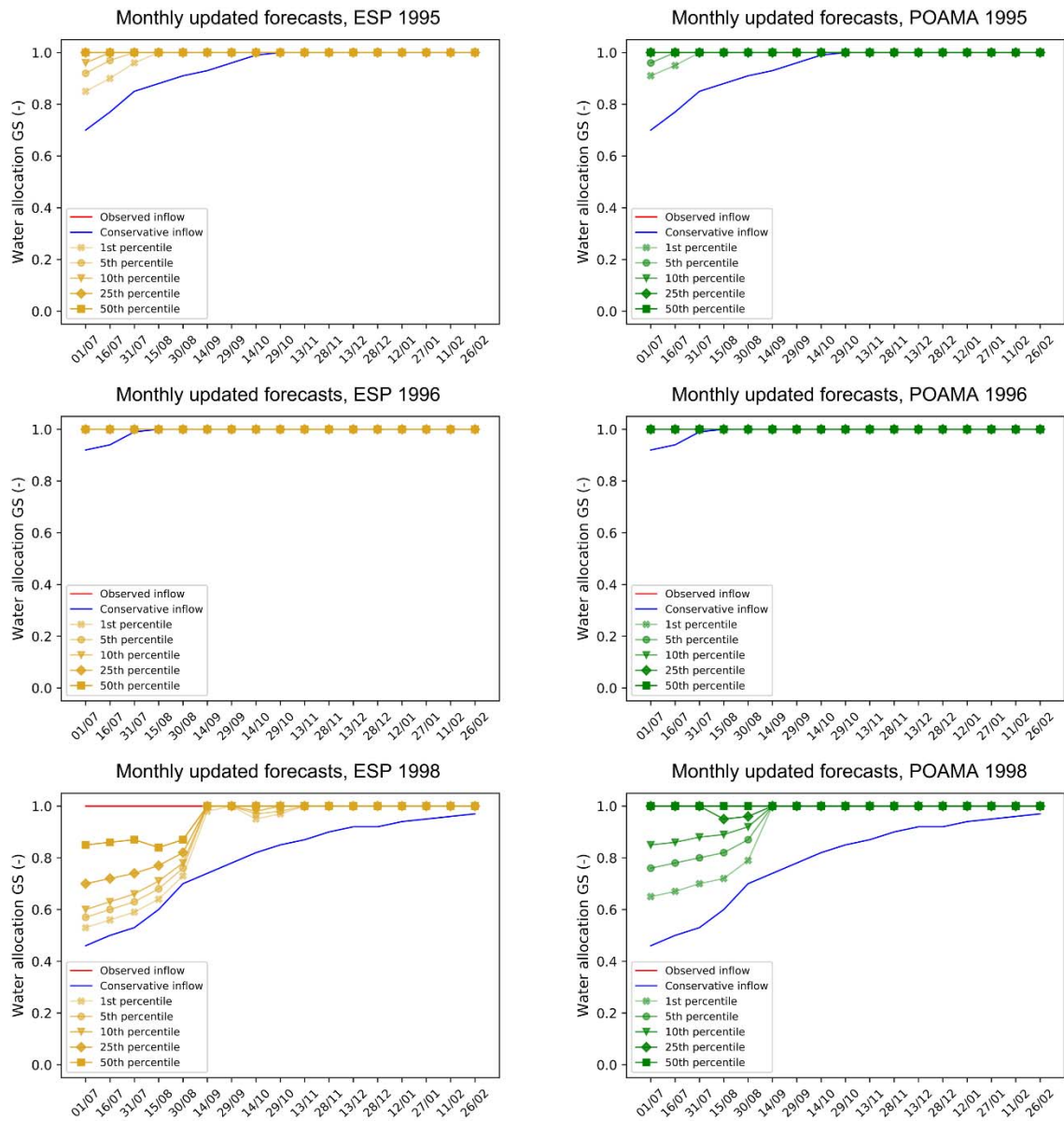
Figure S9. Water allocation GS for wet years (1995, 1996, 1998) using new inflow predictions every month (Monthly updated forecasts).
