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RESEARCH DIRECTIONS

Water Wise Watering

Professor Shelley Burgin and Dr Tony Webb from the School of Natural Sciences, together with Dr Bhakti Devi from City of Sydney Council and in partnership with Marrickville, Mosman, Rockdale City and Woollahra Councils, have been awarded a UWS Research Partnership grant to advance the science of urban irrigation and translate it into practice.

'Water availability will become an increasingly significant environmental and political issue as population, and the impacts of climate change increase,' says Professor Burgin. 'Sustaining and maintaining urban green space is critical to us adapting to climate change given its contribution to mitigating the effect of heat generated by urban areas. However, it presents a challenge in the face of predicted water shortages due to the combined effect of population growth, and climate change, there will be related decreases in rainfall and increases in evaporation rate. Moving towards 'science based' urban irrigation policies and practices is critical to us meeting this challenge of maintaining the irrigated public open spaces with minimum water resources.'

The research team will select playing fields and other green sites, and identify the effects on water use and quality of the space that results from: varying the irrigation rate and use of different equipment, scheduling methods, soil management practices, and vegetation/ turf species. Community project action-groups will be established, including those with on-ground responsibilities for implementing changes, collecting relevant data and evaluating the effects of different regimes. Workshops will be undertaken to bring together stakeholders from the different organisations to review and evaluate the progress to date and to have input into the development of a larger study.

This study has the potential to improve water efficiency and will be significant in the context of climate change, a decline in water availability, and increased demand. As a result of this work local government partners will have models for water use tailored to specific research sites, together with a more general model that can be tested across a wider range of their public open space sites.

Project Title: Sustainable 'watering to purpose' in urban landscapes: Developing irrigation benchmarks for science-based policy and practice.
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For more information on UWS Research Partnership Program, check:
http://www.uws.edu.au/research/researchers/funding_opportunities/internal_research_grants