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## Supplement of

## Evaluation of impacts of future climate change and water use scenarios on regional hydrology

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- 1 These supplemental figures are for section 3.4 (Figures S1) and section 3.5 (Figures S2 to S3).
- 2 Figures S1 represents the variation in the projected change in the mean available water that can be
- 3 withdrawn from Alafia river (the mean available water that can be withdrawn for future
- 4 streamflow the mean available water that can be withdrawn for retrospective streamflow) over
- 5 all GCMs for each water use scenario (a) and the one over all water use scenario for each GCM
- 6 (b). They showed similar results with Figure 4 in section 3.4. The boxplots represents the range of
- 7 change in mean available water that can be withdrawn from Alafia river over eight GCMs or
- 8 water use scenarios.
- 9 Figures S2 to S3 show the change in percent of the time that groundwater level was above the
- 10 target level in the dry season (Oct May) for the CBR-SERW-s, and STK-STARKEY-20s wells,
- 11 respectively for each water use scenario or GCM.

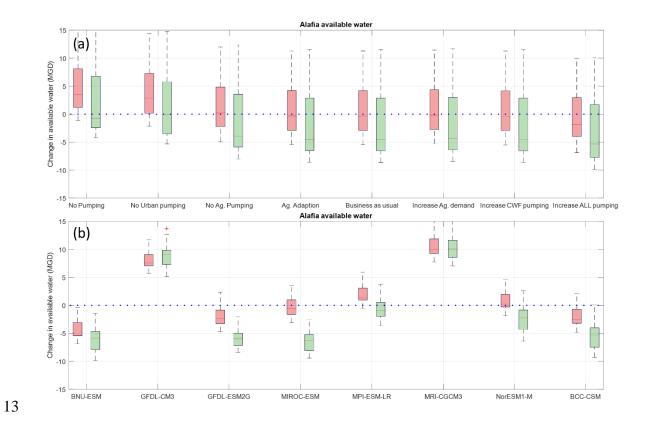


Figure S1. The change in amount of available water can be withdrawn from Alafia river by (a) different water use scenarios over GCMs and  $ET_0$  methods and by (b) different GCMs over water use scenarios and  $ET_0$  methods.

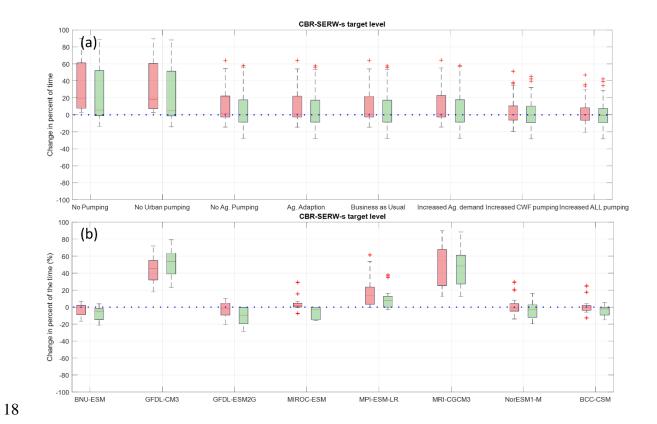


Figure S2. The change in the percent of the time that groundwater level is above the target level for CBR-SERW-s well by (a) different water use scenarios over GCMs and  $ET_0$  methods and by (b) different GCMs over water use scenarios and  $ET_0$  methods.

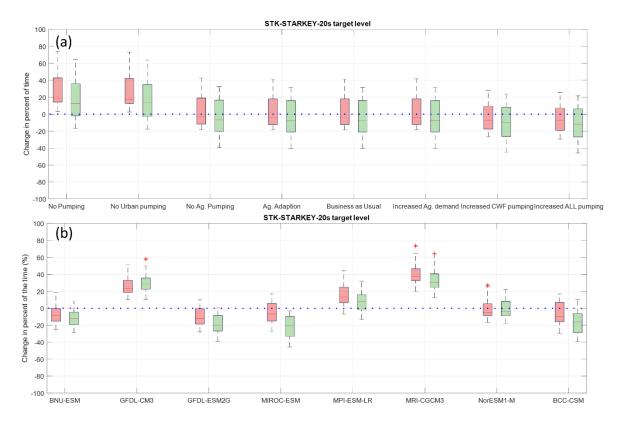


Figure S3. The change in the percent of the time that groundwater level is above the target level for STK-STARKEY-20s well by (a) different water use scenarios over GCMs and  $ET_0$  methods and by (b) different GCMs over water use scenarios and  $ET_0$  methods.