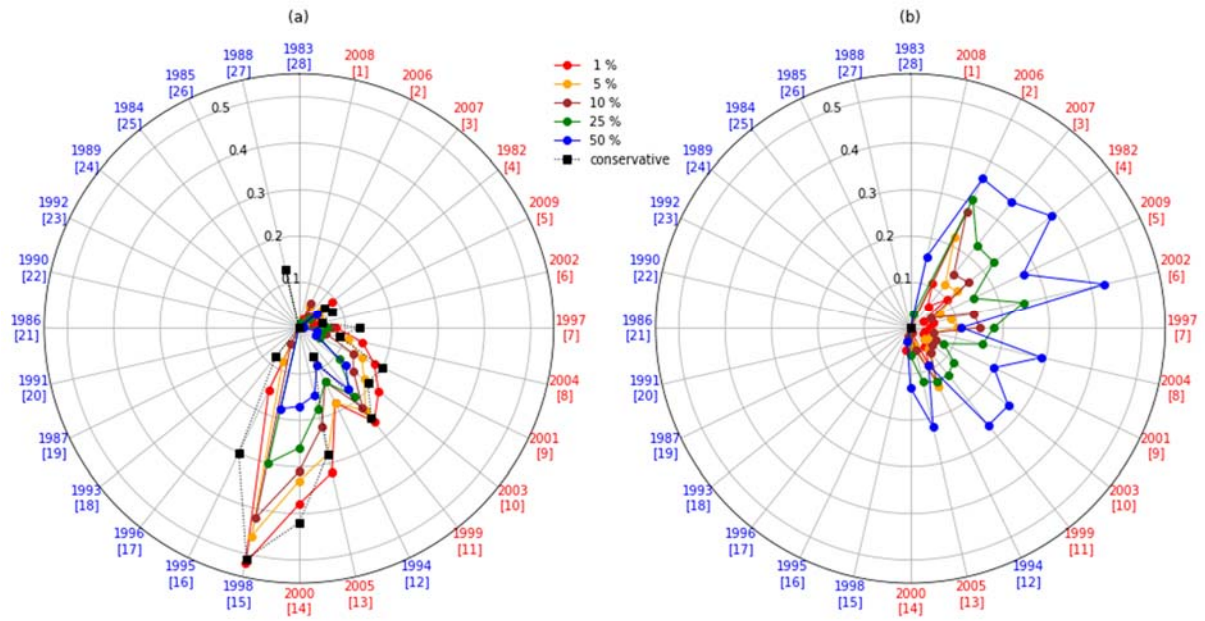
Figure S10. Inconsistency for all 28 years using FoGSS/ESP forecast updated every month to inform the allocation decision. (a) shows the annual inconsistency due to upward revisions (positive inconsistency) and (b) the annual inconsistency due to downward revisions (negative inconsistency).
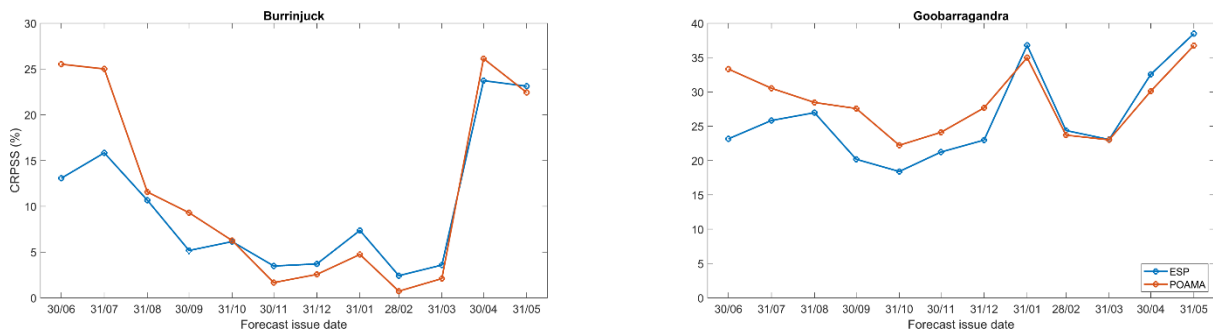
