

## Fit-for-purpose weather generators for engineering climate change impact assessments

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Understanding the potential vulnerabilities of infrastructure due to climate change is vital. Likewise there is a need to also understand the strengths and weaknesses of the models used to design such infrastructure. Increasingly scenario neutral approaches to climate change impact assessments are being proposed to allow these vulnerabilities to be identified and explored in greater detail. Scenario neutral approaches rely on weather generators to provide the simulations that are used to analyse model and infrastructure performance. However it is important that the weather generator is able to capture the key climate attributes that control the performance of the system. Here we present results from several projects that have used weather generators to consider the performance of models and infrastructure under climate change, covering both water and sanitation infrastructure and hydrologic modelling. We focus on methods that can be used to evaluate the suitability of weather generators for scenario-neutral climate change impacts assessments.