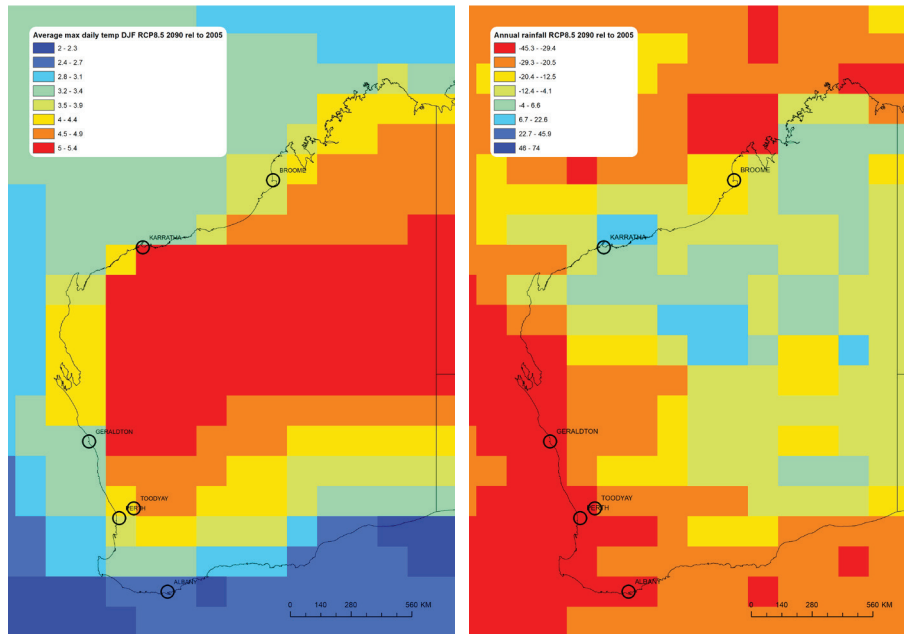


AUDRC Research Note

Future climate, future home: Adaptive urban design strategies for WA



How climate-ready are WA's cities and towns?

Background

- The latest Intergovernmental Panel on Climate Change (IPCC) report contains dire projections for the impacts of climate change. Yet, the implications of changing temperatures and rainfall on urban precincts, public open space and housing in WA remain poorly understood. Preparing WA communities to be 'climate-ready' is critical. There is a need for evidence-based strategies to underpin adaptation measures and Climate-Sensitive Urban Design (CSUD).
- State Government partner organisations are Development WA, Western Australian Planning Commission, Department of Planning Lands and Heritage, Department of Communities
- Local Government funding partner organisations: Shire of Toodyay, Shire of Broome, City of Karratha, City of Greater Geraldton, City of Wanneroo, City of Cockburn and City of Vincent.

Objectives

- Through a rare collaboration between experts in urban and landscape design, public health, climate science and climate, energy and water modelling, the project will: Generate evidence to inform solutions and policy decisions concerning the climate change adaptation of urban precincts and housing to projected changes in temperature and rainfall and to foster healthy and climate-resilient communities across WA's climate regions.

The objectives of the project phases are:

- Benchmark the performance of selected urban precinct and housing case studies across WA's climate regions concerning Urban Heat Island (UHI) effects, thermal comfort of the outdoor environments, energy demand for heating and cooling within houses, and irrigation demands for public and private open spaces.
- Identify changes between the current and likely future performance of urban precinct and housing case studies due to climate change-induced variations in temperature and rainfall.
- Develop and evaluate the performance of design proposals to adapt urban precinct and housing case studies to projected CC using micro-climatic, building energy, and water modelling and community engagement.
- Develop CSUD principles for adaptation of WA urban precincts and housing to temperature and rainfall changes for inclusion in the revision of future state and local government policies and design guidance.

Contact

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