## Supplementary information for 'Antarctic Ice Sheet and emission scenario controls on 21st-century extreme sea-level changes'

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**Supplementary Figure 1.** Mean sea-level change scenarios for 2046-2065. All scenarios are relative to the 1986-2005 baseline.



**Supplementary Figure 2.** Mean sea-level change scenarios for 2081-2100. All scenarios are relative to the 1986-2005 baseline.



Supplementary Figure 3. Local  $1\sigma$  uncertainties of the sea-level projections. Since we do not associate an uncertainty to each AIS scenario, these estimates do not contain an AIS component



**Supplementary Figure 4.** Sea-level fingerprint for mass loss at the Antarctic Ice Sheet. Local sea-level change associated with a mass loss of 1 meter equivalent global-mean sea level. The mass loss is assumed to occur at Thwaites Glacier.



**Supplementary Figure 5.** The Generalized Pareto Distribution parameters. Shown are the median and 90-percent confidence intervals for the GPD shape and scale parameter for all sites.



**Supplementary Figure 6.** Frequency amplification factors for the present-day 100-year ESL event in 2046-2065 for the RCP scenarios and AIS contributions.



**Supplementary Figure 7.** Frequency amplification factors for the present-day 100-year ESL event in 2081-2100 for the RCP scenarios (left to right) and AIS contributions (top to bottom).



**Supplementary Figure 8.** Allowances for the present-day 100-year ESL event in 2046-2065 for the RCP scenarios (left to right) and AIS contributions (top to bottom).



**Supplementary Figure 9.** Allowances for the present-day 100-year ESL event in 2081-2100 for the RCP scenarios (left to right) and AIS contributions (top to bottom).