Figure S11. Continuous Ranked Probability Skill Score (CRPSS) for monthly forecasts issued from the start of the water year on July 1st for FoGSS and ESP+
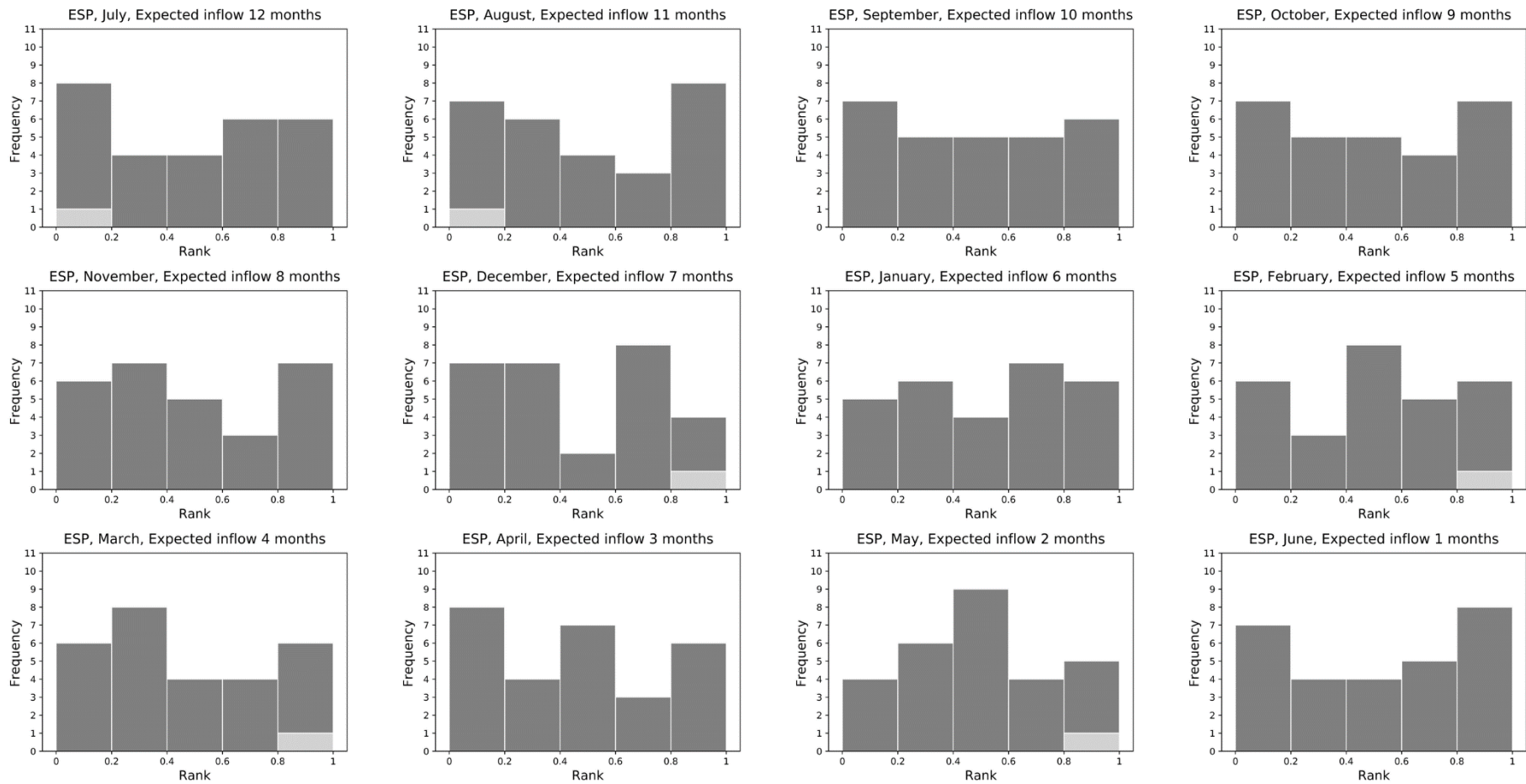
Figure S12. Rank histogram using ESP datasets from FoGSS (1982-2009) for expected inflow in the next n months (Starting July) in the Goobarragandra River at Lacmalac station.
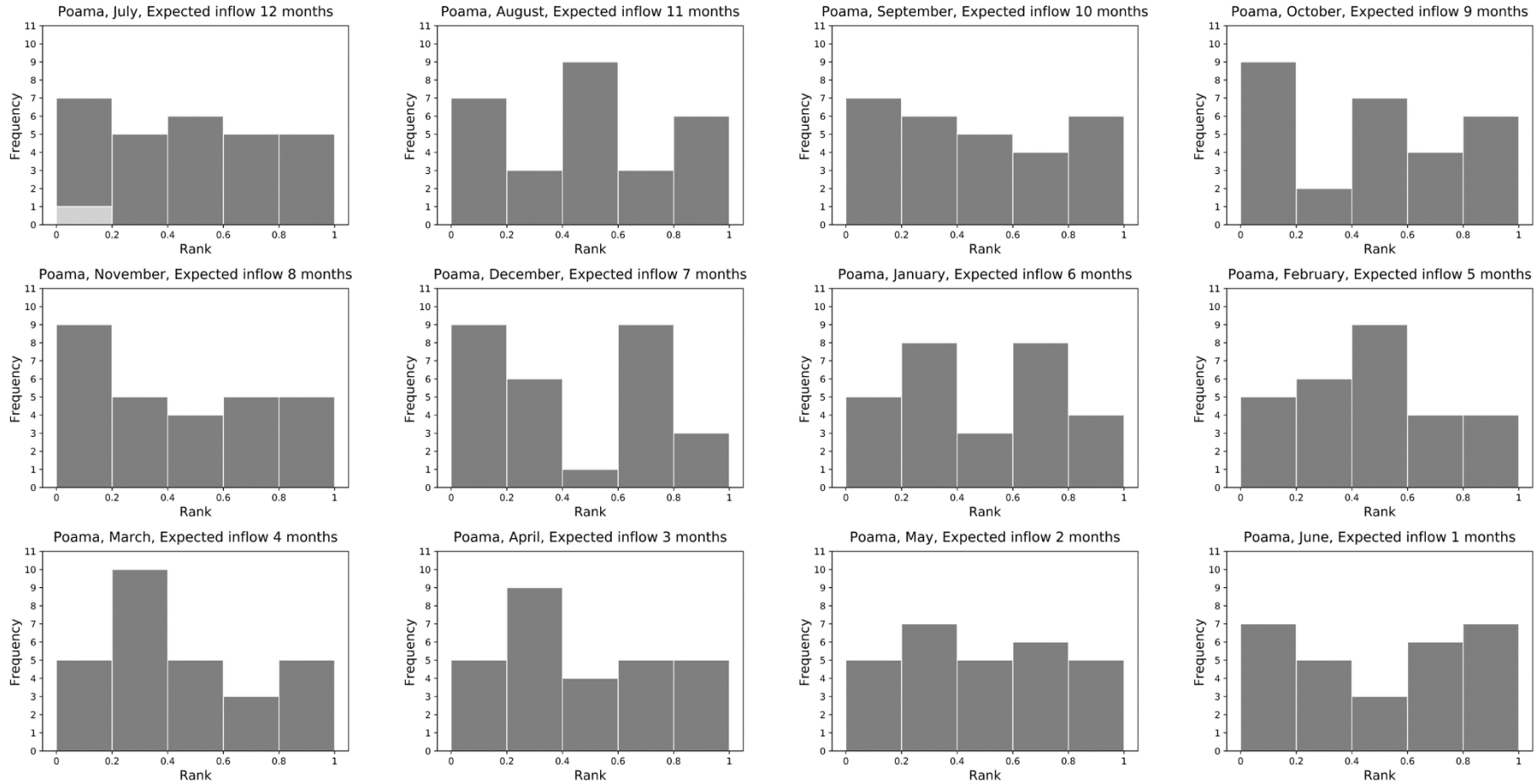
Figure S13. Rank histogram using Poama datasets from FoGSS (1982-2009) for expected inflow in the next n months (Starting July) in the Goobarragandra River at Lacmalac station.